

## INDOOR UNIT

AM007/009/012FN1DCH/AA  
 AM009/012/018/020FNNDCH/AA  
 AM009/012/018/024/030/036/048FN4DCH/AA  
 AM007/009/012FNLDCH/AA  
 AM018/024FNLDCH/AA  
 AM030/036/048FNLDCH/AA  
 AM018/024FNMDCH/AA  
 AM030/036FNMDCH/AA  
 AM048FNMDCH/AA  
 AM007/009/012/018/020/024FNTDCH/AA  
 AM007/009/012/018/020/024HNQDCH/AA  
 AM036/048FNHDCH/AA  
 AM076/096FNHDCH/AA  
 AM018/024FNCDC/AA  
 AM048/096HNPDC/AZ  
 AM007/009/012/015/018JNMDCH/AA  
 AM024/027/030/036/048JNHDCH/AA  
 AM036/048JNCDCH/AA  
 AM006/009/012/018/024JNFDCH/AA  
 AM006/009/012/018/024JNGDCH/AA  
 AM072/096JNESCH/AA  
 AM054KNMDCH/AZ  
 AM007/009/012/018/020/024KNQDCH/AZ  
 AM007/009/012/018/020/024KNTDCH/AZ  
 AM005/007/009/012/015/018/024/028MNVDC/AA

AM007MNMDCH/AA  
 AM009MNMDCH/AA  
 AM012MNMDCH/AA  
 AM015MNMDCH/AA  
 AM018MNMDCH/AA  
 AM024MNMDCH/AA  
 AM027MNMDCH/AA  
 AM030MNMDCH/AA  
 AM036MNMDCH/AA  
 AM048MNMDCH/AA  
 AM032MNQDCH/AA  
 AM006RNMDCH/AA  
 AM018RNMDCH/AA

# SERVICE *Manual*

## SYSTEM AIRCONDITIONER



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# 1. Precautions

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## 1-1 Precautions for the Service

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- **Use the correct parts when changing the electric parts.**
  - Please check the labels and notices for the model name, proper voltage, and proper current for the electric parts.
- **Fully repair the connection for the types of harness when repairing the product after breakdown.**
  - A faulty connection can cause irregular noise and problems.
- **When disassembling or assembling, make sure that the product is laid down on a work cloth.**
  - Doing so will prevent scratching to the exterior of the rear side of the product.
- **Completely remove dust or foreign substances on the housing, connection, and inspection parts when performing repairs.**
  - This can prevent fire hazards for tracking, short, etc.
- **Please tighten the service valve of the outdoor unit and the valve cap of the charging valve as securely as possible by using a monkey spanner.**
- **Check whether the parts are properly and securely assembled after performing repairs.**
  - These parts should be in the same condition as before the repair.

## 1-2 Precautions for the Static Electricity and PL

---

- **Please carefully handle the PCB power terminal during repair and measurement when it is turned on since it is vulnerable to static electricity.**
  - Please wear insulation gloves before performing PCB repair and measurement.
- **Check if the place of installation is at least 2m away from electronic appliances such as TV, video players, and stereos.**
  - This can cause irregular noise or degrade the picture quality.
- **Please make sure the customer does not directly repair the product.**
  - Arbitrary dismantling may result in electric shock or fire.

## 1-3 Precautions for the Safety

---

- **Do not pull or touch the power plug or the subsidiary power switch with wet hands.**
  - This may result in electric shock or fire.
- **If the power line or the power plug is damaged, then it must be changed since this is a hazard.**
- **Do not bend the wire too much or position it so that it can be damaged by a heavy object on top.**
  - This may result in electric shock or fire.
- **The use of multiple electric outlets should be prohibited.**
  - This may result in electric shock or fire.
- **Ground the connection if it is necessary.**
  - The connection must be grounded if there is any risk of electrical short due to water or moisture.
- **Unplug the power or turn off the subsidiary power switch when changing or repairing electrical parts.**
  - Doing so will prevent electric shock.
- **Explain to workers that the battery for the remote control needs to be separated for storage purposes when the product will not be used for a long time.**
  - This can cause a problem for the remote control since battery fluid may trickle out.

## 1-4 Precautions for Handling Refrigerant for Air Conditioner

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### Environmental Cautions: Air pollution due to gas release

#### ■ Safety Cautions

If liquid gas is released, then body parts that come into contact with it may experience frostbite/blister/numbness.

If a large amount of gas is released, then suffocation may occur due to lack of oxygen. If the released gas is heated, then noxious gas may be produced by combustion.

#### ■ Container Handling Cautions

Do not subject container to physical shock or overheating. (Flowage is possible while moving within the regulated pressure.)

## 1-5 Precautions for Welding the Air Conditioner Pipe

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#### ■ Dangerous or flammable objects around the pipe must be removed before the welding.

#### ■ If the refrigerant is kept inside the product or the pipe, then remove the refrigerant prior to welding.

If the welding is carried out while the refrigerant is kept inside, the welding cannot be properly performed. This will also produce noxious gas that is a health hazard. This leakage will also explode with the refrigerant and oil due to an increase in the refrigerant pressure, posing a danger to workers.

#### ■ Please remove the oxide produced inside the pipe during the welding with nitrogen gas.

Using another gas may cause harm to the product or others.

## 1-6 Precautions for Additional Supplement of Air Conditioner Refrigerant

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#### ■ Precisely calculate the refrigerant by using a scale and S-net, and proceed with the test operation.

Excessive supplement can cause harm to the product since it can cause an inflow of the liquid refrigerant into the compressor.

#### ■ Do not heat the refrigerant container for a forced injection.

This may cause harm to the product or others since the refrigerant container may burst.

#### ■ Do not operate the product after removing the product safety pressure switch and sensor.

If the product is blocked inside, then this may cause harm to the product or others due to the excess pressure increase of the refrigerant gas.

## 1-7 Other Precautions

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#### ■ There should be no leakage of the pipes after installation. When withdrawing the refrigerant, the compressor should be stopped before removing the connecting pipe.

If the compressor is operating while the refrigerant pipe is not correctly connected and the service valve is opened, then air and other substances can enter the pipe. The interior of the refrigerant cycle may then build up excessive high pressure resulting in explosion and damage.

## 2. Product Specifications

### 2-1 Product Specifications

#### 2-1-1 Indoor Unit

##### ■ Slim 1WAY cassette

| Model                            |                          |                     |                    | JSF-1                  |                        |                        |
|----------------------------------|--------------------------|---------------------|--------------------|------------------------|------------------------|------------------------|
|                                  |                          |                     |                    | AM007FN1DCH/AA         | AM009FN1DCH/AA         | AM012FN1DCH/AA         |
| Power Supply                     |                          | ø, #, V, Hz         | 1,2,208-230,60     | 1,2,208-230,60         | 1,2,208-230,60         |                        |
| Mode                             |                          |                     | HP/HR              | HP/HR                  | HP/HR                  |                        |
| Performance                      | Capacity (Nominal)       | Cooling 2)          | kW                 | -                      | -                      |                        |
|                                  |                          |                     | Btu/h              | 7,500                  | 9,500                  | 12,000                 |
|                                  |                          | Heating 2)          | kW                 | -                      | -                      | -                      |
|                                  |                          |                     | Btu/h              | 8,500                  | 10,500                 | 13,500                 |
| Condensate (with high fan speed) |                          | Liter/h             | -                  | -                      | -                      |                        |
| Power                            | Power Input (Nominal)    | Cooling 1)          | W                  | 40                     | 45                     | 50                     |
|                                  |                          | Heating 2)          | -                  | 40                     | 45                     | 50                     |
|                                  | Current Input (Nominal)  | Cooling 1)          | A                  | 0.23                   | 0.25                   | 0.28                   |
|                                  |                          | Heating 2)          | -                  | 0.23                   | 0.25                   | 0.28                   |
| Fan                              | Type                     |                     | -                  | Crossflow fan          | Crossflow Fan          | Crossflow Fan          |
|                                  | Motor                    | Model               | -                  | Y4S476B041L            | Y4S476B041L            | Y4S476B041L            |
|                                  |                          | Type                | -                  | BLDC                   | BLDC                   | BLDC                   |
|                                  |                          | Output x n          | W                  | 20 x 1                 | 20 x 1                 | 20 x 1                 |
|                                  | Air Flow Rate            | H/M/L               | CMM                | 7.00 / 6.00 / 5.00     | 7.00 / 6.00 / 5.00     | 8.00 / 7.00 / 6.00     |
| External Pressure                | Min / Std / Max          | Pa                  | -                  | -                      | -                      |                        |
|                                  | -                        | WG                  | -                  | -                      | -                      |                        |
| Sound                            | Sound Pressure           | High / Mid / Low    | dBA                | 29.0 / - / 27.0        | 30.0 / - / 27.0        | 35.0 / - / 30.0        |
|                                  | Sound Power              | High / Mid / Low    | -                  | -                      | -                      | -                      |
| Refrigerant                      | Type                     |                     | -                  | R-410A                 | R-410A                 | R-410A                 |
|                                  | Control Method           |                     | -                  | EEV INCLUDED           | EEV INCLUDED           | EEV INCLUDED           |
| Temperature Control              |                          |                     | -                  | Micom&Thermistors      | Micom&Thermistors      | Micom&Thermistors      |
| Safety devices                   |                          |                     | -                  | Fuse                   | Fuse                   | Fuse                   |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                | 6.35               | 6.35                   | 6.35                   |                        |
|                                  |                          | ø, inch             | 1/4                | 1/4                    | 1/4                    |                        |
|                                  | Gas Pipe (Flare)         | ø,mm                | 12.7               | 12.7                   | 12.7                   |                        |
|                                  |                          | ø, inch             | 1/2                | 1/2                    | 1/2                    |                        |
| Drain Pipe (Quick lock)          | ø,mm                     | VP 20 (ODø26,IDø20) | VP20 (OD 26,ID 20) | VP20 (OD 26,ID 20)     |                        |                        |
| Dimensions                       | Net Weight               | kg                  | 16                 | 16                     | 16                     |                        |
|                                  |                          | lbs                 | 35.3               | 35.3                   | 35.3                   |                        |
|                                  | Shipping Weight          | kg                  | 18                 | 18                     | 18                     |                        |
|                                  |                          | lbs                 | 39.7               | 39.7                   | 39.7                   |                        |
|                                  | Net Dimensions (WxHxD)   | mm                  | 970 x 135 x 410    | 970 x 135 x 410        | 970 x 135 x 410        |                        |
|                                  |                          | inch                | 38.2 x 5.3 x 16.1  | 38.2 x 5.3 x 16.1      | 38.2 x 5.3 x 16.1      |                        |
| Shipping Dimensions (WxHxD)      | mm                       | 1,164 x 212 x 478   | 1,164 x 212 x 478  | 1,164 x 212 x 478      |                        |                        |
|                                  | inch                     | 45.8 x 8.3 x 18.8   | 45.8 x 8.3 x 18.8  | 45.8 x 8.3 x 18.8      |                        |                        |
| Panel Size                       | Panel model              |                     | -                  | PC1NUSMAN<br>PC1NUPMAN | PC1NUSMAN<br>PC1NUPMAN | PC1NUSMAN<br>PC1NUPMAN |
|                                  |                          |                     | kg                 | 3.1                    | 3.1                    | 3.1                    |
|                                  | Panel Net Weight         |                     | lbs                | 6.8                    | 6.8                    | 6.8                    |
|                                  |                          |                     | kg                 | 4.5                    | 4.5                    | 4.5                    |
|                                  | Shipping Weight          |                     | lbs                | 9.9                    | 9.9                    | 9.9                    |
|                                  |                          |                     | mm                 | 1,180 x 25 x 460       | 1,180 x 25 x 460       | 1,180 x 25 x 460       |
|                                  | Net Dimensions (WxHxD)   |                     | inches             | 46.5 x 1 x 18.1        | 46.5 x 1 x 18.1        | 46.5 x 1 x 18.1        |
|                                  |                          |                     | mm                 | 1,259 x 144 x 539      | 1,259 x 144 x 539      | 1,259 x 144 x 539      |
| Shipping Dimensions (WxHxD)      |                          | inch                | 49.6 x 5.7 x 21.2  | 49.6 x 5.7 x 21.2      | 49.6 x 5.7 x 21.2      |                        |
|                                  |                          |                     |                    |                        |                        |                        |
| Functions                        | Auto restart             |                     | -                  | O                      | O                      | O                      |
|                                  | Auto swing               |                     | -                  | O                      | O                      | O                      |
|                                  | Group/individual control |                     | -                  | O                      | O                      | O                      |
|                                  | External contact control |                     | -                  | O                      | O                      | O                      |
|                                  | Trouble shooting by LED  |                     | -                  | O                      | O                      | O                      |

| Model                              |                                   |               | JSF-1          |                   |                   |                   |
|------------------------------------|-----------------------------------|---------------|----------------|-------------------|-------------------|-------------------|
|                                    |                                   |               | AM007FN1DCH/AA | AM009FN1DCH/AA    | AM012FN1DCH/AA    |                   |
| Standard accessories               | Installation manual               |               | -              | O                 | O                 | O                 |
|                                    | Operation manual                  |               | -              | X                 | X                 | X                 |
|                                    | Pattern sheet for installation    |               | -              | O                 | O                 | O                 |
|                                    | Flexible drain hose               |               | -              | O                 | O                 | O                 |
|                                    | Filter/Safety grille              |               | -              | Filter (washable) | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump    | -/Model Name   | -                 | -                 | -                 |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | 750 / 24       | 750 / 24          | 750 / 24          |                   |
| Optional accessories               | Wireless remote controller        |               | -              | MR-DH00           | MR-DH00           | MR-DH00           |
|                                    | wired remote controller           |               | -              | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |               | -              | MIM-B14           | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | Receiver      | -              | -                 | -                 | -                 |
|                                    |                                   | Receiver wire | -              | -                 | -                 | -                 |
|                                    | EEV kits                          |               | -              | -                 | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ Mini 4WAY cassette

| Model                            |                          |                    |                    | Small               |                     |                      |                       |
|----------------------------------|--------------------------|--------------------|--------------------|---------------------|---------------------|----------------------|-----------------------|
|                                  |                          |                    |                    | AM009FNNDCH/AA      | AM012FNNDCH/AA      | AM018FNNDCH/AA       | AM020FNNDCH/AA        |
| Power Supply                     |                          | ø, #, V, Hz        | 1,2,208-230,60     | 1,2,208-230,60      | 1,2,208-230,60      | 1,2,208-230,60       |                       |
| Mode                             |                          | -                  | HP/HR              | HP/HR               | HP/HR               | HP/HR                |                       |
| Performance                      | Capacity (Nominal)       | Cooling 2)         | kW                 | -                   | -                   | -                    | -                     |
|                                  |                          |                    | Btu/h              | 9,500               | 12,000              | 18,000               | 20,000                |
|                                  |                          | Heating 2)         | kW                 | -                   | -                   | -                    | -                     |
|                                  |                          |                    | Btu/h              | 10,500              | 13,500              | 20,000               | 23,000                |
| Condensate (with high fan speed) | Liter/h                  | -                  | -                  | -                   | -                   |                      |                       |
| Power                            | Power Input (Nominal)    | Cooling 1)         | W                  | 24                  | 28                  | 36                   | 38                    |
|                                  |                          | Heating 2)         | -                  | 24                  | 28                  | 36                   | 38                    |
|                                  | Current Input (Nominal)  | Cooling 1)         | A                  | 0.17                | 0.19                | 0.27                 | 0.3                   |
|                                  |                          | Heating 2)         | -                  | 0.17                | 0.19                | 0.27                 | 0.3                   |
| Fan                              | Type                     | -                  | Turbo Fan          | Turbo Fan           | Turbo Fan           | Turbo Fan            |                       |
|                                  | Motor                    | Model              | -                  | FMC6531SSJ          | FMC6531SSJ          | FMC6531SSJ           | FMC6531SSJ            |
|                                  |                          | Type               | -                  | BLDC                | BLDC                | BLDC                 | BLDC                  |
|                                  |                          | Output x n         | W                  | 65 x 1              | 65 x 1              | 65 x 1               | 65 x 1                |
|                                  | Air Flow Rate            | H/M/L              | CMM                | 10.00 / 8.50 / 7.50 | 10.50 / 9.50 / 8.00 | 13.00 / 11.00 / 9.50 | 13.50 / 12.00 / 10.20 |
|                                  | External Pressure        | Min / Std / Max    | Pa                 | -                   | -                   | -                    | -                     |
| -                                |                          | WG                 | -                  | -                   | -                   | -                    |                       |
| Sound                            | Sound Pressure           | High / Mid / Low   | dBA                | 34.0 / 30.0 / 26.0  | 36.0 / 34.0 / 31.0  | 40.0 / 37.0 / 34.0   | 41.0 / 37.0 / 34.0    |
|                                  | Sound Power              | High / Mid / Low   | -                  | -                   | -                   | -                    | -                     |
| Refrigerant                      | Type                     | -                  | R-410A             | R-410A              | R-410A              | R-410A               |                       |
|                                  | Control Method           | -                  | EEV INCLUDED       | EEV INCLUDED        | EEV INCLUDED        | EEV INCLUDED         |                       |
| Temperature Control              | -                        | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors   | Micom&Thermistors   |                      |                       |
| Safety devices                   | -                        | Fuse               | Fuse               | Fuse                | Fuse                |                      |                       |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm               | 6.35               | 6.35                | 6.35                | 6.35                 |                       |
|                                  |                          | ø,inch             | 1/4                | 1/4                 | 1/4                 | 1/4                  |                       |
|                                  | Gas Pipe (Flare)         | ø,mm               | 12.7               | 12.7                | 12.7                | 12.7                 |                       |
|                                  |                          | ø,inch             | 1/2                | 1/2                 | 1/2                 | 1/2                  |                       |
| Drain Pipe (Quick lock)          | ø,mm                     | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25)  | VP25 (OD 32,ID 25)  |                      |                       |
| Dimensions                       | Net Weight               | kg                 | 12                 | 12                  | 12                  | 12                   |                       |
|                                  |                          | lbs                | 26.5               | 26.5                | 26.5                | 26.5                 |                       |
|                                  | Shipping Weight          | kg                 | 14                 | 14                  | 14                  | 14                   |                       |
|                                  |                          | lbs                | 30.9               | 30.9                | 30.9                | 30.9                 |                       |
|                                  | Net Dimensions (WxHxD)   | mm                 | 575 x 250 x 575    | 575 x 250 x 575     | 575 x 250 x 575     | 575 x 250 x 575      |                       |
|                                  |                          | inch               | 22.6 x 9.8 x 22.6  | 22.6 x 9.8 x 22.6   | 22.6 x 9.8 x 22.6   | 22.6 x 9.8 x 22.6    |                       |
| Shipping Dimensions (WxHxD)      | mm                       | 623 x 298 x 653    | 623 x 298 x 653    | 623 x 298 x 653     | 623 x 298 x 653     |                      |                       |
|                                  | inch                     | 24.5 x 11.7 x 25.7 | 24.5 x 11.7 x 25.7 | 24.5 x 11.7 x 25.7  | 24.5 x 11.7 x 25.7  |                      |                       |
| Panel Size                       | Panel model              | -                  | PC4SUSMAN          | PC4SUSMAN           | PC4SUSMAN           | PC4SUSMAN            |                       |
|                                  | Panel Net Weight         | kg                 | 2.7                | 2.7                 | 2.7                 | 2.7                  |                       |
|                                  |                          | lbs                | 6                  | 6                   | 6                   | 6                    |                       |
|                                  | Shipping Weight          | kg                 | 4.2                | 4.2                 | 4.2                 | 4.2                  |                       |
|                                  |                          | lbs                | 9.3                | 9.3                 | 9.3                 | 9.3                  |                       |
|                                  | Net Dimensions (WxHxD)   | mm                 | 670 x 45 x 670     | 670 x 45 x 670      | 670 x 45 x 670      | 670 x 45 x 670       |                       |
| inches                           |                          | 26.4 x 1.8 x 26.4  | 26.4 x 1.8 x 26.4  | 26.4 x 1.8 x 26.4   | 26.4 x 1.8 x 26.4   |                      |                       |
| Shipping Dimensions (WxHxD)      | mm                       | 714 x 106 x 724    | 714 x 106 x 724    | 714 x 106 x 724     | 714 x 106 x 724     |                      |                       |
|                                  | inch                     | 28.1 x 4.2 x 28.5  | 28.1 x 4.2 x 28.5  | 28.1 x 4.2 x 28.5   | 28.1 x 4.2 x 28.5   |                      |                       |
| Functions                        | Auto restart             | -                  | O                  | O                   | O                   | O                    |                       |
|                                  | Auto swing               | -                  | O                  | O                   | O                   | O                    |                       |
|                                  | Group/individual control | -                  | O                  | O                   | O                   | O                    |                       |
|                                  | External contact control | -                  | O                  | O                   | O                   | O                    |                       |
|                                  | Trouble shooting by LED  | -                  | O                  | O                   | O                   | O                    |                       |

| Model                              |                                   |               | Small          |                        |                        |                        |                        |
|------------------------------------|-----------------------------------|---------------|----------------|------------------------|------------------------|------------------------|------------------------|
|                                    |                                   |               | AM009FNNDCH/AA | AM012FNNDCH/AA         | AM018FNNDCH/AA         | AM020FNNDCH/AA         |                        |
| Standard accessories               | Installation manual               |               | -              | O                      | O                      | O                      | O                      |
|                                    | Operation manual                  |               | -              | X                      | X                      | X                      | X                      |
|                                    | Pattern sheet for installation    |               | -              | O                      | O                      | O                      | O                      |
|                                    | Flexible drain hose               |               | -              | O                      | O                      | O                      | O                      |
|                                    | Filter/Safety grille              |               | -              | Filter / Safety grille |
|                                    | Drain pump                        | Drain pump    | - / Model Name | -                      | -                      | -                      | -                      |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | 750 / 24       | 750 / 24               | 750 / 24               | 750 / 24               |                        |
| Optional accessories               | Wireless remote controller        |               | -              | AR-DH00                | AR-DH00                | AR-DH00                | AR-DH00                |
|                                    | wired remote controller           |               | -              | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              |
|                                    | External contact interface module |               | -              | MIM-B14                | MIM-B14                | MIM-B14                | MIM-B14                |
|                                    | Duct Receiver kits                | Receiver      | -              | -                      | -                      | -                      | -                      |
|                                    |                                   | Receiver wire | -              | -                      | -                      | -                      | -                      |
|                                    | EEV kits                          |               | -              | -                      | -                      | -                      | -                      |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ 4WAY cassette (Small)

| Model                            |                          |                       | 4WAY cassette - Small |                       |                       |                       |                       |
|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                  |                          |                       | AM009FN4DCH/AA        | AM012FN4DCH/AA        | AM018FN4DCH/AA        | AM024FN4DCH/AA        |                       |
| Power Supply                     |                          | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        |                       |
| Mode                             |                          | -                     | HP/HR                 | HP/HR                 | HP/HR                 | HP/HR                 |                       |
| Performance                      | Capacity (Nominal)       | Cooling 2)            | kW                    | -                     | -                     | -                     | -                     |
|                                  |                          |                       | Btu/h                 | 9,000                 | 12,000                | 18,000                | 24,000                |
|                                  |                          | Heating 2)            | kW                    | -                     | -                     | -                     | -                     |
|                                  |                          |                       | Btu/h                 | 10,000                | 13,500                | 20,000                | 27,000                |
| Condensate (with high fan speed) | Liter/h                  | -                     | -                     | -                     | -                     |                       |                       |
| Power                            | Power Input (Nominal)    | Cooling 1)            | W                     | 32                    | 32                    | 32                    | 40                    |
|                                  |                          | Heating 2)            | -                     | 32                    | 32                    | 32                    | 40                    |
|                                  | Current Input (Nominal)  | Cooling 1)            | A                     | 0.25                  | 0.25                  | 0.25                  | 0.3                   |
|                                  |                          | Heating 2)            | -                     | 0.25                  | 0.25                  | 0.25                  | 0.3                   |
| Fan                              | Type                     | -                     | Turbo Fan             | Turbo Fan             | Turbo Fan             | Turbo Fan             |                       |
|                                  | Motor                    | Model                 | -                     | FMC6531SSH            | FMC6531SSH            | FMC6531SSH            | FMC6531SSH            |
|                                  |                          | Type                  | -                     | BLDC                  | BLDC                  | BLDC                  | BLDC                  |
|                                  |                          | Output x n            | W                     | 65 x 1                | 65 x 1                | 65 x 1                | 65 x 1                |
|                                  | Air Flow Rate            | H/M/L                 | CMM                   | 15.50 / 14.00 / 12.00 | 15.50 / 14.00 / 12.00 | 15.50 / 14.00 / 12.00 | 17.50 / 16.00 / 14.00 |
| External Pressure                | Min / Std / Max          | Pa                    | -                     | -                     | -                     | -                     |                       |
|                                  | -                        | WG                    | -                     | -                     | -                     | -                     |                       |
| Sound                            | Sound Pressure           | High / Mid / Low      | dB(A)                 | -                     | -                     | -                     | -                     |
|                                  | Sound Power              | High / Mid / Low      | -                     | -                     | -                     | -                     |                       |
| Refrigerant                      | Type                     | -                     | R-410A                | R-410A                | R-410A                | R-410A                |                       |
|                                  | Control Method           | -                     | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED          |                       |
| Temperature Control              |                          | -                     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     |                       |
| Safety devices                   |                          | -                     | Fuse                  | Fuse                  | Fuse                  | Fuse                  |                       |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                  | 6.35                  | 6.35                  | 6.35                  | 9.52                  |                       |
|                                  |                          | ø, inch               | 1/4                   | 1/4                   | 1/4                   | 3/8                   |                       |
|                                  | Gas Pipe (Flare)         | ø,mm                  | 12.7                  | 12.7                  | 12.7                  | 15.88                 |                       |
|                                  |                          | ø, inch               | 1/2                   | 1/2                   | 1/2                   | 5/8                   |                       |
| Drain Pipe (Quick lock)          | ø,mm                     | VP25 (OD32,ID25)      | VP25 (OD32,ID25)      | VP25 (OD32,ID25)      | VP25 (OD32,ID25)      |                       |                       |
| Dimensions                       | Net Weight               | kg                    | 15.00                 | 15.00                 | 15.00                 | 15.00                 |                       |
|                                  |                          | lbs                   | 33.07                 | 33.07                 | 33.07                 | 33.07                 |                       |
|                                  | Shipping Weight          | kg                    | 18.50                 | 18.50                 | 18.50                 | 18.50                 |                       |
|                                  |                          | lbs                   | 40.79                 | 40.79                 | 40.79                 | 40.79                 |                       |
|                                  | Net Dimensions (WxHxD)   | mm                    | 840 x 204 x 840       |                       |
|                                  |                          | inch                  | 33.07 x 8.03 x 33.07  |                       |
| Shipping Dimensions (WxHxD)      | mm                       | 898 x 275 x 898       |                       |                       |
|                                  | inch                     | 35.35 x 10.83 x 35.35 |                       |                       |
| Panel Size                       | Panel model              | -                     | PC4NUSKFN             | PC4NUSKFN             | PC4NUSKFN             | PC4NUSKFN             |                       |
|                                  |                          | kg                    | 5.80                  | 5.80                  | 5.80                  | 5.80                  |                       |
|                                  | Panel Net Weight         | lbs                   | 12.79                 | 12.79                 | 12.79                 | 12.79                 |                       |
|                                  |                          | kg                    | 8.40                  | 8.40                  | 8.40                  | 8.40                  |                       |
|                                  | Shipping Weight          | lbs                   | 18.52                 | 18.52                 | 18.52                 | 18.52                 |                       |
|                                  |                          | mm                    | 950 x 45 x 950        |                       |
| Net Dimensions (WxHxD)           | inches                   | 37.40 x 1.77 x 37.40  |                       |                       |
|                                  | mm                       | 1,005 x 100 x 1,005   |                       |                       |
| Shipping Dimensions (WxHxD)      | inch                     | 39.57 x 3.94 x 39.57  |                       |                       |
|                                  | mm                       | 1,005 x 100 x 1,005   |                       |                       |
| Functions                        | Auto restart             | -                     | O                     | O                     | O                     | O                     |                       |
|                                  | Auto swing               | -                     | O                     | O                     | O                     | O                     |                       |
|                                  | Group/individual control | -                     | O                     | O                     | O                     | O                     |                       |
|                                  | External contact control | -                     | O                     | O                     | O                     | O                     |                       |
|                                  | Trouble shooting by LED  | -                     | O                     | O                     | O                     | O                     |                       |

| Model                |                                    |                | 4WAY cassette - Small  |                        |                        |                        |
|----------------------|------------------------------------|----------------|------------------------|------------------------|------------------------|------------------------|
|                      |                                    |                | AM009FN4DCH/AA         | AM012FN4DCH/AA         | AM018FN4DCH/AA         | AM024FN4DCH/AA         |
| Standard accessories | Installation manual                |                | O                      | O                      | O                      | O                      |
|                      | Operation manual                   |                | X                      | X                      | X                      | X                      |
|                      | Pattern sheet for installation     |                | O                      | O                      | O                      | O                      |
|                      | Flexible drain hose                |                | O                      | O                      | O                      | O                      |
|                      | Filter/Safety grille               |                | Filter / Safety grille |
| Drain pump           | Drain pump                         | - / Model Name | -                      | -                      | -                      | -                      |
|                      | Max. lifting Height / Displacement | mm / liter/h   | 750 / 24               | 750 / 24               | 750 / 24               | 750 / 24               |
| Optional accessories | Wireless remote controller         |                | -                      | MR-DH00U               | MR-DH00U               | MR-DH00U               |
|                      | wired remote controller            |                | -                      | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              |
|                      | External contact interface module  |                | -                      | MIM-B14                | MIM-B14                | MIM-B14                |
|                      | Duct Receiver kits                 | Receiver       | -                      | -                      | -                      | -                      |
|                      |                                    | Receiver wire  | -                      | -                      | -                      | -                      |
| EEV kits             |                                    | -              | -                      | -                      | -                      |                        |



- \*1) Mode  
- HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;  
- Indoor temperature : 27°C DB, 19°C WB  
- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;  
- Indoor temperature : 20°C DB, 15°C WB  
- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ 4WAY cassette (Large)

| Model                            |                             |                       |                       | 4WAY cassette - Large |                       |                       |
|----------------------------------|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                  |                             |                       |                       | AM030FN4DCH/AA        | AM036FN4DCH/AA        | AM048FN4DCH/AA        |
| Power Supply                     |                             | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        |                       |
| Mode                             |                             | -                     | HP/HR                 | HP/HR                 | HP/HR                 |                       |
| Performance                      | Capacity (Nominal)          | Cooling 2)            | kW                    | -                     | -                     |                       |
|                                  |                             |                       | Btu/h                 | 30,000                | 36,000                | 48,000                |
|                                  |                             | Heating 2)            | kW                    | -                     | -                     | -                     |
|                                  |                             |                       | Btu/h                 | 34,000                | 40,000                | 54,000                |
| Condensate (with high fan speed) |                             | Liter/h               | -                     | -                     | -                     |                       |
| Power                            | Power Input (Nominal)       | Cooling 1)            | W                     | 65                    | 75                    | 95                    |
|                                  |                             | Heating 2)            | -                     | 65                    | 75                    | 95                    |
|                                  | Current Input (Nominal)     | Cooling 1)            | A                     | 0.5                   | 0.56                  | 0.75                  |
|                                  |                             | Heating 2)            | -                     | 0.5                   | 0.56                  | 0.75                  |
| Fan                              | Type                        |                       | -                     | Turbo Fan             | Turbo Fan             | Turbo Fan             |
|                                  | Motor                       | Model                 | -                     | FMC9731SSB            | FMC9731SSB            | FMC9731SSB            |
|                                  |                             | Type                  | -                     | BLDC                  | BLDC                  | BLDC                  |
|                                  |                             | Output x n            | W                     | 65 x 1                | 65 x 1                | 65 x 1                |
|                                  | Air Flow Rate               | H/M/L                 | CMM                   | 22.00 / 19.50 / 17.00 | 24.00 / 22.00 / 20.00 | 29.00 / 27.00 / 24.00 |
|                                  | External Pressure           | Min / Std / Max       | Pa                    | -                     | -                     | -                     |
| -                                |                             | WG                    | -                     | -                     | -                     |                       |
| Sound                            | Sound Pressure              | High / Mid / Low      | dBA                   | -                     | -                     | -                     |
|                                  | Sound Power                 | High / Mid / Low      | -                     | -                     | -                     |                       |
| Refrigerant                      | Type                        |                       | -                     | R-410A                | R-410A                | R-410A                |
|                                  | Control Method              |                       | -                     | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED          |
| Temperature Control              |                             | -                     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     |                       |
| Safety devices                   |                             | -                     | Fuse                  | Fuse                  | Fuse                  |                       |
| Piping Connections               | Liquid Pipe (Flare)         | ø,mm                  | 9.52                  | 9.52                  | 9.52                  |                       |
|                                  |                             | ø, inch               | 3/8                   | 3/8                   | 3/8                   |                       |
|                                  | Gas Pipe (Flare)            | ø,mm                  | 15.88                 | 15.88                 | 15.88                 |                       |
|                                  |                             | ø, inch               | 5/8                   | 5/8                   | 5/8                   |                       |
| Drain Pipe (Quick lock)          |                             | ø,mm                  | VP25 (OD32,ID25)      | VP25 (OD32,ID25)      | VP25 (OD32,ID25)      |                       |
| Dimensions                       | Net Weight                  | kg                    | 18.50                 | 18.50                 | 18.50                 |                       |
|                                  |                             | lbs                   | 40.79                 | 40.79                 | 40.79                 |                       |
|                                  | Shipping Weight             | kg                    | 23.00                 | 23.00                 | 23.00                 |                       |
|                                  |                             | lbs                   | 50.71                 | 50.71                 | 50.71                 |                       |
|                                  | Net Dimensions (WxHxD)      | mm                    | 840 x 288 x 840       | 840 x 288 x 840       | 840 x 288 x 840       |                       |
|                                  |                             | inch                  | 33.07 x 11.34 x 33.07 | 33.07 x 11.34 x 33.07 | 33.07 x 11.34 x 33.07 |                       |
| Shipping Dimensions (WxHxD)      | mm                          | 898 x 357 x 898       | 898 x 357 x 898       | 898 x 357 x 898       |                       |                       |
|                                  | inch                        | 35.35 x 14.06 x 35.35 | 35.35 x 14.06 x 35.35 | 35.35 x 14.06 x 35.35 |                       |                       |
| Panel Size                       | Panel model                 |                       | -                     | PC4NUSKFN             | PC4NUSKFN             | PC4NUSKFN             |
|                                  | Panel Net Weight            | kg                    | 5.80                  | 5.80                  | 5.80                  |                       |
|                                  |                             | lbs                   | 12.79                 | 12.79                 | 12.79                 |                       |
|                                  | Shipping Weight             | kg                    | 8.40                  | 8.40                  | 8.40                  |                       |
|                                  |                             | lbs                   | 18.52                 | 18.52                 | 18.52                 |                       |
|                                  | Net Dimensions (WxHxD)      | mm                    | 950 x 45 x 950        | 950 x 45 x 950        | 950 x 45 x 950        |                       |
|                                  |                             | inches                | 37.40 x 1.77 x 37.40  | 37.40 x 1.77 x 37.40  | 37.40 x 1.77 x 37.40  |                       |
|                                  | Shipping Dimensions (WxHxD) | mm                    | 1,005 x 100 x 1,005   | 1,005 x 100 x 1,005   | 1,005 x 100 x 1,005   |                       |
| inch                             |                             | 39.57 x 3.94 x 39.57  | 39.57 x 3.94 x 39.57  | 39.57 x 3.94 x 39.57  |                       |                       |
| Functions                        | Auto restart                |                       | -                     | O                     | O                     | O                     |
|                                  | Auto swing                  |                       | -                     | O                     | O                     | O                     |
|                                  | Group/individual control    |                       | -                     | O                     | O                     | O                     |
|                                  | External contact control    |                       | -                     | O                     | O                     | O                     |
|                                  | Trouble shooting by LED     |                       | -                     | O                     | O                     | O                     |

| Model                              |                                   |               | 4WAY cassette - Large |                        |                        |                        |
|------------------------------------|-----------------------------------|---------------|-----------------------|------------------------|------------------------|------------------------|
|                                    |                                   |               | AM030FN4DCH/AA        | AM036FN4DCH/AA         | AM048FN4DCH/AA         |                        |
| Standard accessories               | Installation manual               |               | -                     | O                      | O                      | O                      |
|                                    | Operation manual                  |               | -                     | X                      | X                      | X                      |
|                                    | Pattern sheet for installation    |               | -                     | O                      | O                      | O                      |
|                                    | Flexible drain hose               |               | -                     | O                      | O                      | O                      |
|                                    | Filter/Safety grille              |               | -                     | Filter / Safety grille | Filter / Safety grille | Filter / Safety grille |
|                                    | Drain pump                        | Drain pump    | - / Model Name        | -                      | -                      | -                      |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | 750 / 24              | 750 / 24               | 750 / 24               |                        |
| Optional accessories               | Wireless remote controller        |               | -                     | MR-DH00U               | MR-DH00U               | MR-DH00U               |
|                                    | wired remote controller           |               | -                     | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              |
|                                    | External contact interface module |               | -                     | MIM-B14                | MIM-B14                | MIM-B14                |
|                                    | Duct Receiver kits                | Receiver      | -                     | -                      | -                      | -                      |
|                                    |                                   | Receiver wire | -                     | -                      | -                      | -                      |
|                                    | EEV kits                          |               | -                     | -                      | -                      | -                      |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ SLIM DUCT(Slim1)

| Model                            |                          |                       | Slim1                 |                       |                      |                     |
|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|----------------------|---------------------|
|                                  |                          |                       | AM007FNLDCH/AA        | AM009FNLDCH/AA        | AM012FNLDCH/AA       |                     |
| Power Supply                     |                          | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60       |                     |
| Mode                             |                          | -                     | HP/HR                 | HP/HR                 | HP/HR                |                     |
| Performance                      | Capacity (Nominal)       | Cooling 2)            | kW                    | -                     | -                    |                     |
|                                  |                          |                       | Btu/h                 | 7,500                 | 9,500                | 12,000              |
|                                  |                          | Heating 2)            | kW                    | -                     | -                    | -                   |
|                                  |                          |                       | Btu/h                 | 8,500                 | 10,500               | 13,500              |
| Condensate (with high fan speed) |                          | Liter/h               | -                     | -                     | -                    |                     |
| Power                            | Power Input (Nominal)    | Cooling 1)            | W                     | 47                    | 60                   | 75                  |
|                                  |                          | Heating 2)            | -                     | 47                    | 60                   | 75                  |
|                                  | Current Input (Nominal)  | Cooling 1)            | A                     | 0.32                  | 0.4                  | 0.51                |
|                                  |                          | Heating 2)            | -                     | 0.32                  | 0.4                  | 0.51                |
| Fan                              | Type                     | -                     | Sirocco Fan           | Sirocco Fan           | Sirocco Fan          |                     |
|                                  | Motor                    | Model                 | -                     | YSK110-25-6SN         | YSK110-25-6SN        | YSK110-25-6SN       |
|                                  |                          | Type                  | -                     | SSR                   | SSR                  | SSR                 |
|                                  |                          | Output x n            | W                     | 40 x 1                | 50 x 1               | 60 x 1              |
|                                  | Air Flow Rate            | H/M/L                 | CMM                   | 8.00 / 7.00 / 6.00    | 9.00 / 8.00 / 7.00   | 10.00 / 8.50 / 7.00 |
|                                  | External Pressure        | Min / Std / Max       | mmAq                  | 0.00 / 1.00 / 4.00    | 0.00 / 1.00 / 4.00   | 0.00 / 1.00 / 4.00  |
| -                                |                          | Pa                    | 0.00 / 9.8 / 39.23    | 0.00 / 9.8 / 39.23    | 0.00 / 9.8 / 39.23   |                     |
| Sound                            | Sound Pressure           | High / Mid / Low      | dB(A)                 | 26.0 / 24.0 / 21.0    | 27.0 / 25.0 / 23.0   | 29.0 / 28.0 / 27.0  |
|                                  | Sound Power              | High / Mid / Low      | -                     | -                     | -                    | -                   |
| Refrigerant                      | Type                     | -                     | R-410A                | R-410A                | R-410A               |                     |
|                                  | Control Method           | -                     | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED         |                     |
| Temperature Control              |                          | -                     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors    |                     |
| Safety devices                   |                          | -                     | Fuse                  | Fuse                  | Fuse                 |                     |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                  | 6.35                  | 6.35                  | 6.35                 |                     |
|                                  |                          | ø, inch               | 1/4                   | 1/4                   | 1/4                  |                     |
|                                  | Gas Pipe (Flare)         | ø,mm                  | 12.7                  | 12.7                  | 12.7                 |                     |
|                                  |                          | ø, inch               | 1/2                   | 1/2                   | 1/2                  |                     |
| Drain Pipe (Quick lock)          | ø,mm                     | VP25 (OD 32,ID 25)    | VP25 (OD 32,ID 25)    | VP25 (OD 32,ID 25)    |                      |                     |
| Dimensions                       | Net Weight               | kg                    | 24.50                 | 24.50                 | 24.50                |                     |
|                                  |                          | lbs                   | 54.01                 | 54.01                 | 54.01                |                     |
|                                  | Shipping Weight          | kg                    | 28.50                 | 28.50                 | 28.50                |                     |
|                                  |                          | lbs                   | 62.83                 | 62.83                 | 62.83                |                     |
|                                  | Net Dimensions (WxHxD)   | mm                    | 900 x 199 x 600       | 900 x 199 x 600       | 900 x 199 x 600      |                     |
|                                  |                          | inch                  | 35.43 x 7.83 x 23.62  | 35.43 x 7.83 x 23.62  | 35.43 x 7.83 x 23.62 |                     |
| Shipping Dimensions (WxHxD)      | mm                       | 1,150 x 280 x 710     | 1,150 x 280 x 710     | 1,150 x 280 x 710     |                      |                     |
|                                  | inch                     | 45.28 x 11.02 x 27.95 | 45.28 x 11.02 x 27.95 | 45.28 x 11.02 x 27.95 |                      |                     |
| Panel Size                       | Panel model              | -                     | -                     | -                     | -                    |                     |
|                                  | Panel Net Weight         | kg                    | -                     | -                     | -                    |                     |
|                                  |                          | lbs                   | -                     | -                     | -                    |                     |
|                                  | Shipping Weight          | kg                    | -                     | -                     | -                    |                     |
|                                  |                          | lbs                   | -                     | -                     | -                    |                     |
|                                  | Net Dimensions (WxHxD)   | mm                    | -                     | -                     | -                    |                     |
| inches                           |                          | -                     | -                     | -                     |                      |                     |
| Shipping Dimensions (WxHxD)      | mm                       | -                     | -                     | -                     |                      |                     |
|                                  | inch                     | -                     | -                     | -                     |                      |                     |
| Functions                        | Auto restart             | -                     | O                     | O                     | O                    |                     |
|                                  | Auto swing               | -                     | X                     | X                     | X                    |                     |
|                                  | Group/individual control | -                     | O                     | O                     | O                    |                     |
|                                  | External contact control | -                     | O                     | O                     | O                    |                     |
|                                  | Trouble shooting by LED  | -                     | X                     | X                     | X                    |                     |

| Model                |                                    |                | Slim1         |                   |                   |                   |
|----------------------|------------------------------------|----------------|---------------|-------------------|-------------------|-------------------|
|                      |                                    |                | AM007FNLDC/AA | AM009FNLDC/AA     | AM012FNLDC/AA     |                   |
| Standard accessories | Installation manual                |                | -             | O                 | O                 | O                 |
|                      | Operation manual                   |                | -             | O                 | O                 | O                 |
|                      | Pattern sheet for installation     |                | -             | X                 | X                 | X                 |
|                      | Flexible drain hose                |                | -             | O                 | O                 | O                 |
|                      | Filter/Safety grille               |                | -             | Filter (washable) | Filter (washable) | Filter (washable) |
| Drain pump           | Drain pump                         | - / Model Name | MDP-E075SEE3D | MDP-E075SEE3D     | MDP-E075SEE3D     |                   |
|                      | Max. lifting Height / Displacement | mm / liter/h   | 750 / 24      | 750 / 24          | 750 / 24          |                   |
| Optional accessories | Wireless remote controller         |                | -             | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                      | wired remote controller            |                | -             | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                      | External contact interface module  |                | -             | MIM-B14           | MIM-B14           | MIM-B14           |
|                      | Duct Receiver kits                 |                | -             | MRK-A10N          | MRK-A10N          | MRK-A10N          |
|                      | EEV kits                           |                | -             | -                 | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ SLIM DUCT(Slim2)

| Model                            |                          |                       | Slim2                 |                       |                       |     |
|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|
|                                  |                          |                       | AM018FNLDCH/AA        | AM024FNLDCH/AA        |                       |     |
| Power Supply                     |                          |                       | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        |     |
| Mode                             |                          |                       | -                     | HP/HR                 | HP/HR                 |     |
| Performance                      | Capacity (Nominal)       | Cooling 2)            | kW                    | -                     | -                     |     |
|                                  |                          |                       | Btu/h                 | 18,000                | 24,000                |     |
|                                  |                          | Heating 2)            | kW                    | -                     | -                     |     |
|                                  |                          |                       | Btu/h                 | 20,000                | 27,000                |     |
| Condensate (with high fan speed) |                          | Liter/h               | -                     | -                     |                       |     |
| Power                            | Power Input (Nominal)    | Cooling 1)            | W                     | 140                   | 145                   |     |
|                                  |                          | Heating 2)            | -                     | 140                   | 145                   |     |
|                                  | Current Input (Nominal)  | Cooling 1)            | A                     | 0.94                  | 0.98                  |     |
|                                  |                          | Heating 2)            | -                     | 0.94                  | 0.98                  |     |
| Fan                              | Type                     | -                     | -                     | Sirocco Fan           | Sirocco Fan           |     |
|                                  | Motor                    | Model                 | -                     | YSK140-60-4B1         | YSK140-60-4B1         |     |
|                                  |                          | Type                  | -                     | -                     | SSR                   | SSR |
|                                  |                          | Output x n            | W                     | 100 x 1               | 110 x 1               |     |
|                                  | Air Flow Rate            | H/M/L                 | CMM                   | 15.50 / 14.00 / 12.50 | 16.50 / 15.00 / 13.50 |     |
|                                  | External Pressure        | Min / Std / Max       | mmAq                  | 0.00 / 1.00 / 4.00    | 0.00 / 1.00 / 4.00    |     |
| -                                |                          | Pa                    | 0.00 / 9.8 / 39.23    | 0.00 / 9.8 / 39.23    |                       |     |
| Sound                            | Sound Pressure           | High / Mid / Low      | dB(A)                 | 36.0 / 34.0 / 31.0    | 38.0 / 36.0 / 33.0    |     |
|                                  | Sound Power              | High / Mid / Low      | -                     | -                     | -                     |     |
| Refrigerant                      | Type                     | -                     | -                     | R-410A                | R-410A                |     |
|                                  | Control Method           | -                     | -                     | EEV INCLUDED          | EEV INCLUDED          |     |
| Temperature Control              |                          |                       | -                     | Micom&Thermistors     | Micom&Thermistors     |     |
| Safety devices                   |                          |                       | -                     | Fuse                  | Fuse                  |     |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                  | 6.35                  | 9.52                  |                       |     |
|                                  |                          | ø, inch               | 1/4                   | 3/8                   |                       |     |
|                                  | Gas Pipe (Flare)         | ø,mm                  | 12.7                  | 15.88                 |                       |     |
|                                  |                          | ø, inch               | 1/2                   | 5/8                   |                       |     |
| Drain Pipe (Quick lock)          |                          | ø,mm                  | VP25 (OD 32,ID 25)    | VP25 (OD 32,ID 25)    |                       |     |
| Dimensions                       | Net Weight               | kg                    | 30.00                 | 30.00                 |                       |     |
|                                  |                          | lbs                   | 66.14                 | 66.14                 |                       |     |
|                                  | Shipping Weight          | kg                    | 34.50                 | 34.50                 |                       |     |
|                                  |                          | lbs                   | 76.06                 | 76.06                 |                       |     |
|                                  | Net Dimensions (WxHxD)   | mm                    | 1,100 x 199 x 600     | 1,100 x 199 x 600     |                       |     |
|                                  |                          | inch                  | 43.31 x 7.83 x 23.62  | 43.31 x 7.83 x 23.62  |                       |     |
| Shipping Dimensions (WxHxD)      | mm                       | 1,350 x 280 x 710     | 1,350 x 280 x 710     |                       |                       |     |
|                                  | inch                     | 53.15 x 11.02 x 27.95 | 53.15 x 11.02 x 27.95 |                       |                       |     |
| Panel Size                       | Panel model              |                       | -                     | -                     | -                     |     |
|                                  | Panel Net Weight         | kg                    | -                     | -                     |                       |     |
|                                  |                          | lbs                   | -                     | -                     |                       |     |
|                                  | Shipping Weight          | kg                    | -                     | -                     |                       |     |
|                                  |                          | lbs                   | -                     | -                     |                       |     |
|                                  | Net Dimensions (WxHxD)   | mm                    | -                     | -                     |                       |     |
| inches                           |                          | -                     | -                     |                       |                       |     |
| Shipping Dimensions (WxHxD)      | mm                       | -                     | -                     |                       |                       |     |
|                                  | inch                     | -                     | -                     |                       |                       |     |
| Functions                        | Auto restart             |                       | -                     | O                     | O                     |     |
|                                  | Auto swing               |                       | -                     | X                     | X                     |     |
|                                  | Group/individual control |                       | -                     | O                     | O                     |     |
|                                  | External contact control |                       | -                     | O                     | O                     |     |
|                                  | Trouble shooting by LED  |                       | -                     | X                     | X                     |     |

| Model                              |                                   |              | Slim2             |                   |
|------------------------------------|-----------------------------------|--------------|-------------------|-------------------|
|                                    |                                   |              | AM018FNLDCH/AA    | AM024FNLDCH/AA    |
| Standard accessories               | Installation manual               | -            | O                 | O                 |
|                                    | Operation manual                  | -            | O                 | O                 |
|                                    | Pattern sheet for installation    | -            | X                 | X                 |
|                                    | Flexible drain hose               | -            | O                 | O                 |
|                                    | Filter/Safety grille              | -            | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump   | - / Model Name    | MDP-E075SEE3D     |
| Max. lifting Height / Displacement |                                   | mm / liter/h | 750 / 24          | 750 / 24          |
| Optional accessories               | Wireless remote controller        | -            | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           | -            | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module | -            | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | -            | MRK-A10N          | MRK-A10N          |
|                                    | EEV kits                          | -            | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ SLIM DUCT(Slim3)

| Model                            |                          |                       | Slim3                 |                       |                       |                    |
|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
|                                  |                          |                       | AM030FNLDCH/AA        | AM036FNLDCH/AA        | AM048FNLDCH/AA        |                    |
| Power Supply                     |                          | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        |                    |
| Mode                             |                          | -                     | HP/HR                 | HP/HR                 | HP/HR                 |                    |
| Performance                      | Capacity (Nominal)       | Cooling 2)            | kW                    | -                     | -                     |                    |
|                                  |                          |                       | Btu/h                 | 30,000                | 36,000                | 48,000             |
|                                  |                          | Heating 2)            | kW                    | -                     | -                     | -                  |
|                                  |                          |                       | Btu/h                 | 34,000                | 40,000                | 54,000             |
| Condensate (with high fan speed) |                          | Liter/h               | -                     | -                     | -                     |                    |
| Power                            | Power Input (Nominal)    | Cooling 1)            | W                     | 95                    | 120                   | 180                |
|                                  |                          | Heating 2)            | -                     | 95                    | 120                   | 180                |
|                                  | Current Input (Nominal)  | Cooling 1)            | A                     | 0.8                   | 1.05                  | 1.4                |
|                                  |                          | Heating 2)            | -                     | 0.8                   | 1.05                  | 1.4                |
| Fan                              | Type                     | -                     | Sirocco Fan           | Sirocco Fan           | Sirocco Fan           |                    |
|                                  | Motor                    | Model                 | -                     | DL-12840SSBC          | DL-12840SSBC          | DL-12840SSBC       |
|                                  |                          | Type                  | -                     | BLDC                  | BLDC                  | BLDC               |
|                                  |                          | Output x n            | W                     | 80 x 1                | 100 x 1               | 160 x 1            |
|                                  | Air Flow Rate            | H/M/L                 | CMM                   | 31.00/26.00/23.00     | 34.00/29.00/24.00     | 38.00/32.00/27.00  |
| External Pressure                | Min / Std / Max          | mmAq                  | 0.00 / 1.00 / 6.00    | 0.00 / 3.00 / 6.00    | 0.00 / 3.00 / 6.00    |                    |
|                                  | -                        | Pa                    | 0.00 / 9.8 / 58.84    | 0.00 / 29.42 / 58.84  | 0.00 / 29.42 / 58.84  |                    |
| Sound                            | Sound Pressure           | High / Mid / Low      | dB(A)                 | 37.0 / 36.0 / 34.0    | 37.0 / 36.0 / 34.0    | 39.0 / 38.0 / 36.0 |
|                                  | Sound Power              | High / Mid / Low      | -                     | -                     | -                     |                    |
| Refrigerant                      | Type                     | -                     | R-410A                | R-410A                | R-410A                |                    |
|                                  | Control Method           | -                     | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED          |                    |
| Temperature Control              |                          | -                     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     |                    |
| Safety devices                   |                          | -                     | Fuse                  | Fuse                  | Fuse                  |                    |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                  | 9.52                  | 9.52                  | 9.52                  |                    |
|                                  |                          | ø, inch               | 3/8                   | 3/8                   | 3/8                   |                    |
|                                  | Gas Pipe (Flare)         | ø,mm                  | 15.88                 | 15.88                 | 15.88                 |                    |
|                                  |                          | ø, inch               | 5/8                   | 5/8                   | 5/8                   |                    |
| Drain Pipe (Quick lock)          | ø,mm                     | VP25 (OD 32,ID 25)    | VP25 (OD 32,ID 25)    | VP25 (OD 32,ID 25)    |                       |                    |
| Dimensions                       | Net Weight               | kg                    | 40.00                 | 40.00                 | 41.50                 |                    |
|                                  |                          | lbs                   | 88.18                 | 88.18                 | 91.49                 |                    |
|                                  | Shipping Weight          | kg                    | 47.00                 | 47.00                 | 48.50                 |                    |
|                                  |                          | lbs                   | 103.62                | 103.62                | 106.92                |                    |
|                                  | Net Dimensions (WxHxD)   | mm                    | 1,300 x 295 x 690     | 1,300 x 295 x 690     | 1,300 x 295 x 690     |                    |
|                                  |                          | inch                  | 51.18 x 11.61 x 27.17 | 51.18 x 11.61 x 27.17 | 51.18 x 11.61 x 27.17 |                    |
| Shipping Dimensions (WxHxD)      | mm                       | 1,575 x 370 x 835     | 1,575 x 370 x 835     | 1,575 x 370 x 835     |                       |                    |
|                                  | inch                     | 62.01 x 14.57 x 32.87 | 62.01 x 14.57 x 32.87 | 62.01 x 14.57 x 32.87 |                       |                    |
| Panel Size                       | Panel model              | -                     | -                     | -                     | -                     |                    |
|                                  | Panel Net Weight         | kg                    | -                     | -                     | -                     |                    |
|                                  |                          | lbs                   | -                     | -                     | -                     |                    |
|                                  | Shipping Weight          | kg                    | -                     | -                     | -                     |                    |
|                                  |                          | lbs                   | -                     | -                     | -                     |                    |
|                                  | Net Dimensions (WxHxD)   | mm                    | -                     | -                     | -                     |                    |
| inches                           |                          | -                     | -                     | -                     |                       |                    |
| Shipping Dimensions (WxHxD)      | mm                       | -                     | -                     | -                     |                       |                    |
|                                  | inch                     | -                     | -                     | -                     |                       |                    |
| Functions                        | Auto restart             | -                     | O                     | O                     | O                     |                    |
|                                  | Auto swing               | -                     | X                     | X                     | X                     |                    |
|                                  | Group/individual control | -                     | O                     | O                     | O                     |                    |
|                                  | External contact control | -                     | O                     | O                     | O                     |                    |
|                                  | Trouble shooting by LED  | -                     | X                     | X                     | X                     |                    |

| Model                |                                    |                | Slim3          |                   |                   |                   |
|----------------------|------------------------------------|----------------|----------------|-------------------|-------------------|-------------------|
|                      |                                    |                | AM030FNLDCH/AA | AM036FNLDCH/AA    | AM048FNLDCH/AA    |                   |
| Standard accessories | Installation manual                |                | -              | O                 | O                 | O                 |
|                      | Operation manual                   |                | -              | O                 | O                 | O                 |
|                      | Pattern sheet for installation     |                | -              | X                 | X                 | X                 |
|                      | Flexible drain hose                |                | -              | O                 | O                 | O                 |
|                      | Filter/Safety grille               |                | -              | Filter (washable) | Filter (washable) | Filter (washable) |
| Drain pump           | Drain pump                         | - / Model Name | MDP-E075SEE3D  | MDP-E075SEE3D     | MDP-E075SEE3D     |                   |
|                      | Max. lifting Height / Displacement | mm / liter/h   | 750 / 24       | 750 / 24          | 750 / 24          |                   |
| Optional accessories | Wireless remote controller         |                | -              | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                      | wired remote controller            |                | -              | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                      | External contact interface module  |                | -              | MIM-B14           | MIM-B14           | MIM-B14           |
|                      | Duct Receiver kits                 |                | -              | MRK-A10N          | MRK-A10N          | MRK-A10N          |
|                      | EEV kits                           |                | -              | -                 | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ MSP DUCT(MSP-S)

| Model                            |                          |                    |                      | MSP DUCT - MSP-S      |                       |
|----------------------------------|--------------------------|--------------------|----------------------|-----------------------|-----------------------|
|                                  |                          |                    |                      | AM018FNMDCH/AA        | AM024FNMDCH/AA        |
| Power Supply                     |                          | ø, #, V, Hz        | 1,2,208-230,60       | 1,2,208-230,60        |                       |
| Mode                             |                          | -                  | HP/HR                | HP/HR                 |                       |
| Performance                      | Capacity (Nominal)       | Cooling 2)         | kW                   | -                     | -                     |
|                                  |                          |                    | Btu/h                | 18,000                | 24,000                |
|                                  |                          | Heating 2)         | kW                   | -                     | -                     |
|                                  |                          |                    | Btu/h                | 20,000                | 27,000                |
| Condensate (with high fan speed) | Liter/h                  | -                  | -                    |                       |                       |
| Power                            | Power Input (Nominal)    | Cooling 1)         | W                    | 165                   | 220                   |
|                                  |                          | Heating 2)         | -                    | 165                   | 220                   |
|                                  | Current Input (Nominal)  | Cooling 1)         | A                    | 1.4                   | 1.5                   |
|                                  |                          | Heating 2)         | -                    | 1.4                   | 1.5                   |
| Fan                              | Type                     | -                  | Sirocco Fan          | Sirocco Fan           |                       |
|                                  | Motor                    | Model              | -                    | YSK140-200-4E1        | YSK140-200-4E1        |
|                                  |                          | Type               | -                    | SSR                   | SSR                   |
|                                  |                          | Output x n         | W                    | 124 x 1               | 124 x 1               |
|                                  | Air Flow Rate            | H/M/L              | CMM                  | 14.50 / 13.00 / 11.50 | 18.50 / 17.00 / 15.50 |
| External Pressure                | Min / Std / Max          | Pa                 | 0.00 / 4.00 / 8.00   | 0.00 / 4.00 / 8.00    |                       |
|                                  | -                        | WG                 | 0.00 / 39.23 / 78.45 | 0.00 / 39.23 / 78.45  |                       |
| Sound                            | Sound Pressure           | High / Mid / Low   | dBA                  | 35.0 / 33.0 / 31.0    | 39.0 / 35.0 / 31.0    |
|                                  | Sound Power              | High / Mid / Low   | -                    | -                     | -                     |
| Refrigerant                      | Type                     | -                  | R-410A               | R-410A                |                       |
|                                  | Control Method           | -                  | EEV INCLUDED         | EEV INCLUDED          |                       |
| Temperature Control              |                          | -                  | Micom&Thermistors    | Micom&Thermistors     |                       |
| Safety devices                   |                          | -                  | Fuse                 | Fuse                  |                       |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm               | 6.35                 | 9.52                  |                       |
|                                  |                          | ø, inch            | 1/4                  | 3/8                   |                       |
|                                  | Gas Pipe (Flare)         | ø,mm               | 12.7                 | 15.88                 |                       |
|                                  |                          | ø, inch            | 1/2                  | 5/8                   |                       |
| Drain Pipe (Quick lock)          | ø,mm                     | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25)   |                       |                       |
| Dimensions                       | Net Weight               | kg                 | 29.00                | 29.00                 |                       |
|                                  |                          | lbs                | 63.93                | 63.93                 |                       |
|                                  | Shipping Weight          | kg                 | 33.00                | 33.00                 |                       |
|                                  |                          | lbs                | 72.75                | 72.75                 |                       |
|                                  | Net Dimensions (WxHxD)   | mm                 | 900 x 260 x 480      | 900 x 260 x 480       |                       |
|                                  |                          | inch               | 35.4 x 10.2 x 18.9   | 35.4 x 10.2 x 18.9    |                       |
| Shipping Dimensions (WxHxD)      | mm                       | 1,170 x 340 x 595  | 1,170 x 340 x 595    |                       |                       |
|                                  | inch                     | 46.1 x 13.4 x 23.4 | 46.1 x 13.4 x 23.4   |                       |                       |
| Panel Size                       | Panel model              | -                  | -                    | -                     |                       |
|                                  | Panel Net Weight         | kg                 | -                    | -                     |                       |
|                                  |                          | lbs                | -                    | -                     |                       |
|                                  | Shipping Weight          | kg                 | -                    | -                     |                       |
|                                  |                          | lbs                | -                    | -                     |                       |
|                                  | Net Dimensions (WxHxD)   | mm                 | -                    | -                     |                       |
| inches                           |                          | -                  | -                    |                       |                       |
| Shipping Dimensions (WxHxD)      | mm                       | -                  | -                    |                       |                       |
|                                  | inch                     | -                  | -                    |                       |                       |
| Functions                        | Auto restart             | -                  | O                    | O                     |                       |
|                                  | Auto swing               | -                  | X                    | X                     |                       |
|                                  | Group/individual control | -                  | O                    | O                     |                       |
|                                  | External contact control | -                  | O                    | O                     |                       |
|                                  | Trouble shooting by LED  | -                  | X                    | X                     |                       |

| Model                              |                                   |              | MSP DUCT - MSP-S |                   |                   |
|------------------------------------|-----------------------------------|--------------|------------------|-------------------|-------------------|
|                                    |                                   |              | AM018FNMDCH/AA   | AM024FNMDCH/AA    |                   |
| Standard accessories               | Installation manual               |              | -                | O                 | O                 |
|                                    | Operation manual                  |              | -                | O                 | O                 |
|                                    | Pattern sheet for installation    |              | -                | X                 | X                 |
|                                    | Flexible drain hose               |              | -                | O                 | O                 |
|                                    | Filter/Safety grille              |              | -                | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump   | - / Model Name   | MDP-M075SGU3D     | MDP-M075SGU3D     |
| Max. lifting Height / Displacement |                                   | mm / liter/h | 750 / 24         | 750 / 24          |                   |
| Optional accessories               | Wireless remote controller        |              | -                | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |              | -                | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |              | -                | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                |              | -                | MRK-A10N          | MRK-A10N          |
|                                    | EEV kits                          |              | -                | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ MSP DUCT(MSP-1, MSP-2)

| Model                       |                                  |                       | MSP-1                 |                       | MSP-2                 |                        |                   |
|-----------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-------------------|
|                             |                                  |                       | AM030FNMDCH/AA        | AM036FNMDCH/AA        | AM048FNMDCH/AA        | AM054KNMDCH/AZ         |                   |
| Power Supply                |                                  | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60         |                   |
| Mode                        |                                  | -                     | HP/HR                 | HP/HR                 | HP/HR                 | HP/HR                  |                   |
| Performance                 | Capacity (Nominal)               | Cooling 2)            | kW                    | -                     | -                     | -                      | -                 |
|                             |                                  |                       | Btu/h                 | 30,000                | 36,000                | 48,000                 | 54,000            |
|                             |                                  | Heating 2)            | kW                    | -                     | -                     | -                      | -                 |
|                             |                                  |                       | Btu/h                 | 34,000                | 40,000                | 54,000                 | 60,000            |
|                             | Condensate (with high fan speed) | Liter/h               | -                     | -                     | -                     | -                      |                   |
| Power                       | Power Input (Nominal)            | Cooling 1)            | W                     | 260                   | 290                   | 430                    | 540               |
|                             |                                  | Heating 2)            | -                     | 260                   | 290                   | 430                    | 540               |
|                             | Current Input (Nominal)          | Cooling 1)            | A                     | 1.5                   | 1.6                   | 2.45                   | 2.51              |
|                             |                                  | Heating 2)            | -                     | 1.5                   | 1.6                   | 2.45                   | 2.51              |
| Fan                         | Type                             | -                     | Sirocco Fan           | Sirocco Fan           | Sirocco Fan           | Sirocco Fan            |                   |
|                             | Motor                            | Model                 | -                     | YSK140-200-4A         | YSK140-200-4A         | YDK-370S65023-01       | YDK-370S65023-01  |
|                             |                                  | Type                  | -                     | SSR                   | SSR                   | SSR                    | SSR               |
|                             |                                  | Output x n            | W                     | 180 x 1               | 180 x 1               | 370 x 1                | 370 x 1           |
|                             | Air Flow Rate                    | H/M/L                 | CMM                   | 25.00 / 23.00 / 20.00 | 27.00 / 25.00 / 23.00 | 35.00 / 33.00 / 30.00  | 43.00/38.00/30.50 |
| External Pressure           | Min / Std / Max                  | mmAq                  | 6.00 / 8.00 / 10.00   | 6.00 / 8.00 / 10.00   | 6.00 / 8.00 / 10.00   | 4.00 / 8.00 / 14.00    |                   |
|                             | -                                | Pa                    | 58.84 / 78.45 / 98.07 | 58.84 / 78.45 / 98.07 | 58.84 / 78.45 / 98.07 | 39.23 / 78.45 / 137.29 |                   |
| Sound                       | Sound Pressure                   | High / Mid / Low      | dBa                   | 40.0/37.0/34.0        | 41.0/40.0/38.0        | 42.0/39.0/36.0         | 43.0/40.0/36.0    |
|                             | Sound Power                      | High / Mid / Low      | -                     | -                     | -                     | -                      | -                 |
| Refrigerant                 | Type                             | -                     | R-410A                | R-410A                | R-410A                | R-410A                 |                   |
|                             | Control Method                   | -                     | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED           |                   |
| Temperature Control         |                                  | -                     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors      |                   |
| Safety devices              |                                  | -                     | Fuse                  | Fuse                  | Fuse                  | Fuse                   |                   |
| Piping Connections          | Liquid Pipe (Flare)              | ø,mm                  | 9.52                  | 9.52                  | 9.52                  | 9.52                   |                   |
|                             |                                  | ø, inch               | 3/8                   | 3/8                   | 3/8                   | 5/8                    |                   |
|                             | Gas Pipe (Flare)                 | ø,mm                  | 15.88                 | 15.88                 | 15.88                 | 15.88                  |                   |
|                             |                                  | ø, inch               | 5/8                   | 5/8                   | 5/8                   | 5/8                    |                   |
| Drain Pipe (Quick lock)     | ø,mm                             | VP25 (OD 32,ID 25)    | VP25 (OD 32,ID 25)    | VP20 (OD 25, ID 20)   | VP20 (OD 25, ID 20)   |                        |                   |
| Dimensions                  | Net Weight                       | kg                    | 36.50                 | 36.50                 | 48.50                 | 50                     |                   |
|                             |                                  | lbs                   | 80.47                 | 80.47                 | 106.92                | 110.23                 |                   |
|                             | Shipping Weight                  | kg                    | 40.50                 | 40.50                 | 55.50                 | 57                     |                   |
|                             |                                  | lbs                   | 89.29                 | 89.29                 | 122.36                | 125.66                 |                   |
|                             | Net Dimensions (WxHxD)           | mm                    | 1,150 x 320 x 480     | 1,150 x 320 x 480     | 1,200 x 360 x 650     | 1200 x 360 x 650       |                   |
|                             |                                  | inch                  | 45.28 x 12.60 x 18.90 | 45.28 x 12.60 x 18.90 | 47.24 x 14.17 x 25.59 | 47.24 x 14.17 x 25.59  |                   |
| Shipping Dimensions (WxHxD) | mm                               | 1,420 x 400 x 595     | 1,420 x 400 x 595     | 1480 x 420 x 790      | 1480 x 420 x 790      |                        |                   |
|                             | inch                             | 55.91 x 15.75 x 23.43 | 55.91 x 15.75 x 23.43 | 58.27 x 16.54 x 31.10 | 58.27 x 16.54 x 31.10 |                        |                   |
| Panel Size                  | Panel model                      | -                     | -                     | -                     | -                     | -                      |                   |
|                             | Panel Net Weight                 | kg                    | -                     | -                     | -                     | -                      |                   |
|                             |                                  | lbs                   | -                     | -                     | -                     | -                      |                   |
|                             | Shipping Weight                  | kg                    | -                     | -                     | -                     | -                      |                   |
|                             |                                  | lbs                   | -                     | -                     | -                     | -                      |                   |
|                             | Net Dimensions (WxHxD)           | mm                    | -                     | -                     | -                     | -                      |                   |
| inches                      |                                  | -                     | -                     | -                     | -                     |                        |                   |
| Shipping Dimensions (WxHxD) | mm                               | -                     | -                     | -                     | -                     |                        |                   |
|                             | inch                             | -                     | -                     | -                     | -                     |                        |                   |
| Functions                   | Auto restart                     | -                     | O                     | O                     | O                     | O                      |                   |
|                             | Auto swing                       | -                     | X                     | X                     | X                     | X                      |                   |
|                             | Group/individual control         | -                     | O                     | O                     | O                     | O                      |                   |
|                             | External contact control         | -                     | O                     | O                     | O                     | O                      |                   |
|                             | Trouble shooting by LED          | -                     | X                     | X                     | X                     | X                      |                   |

| Model                |                                    |                | MSP-1          |                   | MSP-2             |                   |                   |
|----------------------|------------------------------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
|                      |                                    |                | AM030FNMDCH/AA | AM036FNMDCH/AA    | AM048FNMDCH/AA    | AM054KNMDCH/AZ    |                   |
| Standard accessories | Installation manual                |                | -              | O                 | O                 | O                 | O                 |
|                      | Operation manual                   |                | -              | O                 | O                 | O                 | O                 |
|                      | Pattern sheet for installation     |                | -              | X                 | X                 | X                 | X                 |
|                      | Flexible drain hose                |                | -              | O                 | O                 | O                 | O                 |
|                      | Filter/Safety grille               |                | -              | Filter (washable) | Filter (washable) | Filter (washable) | Filter (Washable) |
| Drain pump           | Drain pump                         | - / Model Name | MDP-M075SGU1D  | MDP-M075SGU1D     | MDP-M075SGU2D     | MDP-M075SGU2D     |                   |
|                      | Max. lifting Height / Displacement | mm / liter/h   | 750 / 24       | 750 / 24          | 750 / 24          | 750 / 24          |                   |
| Optional accessories | Wireless remote controller         |                | -              | MR-DH00U          | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                      | wired remote controller            |                | -              | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                      | External contact interface module  |                | -              | MIM-B14           | MIM-B14           | MIM-B14           | MIM-B14           |
|                      | Duct Receiver kits                 |                | -              | MRK-A10N          | MRK-A10N          | MRK-A10N          | MRK-A10N          |
|                      | EEV kits                           |                | -              | -                 | -                 | -                 | -                 |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

\*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ NEO FORTE(Small)

| Model                            |                             |                  | NEO FORTE - Small |                       |                       |                       |
|----------------------------------|-----------------------------|------------------|-------------------|-----------------------|-----------------------|-----------------------|
|                                  |                             |                  | AM007FNTDCH/AA    | AM009FNTDCH/AA        | AM012FNTDCH/AA        |                       |
| Power Supply                     |                             |                  | ø, #, V, Hz       | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        |
| Mode                             |                             |                  | -                 | HP/HR                 | HP/HR                 | HP/HR                 |
| Performance                      | Capacity (Nominal)          | Cooling 2)       | kW                | -                     | -                     | -                     |
|                                  |                             |                  | Btu/h             | 7,500                 | 9,500                 | 12,000                |
|                                  |                             | Heating 2)       | kW                | -                     | -                     | -                     |
|                                  |                             |                  | Btu/h             | 8,500                 | 10,500                | 13,500                |
| Condensate (with high fan speed) |                             | Liter/h          | -                 | -                     | -                     |                       |
| Power                            | Power Input (Nominal)       | Cooling 1)       | W                 | 37                    | 37                    | 45                    |
|                                  |                             | Heating 2)       | -                 | 37                    | 37                    | 45                    |
|                                  | Current Input (Nominal)     | Cooling 1)       | A                 | 0.25                  | 0.25                  | 0.3                   |
|                                  |                             | Heating 2)       | -                 | 0.25                  | 0.25                  | 0.3                   |
| Fan                              | Type                        |                  | -                 | Crossflow Fan         | Crossflow Fan         | Crossflow Fan         |
|                                  | Motor                       | Model            | -                 | RPG21Y                | RPG21Y                | RPG21Y                |
|                                  |                             | Type             | -                 | AC                    | AC                    | AC                    |
|                                  |                             | Output x n       | W                 | 23 x 1                | 23 x 1                | 23 x 1                |
|                                  | Air Flow Rate               | H/M/L            | CMM               | 7.80 / 6.80 / 5.80    | 7.80/6.80/5.80        | 9.30 / 8.30 / 7.30    |
|                                  | External Pressure           | Min / Std / Max  | Pa                | -                     | -                     | -                     |
| -                                |                             | WG               | -                 | -                     | -                     |                       |
| Sound                            | Sound Pressure              | High / Mid / Low | dBA               | 30/28/26              | 30/28/26              | 36/32/28              |
|                                  | Sound Power                 | High / Mid / Low | -                 | -                     | -                     | -                     |
| Refrigerant                      | Type                        |                  | -                 | R-410A                | R-410A                | R-410A                |
|                                  | Control Method              |                  | -                 | EEV NOT INCLUDED      | EEV NOT INCLUDED      | EEV NOT INCLUDED      |
| Temperature Control              |                             |                  | -                 | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     |
| Safety devices                   |                             |                  | -                 | Fuse                  | Fuse                  | Fuse                  |
| Piping Connections               | Liquid Pipe (FMR-DH00U)     |                  | ø,mm              | 6.35                  | 6.35                  | 6.35                  |
|                                  |                             |                  | ø, inch           | 1/4                   | 1/4                   | 1/4                   |
|                                  | Gas Pipe (Flare)            |                  | ø,mm              | 12.7                  | 12.7                  | 12.7                  |
|                                  |                             |                  | ø, inch           | 1/2                   | 1/2                   | 1/2                   |
| Drain Pipe (Quick lock)          |                             | ø,mm             | ID 18 HOSE        | ID 18 HOSE            | ID 18 HOSE            |                       |
| Dimensions                       | Net Weight                  |                  | kg                | 8.50                  | 8.50                  | 8.50                  |
|                                  |                             |                  | lbs               | 18.74                 | 18.74                 | 18.74                 |
|                                  | Shipping Weight             |                  | kg                | 11.00                 | 11.00                 | 11.00                 |
|                                  |                             |                  | lbs               | 24.25                 | 24.25                 | 24.25                 |
|                                  | Net Dimensions (WxHxD)      |                  | mm                | 825 x 285x 189        | 825 x 285x 189        | 825 x 285x 189        |
|                                  |                             |                  | inch              | 32.48 x 11.22 x 7.44  | 32.48 x 11.22 x 7.44  | 32.48 x 11.22 x 7.44  |
|                                  | Shipping Dimensions (WxHxD) |                  | mm                | 904 x 353 x 263       | 904 x 353 x 263       | 904 x 353 x 263       |
|                                  |                             |                  | inch              | 35.59 x 13.90 x 10.35 | 35.59 x 13.90 x 10.35 | 35.59 x 13.90 x 10.35 |
| Panel Size                       | Panel model                 |                  | -                 | -                     | -                     | -                     |
|                                  | Panel Net Weight            |                  | kg                | -                     | -                     | -                     |
|                                  |                             |                  | lbs               | -                     | -                     | -                     |
|                                  | Shipping Weight             |                  | kg                | -                     | -                     | -                     |
|                                  |                             |                  | lbs               | -                     | -                     | -                     |
|                                  | Net Dimensions (WxHxD)      |                  | mm                | -                     | -                     | -                     |
|                                  |                             |                  | inches            | -                     | -                     | -                     |
|                                  | Shipping Dimensions (WxHxD) |                  | mm                | -                     | -                     | -                     |
| inch                             |                             |                  | -                 | -                     | -                     |                       |
| Functions                        | Auto restart                |                  | -                 | O                     | O                     | O                     |
|                                  | Auto swing                  |                  | -                 | O                     | O                     | O                     |
|                                  | Group/individual control    |                  | -                 | O                     | O                     | O                     |
|                                  | External contact control    |                  | -                 | O                     | O                     | O                     |
|                                  | Trouble shooting by LED     |                  | -                 | O                     | O                     | O                     |

| Model                              |                                   |               | NEO FORTE - Small |                   |                   |                   |
|------------------------------------|-----------------------------------|---------------|-------------------|-------------------|-------------------|-------------------|
|                                    |                                   |               | AM007FNTDCH/AA    | AM009FNTDCH/AA    | AM012FNTDCH/AA    |                   |
| Standard accessories               | Installation manual               |               | -                 | O                 | O                 | O                 |
|                                    | Operation manual                  |               | -                 | O                 | O                 | O                 |
|                                    | Pattern sheet for installation    |               | -                 | X                 | X                 | X                 |
|                                    | Flexible drain hose               |               | -                 | O                 | O                 | O                 |
|                                    | Filter/Safety grille              |               | -                 | Filter (washable) | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump    | - / Model Name    | -                 | -                 | -                 |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | -                 | -                 | -                 |                   |
| Optional accessories               | Wireless remote controller        |               | -                 | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |               | -                 | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |               | -                 | MIM-B14           | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | Receiver      | -                 | -                 | -                 | -                 |
|                                    |                                   | Receiver wire | -                 | -                 | -                 | -                 |
|                                    | EEV kits                          |               | -                 | MXD, MEV series   | MXD, MEV series   | MXD, MEV series   |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ NEO FORTE (Large)

| Model                            |                             |                  | Large                 |                       |                       |                   |
|----------------------------------|-----------------------------|------------------|-----------------------|-----------------------|-----------------------|-------------------|
|                                  |                             |                  | AM018FNTDCH/AA        | AM020FNTDCH/AA        | AM024FNTDCH/AA        |                   |
| Power Supply                     |                             | ø, #, V, Hz      | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60        |                   |
| Mode                             |                             | -                | HP/HR                 | HP/HR                 | HP/HR                 |                   |
| Performance                      | Capacity (Nominal)          | Cooling 2)       | kW                    | -                     | -                     | -                 |
|                                  |                             |                  | Btu/h                 | 18,000                | 20,000                | 23,200            |
|                                  |                             | Heating 2)       | kW                    | -                     | -                     | -                 |
|                                  |                             |                  | Btu/h                 | 20,000                | 23,000                | 23,800            |
| Condensate (with high fan speed) |                             | Liter/h          | -                     | -                     | -                     |                   |
| Power                            | Power Input (Nominal)       | Cooling 1)       | W                     | 55                    | 57                    | 60                |
|                                  |                             | Heating 2)       | -                     | 55                    | 57                    | 60                |
|                                  | Current Input (Nominal)     | Cooling 1)       | A                     | 0.36                  | 0.38                  | 0.4               |
|                                  |                             | Heating 2)       | -                     | 0.36                  | 0.38                  | 0.4               |
| Fan                              | Type                        |                  | -                     | Crossflow Fan         | Crossflow Fan         | Crossflow Fan     |
|                                  | Motor                       | Model            | -                     | YDK-045S42213-02      | YDK-045S42213-02      | YDK-045S42213-02  |
|                                  |                             | Type             | -                     | AC                    | AC                    | AC                |
|                                  |                             | Output x n       | W                     | 40 x 1                | 40 x 1                | 40 x 1            |
|                                  | Air Flow Rate               | H/M/L            | CMM                   | 12.00/10.50/9.00      | 13.0/12.0/11.0        | 14.00/12.50/11.00 |
|                                  | External Pressure           | Min / Std / Max  | Pa                    | -                     | -                     | -                 |
| -                                |                             | WG               | -                     | -                     | -                     |                   |
| Sound                            | Sound Pressure              | High / Mid / Low | dBA                   | 39/37/34              | 42/40/35              | 44/41/35          |
|                                  | Sound Power                 | High / Mid / Low | -                     | -                     | -                     | -                 |
| Refrigerant                      | Type                        |                  | -                     | R-410A                | R-410A                | R-410A            |
|                                  | Control Method              |                  | -                     | EEV NOT INCLUDED      | EEV NOT INCLUDED      | EEV NOT INCLUDED  |
| Temperature Control              |                             | -                | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors     |                   |
| Safety devices                   |                             | -                | Fuse                  | Fuse                  | Fuse                  |                   |
| Piping Connections               | Liquid Pipe (Flare)         | ø,mm             | 6.35                  | 6.35                  | 9.52                  |                   |
|                                  |                             | ø, inch          | 1/4                   | 1/4                   | 3/8                   |                   |
|                                  | Gas Pipe (Flare)            | ø,mm             | 12.7                  | 12.7                  | 15.88                 |                   |
|                                  |                             | ø, inch          | 1/2                   | 1/2                   | 5/8                   |                   |
|                                  | Drain Pipe (Quick lock)     |                  | ø,mm                  | ID 18 HOSE            | ID 18 HOSE            | ID 18 HOSE        |
| Dimensions                       | Net Weight                  | kg               | 12.50                 | 12.50                 | 12.50                 |                   |
|                                  |                             | lbs              | 27.56                 | 27.56                 | 27.56                 |                   |
|                                  | Shipping Weight             | kg               | 15.50                 | 15.50                 | 15.50                 |                   |
|                                  |                             | lbs              | 34.17                 | 34.17                 | 34.17                 |                   |
|                                  | Net Dimensions (WxHxD)      | mm               | 1,065 x 298 x 218     | 1,065 x 298 x 218     | 1,065 x 298 x 218     |                   |
|                                  |                             | inch             | 41.93 x 11.73 x 8.58  | 41.93 x 11.73 x 8.58  | 41.93 x 11.73 x 8.58  |                   |
|                                  | Shipping Dimensions (WxHxD) | mm               | 1,138 x 378 x 301     | 1,138 x 378 x 301     | 1,138 x 378 x 301     |                   |
|                                  |                             | inch             | 44.80 x 14.88 x 11.85 | 44.80 x 14.88 x 11.85 | 44.80 x 14.88 x 11.85 |                   |
| Panel Size                       | Panel model                 |                  | -                     | -                     | -                     |                   |
|                                  | Panel Net Weight            | kg               | -                     | -                     | -                     |                   |
|                                  |                             | lbs              | -                     | -                     | -                     |                   |
|                                  | Shipping Weight             | kg               | -                     | -                     | -                     |                   |
|                                  |                             | lbs              | -                     | -                     | -                     |                   |
|                                  | Net Dimensions (WxHxD)      |                  | mm                    | -                     | -                     | -                 |
|                                  | Shipping Dimensions (WxHxD) |                  | mm                    | -                     | -                     | -                 |
|                                  |                             |                  | inch                  | -                     | -                     | -                 |
| Functions                        | Auto restart                |                  | -                     | O                     | O                     | O                 |
|                                  | Auto swing                  |                  | -                     | O                     | O                     | O                 |
|                                  | Group/individual control    |                  | -                     | O                     | O                     | O                 |
|                                  | External contact control    |                  | -                     | O                     | O                     | O                 |
|                                  | Trouble shooting by LED     |                  | -                     | O                     | O                     | O                 |

| Model                              |                                   |               | Large          |                   |                   |                   |
|------------------------------------|-----------------------------------|---------------|----------------|-------------------|-------------------|-------------------|
|                                    |                                   |               | AM018FNTDCH/AA | AM020FNTDCH/AA    | AM024FNTDCH/AA    |                   |
| Standard accessories               | Installation manual               |               | -              | O                 | O                 | O                 |
|                                    | Operation manual                  |               | -              | O                 | O                 | O                 |
|                                    | Pattern sheet for installation    |               | -              | X                 | X                 | X                 |
|                                    | Flexible drain hose               |               | -              | O                 | O                 | O                 |
|                                    | Filter/Safety grille              |               | -              | Filter (washable) | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump    | - / Model Name | -                 | -                 | -                 |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | -              | -                 | -                 |                   |
| Optional accessories               | Wireless remote controller        |               | -              | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |               | -              | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |               | -              | MIM-B14           | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | Receiver      | -              | -                 | -                 | -                 |
|                                    |                                   | Receiver wire | -              | -                 | -                 | -                 |
|                                    | EEV kits                          |               | -              | MXD, MEV series   | MXD, MEV series   | MXD, MEV series   |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ NEO FORTE (with EEV)(Small)

| Model                            |                             |                  | NEO FORTE (with EEV)-Small |                       |                       |                    |
|----------------------------------|-----------------------------|------------------|----------------------------|-----------------------|-----------------------|--------------------|
|                                  |                             |                  | AM007HNQDCH/AA             | AM009HNQDCH/AA        | AM012HNQDCH/AA        |                    |
| Power Supply                     |                             | ø, #, V, Hz      | 1,2,208-230,60             | 1,2,208-230,60        | 1,2,208-230,60        |                    |
| Mode                             |                             | -                | HP/HR                      | HP/HR                 | HP/HR                 |                    |
| Performance                      | Capacity (Nominal)          | Cooling 2)       | kW                         | -                     | -                     |                    |
|                                  |                             |                  | Btu/h                      | 7,500                 | 9,500                 | 12,000             |
|                                  |                             | Heating 2)       | kW                         | -                     | -                     | -                  |
|                                  |                             |                  | Btu/h                      | 8,500                 | 10,500                | 13,500             |
| Condensate (with high fan speed) |                             | Liter/h          | -                          | -                     | -                     |                    |
| Power                            | Power Input (Nominal)       | Cooling 1)       | W                          | 37                    | 37                    | 45                 |
|                                  |                             | Heating 2)       | -                          | 37                    | 37                    | 45                 |
|                                  | Current Input (Nominal)     | Cooling 1)       | A                          | 0.25                  | 0.25                  | 0.3                |
|                                  |                             | Heating 2)       | -                          | 0.25                  | 0.25                  | 0.3                |
| Fan                              | Type                        |                  | -                          | Crossflow Fan         | Crossflow Fan         | Crossflow Fan      |
|                                  | Motor                       | Model            | -                          | RPG21Y                | RPG21Y                | RPG21Y             |
|                                  |                             | Type             | -                          | AC                    | AC                    | AC                 |
|                                  |                             | Output x n       | W                          | 23 x 1                | 23 x 1                | 23 x 1             |
|                                  | Air Flow Rate               | H/M/L            | CMM                        | 7.80 / 6.80 / 5.80    | 7.80/6.80/5.80        | 9.30 / 8.30 / 7.30 |
|                                  | External Pressure           | Min / Std / Max  | Pa                         | -                     | -                     | -                  |
| -                                |                             | WG               | -                          | -                     | -                     |                    |
| Sound                            | Sound Pressure              | High / Mid / Low | dBA                        | 31/29/26              | 31/29/26              | 37/33/29           |
|                                  | Sound Power                 | High / Mid / Low | -                          | -                     | -                     | -                  |
| Refrigerant                      | Type                        |                  | -                          | R-410A                | R-410A                | R-410A             |
|                                  | Control Method              |                  | -                          | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED       |
| Temperature Control              |                             | -                | Micom&Thermistors          | Micom&Thermistors     | Micom&Thermistors     |                    |
| Safety devices                   |                             | -                | Fuse                       | Fuse                  | Fuse                  |                    |
| Piping Connections               | Liquid Pipe (FMR-DH00U)     | ø,mm             | 6.35                       | 6.35                  | 6.35                  |                    |
|                                  |                             | ø, inch          | 1/4                        | 1/4                   | 1/4                   |                    |
|                                  | Gas Pipe (Flare)            | ø,mm             | 12.7                       | 12.7                  | 12.7                  |                    |
|                                  |                             | ø, inch          | 1/2                        | 1/2                   | 1/2                   |                    |
| Drain Pipe (Quick lock)          | ø,mm                        | ID 18 HOSE       | ID 18 HOSE                 | ID 18 HOSE            |                       |                    |
| Dimensions                       | Net Weight                  | kg               | 8.80                       | 8.80                  | 8.80                  |                    |
|                                  |                             | lbs              | 19.40                      | 19.40                 | 19.40                 |                    |
|                                  | Shipping Weight             | kg               | 11.30                      | 11.30                 | 11.30                 |                    |
|                                  |                             | lbs              | 24.91                      | 24.91                 | 24.91                 |                    |
|                                  | Net Dimensions (WxHxD)      | mm               | 825 x 285x 189             | 825 x 285x 189        | 825 x 285x 189        |                    |
|                                  |                             | inch             | 32.48 x 11.22 x 7.44       | 32.48 x 11.22 x 7.44  | 32.48 x 11.22 x 7.44  |                    |
|                                  | Shipping Dimensions (WxHxD) | mm               | 904 x 353 x 263            | 904 x 353 x 263       | 904 x 353 x 263       |                    |
|                                  |                             | inch             | 35.59 x 13.90 x 10.35      | 35.59 x 13.90 x 10.35 | 35.59 x 13.90 x 10.35 |                    |
| Panel Size                       | Panel model                 |                  | -                          | -                     | -                     |                    |
|                                  | Panel Net Weight            | kg               | -                          | -                     | -                     |                    |
|                                  |                             | lbs              | -                          | -                     | -                     |                    |
|                                  | Shipping Weight             | kg               | -                          | -                     | -                     |                    |
|                                  |                             | lbs              | -                          | -                     | -                     |                    |
|                                  | Net Dimensions (WxHxD)      | mm               | -                          | -                     | -                     |                    |
|                                  |                             | inches           | -                          | -                     | -                     |                    |
|                                  | Shipping Dimensions (WxHxD) | mm               | -                          | -                     | -                     |                    |
| inch                             |                             | -                | -                          | -                     |                       |                    |
| Functions                        | Auto restart                |                  | -                          | O                     | O                     | O                  |
|                                  | Auto swing                  |                  | -                          | O                     | O                     | O                  |
|                                  | Group/individual control    |                  | -                          | O                     | O                     | O                  |
|                                  | External contact control    |                  | -                          | O                     | O                     | O                  |
|                                  | Trouble shooting by LED     |                  | -                          | O                     | O                     | O                  |

| Model                              |                                   |               | NEO FORTE (with EEV)-Small |                   |                   |                   |
|------------------------------------|-----------------------------------|---------------|----------------------------|-------------------|-------------------|-------------------|
|                                    |                                   |               | AM007HNQDCH/AA             | AM009HNQDCH/AA    | AM012HNQDCH/AA    |                   |
| Standard accessories               | Installation manual               |               | -                          | O                 | O                 | O                 |
|                                    | Operation manual                  |               | -                          | O                 | O                 | O                 |
|                                    | Pattern sheet for installation    |               | -                          | X                 | X                 | X                 |
|                                    | Flexible drain hose               |               | -                          | O                 | O                 | O                 |
|                                    | Filter/Safety grille              |               | -                          | Filter (washable) | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump    | - / Model Name             | -                 | -                 | -                 |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | -                          | -                 | -                 |                   |
| Optional accessories               | Wireless remote controller        |               | -                          | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |               | -                          | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |               | -                          | MIM-B14           | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | Receiver      | -                          | -                 | -                 | -                 |
|                                    |                                   | Receiver wire | -                          | -                 | -                 | -                 |
|                                    | EEV kits                          |               | -                          | -                 | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ NEO FORTE (with EEV)(Large)

| Model                            |                          |                       | Large                 |                       |                      |                  |
|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|----------------------|------------------|
|                                  |                          |                       | AM018HNQDCH/AA        | AM020HNQDCH/AA        | AM024HNQDCH/AA       |                  |
| Power Supply                     |                          | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        | 1,2,208-230,60       |                  |
| Mode                             |                          | -                     | HP/HR                 | HP/HR                 | HP/HR                |                  |
| Performance                      | Capacity (Nominal)       | Cooling 2)            | kW                    | -                     | -                    |                  |
|                                  |                          |                       | Btu/h                 | 18,000                | 20,000               | 23,200           |
|                                  |                          | Heating 2)            | kW                    | -                     | -                    | -                |
|                                  |                          |                       | Btu/h                 | 20,000                | 23,000               | 23,800           |
| Condensate (with high fan speed) |                          | Liter/h               | -                     | -                     | -                    |                  |
| Power                            | Power Input (Nominal)    | Cooling 1)            | W                     | 55                    | 57                   | 60               |
|                                  |                          | Heating 2)            | -                     | 55                    | 57                   | 60               |
|                                  | Current Input (Nominal)  | Cooling 1)            | A                     | 0.36                  | 0.38                 | 0.4              |
|                                  |                          | Heating 2)            | -                     | 0.36                  | 0.38                 | 0.4              |
| Fan                              | Type                     | -                     | Crossflow Fan         | Crossflow Fan         | Crossflow Fan        |                  |
|                                  | Motor                    | Model                 | -                     | YDK-045S42213-02      | YDK-045S42213-02     | YDK-045S42213-02 |
|                                  |                          | Type                  | -                     | AC                    | AC                   | AC               |
|                                  |                          | Output x n            | W                     | 40 x 1                | 40 x 1               | 40 x 1           |
|                                  | Air Flow Rate            | H/M/L                 | CMM                   | 12.00/10.50/9.00      | 13.0/12.0/11.0       | 14.0/12.5/11.0   |
|                                  | External Pressure        | Min / Std / Max       | Pa                    | -                     | -                    | -                |
| -                                |                          | WG                    | -                     | -                     | -                    |                  |
| Sound                            | Sound Pressure           | High / Mid / Low      | dBA                   | 39/37/34              | 42/39/35             | 45/40/35         |
|                                  | Sound Power              | High / Mid / Low      | -                     | -                     | -                    | -                |
| Refrigerant                      | Type                     | -                     | R-410A                | R-410A                | R-410A               |                  |
|                                  | Control Method           | -                     | EEV INCLUDED          | EEV INCLUDED          | EEV INCLUDED         |                  |
| Temperature Control              |                          | -                     | Micom&Thermistors     | Micom&Thermistors     | Micom&Thermistors    |                  |
| Safety devices                   |                          | -                     | Fuse                  | Fuse                  | Fuse                 |                  |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                  | 6.35                  | 6.35                  | 9.52                 |                  |
|                                  |                          | ø, inch               | 1/4                   | 1/4                   | 3/8                  |                  |
|                                  | Gas Pipe (Flare)         | ø,mm                  | 12.7                  | 12.7                  | 15.88                |                  |
|                                  |                          | ø, inch               | 1/2                   | 1/2                   | 5/8                  |                  |
| Drain Pipe (Quick lock)          | ø,mm                     | ID 18 HOSE            | ID 18 HOSE            | ID 18 HOSE            |                      |                  |
| Dimensions                       | Net Weight               | kg                    | 13.00                 | 13.00                 | 13.00                |                  |
|                                  |                          | lbs                   | 28.66                 | 28.66                 | 28.66                |                  |
|                                  | Shipping Weight          | kg                    | 16.00                 | 16.00                 | 16.00                |                  |
|                                  |                          | lbs                   | 35.27                 | 35.27                 | 35.27                |                  |
|                                  | Net Dimensions (WxHxD)   | mm                    | 1,065 x 298 x 218     | 1,065 x 298 x 218     | 1,065 x 298 x 218    |                  |
|                                  |                          | inch                  | 41.93 x 11.73 x 8.58  | 41.93 x 11.73 x 8.58  | 41.93 x 11.73 x 8.58 |                  |
| Shipping Dimensions (WxHxD)      | mm                       | 1,138 x 378 x 301     | 1,138 x 378 x 301     | 1,138 x 378 x 301     |                      |                  |
|                                  | inch                     | 44.80 x 14.88 x 11.85 | 44.80 x 14.88 x 11.85 | 44.80 x 14.88 x 11.85 |                      |                  |
| Panel Size                       | Panel model              | -                     | -                     | -                     | -                    |                  |
|                                  | Panel Net Weight         | kg                    | -                     | -                     | -                    |                  |
|                                  |                          | lbs                   | -                     | -                     | -                    |                  |
|                                  | Shipping Weight          | kg                    | -                     | -                     | -                    |                  |
|                                  |                          | lbs                   | -                     | -                     | -                    |                  |
|                                  | Net Dimensions (WxHxD)   | mm                    | -                     | -                     | -                    |                  |
| Shipping Dimensions (WxHxD)      | mm                       | -                     | -                     | -                     |                      |                  |
|                                  | inch                     | -                     | -                     | -                     |                      |                  |
| Functions                        | Auto restart             | -                     | O                     | O                     | O                    |                  |
|                                  | Auto swing               | -                     | O                     | O                     | O                    |                  |
|                                  | Group/individual control | -                     | O                     | O                     | O                    |                  |
|                                  | External contact control | -                     | O                     | O                     | O                    |                  |
|                                  | Trouble shooting by LED  | -                     | O                     | O                     | O                    |                  |

| Model                              |                                   |               | Large          |                   |                   |                   |
|------------------------------------|-----------------------------------|---------------|----------------|-------------------|-------------------|-------------------|
|                                    |                                   |               | AM018HNQDCH/AA | AM020HNQDCH/AA    | AM024HNQDCH/AA    |                   |
| Standard accessories               | Installation manual               |               | -              | O                 | O                 | O                 |
|                                    | Operation manual                  |               | -              | O                 | O                 | O                 |
|                                    | Pattern sheet for installation    |               | -              | X                 | X                 | X                 |
|                                    | Flexible drain hose               |               | -              | O                 | O                 | O                 |
|                                    | Filter/Safety grille              |               | -              | Filter (washable) | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump    | - / Model Name | -                 | -                 | -                 |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | -              | -                 | -                 |                   |
| Optional accessories               | Wireless remote controller        |               | -              | MR-DH00U          | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |               | -              | MWR-WE10N         | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |               | -              | MIM-B14           | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | Receiver      | -              | -                 | -                 | -                 |
|                                    |                                   | Receiver wire | -              | -                 | -                 | -                 |
|                                    | EEV kits                          |               | -              | -                 | -                 | -                 |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.



**Indoor Unit(cont.)**

**■ Wall Mounted type (Boracay with EEV)**

| Model                             |                                   | AW007KQDCH/AZ           | AW009KQDCH/AZ           | AW1012KQDCH/AZ          | AW1018KQDCH/AZ          | AW020KQDCH/AZ           | AW024KQDCH/AZ           |
|-----------------------------------|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Power Supply Mode                 | Power Supply                      | 1,208~230.60            | 1,208~230.60            | 1,208~230.60            | 1,208~230.60            | 1,208~230.60            | 1,208~230.60            |
|                                   | Mode                              | HP / HR                 |
| Performance                       | Capacity (Nominal)                | -                       | 9,500                   | 12,000                  | 18,000                  | 20,000                  | 23,200                  |
|                                   | Condensate (with high fan speed)  | -                       | 8,500                   | 10,500                  | 13,500                  | 20,000                  | 23,800                  |
|                                   | Power (input (Nominal))           | 30                      | 39                      | 42                      | 57                      | 57                      | 60                      |
|                                   | Current (input (Nominal))         | 0.18                    | 0.21                    | 0.22                    | 0.32                    | 0.32                    | 0.32                    |
| Power                             | Power (input (Nominal))           | 36                      | 40                      | 40                      | 57                      | 57                      | 62                      |
|                                   | Current (input (Nominal))         | 0.20                    | 0.21                    | 0.22                    | 0.32                    | 0.32                    | 0.32                    |
| Fan                               | Type                              | Crossflow Fan 094H/L601 |
|                                   | Model                             | Y45476B223L             | Y45476B223L             | Y45476B223L             | Y45476B223L             | Y45476B223L             | Y45476B223L             |
|                                   | Type                              | SSR Feedback            |
|                                   | Motor                             | W                       | W                       | W                       | W                       | W                       | W                       |
| Air Flow Rate                     | Min./Std./Max                     | 6.60/5.70/5.10          | 7.00/6.20/5.50          | 8.50/7.50/6.60          | 14.40/12.90/11.20       | 14.40/12.90/11.20       | 15.70/14.10/12.90       |
|                                   | External Pressure                 | Pa                      | Pa                      | Pa                      | Pa                      | Pa                      | Pa                      |
| Sound Level                       | WG                                | -                       | -                       | -                       | -                       | -                       | -                       |
|                                   | dB(A)                             | 36                      | 35                      | 41                      | 44                      | 44                      | 45                      |
| Refrigerant                       | Type                              | R410a                   | R410a                   | R410a                   | R410a                   | R410a                   | R410a                   |
|                                   | Control Method                    | EDM EEV 1.3C            |
| Temperature Control               | Control Method                    | Micom&Thermistors       | Micom&Thermistors       | Micom&Thermistors       | Micom&Thermistors       | Micom&Thermistors       | Micom&Thermistors       |
|                                   | Safety devices                    | Fuse: 1.6A              |
| Piping Connections                | Liquid Pipe (Flare)               | ø/mm                    | 6.35                    | 6.35                    | 6.35                    | 6.35                    | 6.35                    |
|                                   | Gas Pipe (Flare)                  | ø/mm                    | 1/4"                    | 1/4"                    | 1/4"                    | 1/4"                    | 3/8"                    |
| Dimensions                        | Net Weight                        | kg                      | 18.7                    | 19.8                    | 19.8                    | 27.6                    | 27.6                    |
|                                   | Shipping Weight                   | kg                      | 21.6                    | 22.7                    | 22.7                    | 31.3                    | 31.3                    |
| Functions                         | Auto Restart                      | -                       | O                       | O                       | O                       | O                       | O                       |
|                                   | Auto Swing                        | -                       | O                       | O                       | O                       | O                       | O                       |
| Standard Accessories              | Group/Individual Control          | -                       | O                       | O                       | O                       | O                       | O                       |
|                                   | External Contact Control          | -                       | O                       | O                       | O                       | O                       | O                       |
| Optional Accessories              | Trouble Shooting by LED           | -                       | O                       | O                       | O                       | O                       | O                       |
|                                   | Installation Manual               | -                       | O                       | O                       | O                       | O                       | O                       |
| Pattern Sheet for Installation    | Operation Manual                  | -                       | O                       | O                       | O                       | O                       | O                       |
|                                   | Flexible Drain Hose               | -                       | X                       | X                       | X                       | X                       | X                       |
| Filter / Safety Grille            | Filter (Washable)                 | -                       | O                       | O                       | O                       | O                       | O                       |
|                                   | Wireless remote controller        | -                       | MR-DH00U                | MR-DH00U                | MR-DH00U                | MR-DH00U                | MR-DH00U                |
| External contact Interface module | Wired remote controller           | -                       | MWR-WE10N               | MWR-WE10N               | MWR-WE10N               | MWR-WE10N               | MWR-WE10N               |
|                                   | External contact Interface module | -                       | MMA-B14                 | MMA-B14                 | MMA-B14                 | MMA-B14                 | MMA-B14                 |
| EEV kits                          | EEV kits                          | -                       | -                       | -                       | -                       | -                       | -                       |

\*)1) Mode  
 - HP : Heat Pump, HR : Heat Recovery  
 \*)2) Nominal cooling capacities are based on:  
 - Indoor temperature : 27°C DB, 19°C WB  
 - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m  
 \*)3) Nominal heating capacities are based on:  
 - Indoor temperature : 20°C DB, 15°C WB  
 - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m  
 \*)4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.  
 \*)5) Specifications may be subject to change without prior notice for product improvement.

**Indoor Unit(cont.)**

**■ Wall Mounted type (Boracay without EEV)**

| Model                             |                                   | AM007KNTDCH/AZ         | AM009KNTDCH/AZ         | AM1012KNTDCH/AZ        | AM1018KNTDCH/AZ        | AM200KNTDCH/AZ         | AM024KNTDCH/AZ         |
|-----------------------------------|-----------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Power Supply Mode                 | Power Supply                      | 1,208~230.60           | 1,208~230.60           | 1,208~230.60           | 1,208~230.60           | 1,208~230.60           | 1,208~230.60           |
|                                   | Mode                              | HP / HR                |
| Performance                       | Capacity (Nominal)                | -                      | 9,500                  | 12,000                 | 18,000                 | 20,000                 | 23,200                 |
|                                   | Condensate (with high fan speed)  | 8,500                  | 10,500                 | 13,500                 | 20,000                 | 23,000                 | 23,800                 |
| Power                             | Power Input (Nominal)             | 30                     | 39                     | 42                     | 57                     | 57                     | 60                     |
|                                   | Current Input (Nominal)           | 0.18                   | 0.21                   | 0.22                   | 0.32                   | 0.32                   | 0.32                   |
| Fan                               | Type                              | Crossflow Fan 094H1601 |
|                                   | Motor                             | Y45476B223L            | Y45476B223L            | Y45476B223L            | Y45476B223L            | Y45476B223L            | Y45476B223L            |
| Sound Level                       | Air Flow Rate                     | 6.60/5.70/5.10         | 7.00/6.20/5.50         | 8.50/7.50/6.60         | 14.40/12.90/11.20      | 14.40/12.90/11.20      | 15.70/14.10/12.90      |
|                                   | External Pressure                 | Pa                     | Pa                     | Pa                     | Pa                     | Pa                     | Pa                     |
| Refrigerant                       | Control Method                    | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      |
|                                   | Control Method                    | Pa                     | Pa                     | Pa                     | Pa                     | Pa                     | Pa                     |
| Safety devices                    | Temperature Control               | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      | Micro&Thermistors      |
|                                   | Safety devices                    | Fuse: 1.6A             |
| Piping Connections                | Liquid Pipe (Flare)               | ø/mm                   | 6.35                   | 6.35                   | 6.35                   | 6.35                   | 6.35                   |
|                                   | Gas Pipe (Flare)                  | ø/mm                   | 1/4"                   | 1/4"                   | 1/4"                   | 1/4"                   | 1/4"                   |
| Dimensions                        | Net Weight                        | kg                     | 8.0                    | 8.5                    | 8.5                    | 12.0                   | 12.0                   |
|                                   | Shipping Weight                   | kg                     | 9.3                    | 9.8                    | 18.7                   | 13.7                   | 13.7                   |
| Functions                         | Auto Restart                      | -                      | O                      | O                      | O                      | O                      | O                      |
|                                   | Auto Swing                        | -                      | O                      | O                      | O                      | O                      | O                      |
| Standard Accessories              | Group/Individual Control          | -                      | O                      | O                      | O                      | O                      | O                      |
|                                   | External Contact Control          | -                      | O                      | O                      | O                      | O                      | O                      |
| Optional Accessories              | Trouble Shooting by LED           | -                      | O                      | O                      | O                      | O                      | O                      |
|                                   | Installation Manual               | -                      | O                      | O                      | O                      | O                      | O                      |
| Filter (Washable)                 | Operation Manual                  | -                      | O                      | O                      | O                      | O                      | O                      |
|                                   | Pattern Sheet for Installation    | -                      | X                      | X                      | X                      | X                      | X                      |
| Wired remote controller           | Flexible Drain Hose               | -                      | O                      | O                      | O                      | O                      | O                      |
|                                   | External contact interface module | -                      | O                      | O                      | O                      | O                      | O                      |
| EEV kits                          | Filter / Safety Grille            | -                      | Filter (Washable)      |
|                                   | Wired remote controller           | -                      | MR-DH00U               | MR-DH00U               | MR-DH00U               | MR-DH00U               | MR-DH00U               |
| External contact interface module | External contact interface module | -                      | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              | MWR-WE10N              |
|                                   | EEV kits                          | -                      | MMW-B14                | MMW-B14                | MMW-B14                | MMW-B14                | MMW-B14                |

1) Mode  
 -HP: Heat Pump, HR: Heat Recovery  
 2) Nominal cooling capacities are based on:  
 -Indoor temperature: 27°C DB, 19°C WB  
 -Outdoor temperature: 35°C DB, 24°C WB, Equivalent refrigerant piping: 7.5m, Level differences: 0m  
 3) Nominal heating capacities are based on:  
 -Indoor temperature: 20°C DB, 15°C WB  
 -Outdoor temperature: 7°C DB, 6°C WB, Equivalent refrigerant piping: 7.5m, Level differences: 0m  
 4) Sound pressure was acquired in a dead room. This actual noise level may be different depending on the installation conditions.  
 5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ HSP DUCT (Small)

| Model                            |                          |                    |                      | Large                        |                              |
|----------------------------------|--------------------------|--------------------|----------------------|------------------------------|------------------------------|
|                                  |                          |                    |                      | AM036FNHDCH/AA               | AM048FNHDCH/AA               |
| Power Supply                     |                          |                    | ø, #, V, Hz          | 1,2,208-230,60               | 1,2,208-230,60               |
| Mode                             |                          |                    | -                    | HP/HR                        | HP/HR                        |
| Performance                      | Capacity (Nominal)       | Cooling 2)         | kW                   | -                            | -                            |
|                                  |                          |                    | Btu/h                | 36,000                       | 48,000                       |
|                                  |                          | Heating 2)         | kW                   | -                            | -                            |
|                                  |                          |                    | Btu/h                | 40,000                       | 54,000                       |
| Condensate (with high fan speed) |                          | Liter/h            | -                    | -                            |                              |
| Power                            | Power Input (Nominal)    | Cooling 1)         | W                    | 210                          | 330                          |
|                                  |                          | Heating 2)         | -                    | 210                          | 330                          |
|                                  | Current Input (Nominal)  | Cooling 1)         | A                    | 1.47                         | 2.38                         |
|                                  |                          | Heating 2)         | -                    | 1.47                         | 2.38                         |
| Fan                              | Type                     |                    | -                    | Sirocco Fan                  | Sirocco Fan                  |
|                                  | Motor                    | Model              | -                    | ZWD-183-BA01<br>ZWD-183-BA02 | ZWD-183-BA01<br>ZWD-183-BA02 |
|                                  |                          | Type               | -                    | BLDC                         | BLDC                         |
|                                  |                          | Output x n         | W                    | 183 x 2                      | 183 x 2                      |
|                                  | Air Flow Rate            | H/M/L              | CMM                  | 28 / - / -                   | 39 / - / -                   |
|                                  | External Pressure        | Min / Std / Max    | Pa                   | 49.03 / 98.06 / 196.13       | 49.03 / 98.06 / 196.13       |
| -                                |                          | WG                 | 5.00 / 10.00 / 20.00 | 5.00 / 10.00 / 20.00         |                              |
| Sound                            | Sound Pressure           | High / Mid / Low   | dBa                  | 40.0 / - / 37.0              | 44.0 / - / 40.0              |
|                                  | Sound Power              | High / Mid / Low   | -                    | -                            | -                            |
| Refrigerant                      | Type                     |                    | -                    | R-410A                       | R-410A                       |
|                                  | Control Method           |                    | -                    | EEV INCLUDED                 | EEV INCLUDED                 |
| Temperature Control              |                          |                    | -                    | Micom&Thermistors            | Micom&Thermistors            |
| Safety devices                   |                          |                    | -                    | Fuse                         | Fuse                         |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm               | 9.52                 | 9.52                         |                              |
|                                  |                          | ø, inch            | 3/8                  | 3/8                          |                              |
|                                  | Gas Pipe (Flare)         | ø,mm               | 15.88                | 15.88                        |                              |
|                                  |                          | ø, inch            | 5/8                  | 5/8                          |                              |
| Drain Pipe (Quick lock)          |                          | ø,mm               | VP25 (OD 32, ID 25)  | VP25 (OD 32, ID 25)          |                              |
| Dimensions                       | Net Weight               | kg                 | 56                   | 56                           |                              |
|                                  |                          | lbs                | 123.5                | 123.5                        |                              |
|                                  | Shipping Weight          | kg                 | 63                   | 63                           |                              |
|                                  |                          | lbs                | 138.9                | 138.9                        |                              |
|                                  | Net Dimensions (WxHxD)   | mm                 | 1,200 x 360 x 650    | 1,200 x 360 x 650            |                              |
|                                  |                          | inch               | 47.2 x 14.2 x 25.6   | 47.2 x 14.2 x 25.6           |                              |
| Shipping Dimensions (WxHxD)      | mm                       | 1,456 x 432 x 784  | 1,456 x 432 x 784    |                              |                              |
|                                  | inch                     | 57.3 x 17.0 x 30.9 | 57.3 x 17.0 x 30.9   |                              |                              |
| Panel Size                       | Panel model              |                    | -                    | -                            | -                            |
|                                  | Panel Net Weight         | kg                 | -                    | -                            |                              |
|                                  |                          | lbs                | -                    | -                            |                              |
|                                  | Shipping Weight          | kg                 | -                    | -                            |                              |
|                                  |                          | lbs                | -                    | -                            |                              |
|                                  | Net Dimensions (WxHxD)   | mm                 | -                    | -                            |                              |
|                                  |                          | inches             | -                    | -                            |                              |
| Shipping Dimensions (WxHxD)      | mm                       | -                  | -                    |                              |                              |
|                                  | inch                     | -                  | -                    |                              |                              |
| Functions                        | Auto restart             |                    | -                    | O                            | O                            |
|                                  | Auto swing               |                    | -                    | X                            | X                            |
|                                  | Group/individual control |                    | -                    | O                            | O                            |
|                                  | External contact control |                    | -                    | O                            | O                            |
|                                  | Trouble shooting by LED  |                    | -                    | X                            | X                            |

| Model                              |                                   |              | Large          |                   |                   |
|------------------------------------|-----------------------------------|--------------|----------------|-------------------|-------------------|
|                                    |                                   |              | AM036FNHDCH/AA | AM048FNHDCH/AA    |                   |
| Standard accessories               | Installation manual               |              | -              | O                 | O                 |
|                                    | Operation manual                  |              | -              | O                 | O                 |
|                                    | Pattern sheet for installation    |              | -              | X                 | X                 |
|                                    | Flexible drain hose               |              | -              | O                 | O                 |
|                                    | Filter/Safety grille              |              | -              | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump   | - / Model Name | MDP-M075SGU2D     | MDP-M075SGU2D     |
| Max. lifting Height / Displacement |                                   | mm / liter/h | 750 / 24       | 750 / 24          |                   |
| Optional accessories               | Wireless remote controller        |              | -              | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |              | -              | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |              | -              | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                |              | -              | MRK-A10N          | MRK-A10N          |
|                                    | EEV kits                          |              | -              | -                 | / M               |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ HSP DUCT(BIG DUCT)

| Model                            |                             |                  | BIG DUCT                |                         |                       |   |
|----------------------------------|-----------------------------|------------------|-------------------------|-------------------------|-----------------------|---|
|                                  |                             |                  | AM076FNHDCH/AA          | AM096FNHDCH/AA          |                       |   |
| Power Supply                     |                             |                  | ø, #, V, Hz             | 1,2,208-230,60          | 1,2,208-230,60        |   |
| Mode                             |                             |                  | -                       | HP/HR                   | HP/HR                 |   |
| Performance                      | Capacity (Nominal)          | Cooling 2)       | kW                      | -                       | -                     |   |
|                                  |                             |                  | Btu/h                   | 76,800                  | 96,000                |   |
|                                  |                             | Heating 2)       | kW                      | -                       | -                     |   |
|                                  |                             |                  | Btu/h                   | 85,200                  | 108,000               |   |
| Condensate (with high fan speed) |                             | Liter/h          | -                       | -                       |                       |   |
| Power                            | Power Input (Nominal)       | Cooling 1)       | W                       | 530                     | 790                   |   |
|                                  |                             | Heating 2)       |                         | 530                     | 790                   |   |
|                                  | Current Input (Nominal)     | Cooling 1)       | A                       | 3.8                     | 5.9                   |   |
|                                  |                             | Heating 2)       |                         | 3.8                     | 5.9                   |   |
| Fan                              | Type                        | -                | -                       | Sirocco Fan             | Sirocco Fan           |   |
|                                  | Motor                       | Model            | -                       | DL-13875SSOB            | DL-13875SSOB          |   |
|                                  |                             | Type             | -                       | BLDC                    | BLDC                  |   |
|                                  |                             | Output x n       | W                       | 400 x 1                 | 400 x 1               |   |
|                                  | Air Flow Rate               | H/M/L            | CMM                     | 58.00 / 52.00 / 47.00   | 72.00 / 65.00 / 58.00 |   |
|                                  | External Pressure           | Min / Std / Max  | Pa                      | 5.00 / 15.00 / 25.00    | 5.00 / 15.00 / 28.00  |   |
|                                  |                             | WG               | 49.03 / 147.10 / 245.17 | 49.03 / 147.10 / 274.59 |                       |   |
| Sound                            | Sound Pressure              | High / Mid / Low | dBA                     | 45.0/43.0/41.0          | 48.0/46.0/43.0        |   |
|                                  | Sound Power                 | High / Mid / Low | -                       | -                       | -                     |   |
| Refrigerant                      | Type                        | -                | -                       | R-410A                  | R-410A                |   |
|                                  | Control Method              | -                | -                       | EEV INCLUDED            | EEV INCLUDED          |   |
| Temperature Control              |                             |                  | -                       | Micom&Thermistors       | Micom&Thermistors     |   |
| Safety devices                   |                             |                  | -                       | Fuse                    | Fuse                  |   |
| Piping Connections               | Liquid Pipe (Flare)         | ø,mm             |                         | 9.52                    | 9.52                  |   |
|                                  |                             | ø, inch          |                         | 3/8                     | 3/8                   |   |
|                                  | Gas Pipe (Flare)            | ø,mm             |                         | 19.05                   | 22.22                 |   |
|                                  |                             | ø, inch          |                         | 3/4                     | 7/8                   |   |
| Drain Pipe (Quick lock)          |                             | ø,mm             |                         | VP25 (OD 32,ID 25)      | VP25 (OD 32,ID 25)    |   |
| Dimensions                       | Net Weight                  | kg               |                         | 89                      | 89                    |   |
|                                  |                             | lbs              |                         | 196.2                   | 196.2                 |   |
|                                  | Shipping Weight             | kg               |                         | 99                      | 99                    |   |
|                                  |                             | lbs              |                         | 218.3                   | 218.3                 |   |
|                                  | Net Dimensions (WxHxD)      | mm               |                         | 1,240 x 470 x 1,040     | 1,240 x 470 x 1,040   |   |
|                                  |                             | inch             |                         | 48.8 x 18.5 x 40.9      | 48.8 x 18.5 x 40.9    |   |
|                                  | Shipping Dimensions (WxHxD) | mm               |                         | 1,507 x 558 x 1,155     | 1,507 x 558 x 1,155   |   |
|                                  |                             | inch             |                         | 59.3 x 22 x 45.5        | 59.3 x 22 x 45.5      |   |
| Panel Size                       | Panel model                 |                  | -                       | -                       | -                     |   |
|                                  | Panel Net Weight            | kg               |                         | -                       | -                     |   |
|                                  |                             | lbs              |                         | -                       | -                     |   |
|                                  | Shipping Weight             | kg               |                         | -                       | -                     |   |
|                                  |                             | lbs              |                         | -                       | -                     |   |
|                                  | Net Dimensions (WxHxD)      |                  | mm                      |                         | -                     | - |
|                                  |                             |                  | inches                  |                         | -                     | - |
|                                  | Shipping Dimensions (WxHxD) | mm               |                         | -                       | -                     |   |
| inch                             |                             |                  | -                       | -                       |                       |   |
| Functions                        | Auto restart                |                  | -                       | O                       | O                     |   |
|                                  | Auto swing                  |                  | -                       | X                       | X                     |   |
|                                  | Group/individual control    |                  | -                       | O                       | O                     |   |
|                                  | External contact control    |                  | -                       | O                       | O                     |   |
|                                  | Trouble shooting by LED     |                  | -                       | X                       | X                     |   |

| Model                              |                                   |              | BIG DUCT       |                |               |
|------------------------------------|-----------------------------------|--------------|----------------|----------------|---------------|
|                                    |                                   |              | AM076FNHDCH/AA | AM096FNHDCH/AA |               |
| Standard accessories               | Installation manual               |              | -              | O              | O             |
|                                    | Operation manual                  |              | -              | O              | O             |
|                                    | Pattern sheet for installation    |              | -              | O              | O             |
|                                    | Flexible drain hose               |              | -              | O              | O             |
|                                    | Filter/Safety grille              |              | -              | X              | X             |
|                                    | Drain pump                        | Drain pump   | - / Model Name | MDP-N047SNC1D  | MDP-N047SNC1D |
| Max. lifting Height / Displacement |                                   | mm / liter/h | 470 / 24       | 470 / 24       |               |
| Optional accessories               | Wireless remote controller        |              | -              | MR-DH00U       | MR-DH00U      |
|                                    | wired remote controller           |              | -              | MWR-WE10N      | MWR-WE10N     |
|                                    | External contact interface module |              | -              | MIM-B14        | MIM-B14       |
|                                    | Duct Receiver kits                |              | -              | MRK-A10N       | MRK-A10N      |
|                                    | EEV kits                          |              | -              |                |               |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ CEILING

| Model                            |                          |                       | CEILING               |                       |                       |
|----------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                  |                          |                       | AM018FNCDC/AA         | AM024FNCDC/AA         |                       |
| Power Supply                     |                          | ø, #, V, Hz           | 1,2,208-230,60        | 1,2,208-230,60        |                       |
| Mode                             |                          | -                     | HP/HR                 | HP/HR                 |                       |
| Performance                      | Capacity (Nominal)       | Cooling 2)            | kW                    | -                     | -                     |
|                                  |                          |                       | Btu/h                 | 18,000                | 24,000                |
|                                  |                          | Heating 2)            | kW                    | -                     | -                     |
|                                  |                          |                       | Btu/h                 | 20,000                | 27,000                |
| Condensate (with high fan speed) |                          | Liter/h               | -                     | -                     |                       |
| Power                            | Power Input (Nominal)    | Cooling 1)            | W                     | 72                    | 80                    |
|                                  |                          | Heating 2)            |                       | 72                    | 80                    |
|                                  | Current Input (Nominal)  | Cooling 1)            | A                     | 0.42                  | 0.48                  |
|                                  |                          | Heating 2)            | -                     | 0.42                  | 0.48                  |
| Fan                              | Type                     | -                     | Sirocco Fan           | Sirocco Fan           |                       |
|                                  | Motor                    | Model                 | -                     | Y5S613A86             | Y5S413B216            |
|                                  |                          | Type                  | -                     | AC                    | AC                    |
|                                  |                          | Output x n            | W                     | 25 x 1                | 35 x 1                |
|                                  | Air Flow Rate            | H/M/L                 | CMM                   | 14.00 / 13.00 / 12.00 | 18.00 / 16.50 / 15.00 |
|                                  | External Pressure        | Min / Std / Max       | Pa                    | -                     | -                     |
|                                  |                          | WG                    | -                     | -                     |                       |
| Sound                            | Sound Pressure           | High / Mid / Low      | dBA                   | 40.0/37.0/34.0        | 44.0/42.0/40.0        |
|                                  | Sound Power              | High / Mid / Low      |                       | -                     | -                     |
| Refrigerant                      | Type                     | -                     | R-410A                | R-410A                |                       |
|                                  | Control Method           | -                     | EEV NOT INCLUDED      | EEV NOT INCLUDED      |                       |
| Temperature Control              |                          | -                     | Micom&Thermistors     | Micom&Thermistors     |                       |
| Safety devices                   |                          | -                     | Fuse                  | Fuse                  |                       |
| Piping Connections               | Liquid Pipe (Flare)      | ø,mm                  | 6.35                  | 9.52                  |                       |
|                                  |                          | ø, inch               | 1/4                   | 3/8                   |                       |
|                                  | Gas Pipe (Flare)         | ø,mm                  | 12.7                  | 15.88                 |                       |
|                                  |                          | ø, inch               | 1/2                   | 5/8                   |                       |
| Drain Pipe (Quick lock)          | ø,mm                     | VP18 (OD 19,ID 16)    | VP18 (OD 19,ID 16)    |                       |                       |
| Dimensions                       | Net Weight               | kg                    | 21.00                 | 21.00                 |                       |
|                                  |                          | lbs                   | 46.30                 | 46.30                 |                       |
|                                  | Shipping Weight          | kg                    | 25.50                 | 25.50                 |                       |
|                                  |                          | lbs                   | 56.22                 | 56.22                 |                       |
|                                  | Net Dimensions (WxHxD)   | mm                    | 1,000 x 650 x 200     | 1,000 x 650 x 200     |                       |
|                                  |                          | inch                  | 39.97 x 25.59 x 7.87  | 39.97 x 25.59 x 7.87  |                       |
| Shipping Dimensions (WxHxD)      | mm                       | 1,080 x 730 x 300     | 1,080 x 730 x 300     |                       |                       |
|                                  | inch                     | 42.52 x 28.74 x 11.81 | 42.52 x 28.74 x 11.81 |                       |                       |
| Panel Size                       | Panel model              | -                     | -                     | -                     |                       |
|                                  | Panel Net Weight         | kg                    | -                     | -                     |                       |
|                                  |                          | lbs                   | -                     | -                     |                       |
|                                  | Shipping Weight          | kg                    | -                     | -                     |                       |
|                                  |                          | lbs                   | -                     | -                     |                       |
|                                  | Net Dimensions (WxHxD)   | mm                    | -                     | -                     |                       |
| inches                           |                          | -                     | -                     |                       |                       |
| Shipping Dimensions (WxHxD)      | mm                       | -                     | -                     |                       |                       |
|                                  | inch                     | -                     | -                     |                       |                       |
| Functions                        | Auto restart             | -                     | O                     | O                     |                       |
|                                  | Auto swing               | -                     | X                     | X                     |                       |
|                                  | Group/individual control | -                     | O                     | O                     |                       |
|                                  | External contact control | -                     | O                     | O                     |                       |
|                                  | Trouble shooting by LED  | -                     | X                     | X                     |                       |

| Model                              |                                   |               | CEILING        |                   |                   |
|------------------------------------|-----------------------------------|---------------|----------------|-------------------|-------------------|
|                                    |                                   |               | AM018FNCDCH/AA | AM024FNCDCH/AA    |                   |
| Standard accessories               | Installation manual               |               | -              | O                 | O                 |
|                                    | Operation manual                  |               | -              | O                 | O                 |
|                                    | Pattern sheet for installation    |               | -              | X                 | X                 |
|                                    | Flexible drain hose               |               | -              | O                 | O                 |
|                                    | Filter/Safety grille              |               | -              | Filter (washable) | Filter (washable) |
|                                    | Drain pump                        | Drain pump    | - / Model Name | -                 | -                 |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | -              | -                 |                   |
| Optional accessories               | Wireless remote controller        |               | -              | MR-DH00U          | MR-DH00U          |
|                                    | wired remote controller           |               | -              | MWR-WE10N         | MWR-WE10N         |
|                                    | External contact interface module |               | -              | MIM-B14           | MIM-B14           |
|                                    | Duct Receiver kits                | Receiver      | -              | -                 | -                 |
|                                    |                                   | Receiver wire | -              | -                 | -                 |
|                                    | EEV kits                          |               | -              | MXD, MEV series   | MXD, MEV series   |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ Big Ceiling

| Model                                |                                     |                                   | AM036JNCDC/AA                | AM048JNCDC/AA                                      |
|--------------------------------------|-------------------------------------|-----------------------------------|------------------------------|--|
| Power Supply                         |                                     |                                   | φ,V,Hz                       | 1,208~230,60                                       |
| Mode <sup>1)</sup>                   |                                     |                                   | -                            | HP / HR  |
| Performance                          | Capacity                            | Cooling <sup>2)</sup>             | Btu/h                        | 36,000   |
|                                      |                                     | Heating <sup>3)</sup>             | Btu/h                        | 40,000   |
| Power                                | Input Consumption (Cooling/Heating) |                                   | W                            | 92/80  |
|                                      | Running Current (Cooling/Heating)   |                                   | A                            | 0.94/0.83  |
| Indoorunit refrigerant adding amount |                                     |                                   | Kg/EA                        | 0.56   |
| Noise Level                          |                                     |                                   | Actual Noise Pressure (High) | dB(A) ↓  |
| Type                                 |                                     |                                   | -                            | Sirocco, Φ168*3EA                                  |
| Fan                                  | Motor                               | Model                             | -                            | SIC-70CW-F1153-6,<br>DL-12830SSBF<br>(DB31-00660A) |
|                                      |                                     | Type                              | -                            | BLDC Feedback                                      |
|                                      |                                     | Output                            | W                            | 153W   |
| Airflow Rate                         | Fan(H/M/L)                          |                                   | m <sup>3</sup> /min          | 29.3/23.9/18.5                                     |
| Refrigerant                          | Type                                |                                   | -                            | R410a  |
|                                      | Control Method                      |                                   | -                            | EDM EEV 4.0C                                       |
| Temperature Control                  |                                     |                                   | -                            | Micom&Thermistors                                  |
| Safety Devices                       |                                     |                                   | -                            | 250V/5A  |
| Piping Connections                   | Liquid (Flare)                      | Φ,mm                              | 9.52                         | 9.52   |
|                                      |                                     | Φinch                             | 3/8"                         | 3/8"   |
|                                      | Gas (Flare)                         | Φ,mm                              | 15.88                        | 15.88  |
|                                      |                                     | Φinch                             | 5/8"                         | 5/8"   |
|                                      | Drain                               | Φ,mm                              | VP25 (OD25,ID 20)            | VP25 (OD25,ID 20)                                  |
| Φinch                                |                                     | -                                 | -                            |  |
| Weight                               | Net Weight                          |                                   | kg                           | 33.5   |
|                                      | Shipping Weight                     |                                   | kg                           | 39.5   |
| Dimensions                           | Net Dimensions (W×H×D)              |                                   | mm                           | 1350*235*675                                       |
|                                      |                                     |                                   | inch                         | -  |
|                                      | Shipping Dimensions (W×H×D)         |                                   | mm                           | 1439*758*321                                       |
|                                      |                                     |                                   | inch                         | -  |
| Functions                            | Auto Restart                        |                                   | -                            | O  |
|                                      | Auto Swing                          |                                   | -                            | O  |
|                                      | Group/Individual Control            |                                   | -                            | O  |
|                                      | External Contact Control            |                                   | -                            | O  |
|                                      | Trouble Shooting by LED             |                                   | -                            | O  |
| Standard Accessories                 | Installation Manual                 |                                   | -                            | O  |
|                                      | Operation Manual                    |                                   | -                            | O  |
|                                      | Pattern Sheet for Installation      |                                   | -                            | O  |
|                                      | Flexible Drain Hose                 |                                   | -                            | O  |
|                                      | Filter / Safety Grille              |                                   | -                            | Filter (Washable)                                  |
| Optional Accessories                 | Wireless Remote Controller          |                                   | -                            | AR-DH00  |
|                                      | Wired Remote Controller             | Simplified                        | -                            | MWR-WE10N  |
|                                      |                                     | External Contact Interface Module |                              | -  |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Norminal cooling capacities are based on;

- Indoor temperature : 27 °C DB, 19 °C WB - Outdoor temperature : 35 °C DB, 24 °C WB

\*3) Norminal heating capacities are based on;

- Indoor temperature : 20 °C DB, 15 °C WB - Outdoor temperature : 7 °C DB, 6 °C WB

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

\*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### ■ PAC

| Model                              |                                   |               | PAC            |                     |                   |   |
|------------------------------------|-----------------------------------|---------------|----------------|---------------------|-------------------|---|
|                                    |                                   |               | AM048HNPDC/AZ  | AM096HNPDC/AZ       |                   |   |
| Power Supply                       |                                   | Φ, #, V, Hz   | 1, ,208-230,60 | 1, ,208-230,60      |                   |   |
| Mode                               |                                   | -             | HP/HR          | HP/HR               |                   |   |
| Performance                        | Capacity (Nominal)                | Cooling       | kW             |                     |                   |   |
|                                    |                                   |               | Btu/hr         | 48 000              | 96 000            |   |
|                                    |                                   | Heating       | kW             |                     |                   |   |
|                                    |                                   |               | Btu/hr         | 54 000              | 108 000           |   |
| Power                              | Power Input (Nominal)             | Cooling       | W              | 550                 | 950               |   |
|                                    |                                   | Heating       |                | 550                 | 950               |   |
|                                    | Current Input (Nominal)           | Cooling       | A              | 2.6                 | 4.5               |   |
|                                    |                                   | Heating       |                | 2.6                 | 4.5               |   |
| Fan                                | Motor                             | Type          | -              | Sirocco Fan         | Sirocco Fan       |   |
|                                    |                                   | Output x n    | W              | 100 × 1             | 700 × 1           |   |
|                                    | Air Flow Rate                     | H/M/L (UL)    | CMM            | 33/30/27            | 70/60/50          |   |
|                                    |                                   |               | l/s            | -                   | -                 |   |
| External Pressure                  | Min / Std / Max                   | mmAq          | -              | -                   |                   |   |
|                                    |                                   | Pa            | -              | -                   |                   |   |
| Piping Connections                 | Liquid Pipe                       | Φ,mm          | 9.52           | 9.52                |                   |   |
|                                    |                                   | Φ, inch       | 3/8            | 3/8                 |                   |   |
|                                    | Gas Pipe                          | Φ,mm          | 15.88          | 22.22               |                   |   |
|                                    |                                   | Φ, inch       | 5/8            | 7/8                 |                   |   |
| Drain Pipe                         |                                   | Φ,mm          | ID 18 HOSE     | VP25 (OD 32, ID 25) |                   |   |
| Field Wiring                       | Power Source Wire                 |               | mm2            | 2.5                 | 2.5               |   |
|                                    | Transmission Cable                |               | mm2            | 0.75 ~ 1.50         | 0.75 ~ 1.50       |   |
| Sound                              | Sound Pressure                    | High          | dB(A)          | 58                  | 63                |   |
|                                    |                                   | Cooling       |                | -                   | -                 |   |
| Refrigerant                        | Type                              |               | -              | R410A               | R410A             |   |
|                                    | Control Method                    |               | -              | EEV INCLUDED        | EEV INCLUDED      |   |
| Dimensions                         | Net Weight                        |               | kg             | 61.0                | 115.0             |   |
|                                    | Shipping Weight                   |               | kg             | 66.0                | 130.0             |   |
|                                    | Net Dimensions (W×H×D)            |               | mm             | 650 x 1850 x 395    | 1100 x 1800 x 485 |   |
|                                    | Shipping Dimensions (W×H×D)       |               | mm             | 753 x 1949 x 503    | 1177 x 1950 x 563 |   |
| Panel Size                         | Panel model                       |               | -              | -                   | -                 |   |
|                                    | Panel Net Weight                  |               | kg             | -                   | -                 |   |
|                                    | Shipping Weight                   |               | kg             | -                   | -                 |   |
|                                    | Net Dimensions (W×H×D)            |               | mm             | -                   | -                 |   |
|                                    | Shipping Dimensions (W×H×D)       |               | mm             | -                   | -                 |   |
| Functions                          | Auto restart                      |               | -              | O                   | O                 |   |
|                                    | Auto swing                        |               | -              | O                   | O                 |   |
|                                    | Group/individual control          |               | -              | O                   | O                 |   |
|                                    | External contact control          |               | -              | O                   | O                 |   |
|                                    | Trouble shooting by LED           |               | -              | O                   | O                 |   |
| Standard accessories               | Installation manual               |               | -              | O                   | O                 |   |
|                                    | Operation manual                  |               | -              | O                   | O                 |   |
|                                    | Pattern sheet for installation    |               | -              | X                   | X                 |   |
|                                    | Flexible drain hose               |               | -              | O                   | O                 |   |
|                                    | Filter/Safety grille              |               | -              | Filter (washable)   | Filter (washable) |   |
|                                    | Drain pump                        | Drain pump    |                | - / Model Name      | -                 | - |
| Max. lifting Height / Displacement |                                   | mm / liter/h  | -              | -                   |                   |   |
| Optional accessories               | Wireless remote controller        |               | -              | MR-DH00U            | MR-DH00U          |   |
|                                    | wired remote controller           |               | -              | MWR-WE10N           | MWR-WE10N         |   |
|                                    | External contact interface module |               | -              | MIM-B14             | MIM-B14           |   |
|                                    | Duct Receiver kits                | Receiver      |                | -                   | -                 | - |
|                                    |                                   | Receiver wire |                | -                   | -                 | - |
|                                    | EEV kits                          |               | -              | -                   | -                 |   |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

\*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### ■ MA-1 (Drain Pump Built-in)

| Model                              |                                   |                  |                    | MSP DUCT           |                    |                    |                    |                   |
|------------------------------------|-----------------------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
|                                    |                                   |                  |                    | AM007JNMDCH/AA     | AM009JNMDCH/AA     | AM012JNMDCH/AA     | AM015JNMDCH/AA     | AM018JNMDCH/AA    |
| Power Supply                       |                                   | Φ, #, V, Hz      | -                  | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60    |
| Mode                               |                                   |                  | -                  | HP/HR              | HP/HR              | HP/HR              | HP/HR              | HP/HR             |
| Performance                        | Capacity (Nominal)                | Cooling 2)       | kW                 | -                  | -                  | -                  | -                  | -                 |
|                                    |                                   |                  | Btu/h              | 7,500              | 9,500              | 12,000             | 15,000             | 18,000            |
|                                    |                                   | Heating 2)       | kW                 | -                  | -                  | -                  | -                  | -                 |
|                                    |                                   |                  | Btu/h              | 8,500              | 10,500             | 13,500             | 17,000             | 20,000            |
| Condensate (with high fan speed)   |                                   | Liter/h          | -                  | -                  | -                  | -                  | -                  |                   |
| Power                              | Power Input (Nominal)             | Cooling 1)       | W                  | 30.0               | 30.0               | 32.0               | 44.0               | 52.0              |
|                                    |                                   | Heating 2)       |                    | 30.0               | 30.0               | 32.0               | 44.0               | 52.0              |
|                                    | Current Input (Nominal)           | Cooling 1)       | A                  | 0.24               | 0.24               | 0.26               | 0.32               | 0.40              |
|                                    |                                   | Heating 2)       |                    | 0.24               | 0.24               | 0.26               | 0.32               | 0.40              |
| Fan                                | Type                              |                  |                    | Sirocco Fan        | Sirocco Fan        | Sirocco Fan        | Sirocco Fan        | Sirocco Fan       |
|                                    | Motor                             | Model            | -                  | DL-128405SBH       | DL-128405SBH       | DL-128405SBH       | DL-128405SBH       | DL-128405SBH      |
|                                    |                                   | Type             | -                  | BLDC               | BLDC               | BLDC               | BLDC               | BLDC              |
|                                    |                                   | Output x n       | W                  | 183 x 1            | 183 x 1            | 183 x 1            | 183 x 1            | 183 x 1           |
|                                    | Air Flow Rate                     | H/M/L            | CMM                | 7.5/6.7/6.0        | 9.0/8.0/7.0        | 10.0/8.5/7.0       | 12.0/10.5/9.0      | 14.5/13.0/11.5    |
|                                    | External Pressure                 | Min / Std / Max  | mmAq               | 1.0 (15 - 0)       | 1.0 (15 - 0)       | 1.0 (15 - 0)       | 1.0 (15 - 0)       | 1.0 (15 - 0)      |
| Pa                                 |                                   |                  | -                  | -                  | -                  | -                  | -                  |                   |
| Sound                              | Sound Pressure                    | High / Mid / Low | dB(A)              | 36/30/26           | 38/32/26           | 39/34/30           | 41/36/32           | 42/38/35          |
|                                    | Sound Power                       | Cooling          |                    | 55                 | 56                 | 60                 | 63                 | 66                |
| Refrigerant                        | Type                              |                  | -                  | R410A              | R410A              | R410A              | R410A              | R410A             |
|                                    | Control Method                    |                  | -                  | EEV INCLUDED       | EEV INCLUDED       | EEV INCLUDED       | EEV INCLUDED       | EEV INCLUDED      |
| Temperature Control                |                                   |                  |                    | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors |
| Safety Devices                     |                                   |                  |                    | Fuse               | Fuse               | Fuse               | Fuse               | Fuse              |
| Piping Connections                 | Liquid Pipe (Flare)               | Φ,mm             | 6.35               | 6.35               | 6.35               | 6.35               | 6.35               |                   |
|                                    |                                   | Φ, inch          | 1/4"               | 1/4"               | 1/4"               | 1/4"               | 1/4"               |                   |
|                                    | Gas Pipe (Flare)                  | Φ,mm             | 12.7               | 12.7               | 12.7               | 12.7               | 12.7               |                   |
|                                    |                                   | Φ, inch          | 1/2"               | 1/2"               | 1/2"               | 1/2"               | 1/2"               |                   |
| Drain Pipe (Quick lock)            |                                   | Φ,mm             | VP25 (OD 32,ID 25) |                   |
| Dimensions                         | Net Weight                        |                  | kg                 | 35.0               | 35.0               | 35.0               | 35.0               | 36.5              |
|                                    | Shipping Weight                   |                  | kg                 | 39.0               | 39.0               | 39.0               | 39.0               | 40.5              |
|                                    | Net Dimensions (WxHxD)            |                  | mm                 | 1150 x 320 x 480   | 1150 x 320 x 480  |
|                                    | Shipping Dimensions (WxHxD)       |                  | mm                 | 1419 x 400 x 594   | 1447 x 425 x 769   | 1447 x 425 x 769   | 1447 x 425 x 769   | 1447 x 425 x 769  |
| Panel Size                         | Panel model                       |                  | -                  | -                  | -                  | -                  | -                  | -                 |
|                                    | Panel Net Weight                  |                  | kg                 | -                  | -                  | -                  | -                  | -                 |
|                                    | Shipping Weight                   |                  | kg                 | -                  | -                  | -                  | -                  | -                 |
|                                    | Net Dimensions (WxHxD)            |                  | mm                 | -                  | -                  | -                  | -                  | -                 |
| Shipping Dimensions (WxHxD)        |                                   | mm               | -                  | -                  | -                  | -                  | -                  |                   |
| Function                           | Auto restart                      |                  | -                  | o                  | o                  | o                  | o                  | o                 |
|                                    | Auto swing                        |                  | -                  | x                  | x                  | x                  | x                  | x                 |
|                                    | Group/Individual control          |                  | -                  | o                  | o                  | o                  | o                  | o                 |
|                                    | External contact control          |                  | -                  | o                  | o                  | o                  | o                  | o                 |
| Trouble shooting by LED            |                                   | -                | x                  | x                  | x                  | x                  | x                  |                   |
| Standard accessories               | Installation manual               |                  | -                  | o                  | o                  | o                  | o                  | o                 |
|                                    | Operation manual                  |                  | -                  | o                  | o                  | o                  | o                  | o                 |
|                                    | Pattern sheet for installation    |                  | -                  | x                  | x                  | x                  | x                  | x                 |
|                                    | Flexible drain hose               |                  | -                  | o                  | o                  | o                  | o                  | o                 |
|                                    | Filter/Safety grille              |                  | -                  | Long life filter   | Long life filter   | Long life filter   | Long life filter   | Long life filter  |
|                                    | Drain pump                        | Drain pump       |                    | -                  | Built-In           | Built-In           | Built-In           | Built-In          |
| Max. lifting Height / Displacement |                                   | mm / liter/h     | 750 / 24           | 750 / 24           | 750 / 24           | 750 / 24           | 750 / 24           |                   |
| Optional accessories               | Wireless remote controller        |                  | -                  | MR-DH00U           | MR-DH00U           | MR-DH00U           | MR-DH00U           | MR-DH00U          |
|                                    | wired remote controller           |                  | -                  | MWR-WE10N          | MWR-WE10N          | MWR-WE10N          | MWR-WE10N          | MWR-WE10N         |
|                                    | External contact interface module |                  | -                  | MIM-B14            | MIM-B14            | MIM-B14            | MIM-B14            | MIM-B14           |
|                                    | Duct Receiver kits                |                  | -                  | MRK-A10N           | MRK-A10N           | MRK-A10N           | MRK-A10N           | MRK-A10N          |
| EEV kits                           |                                   | -                | -                  | -                  | -                  | -                  | -                  |                   |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### ■ MA-2 (Drain Pump Built-in)

| Model                            |                                   |                                    | MSP DUCT           |                    |                    |                    |                    |                  |          |
|----------------------------------|-----------------------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|----------|
|                                  |                                   |                                    | AM024JNHDCH/AA     | AM027JNHDCH/AA     | AM030JNHDCH/AA     | AM036JNHDCH/AA     | AM048JNHDCH/AA     |                  |          |
| Power Supply Mode                |                                   | Φ, #, V, Hz                        | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60     |                  |          |
|                                  |                                   |                                    | -                  | HP/HR              | HP/HR              | HP/HR              | HP/HR              |                  |          |
| Performance                      | Capacity (Nominal)                | Cooling 2)                         | kW                 | -                  | -                  | -                  | -                  |                  |          |
|                                  |                                   |                                    | Btu/h              | 24,000             | 27,000             | 30,000             | 36,000             | 48,000           |          |
|                                  |                                   | Heating 2)                         | kW                 | -                  | -                  | -                  | -                  | -                |          |
|                                  |                                   |                                    | Btu/h              | 27,000             | 30,000             | 34,000             | 40,000             | 54,000           |          |
| Condensate (with high fan speed) |                                   | Liter/h                            | -                  | -                  | -                  | -                  |                    |                  |          |
| Power                            | Power Input (Nominal)             | Cooling 1)                         | W                  | 82.0               | 91.0               | 108.0              | 140.0              | 200.0            |          |
|                                  |                                   | Heating 2)                         |                    | 82.0               | 91.0               | 108.0              | 140.0              | 200.0            |          |
|                                  | Current Input (Nominal)           | Cooling 1)                         | A                  | 0.93               | 0.95               | 1.11               | 1.29               | 1.76             |          |
|                                  |                                   | Heating 2)                         |                    | 0.93               | 0.95               | 1.11               | 1.29               | 1.76             |          |
| Fan                              | Type                              |                                    | Sirocco Fan        |                  |          |
|                                  | Motor                             | Model                              | -                  | DL-12840SSBF       | DL-12840SSBF       | DL-12840SSBF       | DL-12840SSBF       | DL-12840SSBF     |          |
|                                  |                                   | Type                               | -                  | BLDC               | BLDC               | BLDC               | BLDC               | BLDC             |          |
|                                  |                                   | Output x n                         | W                  | 183 x 2            | 183 x 2            | 183 x 2            | 183 x 2            | 183 x 2          |          |
|                                  | Air Flow Rate                     | H/M/L                              | CMM                | 18.5/17.0/15.5     | 21.0/19.5/18.0     | 25.0/22.5/20.0     | 27.0/25.0/23.0     | 35.0/32.5/30.0   |          |
|                                  | External Pressure                 | Min / Std / Max                    | mmAq               | 5.2 (3 - 20)       | 5.2 (3 - 20)       | 5.2 (3 - 20)       | 5.2 (3 - 20)       | 5.2 (3 - 20)     |          |
|                                  |                                   | Pa                                 | -                  | -                  | -                  | -                  | -                  |                  |          |
| Sound                            | Sound Pressure                    | High / Mid / Low                   | dB(A)              | 36/34/30           | 38/34/30           | 39/34/31           | 41/38/35           | 42/39/36         |          |
|                                  | Sound Power                       | Cooling                            |                    | 71                 | 71                 | 72                 | 72                 | 73               |          |
| Refrigerant                      | Type                              |                                    | -                  | R410A              | R410A              | R410A              | R410A              | R410A            |          |
|                                  | Control Method                    |                                    | -                  | EEV INCLUDED       | EEV INCLUDED       | EEV INCLUDED       | EEV INCLUDED       | EEV INCLUDED     |          |
| Temperature Control              |                                   |                                    |                    | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors  |                  |          |
| Safety Devices                   |                                   |                                    |                    | Fuse               | Fuse               | Fuse               | Fuse               |                  |          |
| Piping Connections               | Liquid Pipe (Flare)               | Φ,mm                               | 9.52               | 9.52               | 9.52               | 9.52               | 9.52               |                  |          |
|                                  |                                   | Φ, inch                            | 3/8"               | 3/8"               | 3/8"               | 3/8"               | 3/8"               |                  |          |
|                                  | Gas Pipe (Flare)                  | Φ,mm                               | 15.88              | 15.88              | 15.88              | 15.88              | 15.88              |                  |          |
|                                  |                                   | Φ, inch                            | 5/8"               | 5/8"               | 5/8"               | 5/8"               | 5/8"               |                  |          |
| Drain Pipe (Quick lock)          |                                   | Φ,mm                               | VP25 (OD 32,ID 25) |                  |          |
| Dimensions                       | Net Weight                        |                                    | kg                 | 54.0               | 54.0               | 54.0               | 56.0               | 56.0             |          |
|                                  | Shipping Weight                   |                                    | kg                 | 68.0               | 68.0               | 68.0               | 70.0               | 70.0             |          |
|                                  | Net Dimensions (WxHxD)            |                                    | mm                 | 1200 x 360 x 650   | 1200 x 360 x 650 |          |
|                                  | Shipping Dimensions (WxHxD)       |                                    | mm                 | 1460 x 455 x 780   | 1460 x 455 x 780 |          |
| Panel Size                       | Panel model                       |                                    |                    | -                  | -                  | -                  | -                  | -                |          |
|                                  | Panel Net Weight                  |                                    | kg                 | -                  | -                  | -                  | -                  | -                |          |
|                                  | Shipping Weight                   |                                    | kg                 | -                  | -                  | -                  | -                  | -                |          |
|                                  | Net Dimensions (WxHxD)            |                                    | mm                 | -                  | -                  | -                  | -                  | -                |          |
|                                  | Shipping Dimensions (WxHxD)       |                                    | mm                 | -                  | -                  | -                  | -                  | -                |          |
| Function                         | Auto restart                      |                                    |                    | -                  | o                  | o                  | o                  | o                |          |
|                                  | Auto swing                        |                                    |                    | -                  | x                  | x                  | x                  | x                |          |
|                                  | Group/Individual control          |                                    |                    | -                  | o                  | o                  | o                  | o                |          |
|                                  | External contact control          |                                    |                    | -                  | o                  | o                  | o                  | o                |          |
|                                  | Trouble shooting by LED           |                                    |                    | -                  | x                  | x                  | x                  | x                |          |
| Standard accessories             | Installation manual               |                                    |                    | -                  | o                  | o                  | o                  | o                |          |
|                                  | Operation manual                  |                                    |                    | -                  | o                  | o                  | o                  | o                |          |
|                                  | Pattern sheet for installation    |                                    |                    | -                  | x                  | x                  | x                  | x                |          |
|                                  | Flexible drain hose               |                                    |                    | -                  | o                  | o                  | o                  | o                |          |
|                                  | Filter/Safety grille              |                                    |                    | -                  | Long life filter   | Long life filter   | Long life filter   | Long life filter |          |
|                                  | Drain pump                        |                                    |                    |                    | -                  | Built-In           | Built-In           | Built-In         | Built-In |
|                                  |                                   | Max. lifting Height / Displacement | mm / liter/h       |                    | 750 / 24           | 750 / 24           | 750 / 24           | 750 / 24         | 750 / 24 |
| Optional accessories             | Wireless remote controller        |                                    |                    | -                  | MR-DH00U           | MR-DH00U           | MR-DH00U           | MR-DH00U         |          |
|                                  | wired remote controller           |                                    |                    | -                  | MWR-WE10N          | MWR-WE10N          | MWR-WE10N          | MWR-WE10N        |          |
|                                  | External contact interface module |                                    |                    | -                  | MIM-B14            | MIM-B14            | MIM-B14            | MIM-B14          |          |
|                                  | Duct Receiver kits                |                                    |                    | -                  | MRK-A10N           | MRK-A10N           | MRK-A10N           | MRK-A10N         |          |
|                                  | EEV kits                          |                                    |                    | -                  | -                  | -                  | -                  | -                |          |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ Floor Standing Type (CONCEALED)

| Model                |                                   |                  |                   | Small               |                     |                      | Large                |                     |
|----------------------|-----------------------------------|------------------|-------------------|---------------------|---------------------|----------------------|----------------------|---------------------|
|                      |                                   |                  |                   | AM006JNFDCH/AA      | AM009JNFDCH/AA      | AM012JNFDCH/AA       | AM018JNFDCH/AA       | AM024JNFDCH/AA      |
| Power Supply         |                                   |                  | Ø,V,Hz            | 208 - 230 V~ 60Hz   | 208 - 230 V~ 60Hz   | 208 - 230 V~ 60Hz    | 208 - 230 V~ 60Hz    | 208 - 230 V~ 60Hz   |
| Mode                 |                                   |                  |                   | HP / HR             | HP / HR             | HP / HR              | HP / HR              | HP / HR             |
| Performance          | Capacity                          | Cooling          | kW                | -                   | -                   | -                    | -                    | -                   |
|                      |                                   |                  | Btu/h             | 6,000               | 9,500               | 12,000               | 18,000               | 24,000              |
|                      |                                   | Heating          | kW                | -                   | -                   | -                    | -                    | -                   |
|                      |                                   |                  | Btu/h             | 6,700               | 10,500              | 13,500               | 20,000               | 27,000              |
| Power                | Running Current                   | Cooling          | A                 | 0.2                 | 0.22                | 0.24                 | 0.53                 | 0.53                |
|                      |                                   | Heating          | A                 | 0.2                 | 0.22                | 0.24                 | 0.53                 | 0.53                |
|                      | Input                             | Cooling          | W                 | 35.0                | 40.0                | 50.0                 | 110.0                | 110.0               |
|                      |                                   | Heating          | W                 | 35.0                | 40.0                | 50.0                 | 110.0                | 110.0               |
| Sound                | Sound Pressure                    | High / Mid / Low | dB(A)             | 34/29/24            | 37/32/27            | 37/32/27             | 40/36/32             | 40/36/32            |
|                      |                                   | Type             | -                 | Sirocco Fan         | Sirocco Fan         | Sirocco Fan          | Sirocco Fan          | Sirocco Fan         |
| FAN                  | Motor                             | Model            | -                 | -                   | -                   | -                    | -                    | -                   |
| Airflow Rate         | H/M/L                             |                  | CFM               | 175/140/105         | 250/195/160         | 350/300/210          | 550/495/390          | 550/495/390         |
| Refrigerant          | Type                              |                  | -                 | R-410A              | R-410A              | R-410A               | R-410A               | R-410A              |
|                      | Control Method                    |                  | -                 | EEV INCLUDED        | EEV INCLUDED        | EEV INCLUDED         | EEV INCLUDED         | EEV INCLUDED        |
| Temperature Control  |                                   |                  | -                 | Micom & Thermistors | Micom & Thermistors | Micom & Thermistors  | Micom & Thermistors  | Micom & Thermistors |
| Safety Devices       |                                   |                  | -                 | Fuse                | Fuse                | Fuse                 | Fuse                 | Fuse                |
| Piping connections   | Liquid(Flare)                     | Ø,mm             | 6.35              | 6.35                | 6.35                | 6.35                 | 9.52                 |                     |
|                      |                                   | Ø, inch          | 1/4               | 1/4                 | 1/4                 | 1/4                  | 3/8                  |                     |
|                      | Gas(Flare)                        | Ø,mm             | 12.7              | 12.7                | 12.7                | 12.7                 | 15.88                |                     |
|                      |                                   | Ø, inch          | 1/2               | 1/2                 | 1/2                 | 1/2                  | 5/8                  |                     |
|                      | Drain                             | Ø,mm             | ID18 HOSE         | ID18 HOSE           | ID18 HOSE           | ID18 HOSE            | ID18 HOSE            |                     |
| Weight               | Net Weight                        | kg               | 23                | 23                  | 23                  | 28.5                 | 28.5                 |                     |
|                      |                                   | lbs              | 50.7              | 50.7                | 50.7                | 62.8                 | 62.8                 |                     |
|                      | Shipping Weight                   | kg               | 27                | 27                  | 27                  | 33.5                 | 33.5                 |                     |
|                      |                                   | lbs              | 59.5              | 59.5                | 59.5                | 73.8                 | 73.8                 |                     |
| Dimensions           | Net Dimensions                    | mm               | 945x600x220       | 945x600x220         | 945x600x220         | 1225x600x220         | 1225x600x220         |                     |
|                      |                                   | lbs              | 37.2x23.62x8.66   | 37.2x23.62x8.66     | 37.2x23.62x8.66     | 48.23 x 23.62 x 8.66 | 48.23 x 23.62 x 8.66 |                     |
|                      | Shipping Dimensions               | mm               | 1035x690x310      | 1035x690x310        | 1035x690x310        | 1335x690x310         | 1335x690x310         |                     |
|                      |                                   | lbs              | 40.75x27.17x12.2  | 40.75x27.17x12.2    | 40.75x27.17x12.2    | 52.56 x 27.17 x 12.2 | 52.56 x 27.17 x 12.2 |                     |
| Functions            | Auto Restart                      | -                | O                 | O                   | O                   | O                    | O                    |                     |
|                      | Auto Swing                        | -                | X                 | X                   | X                   | X                    | X                    |                     |
|                      | Group/Individual Control          | -                | O                 | O                   | O                   | O                    | O                    |                     |
|                      | External Contact Control          | -                | O                 | O                   | O                   | O                    | O                    |                     |
|                      | Trouble Shooting by LED           | -                | O                 | O                   | O                   | O                    | O                    |                     |
| Standard Accessories | Installation Manual               | -                | O                 | O                   | O                   | O                    | O                    |                     |
|                      | Operation Manual                  | -                | X                 | X                   | X                   | X                    | X                    |                     |
|                      | Pattern Sheet for Installation    | -                | X                 | X                   | X                   | X                    | X                    |                     |
|                      | Flexible Drain Hose               | -                | O                 | O                   | O                   | O                    | O                    |                     |
|                      | Filter / Safety Grille            | -                | O                 | O                   | O                   | O                    | O                    |                     |
| Optional Accessories | Drain Pump (Pumping, Speed, Lift) | ℓ/h,mm           | X                 | X                   | X                   | X                    | X                    |                     |
|                      | Simple Wired Remote Controller    | -                | MWR-SH00N(Option) | MWR-SH00N(Option)   | MWR-SH00N(Option)   | MWR-SH00N(Option)    | MWR-SH00N(Option)    |                     |
|                      | Wired Remote Controller           | -                | MWR-WE10N(Option) | MWR-WE10N(Option)   | MWR-WE10N(Option)   | MWR-WE10N(Option)    | MWR-WE10N(Option)    |                     |
|                      | Air Filter                        | -                | Long life filter  | Long life filter    | Long life filter    | Long life filter     | Long life filter     |                     |



## \*1) Mode

- HP : Heat Pump, HR : Heat Recovery

## \*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

## \*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

## \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

## \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### ■ Floor Standing Type (EXPOSED)

| Model                |                                   |                  | Small               |                     |                     | Large                |                      |                     |
|----------------------|-----------------------------------|------------------|---------------------|---------------------|---------------------|----------------------|----------------------|---------------------|
|                      |                                   |                  | AM006JNGDCH/AA      | AM009JNGDCH/AA      | AM012JNGDCH/AA      | AM018JNGDCH/AA       | AM024JNGDCH/AA       |                     |
| Power Supply         |                                   |                  | Ø,V,Hz              | 208 - 230 V~ 60Hz   | 208 - 230 V~ 60Hz   | 208 - 230 V~ 60Hz    | 208 - 230 V~ 60Hz    | 208 - 230 V~ 60Hz   |
| Mode                 |                                   |                  |                     | HP / HR             | HP / HR             | HP / HR              | HP / HR              | HP / HR             |
| Performance          | Capacity                          | Cooling          | kW                  | -                   | -                   | -                    | -                    | -                   |
|                      |                                   |                  | Btu/h               | 6,000               | 9,500               | 12,000               | 18,000               | 24,000              |
|                      |                                   | Heating          | kW                  | -                   | -                   | -                    | -                    | -                   |
|                      |                                   |                  | Btu/h               | 6,700               | 10,500              | 13,500               | 20,000               | 27,000              |
| Power                | Running Current                   | Cooling          | A                   | 0.2                 | 0.22                | 0.24                 | 0.53                 | 0.53                |
|                      |                                   | Heating          | A                   | 0.2                 | 0.22                | 0.24                 | 0.53                 | 0.53                |
|                      | Input                             | Cooling          | W                   | 35.0                | 40.0                | 50.0                 | 110.0                | 110.0               |
|                      |                                   | Heating          | W                   | 35.0                | 40.0                | 50.0                 | 110.0                | 110.0               |
| Sound                | Sound Pressure                    | High / Mid / Low | dB(A)               | 34/29/24            | 37/32/27            | 37/32/27             | 40/36/32             | 40/36/32            |
| FAN                  | Type                              |                  | -                   | Sirocco Fan         | Sirocco Fan         | Sirocco Fan          | Sirocco Fan          | Sirocco Fan         |
|                      | Motor                             | Model            | -                   |                     |                     |                      |                      |                     |
| Airflow Rate         | H/M/L                             |                  | CFM                 | 175/140/105         | 250/195/160         | 350/300/210          | 550/495/390          | 550/495/390         |
| Refrigerant          | Type                              |                  | -                   | R-410A              | R-410A              | R-410A               | R-410A               | R-410A              |
|                      | Control Method                    |                  | -                   | EEV INCLUDED        | EEV INCLUDED        | EEV INCLUDED         | EEV INCLUDED         | EEV INCLUDED        |
| Temperature Control  |                                   |                  | -                   | Micom & Thermistors | Micom & Thermistors | Micom & Thermistors  | Micom & Thermistors  | Micom & Thermistors |
| Safety Devices       |                                   |                  | -                   | Fuse                | Fuse                | Fuse                 | Fuse                 | Fuse                |
| Piping connections   | Liquid(Flare)                     | Ø,mm             | 6.35                | 6.35                | 6.35                | 6.35                 | 9.52                 |                     |
|                      |                                   | Ø, inch          | 1/4                 | 1/4                 | 1/4                 | 1/4                  | 3/8                  |                     |
|                      | Gas(Flare)                        | Ø,mm             | 12.7                | 12.7                | 12.7                | 12.7                 | 15.88                |                     |
|                      |                                   | Ø, inch          | 1/2                 | 1/2                 | 1/2                 | 1/2                  | 5/8                  |                     |
|                      | Drain                             | Ø,mm             | ID18 HOSE           | ID18 HOSE           | ID18 HOSE           | ID18 HOSE            | ID18 HOSE            |                     |
| Weight               | Net Weight                        | kg               | 26                  | 26                  | 26                  | 31.5                 | 31.5                 |                     |
|                      |                                   | lbs              | 57.3                | 57.3                | 57.3                | 69.4                 | 69.4                 |                     |
|                      | Shipping Weight                   | kg               | 29.5                | 29.5                | 29.5                | 36.5                 | 36.5                 |                     |
|                      |                                   | lbs              | 65.0                | 65.0                | 65.0                | 80.5                 | 80.5                 |                     |
| Dimensions           | Net Dimensions                    | mm               | 945x600x220         | 945x600x220         | 945x600x220         | 1225x600x220         | 1225x600x220         |                     |
|                      |                                   | lbs              | 37.2x23.62x8.66     | 37.2x23.62x8.66     | 37.2x23.62x8.66     | 48.23 x 23.62 x 8.66 | 48.23 x 23.62 x 8.66 |                     |
|                      | Shipping Dimensions               | mm               | 1035x690x310        | 1035x690x310        | 1035x690x310        | 1335x690x310         | 1335x690x310         |                     |
|                      |                                   | lbs              | 40.75x27.17x12.2    | 40.75x27.17x12.2    | 40.75x27.17x12.2    | 52.56 x 27.17 x 12.2 | 52.56 x 27.17 x 12.2 |                     |
| Functions            | Auto Restart                      | -                | O                   | O                   | O                   | O                    | O                    |                     |
|                      | Auto Swing                        | -                | X                   | X                   | X                   | X                    | X                    |                     |
|                      | Group/Individual Control          | -                | O                   | O                   | O                   | O                    | O                    |                     |
|                      | External Contact Control          | -                | O                   | O                   | O                   | O                    | O                    |                     |
|                      | Trouble Shooting by LED           | -                | O                   | O                   | O                   | O                    | O                    |                     |
| Standard Accessories | Installation Manual               | -                | O                   | O                   | O                   | O                    | O                    |                     |
|                      | Operation Manual                  | -                | X                   | X                   | X                   | X                    | X                    |                     |
|                      | Pattern Sheet for Installation    | -                | X                   | X                   | X                   | X                    | X                    |                     |
|                      | Flexible Drain Hose               | -                | O                   | O                   | O                   | O                    | O                    |                     |
|                      | Filter / Safety Grille            | -                | O                   | O                   | O                   | O                    | O                    |                     |
| Optional Accessories | Drain Pump (Pumping, Speed, Lift) | ℓ/h,mm           | X                   | X                   | X                   | X                    | X                    |                     |
|                      | Simple Wired Remote Controller    | -                | MWR-SH00N(Optional) | MWR-SH00N(Optional) | MWR-SH00N(Optional) | MWR-SH00N(Optional)  | MWR-SH00N(Optional)  |                     |
|                      | Wired Remote Controller           | -                | MWR-WE10N(Optional) | MWR-WE10N(Optional) | MWR-WE10N(Optional) | MWR-WE10N(Optional)  | MWR-WE10N(Optional)  |                     |
|                      | Air Filter                        | -                | Long life filter    | Long life filter    | Long life filter    | Long life filter     | Long life filter     |                     |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### ■ OAP Duct

| Model                                 |                                     |                                    | OAP Duct               |                            |                       |
|---------------------------------------|-------------------------------------|------------------------------------|------------------------|----------------------------|-----------------------|
|                                       |                                     |                                    | AM072JNESCH/AA         | AM096JNESCH/AA             |                       |
| Power Supply                          |                                     | φ,V,Hz                             | 1,208~230,60           | 1,208~230,60               |                       |
| Mode <sup>1)</sup>                    |                                     | -                                  | HP                     | HP                         |                       |
| Performance                           | Capacity                            | Cooling <sup>2)</sup>              | Btu/hr 92% ↑<br>72,000 | 96,000                     |                       |
|                                       |                                     | Heating <sup>3)</sup>              | Btu/hr 92% ↑<br>47,000 | 59,000                     |                       |
| Power                                 | Input Consumption (Cooling/Heating) |                                    | W 105% ↓<br>360/360    | 450/450                    |                       |
|                                       | Running Current (Cooling/Heating)   |                                    | A 105% ↓<br>2.60/2.60  | 3.10/3.10                  |                       |
| Indoor unit refrigerant adding amount |                                     | Kg/EA                              | 1.18                   | 1.18                       |                       |
| Noise Level                           | Actual Noise Pressure (High)        |                                    | dB(A) ↓<br>47          | 47                         |                       |
| Fan                                   | Motor                               | Type                               | -                      | Sirocco, Ø270*2EA          |                       |
|                                       |                                     | Model                              | -                      | DL-17860SSBA (DB31-00659A) |                       |
|                                       |                                     | Type                               | -                      | BLDC Feedback              |                       |
|                                       |                                     | Output                             | W                      | -                          |                       |
| Fan Speed                             | Fan(H/M/L)                          | 0 mmAq                             | rpm±20                 | 875/-/-                    |                       |
|                                       | Fan(H/M/L)                          | Standard                           |                        | 1050/-/-                   |                       |
|                                       | Cooling (H/M/L)                     | Standard                           |                        | -                          |                       |
|                                       | Heating (H/M/L)                     | Standard                           |                        | -                          |                       |
| Airflow Rate                          | Fan(H/M/L)                          |                                    | m <sup>3</sup> /min    | 28.00/-/-                  |                       |
|                                       | Cooling (High)                      |                                    |                        | -                          |                       |
|                                       | Heating (High)                      |                                    |                        | -                          |                       |
| Refrigerant                           | Type                                | -                                  | R410a                  | R410a                      |                       |
|                                       | Control Method                      | -                                  | EDM EEV 6.4C           | EDM EEV 6.4C               |                       |
| Temperature Control                   |                                     | -                                  | Micom&Thermistors      | Micom&Thermistors          |                       |
| Safety Devices                        |                                     | -                                  | Fuse                   | Fuse                       |                       |
| External Static Pressure              | Standard (Min.~Max)                 |                                    | mmH2O                  | 25(5~30)                   |                       |
| Piping Connections                    | Liquid (Flare)                      | Φ,mm                               | 9.52                   | 9.52                       |                       |
|                                       |                                     | Φinch                              | 3/8"                   | 3/8"                       |                       |
|                                       |                                     | Φ,mm                               | 19.05                  | 22.23                      |                       |
|                                       | Gas (Flare)                         | Φinch                              | 3/4"                   | 7/8"                       |                       |
|                                       |                                     | Φ,mm                               | VP25 (OD 32,ID 25) mm  | VP25 (OD 32,ID 25) mm      |                       |
|                                       |                                     | Φinch                              | -                      | -                          |                       |
| Weight                                | Net Weight                          | kg                                 | 90                     | 90                         |                       |
|                                       | Shipping Weight                     | kg                                 | 100                    | 100                        |                       |
| Dimensions                            | Net Dimensions (W×H×D)              |                                    | mm                     | 1465x460x910               |                       |
|                                       |                                     |                                    | inch                   | -                          |                       |
|                                       | Shipping Dimensions (W×H×D)         |                                    | mm                     | 1612 x 519 x 984           |                       |
|                                       |                                     |                                    | inch                   | -                          |                       |
| Bypass Tube                           | SOLENOID VALVE                      | -                                  | Assy, FDF6A48          | Assy, FDF6A48              |                       |
|                                       | Check VALVE                         | -                                  | ID9.6-ID12.9           | ID9.6-ID12.9               |                       |
| Panel Size                            | Model                               | -                                  | -                      | -                          |                       |
|                                       | Net Weight                          | kg                                 | -                      | -                          |                       |
|                                       | Shipping Weight                     | kg                                 | -                      | -                          |                       |
|                                       | Net Dimensions (W×H×D)              | mm                                 | -                      | -                          |                       |
|                                       | Shipping Dimensions (W×H×D)         | mm                                 | -                      | -                          |                       |
| Functions                             | Auto restart                        | -                                  | O                      | O                          |                       |
|                                       | Auto swing                          | -                                  | X                      | X                          |                       |
|                                       | Group/Individual control            | -                                  | O(OAP group only)      | O(OAP group only)          |                       |
|                                       | External contact control            | -                                  | O                      | O                          |                       |
|                                       | Trouble shooting by LED             | -                                  | X                      | X                          |                       |
| Standard accessories                  | Installation manual                 | -                                  | O                      | O                          |                       |
|                                       | Operation manual                    | -                                  | O                      | O                          |                       |
|                                       | Pattern sheet for installation      | -                                  | O                      | O                          |                       |
|                                       | Flexible drain hose                 | -                                  | O                      | O                          |                       |
|                                       | Filter/Safety grille                | -                                  | X                      | X                          |                       |
|                                       | Drain pump                          | Drain pump                         | - / Model Name         | Optional / MDP-G075SQ      | Optional / MDP-G075SQ |
|                                       |                                     | Max. lifting Height / Displacement | mm / liter/h           | 750 / 24                   | 750 / 24              |
| Optional Accessories                  | Wireless remote controller          | -                                  | MR-EH00U               | MR-EH00U                   |                       |
|                                       | Wired remote controller             | -                                  | MWR-WE10N              | MWR-WE10N                  |                       |
|                                       | External contact interface module   | -                                  | MIM-B14                | MIM-B14                    |                       |
|                                       | Duct Receiver kits                  | -                                  | MRK-A10N               | MRK-A10N                   |                       |
|                                       | EEV kits                            | -                                  | -                      | -                          |                       |



- \*1) Mode  
- HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;  
- Indoor temperature : 35°C DB, 28°C WB - Outdoor temperature : 35°C DB, 28°C WB
- \*3) Nominal heating capacities are based on;  
- Indoor temperature : 0°C DB, -3°C WB - Outdoor temperature : 0°C DB, -3°C WB
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### Global Duct 1

| Model                              |                                   |                    | Global Duct 1      |                    |                   |                   |  |
|------------------------------------|-----------------------------------|--------------------|--------------------|--------------------|-------------------|-------------------|--|
|                                    |                                   |                    | AM006RNMDCH/AA     | AM007MNMDCH/AA     | AM009MNMDCH/AA    |                   |  |
| Power Supply                       |                                   | Φ, #, V, Hz        | 1,2,208-230,60     | 1,2,208-230,60     | 1,2,208-230,60    |                   |  |
| Mode                               |                                   | -                  | HP/HR              | HP/HR              | HP/HR             |                   |  |
| Performance                        | Capacity (Nominal)                | Cooling 2)         | kW                 | -                  | -                 | -                 |  |
|                                    |                                   |                    | Btu/h              | 6,300              | 7,500             | 9,500             |  |
|                                    |                                   | Heating 2)         | kW                 | -                  | -                 | -                 |  |
|                                    |                                   |                    | Btu/h              | 7,100              | 8,500             | 10,500            |  |
| Condensate (with high fan speed)   |                                   | Liter/h            | -                  | -                  | -                 |                   |  |
| Power                              | Power Input (Nominal)             | Cooling 1)         | W                  | 27                 | 27                | 27                |  |
|                                    |                                   | Heating 2)         | W                  | 27                 | 27                | 27                |  |
|                                    | Current Input (Nominal)           | Cooling 1)         | A                  | 0.25               | 0.25              | 0.25              |  |
|                                    |                                   | Heating 2)         | A                  | 0.25               | 0.25              | 0.25              |  |
| Fan                                | Type                              |                    | -                  | Sirocco Fan        | Sirocco Fan       | Sirocco Fan       |  |
|                                    | Motor                             | Model              | -                  | -                  | -                 | -                 |  |
|                                    |                                   | Type               | -                  | BLDC               | BLDC              | BLDC              |  |
|                                    |                                   | Output x n         | W                  | 153 x 1            | 153 x 1           | 153 x 1           |  |
|                                    | Air Flow Rate                     | H/M/L              | CMM                | 9                  | 9                 | 9                 |  |
| External Pressure                  | Min / Std / Max                   | mmAq               | 0.0 / 1.0 / 15.0   | 0.0 / 1.0 / 15.0   | 0.0 / 1.0 / 15.0  |                   |  |
|                                    |                                   | Pa                 | 0.0 / 9.8 / 147.1  | 0.0 / 9.8 / 147.1  | 0.0 / 9.8 / 147.1 |                   |  |
| Sound                              | Sound Pressure                    | High / Mid / Low   | dB(A)              | 26 / 24 / 22       | 26 / 24 / 22      | 26 / 24 / 22      |  |
|                                    | Sound Power                       | Cooling            | dB(A)              | -                  | -                 | -                 |  |
| Refrigerant                        | Type                              |                    | -                  | R410A              | R410A             | R410A             |  |
|                                    | Control Method                    |                    | -                  | EEV INCLUDED       | EEV INCLUDED      | EEV INCLUDED      |  |
| Temperature Control                |                                   | -                  | Micom&Thermistors  | Micom&Thermistors  | Micom&Thermistors | Micom&Thermistors |  |
| Safety Devices                     |                                   | -                  | Fuse               | Fuse               | Fuse              | Fuse              |  |
| Piping Connections                 | Liquid Pipe (Flare)               | Φ,mm               | 6.35               | 6.35               | 6.35              |                   |  |
|                                    |                                   | Φ, inch            | 1/4"               | 1/4"               | 1/4"              |                   |  |
|                                    | Gas Pipe (Flare)                  | Φ,mm               | 12.7               | 12.7               | 12.7              |                   |  |
|                                    |                                   | Φ, inch            | 1/2"               | 1/2"               | 1/2"              |                   |  |
| Drain Pipe (Quick lock)            | Φ,mm                              | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25) |                   |                   |  |
| Dimensions                         | Net Weight                        | kg                 | 3.15               | 3.15               | 3.15              |                   |  |
|                                    | Shipping Weight                   | kg                 | 35.5               | 35.5               | 35.5              |                   |  |
|                                    | Net Dimensions (WxHxD)            | mm                 | 850 x 250 x 700    | 850 x 250 x 700    | 850 x 250 x 700   |                   |  |
|                                    | Shipping Dimensions (WxHxD)       | mm                 | 1,064 x 320 x 784  | 1,064 x 320 x 784  | 1,064 x 320 x 784 |                   |  |
| Function                           | Auto restart                      | -                  | o                  | o                  | o                 |                   |  |
|                                    | Auto swing                        | -                  | x                  | x                  | x                 |                   |  |
|                                    | Group/Individual control          | -                  | o                  | o                  | o                 |                   |  |
|                                    | External contact control          | -                  | o                  | o                  | o                 |                   |  |
|                                    | Trouble shooting by LED           | -                  | x                  | x                  | x                 |                   |  |
| Standard accessories               | Installation manual               | -                  | o                  | o                  | o                 |                   |  |
|                                    | Operation manual                  | -                  | o                  | o                  | o                 |                   |  |
|                                    | Pattern sheet for installation    | -                  | x                  | x                  | x                 |                   |  |
|                                    | Flexible drain hose               | -                  | o                  | o                  | o                 |                   |  |
|                                    | Filter/Safety grille              | -                  | Long life filter   | Long life filter   | Long life filter  |                   |  |
|                                    | Drain pump                        | Drain pump         | -                  | Built-In           | Built-In          | Built-In          |  |
| Max. lifting Height / Displacement |                                   | mm / liter/h       | 750 / 24           | 750 / 24           | 750 / 24          |                   |  |
| Optional accessories               | Wireless remote controller        | -                  | MR-DH00U           | MR-DH00U           | MR-DH00U          |                   |  |
|                                    | wired remote controller           | -                  | MWR-WE10N          | MWR-WE10N          | MWR-WE10N         |                   |  |
|                                    | External contact interface module | -                  | MIM-B14            | MIM-B14            | MIM-B14           |                   |  |
|                                    | Duct Receiver kits                | -                  | MRK-A10N           | MRK-A10N           | MRK-A10N          |                   |  |
|                                    | EEV kits                          | -                  | -                  | -                  | -                 |                   |  |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

\*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

## ■ Global Duct 1

| Model                              |                                   |                  | Global Duct 1       |                     |                     |                   |          |
|------------------------------------|-----------------------------------|------------------|---------------------|---------------------|---------------------|-------------------|----------|
|                                    |                                   |                  | AM012MNMDC/AA       | AM015MNMDC/AA       | AM018MNMDC/AA       |                   |          |
| Power Supply                       |                                   | Φ, #, V, Hz      | 1,2,208-230,60      | 1,2,208-230,60      | 1,2,208-230,60      |                   |          |
| Mode                               |                                   | -                | HP/HR               | HP/HR               | HP/HR               |                   |          |
| Performance                        | Capacity (Nominal)                | Cooling 2)       | kW                  | -                   | -                   | -                 |          |
|                                    |                                   |                  | Btu/h               | 12,000              | 15,000              | 18,000            |          |
|                                    |                                   | Heating 2)       | kW                  | -                   | -                   | -                 |          |
|                                    |                                   |                  | Btu/h               | 13,500              | 17,000              | 20,000            |          |
| Condensate (with high fan speed)   |                                   | Liter/h          | -                   | -                   | -                   |                   |          |
| Power                              | Power Input (Nominal)             | Cooling 1)       | W                   | 31                  | 38                  | 80                |          |
|                                    |                                   | Heating 2)       | W                   | 31                  | 38                  | 80                |          |
|                                    | Current Input (Nominal)           | Cooling 1)       | A                   | 0.26                | 0.30                | 0.65              |          |
|                                    |                                   | Heating 2)       | A                   | 0.26                | 0.30                | 0.65              |          |
| Fan                                | Type                              |                  | -                   | Sirocco Fan         | Sirocco Fan         | Sirocco Fan       |          |
|                                    | Motor                             | Model            | -                   |                     |                     |                   |          |
|                                    |                                   | Type             | -                   | BLDC                | BLDC                | BLDC              |          |
|                                    |                                   | Output x n       | W                   | 153 x 1             | 153 x 1             | 153 x 1           |          |
|                                    | Air Flow Rate                     | H/M/L            | CMM                 | 10                  | 11                  | 17                |          |
|                                    | External Pressure                 | Min / Std / Max  | mmAq                | 0.0 / 1.0 / 15.0    | 0.0 / 1.0 / 15.0    | 0.0 / 1.0 / 15.0  |          |
| Pa                                 |                                   |                  | 0.0 / 9.8 / 147.1   | 0.0 / 9.8 / 147.1   | 0.0 / 9.8 / 147.1   |                   |          |
| Sound                              | Sound Pressure                    | High / Mid / Low | dB(A)               | 27 / 25 / 23        | 28 / 26 / 24        | 29 / 27 / 25      |          |
|                                    | Sound Power                       | Cooling          | dB(A)               | -                   | -                   | -                 |          |
| Refrigerant                        | Type                              |                  | -                   | R410A               | R410A               | R410A             |          |
|                                    | Control Method                    |                  | -                   | EEV INCLUDED        | EEV INCLUDED        | EEV INCLUDED      |          |
| Temperature Control                |                                   | -                | Micom&Thermistors   | Micom&Thermistors   | Micom&Thermistors   |                   |          |
| Safety Devices                     |                                   | -                | Fuse                | Fuse                | Fuse                |                   |          |
| Piping Connections                 | Liquid Pipe (Flare)               | Φ,mm             | 6.35                | 6.35                | 6.35                |                   |          |
|                                    |                                   | Φ,inch           | 1/4"                | 1/4"                | 1/4"                |                   |          |
|                                    | Gas Pipe (Flare)                  | Φ,mm             | 12.7                | 12.7                | 12.7                |                   |          |
|                                    |                                   | Φ,inch           | 1/2"                | 1/2"                | 1/2"                |                   |          |
| Drain Pipe (Quick lock)            |                                   | Φ,mm             | VP25 (OD 32, ID 25) | VP25 (OD 32, ID 25) | VP25 (OD 32, ID 25) |                   |          |
| Dimensions                         | Net Weight                        |                  | kg                  | 3.15                | 3.15                | 3.15              |          |
|                                    | Shipping Weight                   |                  | kg                  | 35.5                | 35.5                | 35.5              |          |
|                                    | Net Dimensions (WxHxD)            |                  | mm                  | 850 x 250 x 700     | 850 x 250 x 700     | 850 x 250 x 700   |          |
|                                    | Shipping Dimensions (WxHxD)       |                  | mm                  | 1,064 x 320 x 784   | 1,064 x 320 x 784   | 1,064 x 320 x 784 |          |
| Function                           | Auto restart                      |                  | -                   | o                   | o                   | o                 |          |
|                                    | Auto swing                        |                  | -                   | x                   | x                   | x                 |          |
|                                    | Group/Individual control          |                  | -                   | o                   | o                   | o                 |          |
|                                    | External contact control          |                  | -                   | o                   | o                   | o                 |          |
|                                    | Trouble shooting by LED           |                  | -                   | x                   | x                   | x                 |          |
| Standard accessories               | Installation manual               |                  | -                   | o                   | o                   | o                 |          |
|                                    | Operation manual                  |                  | -                   | o                   | o                   | o                 |          |
|                                    | Pattern sheet for installation    |                  | -                   | x                   | x                   | x                 |          |
|                                    | Flexible drain hose               |                  | -                   | o                   | o                   | o                 |          |
|                                    | Filter/Safety grille              |                  | -                   | Long life filter    | Long life filter    | Long life filter  |          |
|                                    | Drain pump                        | Drain pump       |                     | -                   | Built-In            | Built-In          | Built-In |
| Max. lifting Height / Displacement |                                   | mm / liter/h     | 750 / 24            | 750 / 24            | 750 / 24            |                   |          |
| Optional accessories               | Wireless remote controller        |                  | -                   | MR-DH00U            | MR-DH00U            | MR-DH00U          |          |
|                                    | wired remote controller           |                  | -                   | MWR-WE10N           | MWR-WE10N           | MWR-WE10N         |          |
|                                    | External contact interface module |                  | -                   | MIM-B14             | MIM-B14             | MIM-B14           |          |
|                                    | Duct Receiver kits                |                  | -                   | MRK-A10N            | MRK-A10N            | MRK-A10N          |          |
|                                    | EEV kits                          |                  | -                   | -                   | -                   | -                 |          |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

\*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### Global Duct 2

| Model                              |                                   |                    | Global Duct 2      |                     |                     |                     |                  |
|------------------------------------|-----------------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|------------------|
|                                    |                                   |                    | AM018RNMDC/AA      | AM024MNHDC/AA       | AM027MNHDC/AA       | AM030MNHDC/AA       |                  |
| Power Supply                       |                                   | Φ, #, V, Hz        | 1,2,208-230,60     | 1,2,208-230,60      | 1,2,208-230,60      | 1,2,208-230,60      |                  |
| Mode                               |                                   | -                  | HP/HR              | HP/HR               | HP/HR               | HP/HR               |                  |
| Performance                        | Capacity (Nominal)                | Cooling 2)         | kW                 | -                   | -                   | -                   |                  |
|                                    |                                   |                    | Btu/h              | 18,000              | 24,000              | 27,000              | 30,000           |
|                                    |                                   | Heating 2)         | kW                 | -                   | -                   | -                   | -                |
|                                    |                                   |                    | Btu/h              | 20,000              | 27,000              | 30,000              | 34,000           |
| Condensate (with high fan speed)   | Liter/h                           | -                  | -                  | -                   | -                   |                     |                  |
| Power                              | Power Input (Nominal)             | Cooling 1)         | W                  | 80                  | 114                 | 125                 | 132              |
|                                    |                                   | Heating 2)         | W                  | 80                  | 114                 | 125                 | 132              |
|                                    | Current Input (Nominal)           | Cooling 1)         | A                  | 0.65                | 0.81                | 0.87                | 0.92             |
|                                    |                                   | Heating 2)         | A                  | 0.65                | 0.81                | 0.87                | 0.92             |
| Fan                                | Type                              |                    | -                  | Sirocco Fan         | Sirocco Fan         | Sirocco Fan         | Sirocco Fan      |
|                                    | Motor                             | Model              | -                  |                     |                     |                     |                  |
|                                    |                                   | Type               | -                  | BLDC                | BLDC                | BLDC                | BLDC             |
|                                    |                                   | Output x n         | W                  | 153 x 1             | 153 x 1             | 153 x 1             | 153 x 1          |
|                                    | Air Flow Rate                     | H/M/L              | CMM                | 19                  | 22                  | 23                  | 24               |
|                                    | External Pressure                 | Min / Std / Max    | mmAq               | 0.0 / 1.0 / 15.0    | 3.0 / 5.2 / 20.0    | 3.0 / 5.2 / 20.0    | 3.0 / 5.2 / 20.0 |
| Pa                                 |                                   |                    | 0.0 / 9.8 / 147.1  | 29.4 / 51.0 / 196.1 | 29.4 / 51.0 / 196.1 | 29.4 / 51.0 / 196.1 |                  |
| Sound                              | Sound Pressure                    | High / Mid / Low   | dB(A)              | 34 / 30 / 26        | 39 / 36 / 30        | 40 / 37 / 34        | 40 / 38 / 35     |
|                                    | Sound Power                       | Cooling            | dB(A)              | -                   | -                   | -                   | -                |
| Refrigerant                        | Type                              |                    | -                  | R410A               | R410A               | R410A               | R410A            |
|                                    | Control Method                    |                    | -                  | EEV INCLUDED        | EEV INCLUDED        | EEV INCLUDED        | EEV INCLUDED     |
| Temperature Control                |                                   | -                  | Micom&Thermistors  | Micom&Thermistors   | Micom&Thermistors   | Micom&Thermistors   |                  |
| Safety Devices                     |                                   | -                  | Fuse               | Fuse                | Fuse                | Fuse                |                  |
| Piping Connections                 | Liquid Pipe (Flare)               | Φ,mm               | 6.35               | 9.52                | 9.52                | 9.52                |                  |
|                                    |                                   | Φ,inch             | 1/4"               | 3/8"                | 3/8"                | 3/8"                |                  |
|                                    | Gas Pipe (Flare)                  | Φ,mm               | 12.7               | 15.88               | 15.88               | 15.88               |                  |
|                                    |                                   | Φ,inch             | 1/2"               | 5/8"                | 5/8"                | 5/8"                |                  |
| Drain Pipe (Quick lock)            | Φ,mm                              | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25) | VP25 (OD 32,ID 25)  | VP25 (OD 32,ID 25)  |                     |                  |
| Dimensions                         | Net Weight                        | kg                 | 40.5               | 40.5                | 40.5                | 40.5                |                  |
|                                    | Shipping Weight                   | kg                 | 45.0               | 45.0                | 45.0                | 45.0                |                  |
|                                    | Net Dimensions (WxHxD)            | mm                 | 1,200 x 250 x 700  | 1,200 x 250 x 700   | 1,200 x 250 x 700   | 1,200 x 250 x 700   |                  |
|                                    | Shipping Dimensions (WxHxD)       | mm                 | 1,429 x 320 x 779  | 1,429 x 320 x 779   | 1,429 x 320 x 779   | 1,429 x 320 x 779   |                  |
| Function                           | Auto restart                      | -                  | o                  | o                   | o                   | o                   |                  |
|                                    | Auto swing                        | -                  | x                  | x                   | x                   | x                   |                  |
|                                    | Group/Individual control          | -                  | o                  | o                   | o                   | o                   |                  |
|                                    | External contact control          | -                  | o                  | o                   | o                   | o                   |                  |
|                                    | Trouble shooting by LED           | -                  | x                  | x                   | x                   | x                   |                  |
| Standard accessories               | Installation manual               | -                  | o                  | o                   | o                   | o                   |                  |
|                                    | Operation manual                  | -                  | o                  | o                   | o                   | o                   |                  |
|                                    | Pattern sheet for installation    | -                  | x                  | x                   | x                   | x                   |                  |
|                                    | Flexible drain hose               | -                  | o                  | o                   | o                   | o                   |                  |
|                                    | Filter/Safety grille              | -                  | Long life filter   | Long life filter    | Long life filter    | Long life filter    |                  |
|                                    | Drain pump                        | Drain pump         | -                  | Built-In            | Built-In            | Built-In            | Built-In         |
| Max. lifting Height / Displacement |                                   | mm / liter/h       | 750 / 24           | 750 / 24            | 750 / 24            | 750 / 24            |                  |
| Optional accessories               | Wireless remote controller        | -                  | MR-DH00U           | MR-DH00U            | MR-DH00U            | MR-DH00U            |                  |
|                                    | wired remote controller           | -                  | MWR-WE10N          | MWR-WE10N           | MWR-WE10N           | MWR-WE10N           |                  |
|                                    | External contact interface module | -                  | MIM-B14            | MIM-B14             | MIM-B14             | MIM-B14             |                  |
|                                    | Duct Receiver kits                | -                  | MRK-A10N           | MRK-A10N            | MRK-A10N            | MRK-A10N            |                  |
|                                    | EEV kits                          | -                  | -                  | -                   | -                   | -                   |                  |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

\*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### Global Duct 3

| Model                              |                                   |                    | Global Duct 3       |                   |
|------------------------------------|-----------------------------------|--------------------|---------------------|-------------------|
|                                    |                                   |                    | AM024MNMDCH/AA      | AM027MNMDCH/AA    |
| Power Supply                       |                                   | Φ, #, V, Hz        | 1,2,208-230,60      | 1,2,208-230,60    |
| Mode                               |                                   | -                  | HP/HR               | HP/HR             |
| Performance                        | Capacity (Nominal)                | Cooling 2)         | kW                  | -                 |
|                                    |                                   |                    | Btu/h               | 36,000            |
|                                    |                                   | Heating 2)         | kW                  | -                 |
|                                    |                                   |                    | Btu/h               | 40,000            |
| Condensate (with high fan speed)   | Liter/h                           | -                  |                     |                   |
| Power                              | Power Input (Nominal)             | Cooling 1)         | W                   | 165               |
|                                    |                                   | Heating 2)         | W                   | 165               |
|                                    | Current Input (Nominal)           | Cooling 1)         | A                   | 1.11              |
|                                    |                                   | Heating 2)         | A                   | 1.11              |
| Fan                                | Type                              |                    | -                   | Sirocco Fan       |
|                                    | Motor                             | Model              | -                   |                   |
|                                    |                                   | Type               | -                   | BLDC              |
|                                    |                                   | Output x n         | W                   | 153 x 1           |
|                                    | Air Flow Rate                     | H/M/L              | CMM                 | 29                |
| External Pressure                  | Min / Std / Max                   | mmAq               | 3.0 / 5.2 / 20.0    |                   |
|                                    |                                   | Pa                 | 29.4 / 51.0 / 196.1 |                   |
| Sound                              | Sound Pressure                    | High / Mid / Low   | dB(A)               | 38 / 35 / 32      |
|                                    | Sound Power                       | Cooling            | dB(A)               | -                 |
| Refrigerant                        | Type                              |                    | -                   | R410A             |
|                                    | Control Method                    |                    | -                   | EEV INCLUDED      |
| Temperature Control                |                                   | -                  | Micom&Thermistors   | Micom&Thermistors |
| Safety Devices                     |                                   | -                  | Fuse                | Fuse              |
| Piping Connections                 | Liquid Pipe (Flare)               | Φ,mm               | 9.52                |                   |
|                                    |                                   | Φ, inch            |                     |                   |
|                                    | Gas Pipe (Flare)                  | Φ,mm               | 15.88               |                   |
|                                    |                                   | Φ, inch            |                     |                   |
| Drain Pipe (Quick lock)            | Φ,mm                              | VP25 (OD 32,ID 25) |                     |                   |
| Dimensions                         | Net Weight                        | kg                 | 45.2                |                   |
|                                    | Shipping Weight                   | kg                 | 50.0                |                   |
|                                    | Net Dimensions (WxHxD)            | mm                 | 850 x 250 x 700     |                   |
|                                    | Shipping Dimensions (WxHxD)       | mm                 | 1,064 x 320 x 784   |                   |
| Function                           | Auto restart                      | -                  | o                   |                   |
|                                    | Auto swing                        | -                  | x                   |                   |
|                                    | Group/Individual control          | -                  | o                   |                   |
|                                    | External contact control          | -                  | o                   |                   |
|                                    | Trouble shooting by LED           | -                  | x                   |                   |
| Standard accessories               | Installation manual               | -                  | o                   |                   |
|                                    | Operation manual                  | -                  | o                   |                   |
|                                    | Pattern sheet for installation    | -                  | x                   |                   |
|                                    | Flexible drain hose               | -                  | o                   |                   |
|                                    | Filter/Safety grille              | -                  | Long life filter    |                   |
|                                    | Drain pump                        | Drain pump         | -                   | Built-in          |
| Max. lifting Height / Displacement |                                   | mm / liter/h       | 750 / 24            |                   |
| Optional accessories               | Wireless remote controller        | -                  | MR-DH00U            |                   |
|                                    | wired remote controller           | -                  | MWR-WE10N           |                   |
|                                    | External contact interface module | -                  | MIM-B14             |                   |
|                                    | Duct Receiver kits                | -                  | MRK-A10N            |                   |
|                                    | EEV kits                          | -                  | -                   |                   |



- \*1) Mode
  - HP : Heat Pump, HR : Heat Recovery
- \*2) Nominal cooling capacities are based on;
  - Indoor temperature : 27°C DB, 19°C WB
  - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*3) Nominal heating capacities are based on;
  - Indoor temperature : 20°C DB, 15°C WB
  - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
- \*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.
- \*5) Specifications may be subject to change without prior notice for product improvement.

## Indoor Unit(cont.)

### ■ Wall Mounted type (MAX WITH EEV)

| Model                |                                 |                                      | AM024MNMDC/AA       |                                 |
|----------------------|---------------------------------|--------------------------------------|---------------------|---------------------------------|
| Power Supply         |                                 | Φ, V/Hz                              | 1,2,208-230,60      |                                 |
| Mode*1)              |                                 | -                                    | HP / HR             |                                 |
| Performance          | Capacity                        | Cooling*2)                           | kW                  | -                               |
|                      |                                 |                                      | Btu/h               | 31,700                          |
|                      |                                 | Heating*3)                           | kW                  | -                               |
|                      |                                 |                                      | Btu/h               | 33,400                          |
| Power                | Power Input                     | Cooling                              | W                   | 66                              |
|                      |                                 | Heating                              | W                   | 76                              |
|                      | Current Input                   | Cooling                              | A                   | 0.47                            |
|                      |                                 | Heating                              | A                   | 0.54                            |
| Fan                  | Type                            |                                      | -                   | Crossflow Fan<br>Φ107*L485, 2EA |
|                      | Motor                           | Type                                 | -                   | BLDC                            |
|                      |                                 | Output                               | W                   | 58                              |
|                      |                                 | Number of unit                       | -                   | 1                               |
|                      | Airflow Rate                    | Cooling(High)                        | m <sup>3</sup> /mim | 22.5                            |
|                      |                                 | Heating(High)                        | m <sup>3</sup> /mim | 25.0                            |
| Piping Connections   | Liquid Pipe                     |                                      | Φ, m'               | 9.52                            |
|                      |                                 |                                      | Φ, inch             | 3/8"                            |
|                      | Gas Pipe                        |                                      | Φ, m'               | 15.88                           |
|                      |                                 |                                      | Φ, inch             | 5/8"                            |
|                      | Drain Pipe                      |                                      | Φ, m'               | ID 18 HOSE                      |
| Field Wiring         | Power Source Wire               | Below 20m/<br>over 20m <sup>mm</sup> | mm <sup>2</sup>     | 1.5 ~ 2.5                       |
|                      | Transmission Cable              |                                      | mm <sup>2</sup>     | 0.75 ~ 1.50                     |
| Refrigerant          | Type                            | -                                    | -                   | R410A                           |
|                      | Control Method                  | -                                    | -                   | EEV INCLUDED                    |
| Sound                | Sound Pressure*4)               | Cooling/Heating                      | dBA                 | 55/56                           |
|                      |                                 |                                      |                     | -                               |
| Dimensions           | Net Weight                      |                                      | kg                  | 19                              |
|                      | Shipping Weight                 |                                      | kg                  | 22                              |
|                      | Net Dimensions (W x H x D)      |                                      | mm                  | 1279*345*229                    |
|                      | Shipping Dimensions (W x H x D) |                                      | mm                  | 1352*420*326                    |
| Functions            | Auto Restart                    |                                      | -                   | 0                               |
|                      | Auto Swing                      |                                      | -                   | 0                               |
|                      | Group/Individual Control        |                                      | -                   | 0                               |
|                      | External Contact Control        |                                      | -                   | 0                               |
|                      | Trouble Shooting by LED         |                                      | -                   | 0                               |
| Standard Accessories | Installation Manual             |                                      | -                   | 0                               |
|                      | Operation Manual                |                                      | -                   | 0                               |
|                      | Pattern Sheet for Installation  |                                      | -                   | X                               |
|                      | Flexible Drain Hose             |                                      | -                   | 0                               |
|                      | Filter / Safety Grille          |                                      | -                   | Filter (Washable)               |
|                      | Wireless Remote Controller      |                                      | -                   | MR-EH00                         |
| Optional Accessories | Wireless Remote Controller      |                                      | -                   | -                               |
|                      | Wired Remote Controller         | Simplified                           | -                   | MWR-WE10N                       |
|                      |                                 | External Contact Interface Module    | -                   | MIM-B14                         |



\*1) Mode

- HP : Heat Pump, HR : Heat Recovery

\*2) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB

- Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*3) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

\*4) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

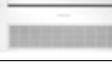
\*5) Specifications may be subject to change without prior notice for product improvement.

## 2-2 Accessory and Option Specifications

### 2-2-1 Accessories

| Classification                       |                        | Product                                  | Model      | Image  | Application model  |
|--------------------------------------|------------------------|--|------------|--|--|
| Intergrated management system        | Controller             | DMS 2                                    | MIM-B14    |    | DVM S  |
|                                      |                        | S-NET 3                                  | MST-P3P    |    | DVM S  |
|                                      | Interface module       | PIM                                      | MIM-B16N   |    | DVM S ('13.07~)  |
| Centralized control system           | Controller             | Centralized controller                   | MCM-A202DN |    | DVM S  |
|                                      |                        | Operation mode selection switch          | MCM-C200   |    | DVM S  |
|                                      |                        | Touch screen controller                  | MCM-A300N  |    | DVM S  |
| Individual control system Controller | Controller             | Wireless remote controller               | MR-DH00U   |   | Cassette, Duct (Receiver needed)<br>Wall-mounted, Ceiling (No receiver needed) |
|                                      |                        | Wired remote controller (Multi function) | MWR-WE10N  |  | Cassette, Wall-mounted, Ceiling, Duct  |
|                                      |                        | Wireless signal receiver                 | MRK-A10N   |  | Duct (for wireless remote controller)  |
|                                      |                        | Remote sensor                            | MRW-TA     |  | Cassette, Wall-mounted, Ceiling, Duct  |
| Building management system           |                        | Lonworks interface module                | MIM-B18N   |  | DVM S  |
|                                      |                        | DMS-Bnet (BACnet)                        | MIM-B17N   |  | DVM S  |
| Guest room management system         |                        | External contact interface module        | MIM-B14    |  | DVM S  |
| Converter                            |                        | S-NET Pro                                | MIM-C02N   |  | DVM S  |
|                                      | S-checker              |  | MIM-C10    |  | DVM S  |
|                                      | Motion detector sensor |  | MCR-SMA    |  | Only Mini 4Way   |

※ DVM Series : DVM mini, DVM PLUS III, DVM PLUS III HR, DVM PLUS IV, DVM PLUS IV HR

| Classification                          | Feature   | Model                         | Description  | Relevant unit                 | Remark    |
|---|---|-------------------------------|--|-------------------------------|-----------|
| Y-joint                                 |    | MXJ-YA4422M                   | over 135.2kW(461 MBH)                                  | HP/HR                         | Requisite |
|   |   | MXJ-YA4119M                   | 98.4kW~135.2kW(336~461 MBH)                            |                               |           |
|   |   | MXJ-YA3419M                   | 70.3kW~98.4kW(240~336 MBH)                             |                               |           |
|   |   | MXJ-YA2815M                   | 45.0kW~70.3kW(154~240 MBH)                             |                               |           |
|   |   | MXJ-YA2812M                   | 40.0kW~45.0kW(136~154 MBH)                             |                               |           |
|   |   | MXJ-YA2512M                   | 15.0kW~40.0kW(51~136 MBH)                              |                               |           |
|   |   | MXJ-YA1509M                   | below 15.0kW(51 MBH)                                   |                               |           |
| Y-joint<br>(High pressure gas for HR)   |    | MXJ-YA1500M                   | 22.4kW (76 MBH) and below                              | HR                            | Requisite |
|   |   | MXJ-YA2500M                   | 22.4kW ~ 70.3 kW(76~240 MBH)                           |                               |           |
|   |   | MXJ-YA3100M                   | 70.3kW ~ 135.2 kW(240~461 MBH)                         |                               |           |
|   |   | MXJ-YA3800M                   | More than 135.2 kW(461 MBH)                            |                               |           |
| Outdoor T Joint<br>(Outdoor Connection) |    | MXJ-TA3819M                   | 456MBH and below                                       | HP/HR                         | Requisite |
|   |   | MXJ-TA3100M                   | 456MBH and below(High Pressure Gas for HR)             | HR                            | Requisite |
| Header Joint                            |    | MXJ-HA3819M                   | 8 indoor units - More than 70.3kW(240 MBH)             | HP/HR                         | Requisite |
|   |   | MXJ-HA3115M                   | 8 indoor units - 70.3kW(240 MBH) and below             |                               |           |
|   |   | MXJ-HA2512M                   | 4 indoor units - Less than 45.0kW(154 MBH)             |                               |           |
| EEV kit                                 |   | MXD-E24K132A                  | 2 indoor units (7-15.5, 17-31K)                        | HP<br>Wall-mounted<br>Ceiling | Option    |
|   |   | MXD-E24K200A                  | 2 indoor units (7-15.5K)                               |                               |           |
|   |   | MXD-E32K200A                  | 2 indoor units (7-31K)                                 |                               |           |
|   |  | MXD-E24K232A                  | 3 indoor units (7-15.5, 17-31K)                        | HP<br>Wall-mounted<br>Ceiling | Option    |
|   |   | MXD-E24K300A                  | 3 indoor units (7-15.5K)                               |                               |           |
|   |   | MXD-E32K224A                  | 3 indoor units (7-15.5, 17-31K)                        |                               |           |
|   |  | MEV-E24SA                     | 1 indoor unit (Below 12K)                              | Wall-mounted<br>Ceiling       | Option    |
|   |   | MEV-E32SA                     | 1 indoor unit (18K Over)                               |                               |           |
| Drain Pump                              |  | MDP-E075SEE3D                 | SLIM DUCT  | Slim Duct                     | Option    |
|   |   | MDP-M075SGU3D                 | MSP DUCT(18/24MBH)                                     | MSP Duct                      |           |
|   |   | MDP-M075SGU1D                 | MSP DUCT(30/36MBH)                                     |                               |           |
|   | MDP-M075SGU2D   | MSP DUCT(48MBH)/HSP(36/48MHB) |  |                               |           |
|   |  | MDP-N047SNC1D                 | HSP DUCT(76.8/96MBH)                                   | HSP Duct                      |           |
| MCU                                     |  | MCU-S6NEE1N                   | Below 6 indoor units                                   | HR                            | Requisite |
|   |   | MCU-S4NEE1N                   | Below 4 indoor units                                   |                               |           |
|   |   | MCU-S4NEE2N                   | Below 4 indoor units - HSP DUCT(more than 76,800Btu/h) |                               |           |
| AHU kit                                 |  | MXD-K025AN                    | 24~30MBH(7kW~8.75kW)                                   | -                             | Option    |
|   |   | MXD-K050AN                    | 48~60MBH(14kW~17.5kW)                                  |                               |           |
|   |   | MXD-K075AN                    | 72~90MBH(21kW~26.25kW)                                 |                               |           |
|   |   | MXD-K100AN                    | 96~112MBH(28kW~35kW)                                   |                               |           |
| Front panel                             |  | PC1NUSMAN                     | SLIM 1-WAY(Classic)                                    | SLIM 1WAY                     | Requisite |
|   |  | PC1NUPMAN                     | SLIM 1-WAY(Zet sliding)                                | SLIM 1WAY                     |           |
|   |  | PC4SUSMAN                     | MINI 4-WAY(Classic)                                    | MINI 4WAY                     |           |
|   |  | PC4NUSKAN                     | G 4-WAY(Classic)                                       | G 4WAY                        |           |

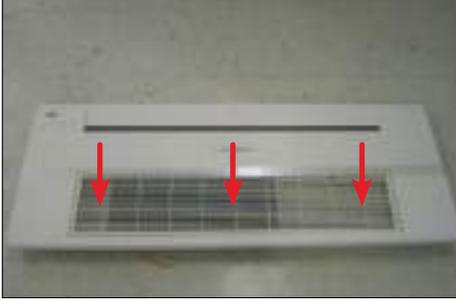
### 3. Disassembly and Reassembly

#### ■ Necessary Tools

| Item                   | Remark  |
|------------------------|---|
| +Screw Driver          |     |
| Monkey Spanner         |     |
| -Screw Driver          |     |
| Nipper                 |     |
| Electric Motion Driver |  |
| L-Wrench               |  |

### 3-1 Indoor Unit

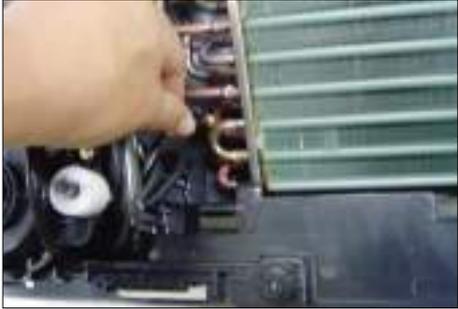
#### 3-1-1 Slim 1 way cassette type

| No | Parts                      | Procedure  | Remark  |
|----|----------------------------|--|---|
| 1  | Panel & Filter<br>(A type) | <ol style="list-style-type: none"> <li>1) Press the Push Button on the Grill and open it</li> <br/> <li>2) Separate 1 clip from the Panel and tilt the Grill to 45° and separate the Grille from the Panel.</li> <br/> <li>3) Separate the Filter from the Panel.</li> <br/> <li>4) Separate 3 cover screws from it.</li> <br/> <li>5) Unscrew 6 fixed screws and separate them from the Indoor Unit.<br/>(Use +Screw Driver)</li> </ol> | <br><br><br><br> |

| No | Parts | Procedure   | Remark   |
|----|-------|---|--|
|    |       | 6) Press the left and right Hooks to separate the Panel from the Indoor Unit. |  |

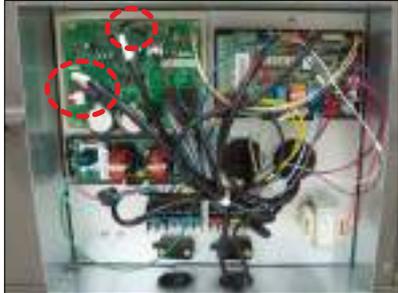
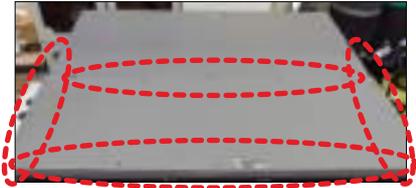
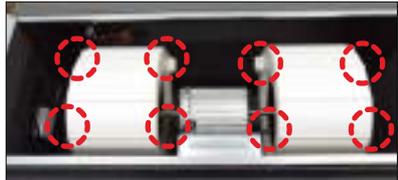
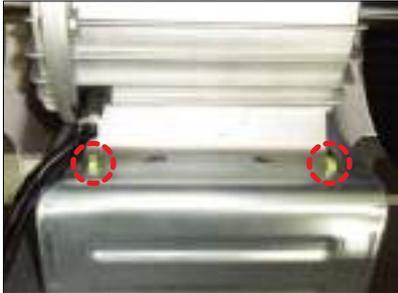
| No | Parts      | Procedure  | Remark  |
|----|------------|--|---|
| 2  | Drain Pan  | 1) Separate 5 fixing screws from the Drain Pan. (Use +Screw Driver)<br><br>2) Pull the Drain Pan to separate them from the Indoor Unit.<br><br><b>⚠ When disassembling the Pan, be careful not to touch the heat exchanger board with a bare hand.</b> |       |
| 3  | Control In | 1) Undo 3 fixing screws in the Control In appliance part to separate the Cover. (Use +Screw Driver)  |   |

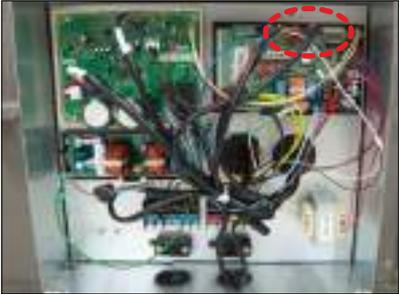
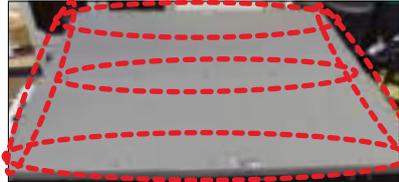
| No | Parts     | Procedure  | Remark  |
|----|-----------|--|---|
|    |           | <p>2) Separate 8 connectors on the PCB of the Indoor Unit.</p> <p>3) Separate the Control In from the Indoor Unit.</p> |    |
| 4  | Drain Sub | 1) Push the hook on the Drain Sub to separate it.  |     |

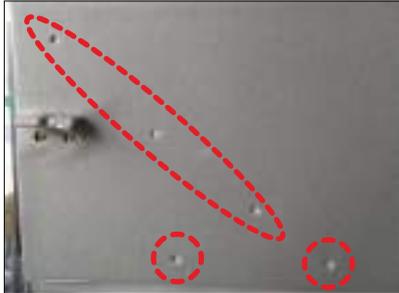
| No | Parts          | Procedure  | Remark  |
|----|----------------|--|---|
| 5  | Heat Exchanger | <ol style="list-style-type: none"> <li>1) Undo fixing screw in the Heat Exchanger. (Use +Screw Driver)</li> <li>2) Separate an Indoor Sensor from the Heat Exchanger.</li> <li>3) Separate the Heat Exchanger from the Indoor Unit.</li> </ol> |    |
| 6  | Cross Fan      | <ol style="list-style-type: none"> <li>1) Undo 3 fixing screws on the Cover Fan Motor. (Use +Screw Driver)</li> <li>2) Separate the Cover Fan Motor from the Indoor Unit.</li> </ol>   |     |

| No | Parts      | Procedure   | Remark   |
|----|------------|---|--|
|    |            | <p>3) Separate the Cross Fan from the Indoor Unit.</p>  |    |
| 7  | Drain Pump | <p>1) Separate fixing screw in the Cover Drain Pump. (Use +Screw Driver)</p> <p>2) Separate the Drain Hose from the Drain Pump.</p> <p>3) Separate the Drain Pump from the Indoor Unit.</p> | <br><br> |

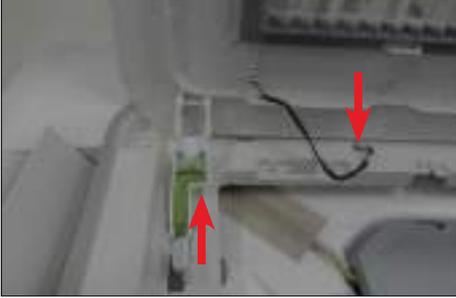
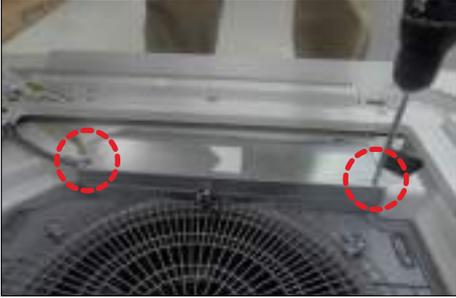
### 3-1-2 BIG DUCT

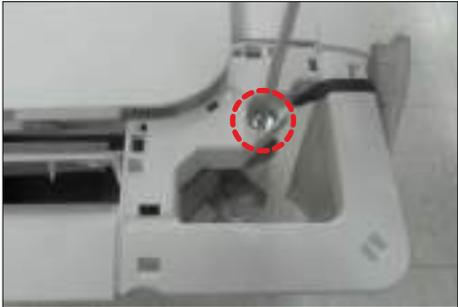
| No | Parts          | Procedure   | Remark   |
|----|----------------|---|--|
| 1  | MOTOR & BLOWER | <p>1) Detach the motor connectors from the PCB.</p> <p>2) Unscrew 16 screws and detach Cabinet-Base Blower. (Use+Screw Driver)</p> <p>3) Unscrew 8 screws and detach Case-Blower. (Use +Screw Driver)</p> <p>4) Unscrew 4 bolts and separate Motor &amp; blower from Bracket-Motor. (Use +Screw Driver)</p> |       |

| No | Parts                  | Procedure  | Remark  |
|----|------------------------|--|---|
|    |                        | 5) Unscrew bolt and Separate Blower from the motor. (Use +Screw Driver)  |   |
| 2  | EVAPORATOR & DRAIN-PAN | 1) Detach EEV and Sensor connectors from the PCB. (Use +Screw Driver)<br><br>2) Unscrew 8 screws and Detach Cover-Pipe. (Use +Screw Driver)<br><br>3) Unscrew 31 screws and detach Cabinet-Base Blower and Cabinet-Base Drain. (Use +Screw Driver) | <br><br><br><br><br><br> |

| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>4) Unscrew 10 screws and detach Drain-Pan from the indoor unit. (Use +Screw Driver)</p> <p>5) Separate Evaporator from the indoor unit.</p> |    |

### 3-1-3 Global 4way Cassette type

| No | Parts | Procedure   | Remark   |
|----|-------|---|--|
| 1  | Panel | <ol style="list-style-type: none"> <li>1) Push the handles on both sides of the Samsung logo towards the product's interior to open the Grille.</li> <br/> <li>2) Push up the green knob in the Open direction, and detach the white link from the panel. Detach the safety clip.</li> <br/> <li>3) Remove the 2 fixed screws to remove the Control-Box Cover. (Use +Screw Driver)</li> <br/> <li>4) Remove the Remocon-Receiver and Blade Connector Wire from the PBA. (3EA)</li> <br/> <li>5) Push the 4 panel corners and cover downwards to remove it.</li> </ol> | <br><br><br><br> |

| No | Parts       | Procedure   | Remark   |
|----|-------------|---|--|
|    |             | <p>6) Disassemble the bolts that are assembled with the indoor unit at the 4 panel corners.</p> <p>7) Press the Steel Hangers at both sides of the panel inwards, and rotate them 90 degrees to remove it from the indoor unit's Hock. Remove the panel from the indoor unit.</p> |    |
| 2  | Control-Box | <p>1) Disconnect the Connector Wire that is connected to the indoor unit's PBA from the PBA.</p> <p>2) Unscrew the 2 fixed screws on both sides of the Control Box, and disassemble the Control Box from the indoor unit. (Use +Screw Driver)</p>                                 |    |

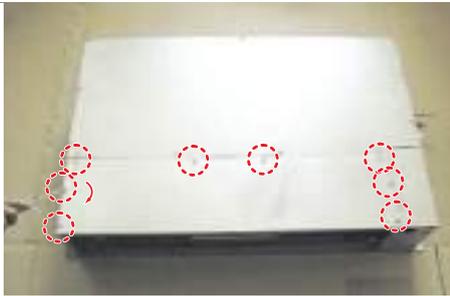
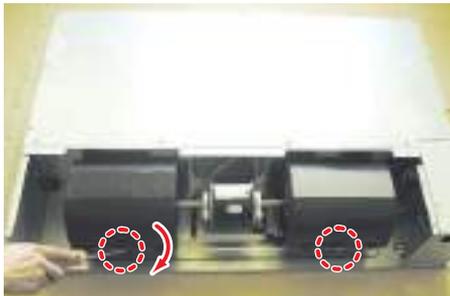
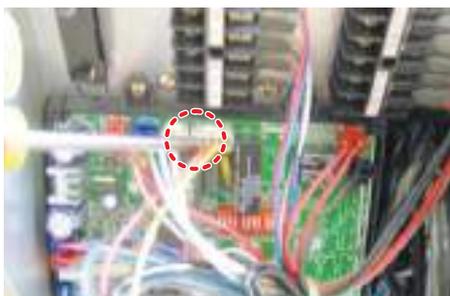
| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
| 3  | Bell-Mouth | <p>1) Unscrew the screw fixed on the Bell-Mouth. (Use +Screw Driver)</p> <p>2) Push the Bell-Mouth in the direction opposite to where it's installed on the Control-Box to remove it.</p> |       |
| 4  | Drain Pan  | <p>1) Unscrew the screws on the 4 corners of the indoor unit. (Use +Screw Driver)</p> <p>2) Remove the Drain Pan from the indoor unit.</p>  |   |

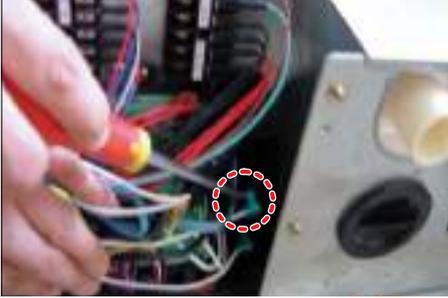
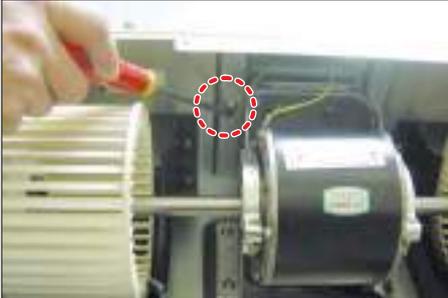
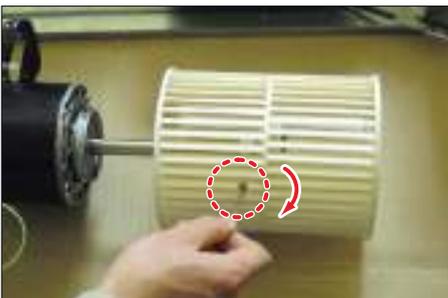
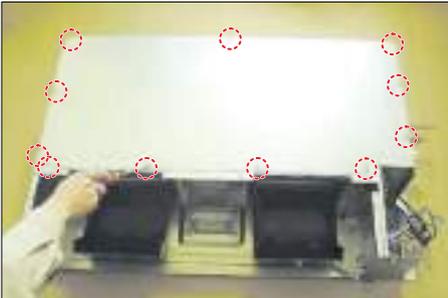
| No | Parts                    | Procedure  | Remark   |
|----|--------------------------|--|--|
| 5  | Drain Pump & Hose        | <p>1) Remove the 2 fixed screws and disconnect the white drainage hose from the Drain Pump. (Use +Screw Driver)</p> <p>2) Remove the 2 screws and take the Drain-Hose out from the indoor unit to disassemble the transparent Drain-Hose fixed on the side of the indoor unit. (Use +Screw Driver)</p> |    |
| 6  | Evap. Temperature Sensor | <p>1) Use your hand to remove the temperature sensor attached to the Evap Pipe along with the fixing clip.</p>   |    |

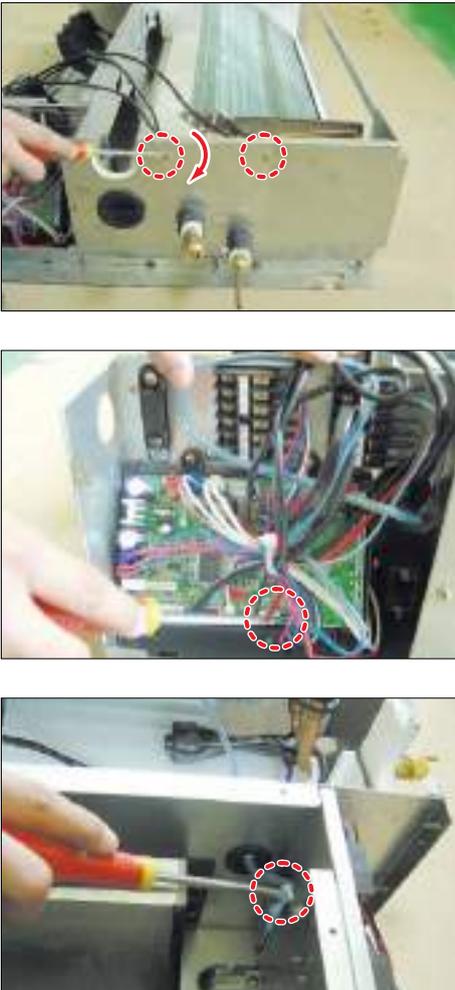
| No | Parts       | Procedure  | Remark  |
|----|-------------|--|---|
| 7  | Fan & Motor | <ol style="list-style-type: none"> <li>1) Turn the hexangular nut attached to the top of the Fan counterclockwise to remove it. Take the Fan out of the Motor.</li> <br/> <li>2) Turn the three hexangular nuts on the Motor counterclockwise to remove the nuts. Take the Motor Wires attached to these three locations out with your hands prior to removing the Motor.</li> </ol> | <br><br> |
| 8  | Evaporator  | <ol style="list-style-type: none"> <li>1) Remove the screws of the 2 Steel Holder Evaps that are used to fix the Heat Exchanger, and then remove it. (Use +Screw Driver)</li> <br/> <li>2) Remove the 2 fixing screws of the Partition Evap at the Heat Exchanger's In/Out Pipe. (Use +Screw Driver)</li> </ol>  | <br>  |

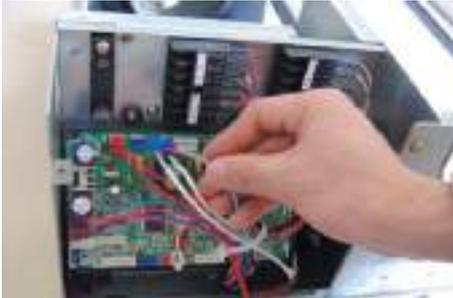
| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p>3) Remove the screw of the Cover Pipe that is used to fix the In/Out Pipe.<br/>Remove the In/Out Pipe. (Use +Screw Driver)</p> <p>4) Remove the Heat Exchanger from the indoor unit's cabinet.</p> |    |

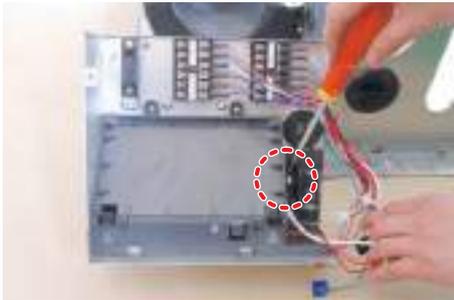
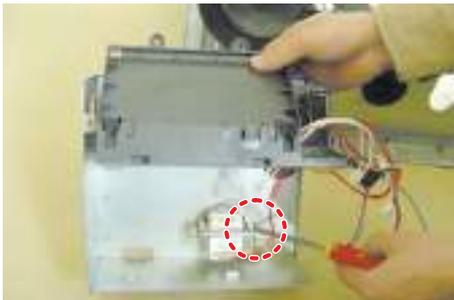
### 3-1-4 Duct type(Slim1,2)

| No | Parts          | Procedure  | Remark   |
|----|----------------|--|--|
| 1  | Motor & Blower | <p>1) Disassemble the Cabinet-Top Motor.<br/>– Unscrew 8 screws</p> <p>2) Disassemble 2 Cover Blower Uppers.<br/>– After unscrewing 2 screws</p> <p>– Disassemble the Cover Blower Upper with pushing its hook.</p> <p>3) Disassemble the Cover Control.<br/>– Unscrew 2 screws</p> <p>4) Disassemble Motor Wires connected to the inside of PCB and connected to the Capacitor.</p> |      |

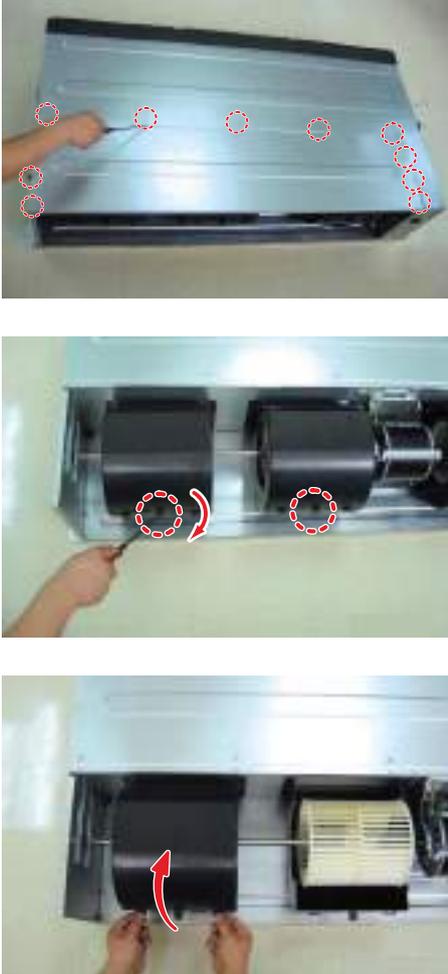
| No | Parts           | Procedure   | Remark   |
|----|-----------------|---|--|
|    |                 | <p>5) Disassemble the Motor earth wire connected to the Partition.<br/>                     – Unscrew a screw</p> <p>6) Disassemble the band Motor for fixing the Motor.<br/>                     – Unscrew 2 screws</p> <p>7) After disassembling the Motor and Blower for the set, disassemble the Blower by use of 3mm wrench.</p> |     |
| 2  | Ass'y Drain Pan | <p>1) Disassemble the Cabinet-Top Evap.<br/>                     – Unscrew 11 screws</p>  |    |

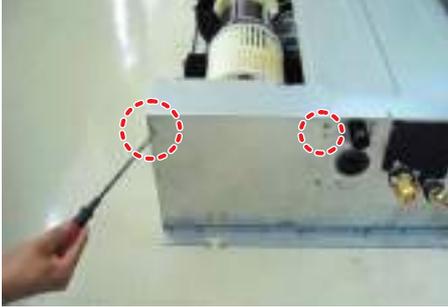
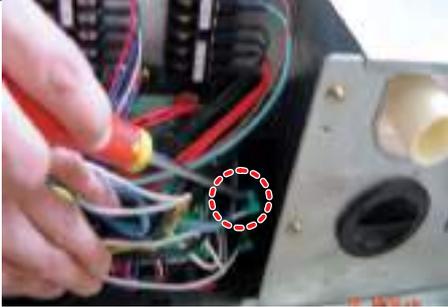
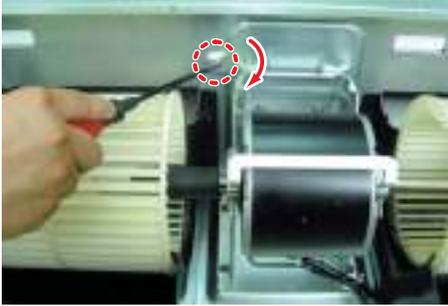
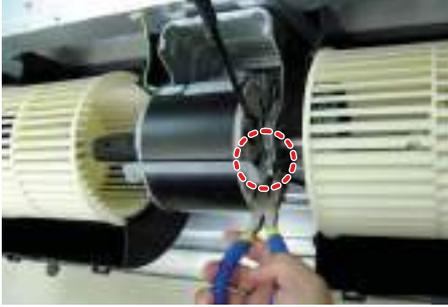
| No | Parts      | Procedure   | Remark   |
|----|------------|---|--|
|    |            | <p>2) Disassemble the Bracket Outlet Sub that fixes the Drain Pan equipped on the front of the set.<br/>– Unscrew 6 screws</p> <p>3) Disassemble the Drain Cushion from the set.</p>  |    |
| 3  | Ass'y Evap | <p><b>⚠ The Evaporator should be disassembled after disassembling the Cover Control 1-3) and the Drain Pan 2-1), 2-2), 2-3).</b></p> <p>1) Disassemble the Cover Pipe that fixes the high/low pressure Pipe.<br/>– Unscrew 2 screws</p> <p>2) Disassemble the refrigerant temperature sensor, Inlet air temperature sensor, and EEV wire that connected to the inside of PCB.</p> |  |

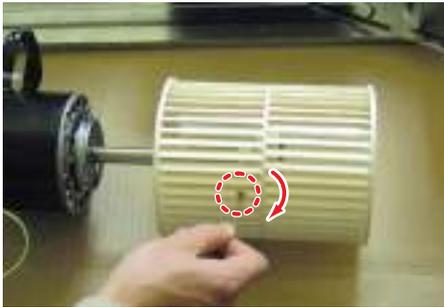
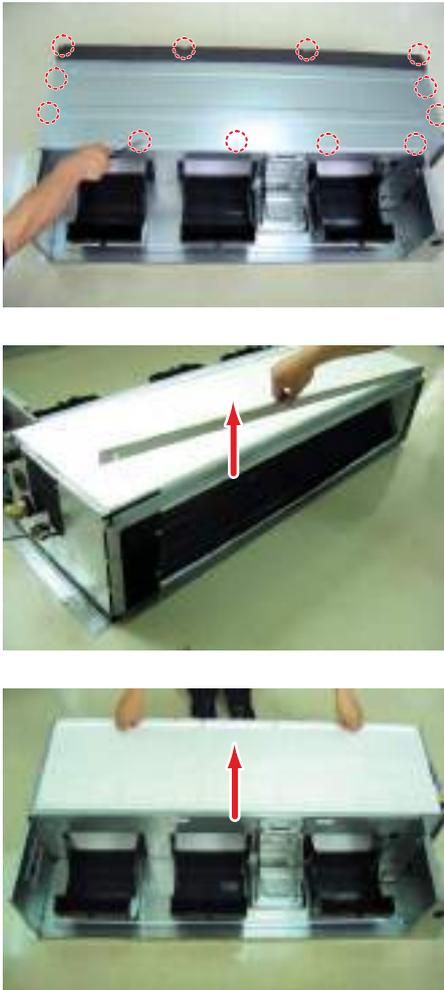
| No | Parts            | Procedure  | Remark  |
|----|------------------|--|---|
|    |                  | <p>3) Disassemble the Support Evap. LF that fixes the Evaporator.<br/>– Unscrew 2 screws</p> <p>4) Disassemble the Support Evap RH.<br/>– Unscrew 2 screws</p> <p>5) Disassemble the Evaporator form the set.</p>  |    |
| 4  | Ass'y Control In | <p><b>⚠ The Control In should be disassembled after disassembling the Cover Control 1-3).</b></p> <p>1) Disassemble all Control Wires connected to the inside of PCB.</p> <p>2) In case of disassembling the PCB separately, disassemble the PCB from the case with pushing the hook after unscrewing the screw.<br/>– Unscrew 1 screw</p> |     |

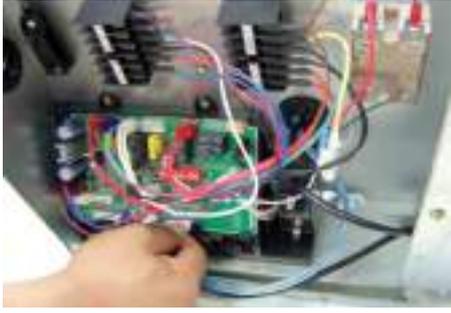
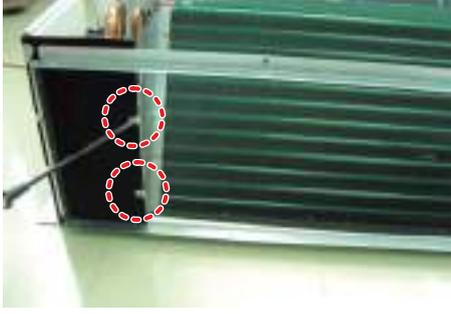
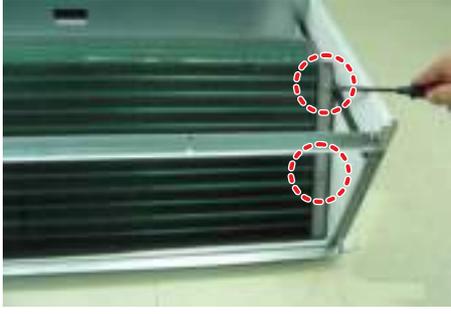
| No | Parts          | Procedure  | Remark  |
|----|----------------|--|---|
|    |                | <p>3) In case of disassembling the Capacitor separately, disassemble the Capacitor from the Case.</p> <p>4) In case of disassembling the Case Control, disassemble the Case Control from the set after unscrewing the screw connected to the direction of Blower.<br/> <b>⚠ Disassemble if after disassembling the Cabinet Top Motor 1-1).</b></p> <p>5) In case of disassembling the Trans Power, unscrew the screw fixing on the Case.<br/> <b>⚠ Disassemble if after disassembling the case PCB 4-4).</b></p> |    |
| 5  | Bracket Outlet | <p>1) Disassemble the Bracket Outlet assembled on the Cabinet.<br/>                     – Unscrew 10 screws</p>  |     |

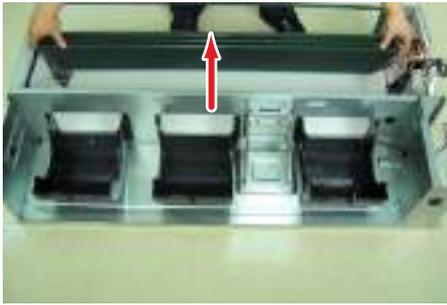
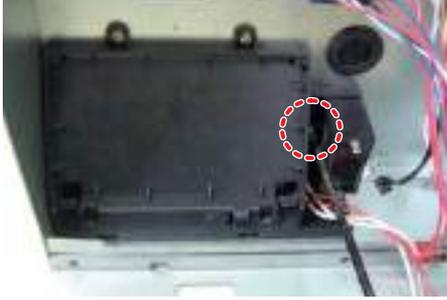


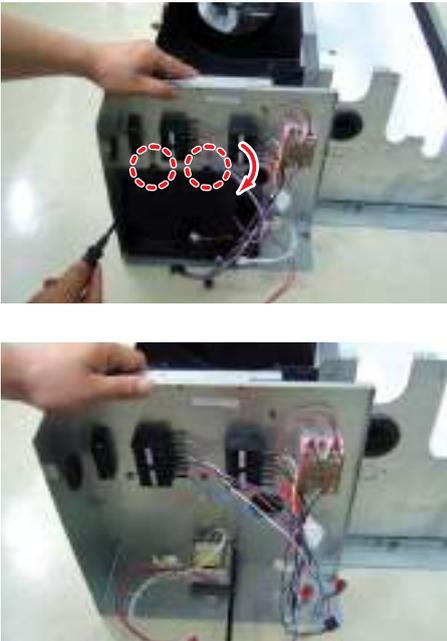
| No | Parts          | Procedure  | Remark   |
|----|----------------|--|--|
|    |                | <p>3) If the Cabinet-Top Motor is assembled on the side of the set, the procedure of disassembling the Filter is just as the above.</p>  |    |
| 5  | Bracket Outlet | <p>1) After disassembling 13 indicating screws, detach Ass'y Cabinet-Top Motor.</p> <p>2) After disassembling 3 indicating screws, detach Ass'y Case Blower Upper.</p> <p>– Press the pothook of the Case Blower and detach Ass'y Case Blower Upper.</p> |  |

| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p>3) After disassembling 2 indicating screws, detach the Cover Control.</p> <p>4) Detach the Motor Wire Connected to PCB and Capacitor.</p> <p>5) After disassembling the indicating screws, detach the wire connected to the Partition.</p> <p>6) After disassembling 2 indicating screws, detach the Ass'y Band Motor.</p> |      |

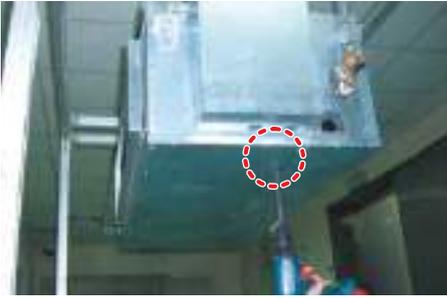
| No | Parts     | Procedure  | Remark  |
|----|-----------|--|---|
|    |           | <p>7) After disassembling the Motor and Blowers, detach the Blowers from the axis of the Motor by 3mm inner hexagon spanner.</p>   |   |
| 3  | Drain Pan | <p>1) After disassembling 15 indicating screws, detach Ass'y Cabinet-Top Evap.</p> <p>2) After disassembling 6 indicating screws, detach the Bracket Outlet.</p> <p>3) Detach the Drain Pan.</p> |  |

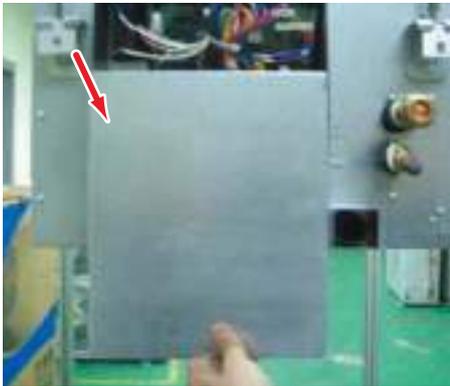
| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
| 4  | Evaporator | <p><b>⚠ After finished the procedures above, detach the Evaporator.</b></p> <p>1) After disassembling 2 indicating screws, detach Ass'y Cover Pipe.</p> <p>2) Detach the Sensor from the Control Box. (including 2 Sensors)</p> <p>3) After disassembling 2 indicating screws, detach Ass'y Support Evap LF.</p> <p>4) After disassembling 2 indicating screws, detach Ass'y Support Evap RH.</p> |      |

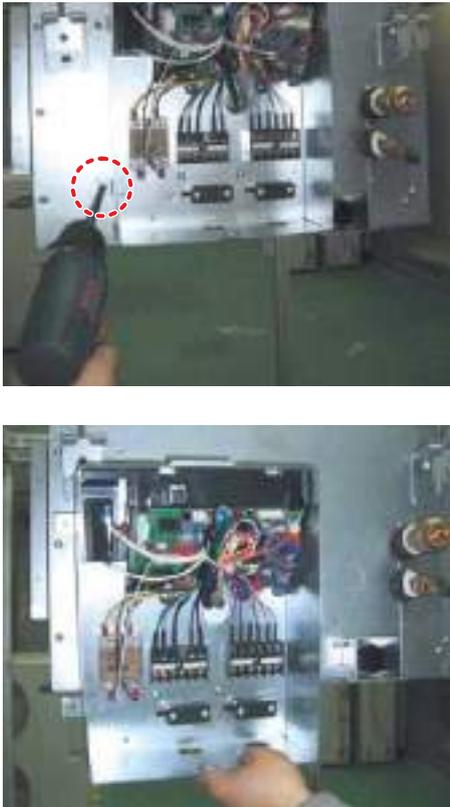
| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
|    |            | 5) Detach the Evaporator from the set.  |   |
| 5  | Control In | <p><b>⚠ Detach the parts of Control In after disassembling the Cover Control.</b></p> <p>1) Detach all the wires connected to the PCB.</p> <p>2) If only the disassembly of PCB required, press the Pothook and detach the PCB from the set.</p> <p>3) If only the disassembly of Capacitor is required, detach it from the set.</p> <p>4) If only the disassembly of Case Control is required, detach it from the set after disassembling 2 indicating screws.</p> |     |

| No | Parts                | Procedure  | Remark   |
|----|----------------------|--|--|
| 7  | Ass'y Cross Fan      | 5) Detach the Transformer after disassembling 2 indicating screws.<br><br>⚠ Work is possible after disassembling the Case PCB. |    |
| 6  | Ass'y Bracket Outlet | 2) After disassembling 16 indicating screws, detach Ass'y Bracket Outlet.  |  |

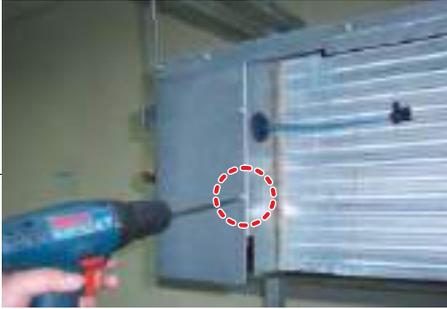
**3-1-6 Duct type (MSP1)**

| No | Parts  | Procedure  | Remark  |
|----|--------|--|---|
| 1  | Filter | <p>1) After disassembling 16 places indicating screws, detach Ass'y Cabi Bottom Blower. (Use +Screw Driver.)</p> <p>2) Detach from Ass'y Control In the capacitor connection wire between the Motor Fan and housing connector.</p> <p>3) After disassembling 2 places indicating screws, detach the 2 Fan Case. (Use +Screw Driver.)</p> |     |

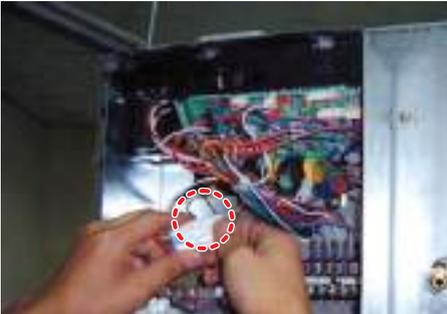
| No | Parts      | Procedure  | Remark  |
|----|------------|--|---|
|    |            | <p>4) After disassembling 2 places indicating screws, detach Fan Motor and Blower from the set.</p>  |   |
| 2  | Control In | <p>1) After disassembling 1 Indicating screw, detach the Cover control. (Use +Screw Driver.)</p> <p>2) Detach the Motor-Fan and Sensor Connector from the PCB.</p> |    |

| No | Parts     | Procedure   | Remark   |
|----|-----------|---|--|
|    |           | <p>3) Disassemble 4 indicating screws and detach Control In from the set.<br/>(Use +Screw Driver.)</p>  |   |
| 3  | Drain Pan | <p>※ Work is possible when Disassembling the Ass'y Cabi Bottom Blower.</p> <p>1) Disassemble 7 indicating screws and detach Ass'y Cabi Bottom Drain. (Use +Screw Driver.)</p> |  |

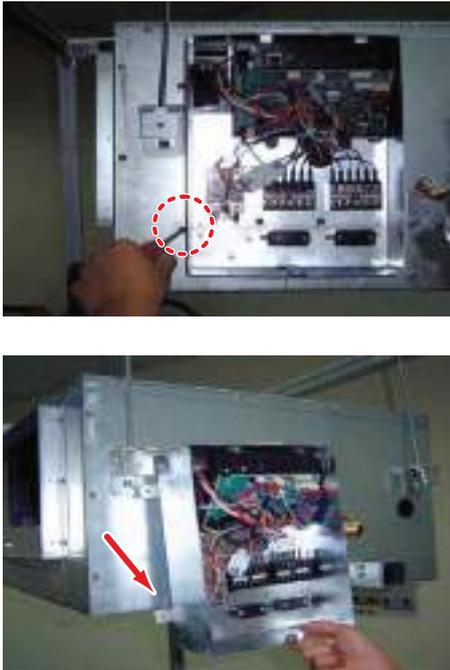
| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p>2) Disassemble 2 indicating screws and detach Holder Pipe. (Use +Screw Driver.)</p><br><p>3) Disassemble 4 indicating screws and detach the Drain Pan. (2 screws each at left and right side) (Use +Screw Driver.)</p> |  |

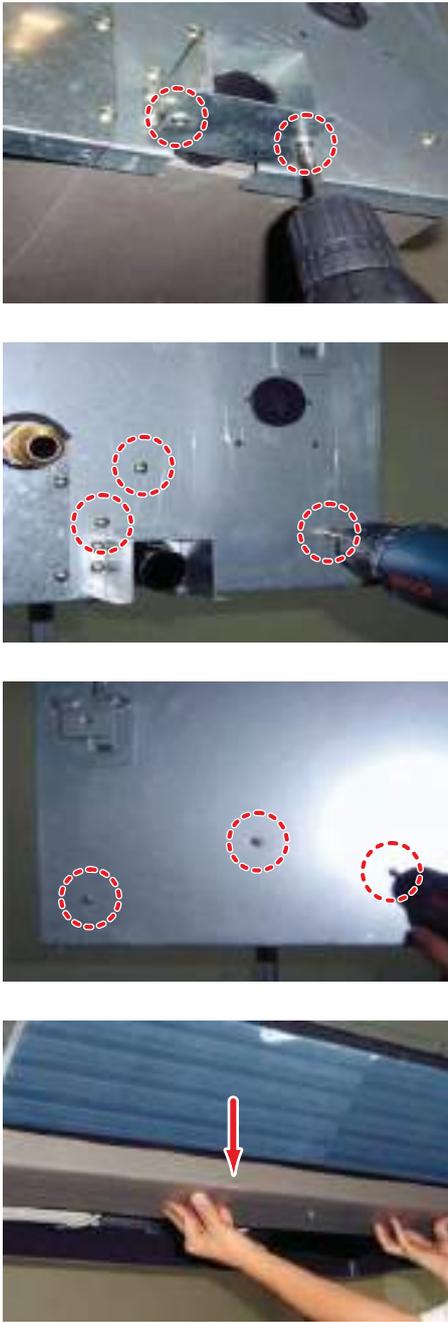
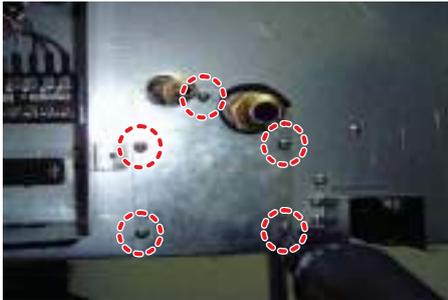
| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
| 4  | Evap  | <p>Work is possible when Disassembling the Ass'y Drain Pan.</p> <p>1) Disassemble 5 indicating screws to detach Cover Pipe.(Use +Screw Driver.)</p> <p>2) Disassemble Sensor on the Evap.</p> <p>3) Disassemble 4 indicating screws which are in the near of Hanger Plate to detach the Evap. (2 screws each at left and right side) (Use +Screw Driver.)</p> <p><b>⚠ It needs 2 peoples.</b></p> |      |

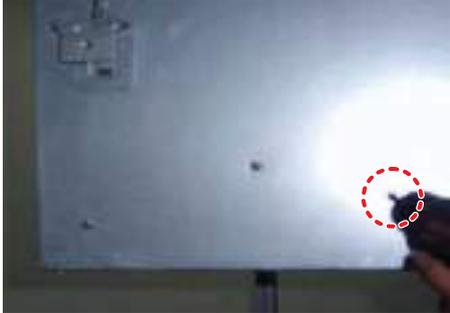
### 3-1-7 Duct type (MSP2, HSP SMALL)

| No | Parts          | Procedure  | Remark   |
|----|----------------|--|--|
| 1  | Blower & Motor | <p>1) After disassembling 15 places indicating screws, detach Ass'y Cabi Bottom Blower. (Use +Screw Driver.)</p> <p>2) Detach from Ass'y Control In the capacitor connection wire between the Motor Fan and housing connector.</p> <p>3) After disassembling 4 places indicating screws, detach the 2 Fan Case. (Use +Screw Driver.)</p> |     |

| No | Parts     | Procedure  | Remark  |
|----|-----------|--|---|
|    |           | 4) After disassembling 2 places indicating screws, detach Fan Motor and Blower from the set. (Use +Screw Driver.)  |   |
| 3  | Drain Pan | 1) After disassembling 1 Indicating screw, detach the Cover control.(Use +Screw Driver.)<br><br>2) Detach the Motor-Fan and Sensor Connector from the PCB. | <br><br> |

| No | Parts     | Procedure   | Remark  |
|----|-----------|---|---|
|    |           | <p>3) Disassemble 4 indicating screws and detach Control In from the set.<br/>(Use +Screw Driver.)</p>  |   |
| 3  | Drain Pan | <p>※ Work is possible when Disassembling the Ass'y Cabi Bottom Blower.</p> <p>1) Disassemble 6 indicating screws and detach Ass'y Cabi Bottom Drain.<br/>(Use +Screw Driver.)</p> |  |

| No | Parts | Procedure  | Remark   |
|----|-------|--|--|
|    |       | <p>2) Disassemble 2 indicating screws and detach Holder Pipe. (Use +Screw Driver.)</p> <p>3) Disassemble 6 indicating screws and detach the Drain Pan. (Use +Screw Driver.) (3 screws each at left and right side)</p> |   |
| 4  | Evap  | <p>※ Work is possible when Disassembling the Ass'y Cabi Bottom Blower.</p> <p>1) Disassemble 6 indicating screws and detach Ass'y Cabi Bottom Drain. (Use +Screw Driver.)</p>  |  |

| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>2) Disassemble Sensor on the Evap.</p><br><p>3) Disassemble 2 indicating screws which are in the near of Hanger Plate to detach the Evap. (1 screw each at left and right side)</p> <p><b>⚠ It needs 2 peoples.</b></p> | <br><br> |

### 3-1-8 Duct type (MA1-Drain Pump Built-in)

- AM007/009/012/015/018JNMDCH/AA

| No | Parts          | Procedure  | Remark  |
|----|----------------|--|---|
| 1  | Assy fan parts | <ol style="list-style-type: none"> <li>1) Disassemble the Cabinet-blower. (Unscrew 19 screws)</li> <br/> <li>2) Disassemble the Partition-front from Partition. (Unscrew 8 screws)</li> <br/> <li>3) Rotate the assy fan parts in CCW direction.</li> <br/> <li>4) Pull out the assy fan parts after hang at the edge of cabinet.</li> </ol> | <br><br><br><br> |

| No | Parts     | Procedure   | Remark  |
|----|-----------|---|---|
| 2  | Drain Pan | <p>1) Disassemble the cabinet-drain.<br/>- Unscrew 7 screws.</p> <p>2) Disassemble the Drain pan.<br/>- Unscrew 4 screws.</p> |  |

| No | Parts      | Procedure   | Remark   |
|----|------------|---|--|
| 3  | Drain pump | <p>1) Disassemble the drain pump kit from the set.<br/>- Unscrew 2 screws.</p> <p>2) Disassemble the drian pump case.<br/>- Unscrew 4 screws.</p> <p>3) Disassemble the drian pump.<br/>- Unscrew 2 screws and cabel tie.</p> |  |

| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
| 4  | Evaporator | <p>1) Disassemble the Cover-pipe.<br/>- Unscrew 5 screws.</p> <p>2) Disassemble the Evaporator.<br/>- Unscrew 4 screws.</p> | <br><br> |

| No | Parts    | Procedure   | Remark  |
|----|----------|---|---|
| 5  | Main PBA | <p>1) Disassemble the Case Control.<br/>- Unscrew 3 screws.</p> <p>2) Disassemble the Evaporator.<br/>- Unscrew 4 screws.</p> | <br><br> |

### 3-1-9 Duct type (MA2)

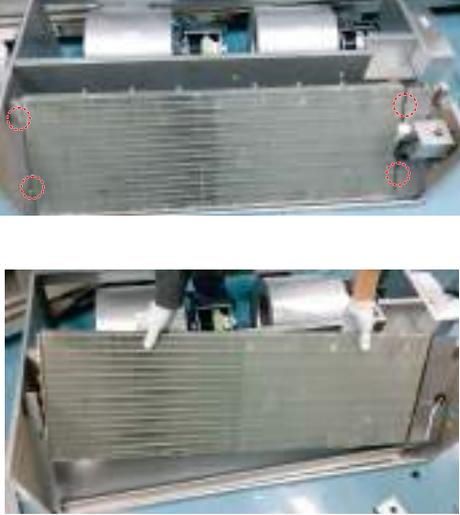
- AM024/027/030/036/048JNHDCH/AA (Drain Pump Built-in)

- AM054KNMDCH/AZ (Drain Pump Option)

| No | Parts     | Procedure  | Remark  |
|----|-----------|--|---|
| 1  | Drain Pan | <p>1) Disassemble the cabinet-blower.<br/>- Unscrew 17 screws.</p> <p>2) Disassemble the cabinet-drain.<br/>- Unscrew 9 screws.</p> <p>3) Disassemble the drain pan.<br/>- Unscrew 4 screws.</p> |  |

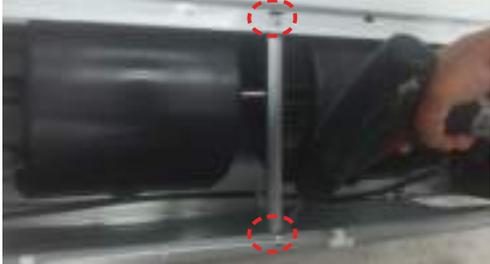
| No | Parts          | Procedure  | Remark   |
|----|----------------|--|--|
| 2  | Assy fan parts | <p>1) Disassemble the case blower from partition.<br/>                     - Unscrew 10 bolts by using wrench and driver.</p> <p>2) Rotate the Assy fan parts in CCW direction.</p> <p>3) Pull out the Assy fan parts after hang at the edge of cabinet.</p> |  |

| No | Parts      | Procedure   | Remark   |
|----|------------|---|--|
| 3  | Drain pump | <p>1) Disassemble the drain pump kit from the set. - Unscrew 2 screws.</p> <p>2) Disassemble the drian pump case. - Unscrew 4 screws.</p> <p>3) Disassemble the drian pump. - Unscrew 2 screws and cabel tie.</p> |  |

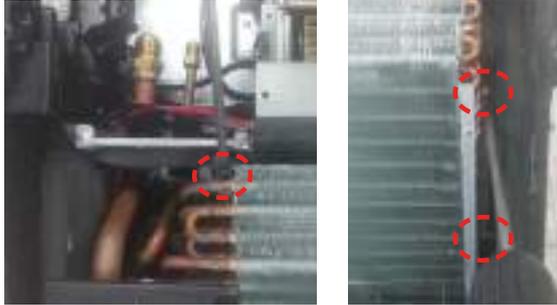
| No | Parts      | Procedure  | Remark  |
|----|------------|--|---|
| 4  | Evaporator | 1) Disassemble the Evaporator.<br>- Unscrew 4 screws.  |   |
| 5  | Main PBA   | 1) Disassemble the Case Control.<br>- Unscrew 3 screws.<br><br>2) Detach all connect cable.<br><br>3) Disassemble the PBA.<br>- Unscrew 1 screw. |  |

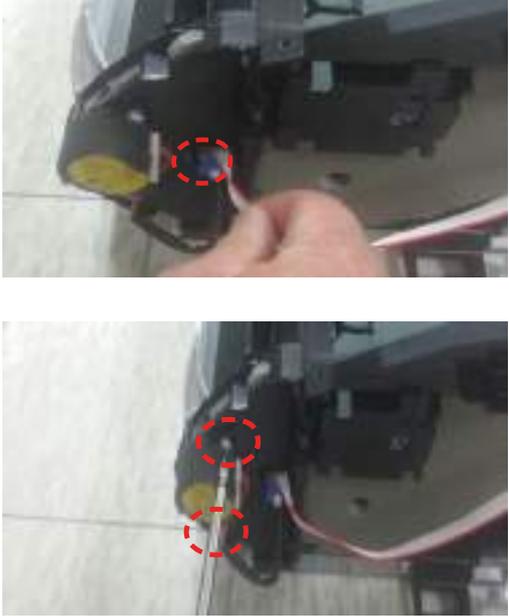
**3-1-10 AM036/048JNCDCH/AA**

| No | Parts          | Procedure   | Remark  |
|----|----------------|---|---|
| 1  | Electrial Part | <p>1) Open the Grille by sliding 4 position and removing 4 screws.</p> <p>2) Detach the Air Inlet Grille.</p> <p>3) Detach the Cover side by removing 1 screw and sliding Cover.</p> <p>4) Open the cover of Component Electrical Box by removing 2 screws.</p> <p>5) Open the cover of Terminal block Box by removing 2 screws</p> |  |

| No | Parts       | Procedure  | Remark  |
|----|-------------|--|---|
| 2  | Fan & Motor | <p>1) Disconnect 2 wires of Motor.</p> <p>2) Detach Holder Motor by removing 2 screws.</p> <p>3) Detach the Upper case of Fan.<br/>(AM112JNC DKH : 3EA,<br/>AM140JNC DKH : 4EA)</p> <p>4) Detach Bracket Grille by removing 2 Screws.<br/>(AM112JNC DKH : 1EA,<br/>AM140JNC DKH : 2EA)</p> |      |

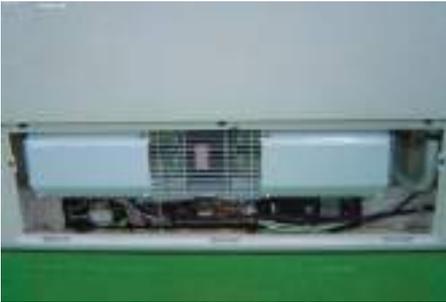
| No | Parts     | Procedure  | Remark  |
|----|-----------|--|---|
| 3  | Drain Pan | <p>1) Detach the Cabinet Front by removing 7 screws.</p> <p>2) Remove 1 screw in the middle of drain pan.</p> <p>3) Detach the Drian pan.<br/>Be careful that there might be some water left in the drain pan when you remove the drain pan.</p> |  |

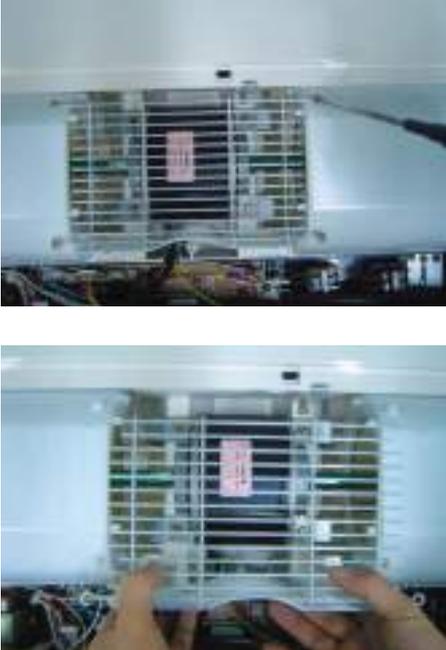
| No | Parts      | Procedure  | Remark   |
|----|------------|--|--|
| 4  | Evaporator | <p>1) First, Separate the connector of the expansion valve.</p> <p>2) Detache the Cover Pipe by removing 2 screws.</p> <p>3) Detache the Cover Evap LF/RH by removing 4 screws.</p> <p>4) Detach the Evaporator assembly by removing 3 screws.</p> |     |

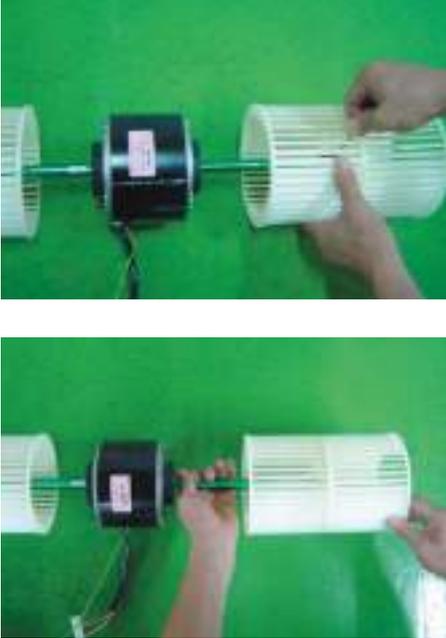
| No | Parts          | Procedure  | Remark  |
|----|----------------|--|---|
| 5  | Stepping Motor | 1) Detach the Connector.<br><br>2) Detache the Stepping Motor by emoving 2 screws. |   |
| 6  | Holder Blade   | 1) Remove 4 screws at both side of the Holder blade.                               |  |

**3-1-11 CEILING**

| No | Parts           | Procedure   | Remark  |
|----|-----------------|---|---|
| 1  | Electrical Part | <p>1) Open the Grille by pressing 3 position. (center and both side)</p> <p>2) Detach the Air Inlet Grille.</p> <p>3) Open the Cover of Component Electrical Box by removing 3 screws. (center and both side)</p> |     |

| No | Parts       | Procedure   | Remark   |
|----|-------------|---|--|
|    |             |   | <br>   |
| 2  | Fan & Motor | <p>1) Detach the screw and untie earth wire of Motor.</p><br><p>2) Disconnect of housing of Motor Wire.</p><br><p>3) Disconnect the Capacitor Wire.</p> | <br><br> |

| No | Parts | Procedure   | Remark   |
|----|-------|---|--|
|    |       | <p>4) Loosen the Guard Safety by removing 6 screws.</p> |    |
|    |       | <p>5) Detach the Upper Case of Fan. (2EA)</p>           |   |
|    |       | <p>6) Loosen the 4 screws what is fix the Motor.</p>    |  |
|    |       | <p>7) Detach the Fan and Motor assembly.</p>            |  |

| No | Parts     | Procedure   | Remark   |
|----|-----------|---|--|
|    |           | <p>8) Loosen the set fixing bolts.<br/>(with a M3 wrench)</p> <p>9) Detach the Fan.</p>   |  <p>The first photograph shows a person using a green M3 wrench to loosen a bolt on a black motor assembly. The second photograph shows the person pulling the white fan housing away from the motor shaft.</p>  |
| 3  | Drain Pan | <p>1) Disconnect the Display PCB Wire as shown in picture. (white housing)</p> <p>2) Disconnect the Step Motor Wire as shown in picture. (blue housing)</p> <p>3) Disassemble the Hanger Bracket by removing the 1 screw.</p> |  <p>The first photograph shows a hand disconnecting a white wire from a PCB. The second photograph shows a hand disconnecting a blue wire from a motor. The third photograph shows the interior of a white plastic housing with a hanger bracket being removed.</p> |

| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p>4) Loosen the 3 screws of Front Side.</p> <p>5) Disassemble the assembly Front Cover Part.</p> <p>6) Disconnect the Step Motor Wire as shown in picture.</p> <p>7) Detach the Wire Clamp fixed in Base Part.</p> <p>8) Detach the Front Cover assembly completely.</p> |      |

| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>9) Loosen the screw what is fix with Base Part and Drain Pan. (Upper Side:2EA)</p> <p>10) Loosen the screw what is fix with Base Part and Drain Pan. (Lower Side:2EA)</p> <p>11) Detach the Drain Pan completely.</p> |    |

| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p>1) Disconnect the Thermistor Wire as shown in picture. (white housing)</p> <p>2) Loosen the 2 screws shown in picture.</p> <p>3) Loosen the 2 screws shown in picture and remove Plastic Part. (white)</p> <p>4) Loosen the 2 screws shown in picture and remove Steel Bracket.</p> <p>5) Disassemble the 4 screws Steel Plate in rear side of the unit.</p> |      |

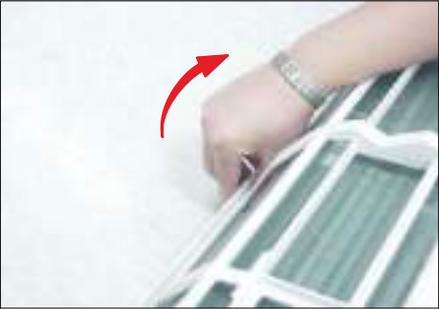
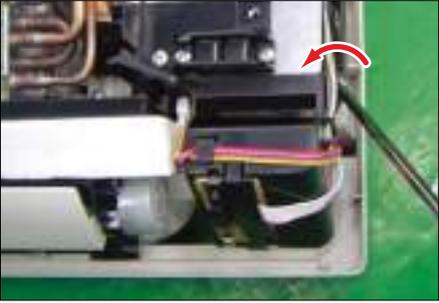
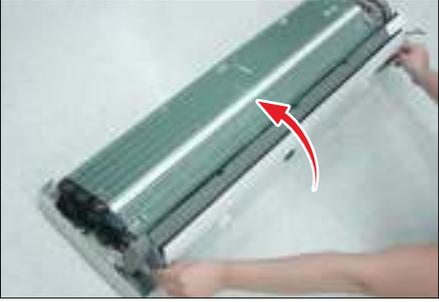
| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>6) Loosen the 2 screws as shown in picture.</p> <p>7) Detach the Plastic Cover as shown in picture.</p> <p>8) Detach the Evaporator assembly.</p> |    |

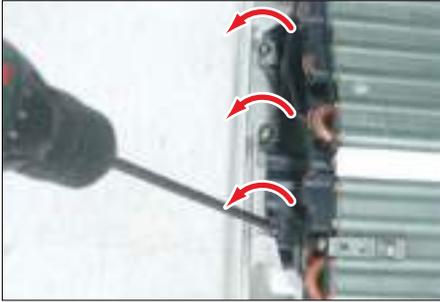
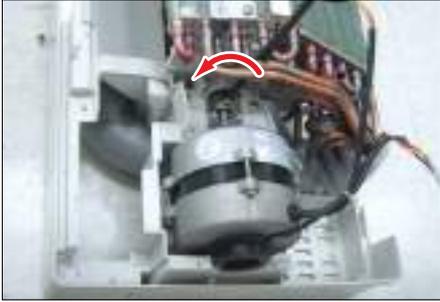
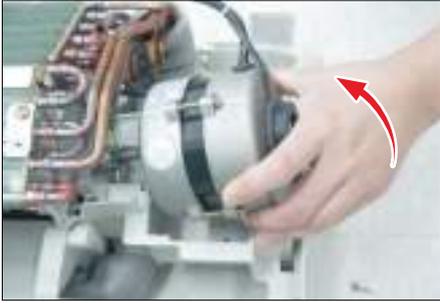
| No | Parts          | Procedure   | Remark  |
|----|----------------|---|---|
| 5  | Stepping Motor | <ol style="list-style-type: none"> <li>1) Loosen the 4 screws in rear side of Front Cover assembly as shown in picture.</li> <br/> <li>2) Loosen the 2 screws as shown in picture.</li> <br/> <li>3) Disassemble the Blade and Stepping Motor assembly and remove the 2 Screws Stepping Motor.</li> </ol> | <br><br> |
| 6  | Display PCB    | <ol style="list-style-type: none"> <li>1) Loosen the 3 screws in rear side of Front Cover assembly as shown in picture.</li> <br/> <li>2) Disassemble Display PCB assembly and Disconnect Wire.</li> <br/> <li>3) Disassemble the Display PCB.</li> </ol>   | <br>  |

### 3-1-12 Wall mounted type (Neo forte)

– All the procedure has to be verified because the cover should not open when the unit is installed.

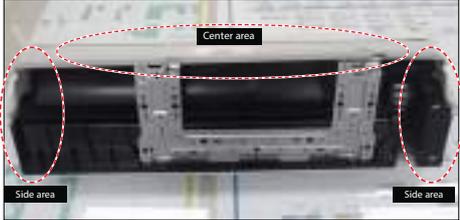
| No | Parts        | Procedure   | Remark  |
|----|--------------|---|---|
| 1  | Front Grille | <ol style="list-style-type: none"> <li>1) Stop the air conditioner operation and shut off the main power.</li> <br/> <li>2) Open the Front Grille by pulling right and left sides of the hook.</li> <br/> <li>3) Loosen 1 of the right screw(CCW) and detach the Terminal Cover. (Use +Screw Driver.)</li> <li>4) Detach the thermistor from the Front Grille.</li> <br/> <li>5) Loosen 2 fixing screws(CCW) of Front Grille.</li> <br/> <li>6) Unlock 3 hooks to fix Panel Front and Tray Drain. (Use +Screw Driver.)</li> </ol> | <br><br><br><br> |

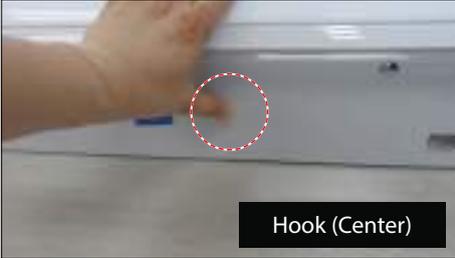
| No | Parts                 | Procedure  | Remark   |
|----|-----------------------|--|--|
|    |                       | 7) Unlock 3 hooks to fix Panel Front and Back-Body.  |    |
| 2  | Control-In (Main PCB) | 1) Take all the connector of PCB upper side out. (Inclusion Power Cord)<br>2) Detach the outdoor unit connection wire from the Terminal Block.<br>3) Loosen 4 fixing screws(CCW) of Ass'y Control-In. (Use +Screw Driver.)<br><br><b>⚠ You can disassembly Ass'y Control In without evaporator disassembled.</b> |    |
| 3  | Tray Drain            | 1) Pull Tray Drain out from the Back Body.   |  |

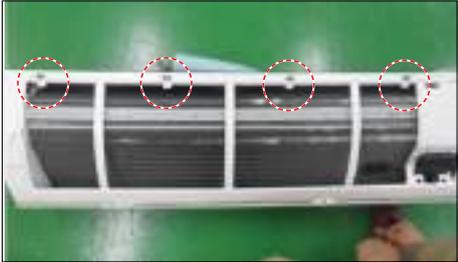
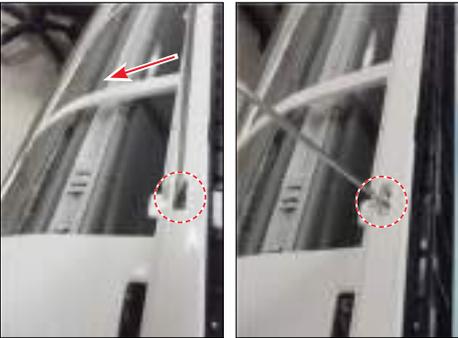
| No | Parts                 | Procedure   | Remark   |
|----|-----------------------|---|--|
| 4  | Heat Exchanger        | <ol style="list-style-type: none"> <li>1) Loosen 2 fixing earth screws(CCW) of right side. (Use +Screw Driver.)</li> <li>2) Detach the Connection Pipe.</li> <li>3) Detach the Holder Pipe at the rear side.</li> <br/> <li>4) Loosen the 4 fixing screws(CCW) of right and left side. (Use +Screw Driver.)</li> <li>5) Lifting the Heat Exchanger up a little to push the up side for separation from the indoor unit.</li> </ol> <p style="color: red; font-weight: bold;">⚠ First, check Comp. Down and then disconnect the connection pipes before you disassemble the Evaporator from indoor unit.</p> | <br>     |
| 5  | Fan Motor & Cross Fan | <ol style="list-style-type: none"> <li>1) Loosen the fixing screw(CCW). (Use +Screw Driver.)</li> <li>2) Detach the Fan Motor from the Fan.</li> <li>3) Detach the Fan From the left Holder Bearing.</li> </ol>   | <br> |

### 3-1-13 Wall Mounted type(A3050)

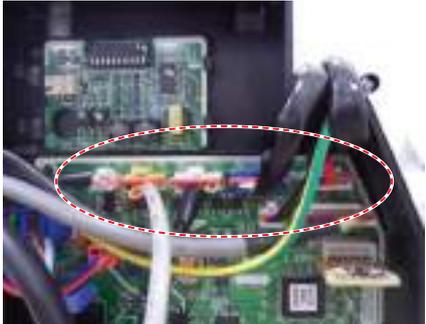
| No | Parts       | Procedure   | Remark  |
|----|-------------|---|---|
| 1  | PANEL-FRONT | <p>1) Stop the driving of air conditioner and shut off main power supply.</p> <p>2) Detach FILTER PRE from the PANEL FRONT.</p> <p>3) Cover Panel is assembled on bottom of indoor unit as shown in the figure.<br/>Remove the Cap Screw as shown on the right side and then remove the screw and separate the Cover Panel.</p> | <br><br><br> |

| No                      | Parts   | Procedure  | Remark   |      |  |                         |   |             |   |
|-------------------------|---|--|--|------|--|-------------------------|---|-------------|---|
|                         |   | <p>4) Cover Panel is fixed to body by Hook in center area and side area.</p> |  <table border="1"> <thead> <tr> <th colspan="2">HOOK</th> </tr> </thead> <tbody> <tr> <td>015/022/028/<br/>036/045</td> <td></td> </tr> <tr> <td>056/071/082</td> <td></td> </tr> </tbody> </table> <p>5) Separate the hook after pushing both end of Cover Panel as shown in the figure.<br/>(Watch out for the damage of the hook)</p>  <p>6) Raise front part upward obliquely as shown in the figure and then remove the hooks.</p>   | HOOK |  | 015/022/028/<br>036/045 |  | 056/071/082 |  |
| HOOK                    |   |  |  |      |  |                         |   |             |   |
| 015/022/028/<br>036/045 |  |  |  |      |  |                         |   |             |   |
| 056/071/082             |  |  |  |      |  |                         |   |             |   |

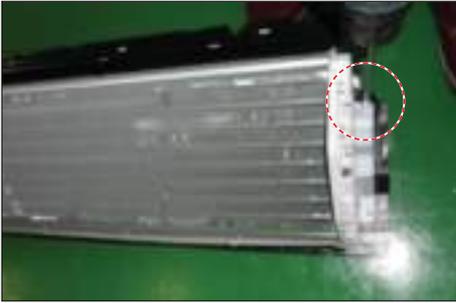
| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p><b>⚠ Caution:</b><br/>                     Assembly of Cover Panel after service end.</p> <ul style="list-style-type: none"> <li>- Reassembly is in the reverse order of the removal.</li> <li>- Piping and drain hose must be careful not to damage and Progress must be done with both hands.</li> </ul> |      |

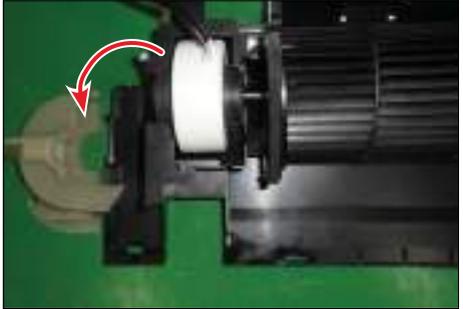
| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>7) To detach the PANEL-FRONT from the main frame, unfasten 2 screws at the bottom. (use + Screw Driver)</p> <p>8) To detach the COVER-PANEL from the main frame, loosen 4 HOOK Structures. When separate the hook : Use the (-) screw Driver. (-)Screw Driver Insert the hook and then pull the hook as shown on the right side. (Watch out for the damage of the hook)</p> |     |

| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>9) Remove the Panel Frame from the Main Frame as shown on the right side.</p> |  |

| No | Parts      | Procedure  | Remark  |
|----|------------|--|---|
| 2  | CONTORL IN | <p>1) Lossen Sub PBA Wire.<br/> <b>⚠ Caution:</b><br/>                     When you separate the connector, pull pressing the locking button.</p> <p>2) Lossen Stepping Motor, EEV, Display, Sensor, SPI, Fuse Wire.<br/> <b>⚠ Caution:</b><br/>                     When you separate the connector, pull pressing the locking button.</p> <p>3) Lossen Motor, Terminal Wire.<br/> <b>⚠ Caution:</b><br/>                     When you separate the connector, pull pressing the locking button.</p> <p>4) Loosen Earth Wire.</p> |      |

| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
| 5  | EVAPORATOR | <p>9) Take off the CASE-CONTROL from the main frame after loosen the remaining connector.</p> <p><b>⚠ Caution:</b><br/>When you separate the connector, pull pressing the locking button.</p> |   |
| 3  | TRAY DRAIN | <p>1) To detach TRAY-DRAIN from the main frame, pull the bottom of the TRAY-DRAIN towards you.</p>  |  |

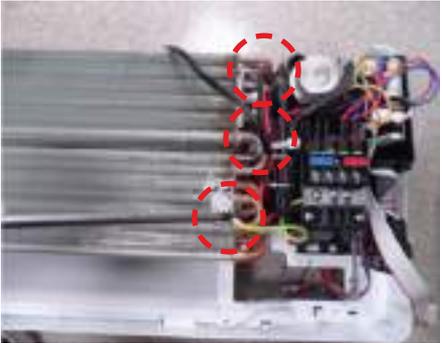
| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
| 4  | Evaporator | <p>1) Detach the HOLDER PIPE.</p> <p>2) Unfasten the screw at the left side.<br/>(use + Screw Driver)</p> <p>3) Unfasten the screw at the right side.<br/>(use + Screw Driver)</p> <p>4) To detach Evaporator from the main frame, pull the bottom of the Evaporator towards you.</p> | <br><br><br> |

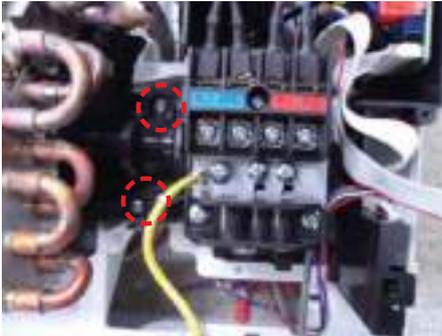
| No | Parts                 | Procedure  | Remark  |
|----|-----------------------|--|---|
| 5  | FAN MOTOR & CROSS FAN | <p>1) Unfasten the screw. (use + Screw Driver)</p> <p>2) Detach the FAN Motor case.</p> <p>3) Unfasten the screw a little. (use + Screw Driver)</p> <p>4) Pull the CROSS-FAN to the left side.</p> | <br><br><br> |

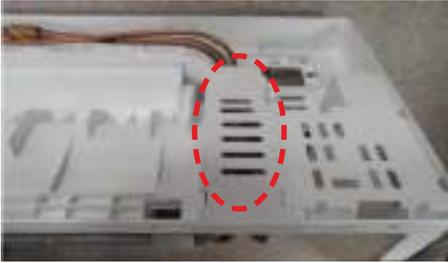
### 3-1-14 Wall Mounted type (Boracay)

– All the procedure has to be verified because the cover should not open when the unit is installed.

| No | Parts        | Procedure   | Remark  |
|----|--------------|---|---|
| 1  | Front Grille | <ol style="list-style-type: none"> <li>1) Stop the air conditioner operation and shut off the main power.</li> <li>2) Open the FRONT-GRILLE and pull out from the PANEL-FRONT.</li> <li>3) Detach COVER-TERMINAL from the PANEL-FRONT. (Use +Screw Driver.)</li> <li>4) Loosen connector wire (white) and detach the temperature sensor wire.</li> <li>5) To detach the FRONT-PANEL the main frame unfasten 2 screw at the gutter. (Use +Screw Driver.)</li> <li>6) Take off the FRONT-PANEL, lifting up the button.</li> </ol> |      |

| No | Parts      | Procedure   | Remark  |
|----|------------|---|---|
| 2  | TRAY DRAIN | <ol style="list-style-type: none"> <li>1) Unfasten the screw.</li> <li>2) Detach COVER- CONTROL from the CASE-CONTROL.</li> <li>3) Loosen stepping motor wire and detach the hook of main frame.</li> <li>4) To detach TRAY-DRAIN from the main frame pull the bottom of the TRAY - DRAIN towards you.</li> </ol> |     |
| 3  | Contol-box | <ol style="list-style-type: none"> <li>1) Unfasten the earth screw. (use + Screw Driver)</li> <li>2) Detach the temperature sensor.</li> </ol>  |   |

| No | Parts      | Procedure  | Remark  |
|----|------------|--|---|
|    |            | <p>3) Disconnect the Connector Wire that is connected to the indoor unit's PBA from the PBA.</p> <p>4) Unfasten the 2 screw. (use + Screw Driver)</p> <p>5) Take off the CASE-CONTROL from the main frame.</p> |    |
| 3  | EVAPORATOR | <p>1) Unfasten the screw at the right side. (use+ Screw Driver)</p> <p>2) Unfasten the screw at the LEFT side. (use+ Screw Driver)</p>   |    |

| No | Parts                 | Procedure   | Remark   |
|----|-----------------------|---|--|
|    |                       | <p>3) Detach the HOLDER PIPE.</p> <p>4) Take off the EVAPORATOR from the main frame.</p>  |      |
| 5  | FAN MOTOR & CROSS FAN | <p>1) Unfasten the screw. (use+ Screw Driver)</p> <p>2) Take off the ??? from the main frame.</p> <p>3) Unfasten the screw a little. (use + Screw Driver)</p> <p>4) Pull the CROSS-FAN &amp; FAN MOTOR from the main frame.</p> |   |

### 3-1-15 Global Mini 4way

| No | Parts | Procedure  | Remark   |
|----|-------|--|--|
| 1  | Panel | <ol style="list-style-type: none"> <li>1) Pull both hooks and take the grille downward. Two safety clips are mounted to the front grille to prevent it from dropping.</li> <br/> <li>2) Detach the safety clip and take up the grille.</li> <br/> <li>3) Remove the 2 fixed screws to remove the Control-Box Cover. (Use +Screw Driver)</li> <br/> <li>4) Remove the Remocon-Receiver and Blade Connector Wire from the PBA. (3EA)</li> <br/> <li>5) Push the 4 panel corners and cover downwards to remove it.</li> </ol> | <br><br><br><br> |

| No | Parts       | Procedure  | Remark   |
|----|-------------|--|--|
|    |             | <p>6) Disassemble the bolts that are assembled with the indoor unit at the 4 panel corners.</p> <p>7) Press the Hangers at both sides of the panel inwards, to remove it from the indoor unit's hook.<br/>Remove the panel from the indoor unit.</p> |      |
| 2  | Control-Box | <p>1) Disconnect the Connector Wire that is connected to the indoor unit's PBA</p> <p>2) Unscrew the 2 fixed screws on both sides of the Control Box, and disassemble the Control Box from the indoor unit.<br/>(Use +Screw Driver)</p>              |   |

| No | Parts      | Procedure  | Remark  |
|----|------------|--|---|
| 3  | Bell-Mouth | 1) Unscrew the screw fixed on the Bell-Mouth. (Use +Screw Driver)<br><br>2) Push the Bell-Mouth in the direction opposite to where it's installed on the Control-Box to remove it. |       |
| 4  | Drain Pan  | 1) Unscrew the screws on the 4 corners of the indoor unit. (Use +Screw Driver)<br><br>2) Remove the Drain Pan from the indoor unit.  |   |

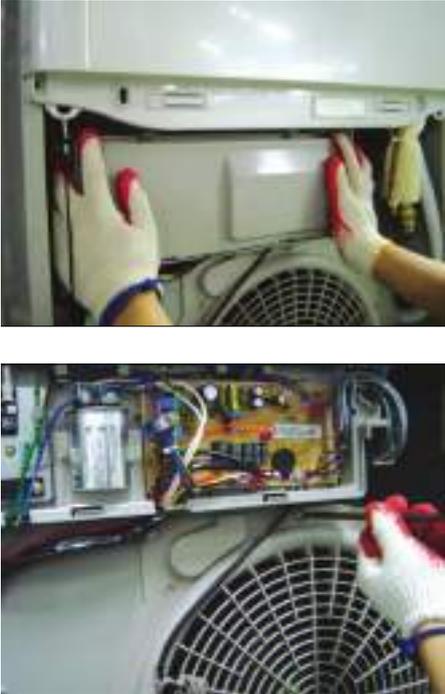
| No | Parts                    | Procedure  | Remark  |
|----|--------------------------|--|---|
| 5  | Drain Pump & Hose        | <p>1) Remove the 2 fixed screws and disconnect the white drainage hose from the Drain Pump.<br/>(Use +Screw Driver)</p> <p>2) Remove the 2 screws and take the Drain-Hose out from the indoor unit to disassemble the transparent Drain-Hose fixed on the side of the indoor unit.<br/>(Use +Screw Driver)</p> |    |
| 6  | Evap. Temperature Sensor | <p>1) Use your hand to remove the temperature sensor attached to the Evap Pipe along with the fixing clip.</p>   |   |

| No | Parts       | Procedure   | Remark  |
|----|-------------|---|---|
| 7  | Fan & Motor | <p>1) Turn the hexagonal nut attached to the top of the Fan counterclockwise to remove it. Take the Fan out of the Motor.</p> <p>2) Turn the three hexagonal nuts on the Motor counterclockwise to remove the nuts. Take the Motor Wires attached to these three locations out with your hands prior to removing the Motor.</p> |    |
| 8  | Evaporator  | <p>1) Remove the screws of the Steel Holder Evaps that are used to fix the Heat Exchanger, and then remove it. (Use +Screw Driver)</p> <p>2) Remove the 2 fixing screws of the Partition Evap at the Heat Exchanger's In/Out Pipe. (Use +Screw Driver)</p>  |     |

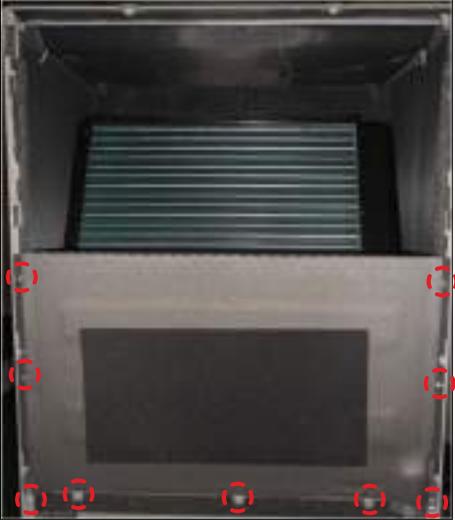
| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
|    |       | <p>3) Remove the screw of the Cover Pipe that is used to fix the In/Out Pipe. Remove the In/Out Pipe.<br/>(Use +Screw Driver)</p> <p>4) Remove the Heat Exchanger from the indoor unit's cabinet.</p> |    |

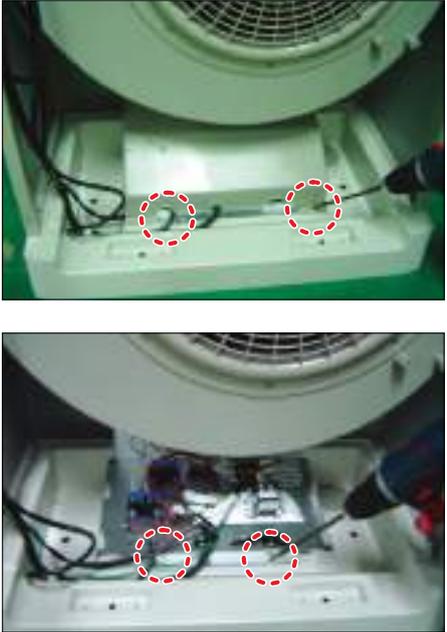
### 3-1-16 PAC

- AM145FNPDBH1

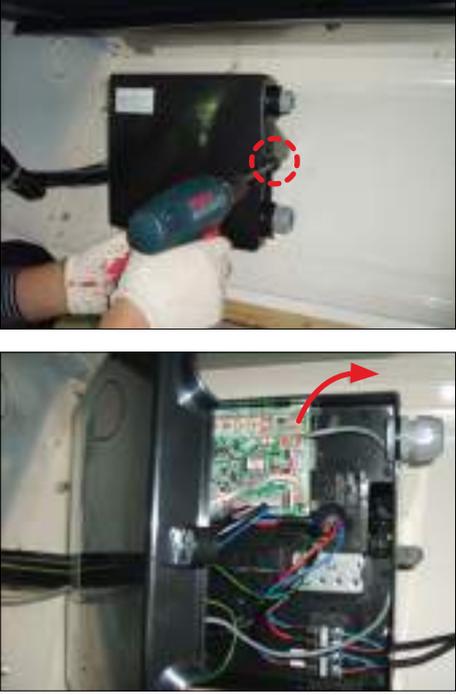
| No | Parts               | Procedure  | Remark   |
|----|---------------------|--|--|
| 1  | Front View          | 1) Stop the operation of the air conditioner and disconnect the main power supply.   |    |
| 2  | ASS'Y INLET PART    | 1) Open the ASS'Y INLET and separate the safety clips.<br>(If there is a dust collector in the ASS'Y INLET, separate the connector wire as well.)  |   |
| 3  | ASS'Y MAIN PCB PART | 1) Remove the 1 screw which is fixed to COVER-MAIN PCB. (Use +Screw Driver)<br><br>2) Remove the 1 screw on the upper part of GUIDE-BELL MOUTH and separate the GUIDE-BELL MOUTH in a counter clockwise direction. (Use +Screw Driver) |  |

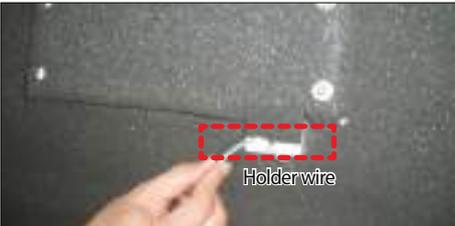
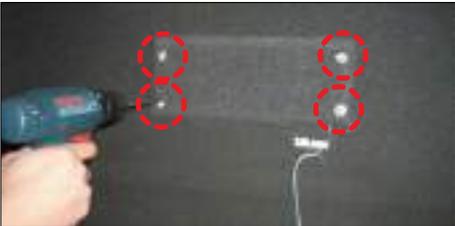
| No | Parts             | Procedure  | Remark   |
|----|-------------------|--|--|
| 4  | ASS'Y OUTLET PART | <p>1) Remove the 2 screws which is fixed to ASS'Y-PANEL DISPLAY. (Use +Screw Driver)</p> <p><b>⚠ Please be careful you do not scratch the blade during unscrewing.</b></p> <p>2) Separate the CONNECTOR-WIRE of ASS'Y-PANEL PCB.</p> <p>3) Remove the 2 screws from the ASS'Y-OUTLET SHUTTER and remove the 2 screws from the front of COVER TOP. (Use +Screw Driver)<br/>And then separate by pushing it upwards.</p> |     |

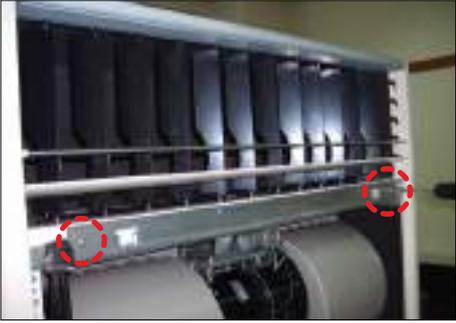
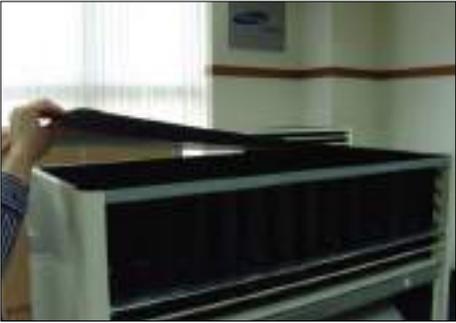
| No | Parts           | Procedure   | Remark  |
|----|-----------------|---|---|
| 5  | ASS'Y EVAP PART | <p>1) Remove the 9 screws which is fixed to PARTITION. (Use +Screw Driver)</p> <p>2) Remove the 2 screws which is fixed to COVER EVAP COLLECTOR and then separate the ASS'Y EVAP. (Use +Screw Driver)</p> <p><b>⚠ Be careful not to crush the FIN during ASS'Y EVAP disassembly and avoid the sharp edge of the FIN.</b></p> <p>3) Remove the 4 screws which is fixed to ASS'Y-PANEL DRAIN.</p> |    |

| No | Parts                 | Procedure  | Remark   |
|----|-----------------------|--|--|
| 6  | ASS'Y MOTOR PART      | <p>1) Remove the BLOWER NUT and separate the BLOWER. (Use Monkey Spanner)</p> <p>2) Remove the 3 fixing nut of the MOTOR and remove the ground wire fixing screw. (Use Monkey Spanner)</p> |    |
| 7  | ASS'Y CONTROL IN PART | <p>1) Remove the 2 screws which is fixed to COVER CONTROL. (Use +Screw Driver)</p> <p>2) Remove the 2 screws which is fixed to ASS'Y CONTROL IN. (Use +Screw Driver)</p>                   |  |

- AM290FNPDBH1

| No | Parts               | Procedure   | Remark   |
|----|---------------------|---|--|
| 1  | Front View          | <ol style="list-style-type: none"> <li>1) Stop the operation of the air conditioner and disconnect the main power supply.</li> <li>2) In the case of major repairs : First, collect all of the refrigerant to the outdoor unit by a refrigerant recovery operation.</li> <li>3) In the case of major repairs that power unconnected : Collect all of the refrigerant to the refrigerant bombe. (Using the refrigerant recovery apparatus and refrigerant bombe.)</li> </ol> |    |
| 2  | ASS'Y INLET PART    | <ol style="list-style-type: none"> <li>1) Open the ASS'Y INLET GRILLE and separate the safety clips.</li> </ol>   |   |
| 3  | ASS'Y MAIN PCB PART | <ol style="list-style-type: none"> <li>1) Remove the 1 screw which is fixed to COVER-MAIN PCB. (Use +Screw Driver)</li> <li>2) Separate the connector from the MAIN PCB.</li> </ol>   |  |

| No | Parts                               | Procedure  | Remark   |
|----|-------------------------------------|--|--|
| 4  | ASSY FRONT PANEL & DISPLAY PCB PART | <p>1) Remove the 4 screws from the bottom of FRONT PANEL. (Use +Screw Driver)</p> <p>2) Lift up the FRONT PANEL and separate it.</p> <p>3) Separate the wire from the holder wire and place the FRONT PANEL in the flat floor.</p> <p>4) Separate the wire from the holder wire of FRONT PANEL rear.</p> <p>5) Remove the 4 screws from the DISPLAY COVER. (Use +Screw Driver)</p> <p>6) Remove the 1 screw which is fixed to DISPLAY PCB. (Use +Screw Driver)</p> |       |

| No | Parts              | Procedure   | Remark  |
|----|--------------------|---|---|
| 5  | OUTLET GRILLE PART | <p>1) Remove the 2 screws from the BRACKET FRONT BLOWER of OUTLET GRILLE. (Use +Screw Driver)</p> <p>2) Remove the 14 screws from the COVER TOP. (Use +Screw Driver)</p> <p>3) Separate the COVER TOP.</p> <p>4) Lift up the OUTLET GRILLE and separate it.</p> |      |

| No | Parts           | Procedure   | Remark   |
|----|-----------------|---|--|
| 6  | ASS'Y EVAP PART | <p><b>⚠ 1) Heat exchanger service is major repairs service work.</b></p> <p><b>2) First, collect all of the refrigerant to the outdoor unit by a refrigerant recovery operation and begin work.</b></p> <p><b>3) Welding work qualification possession worker works.</b></p> <p><b>4) Always place a fire extinguisher in preparation for an emergency.</b></p> <p>1) Remove the high pressure pipe flare nut. (Use Monkey Spanner)</p> <p>2) Carefully separate the low pressure pipe (9/8 inch) using gas welding machine.<br/> <b>⚠ Take care lest welding heat should go to drain fan. (It is made of plastic.)</b></p> <p>3) Remove the 4 screws from the upside of heat exchanger. (Use +Screw Driver)</p> <p>4) Remove the 4 screws from the right side of heat exchanger cover. (Use +Screw Driver)</p> <p>5) Remove the 4 screws from the left side of heat exchanger cover. (Use +Screw Driver)</p> |     |

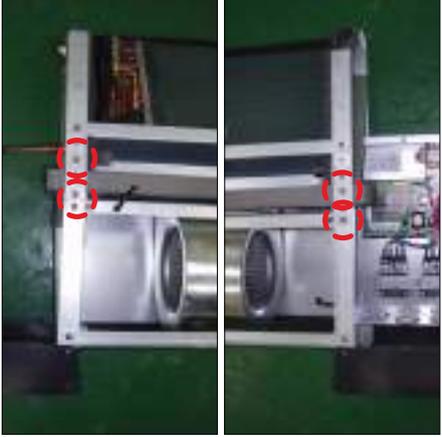
| No | Parts                   | Procedure  | Remark  |
|----|-------------------------|--|---|
| 7  | FAN BLOWER & MOTOR PART | <ol style="list-style-type: none"> <li>1) Separate the connector of motor drive capacitor.</li> <br/> <li>2) Remove the 8 screws from the COVER-FAN BLOWER DUCT. (Use +Screw Driver)</li> <br/> <li>3) Separate the COVER-FAN BLOWER.</li> <br/> <li>4) Remove the 2 screws from the FAN MOTOR BRACKET. (Use +Screw Driver)</li> <br/> <li>5) Pull out the FAN MOTOR BRACKET and separate it.</li> </ol> | <br><br><br><br> |

| No | Parts | Procedure   | Remark   |
|----|-------|---|--|
|    |       | 6) Hold up with both hands a FAN and MOTOR and then pull out the FAN and MOTOR. |  |

### 3-1-17 Floor Standing Type (CONCEALED)

– All the procedure has to be verified because the cover should not open when the unit is installed.

| No | Parts    | Procedure   | Remark  |
|----|----------|---|---|
| 1  | Cabinnet | <p>1) Unscrew fixed screw of the upper part cabinet, and please separate</p> <p>2) Please separate front cabinet.</p> |  |

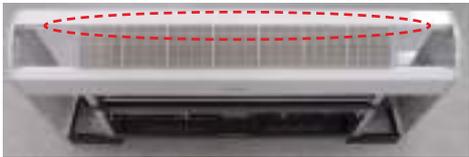
| No | Parts          | Procedure   | Remark  |
|----|----------------|---|---|
| 2  | Heat Exchanger | <p>1) Unscrew two fixed screws, and please separate heat exchanger cover.</p> <p>2) Unscrew fixed screw on both side of heat exchanger plate. And then pulls heat exchanger to the right side, and please separate.</p> |    |
| 3  | Drain Pan      | <p>1) Please remove PLATE for fixation of DRAIN PAN located in the side.</p>  |   |

| No | Parts       | Procedure   | Remark  |
|----|-------------|---|---|
| 4  | Motor & Fan | <ol style="list-style-type: none"> <li>1) Process hopes for DRAIN PAN isolation work in this work earlier.</li> <li>2) Unscrew MOTOR BRACKET fixation screw located in the front surface, and please separate.</li> <li>3) Unscrew MOTOR BRACKET fixation screw located in the side, and please separate.</li> <li>4) Separate out MOTOR BRACKET for front side.</li> </ol> |    |

| No | Parts       | Procedure  | Remark  |
|----|-------------|--|---|
| 4  | Motor & Fan | <p>5) Please separate screw between the MOTOR and the MOTOR BLACKET.</p> <p>6) Please separate screw between the MOTOR BLACKET and the FAN BLOWER.</p> <p>7) Please separate screw between the MOTOR BLACKET and the FAN BLOWER.</p> <p>8) Please separate the FAN screw using hexagon-wrench.</p> |     |

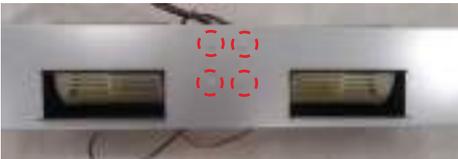
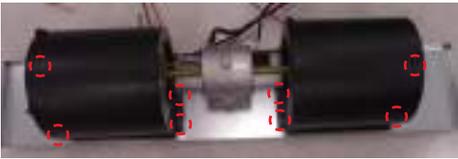
### 3-1-18 Floor Standing Type (EXPOSED)

– All the procedure has to be verified because the cover should not open when the unit is installed.

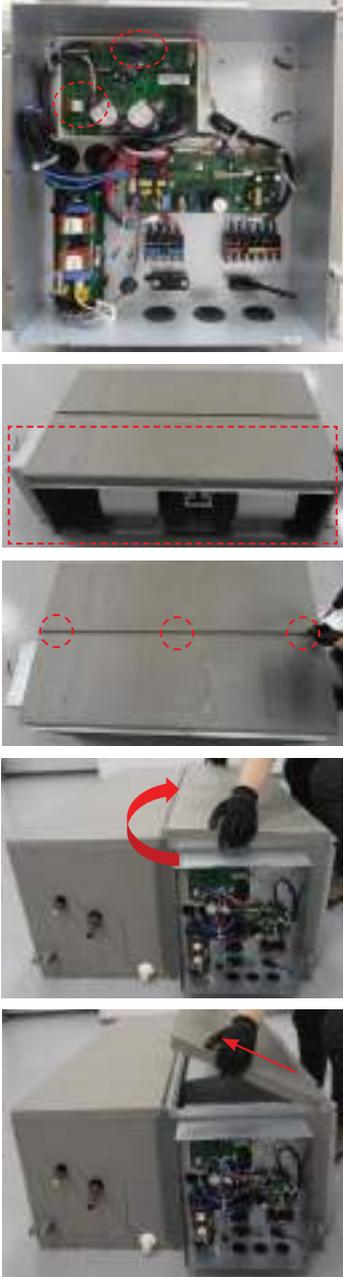
| No | Parts    | Procedure   | Remark   |
|----|----------|---|--|
| 1  | Cabinnet | <ol style="list-style-type: none"> <li>1) Please separate the DOOR HAND &amp; the DOOR BODY by pulling upwards.</li> <li>2) Please unscrew the FRONT MID screw and separate the FRONT MID by pulling downwards.</li> <li>3) Please unscrew the GRILLE screw and separate the GRILLE.</li> <li>4) Please unscrew the FRONT MID Screw and separate the FRONT MID.</li> <li>5) Please unscrew the FRONT UPPER &amp; the FRONT SIDE screw and separate the FRONT SIDE.</li> <li>6) Please unscrew the FRONT UPPER screw of the back side and separate the FRONT UPPER.</li> </ol> |        |

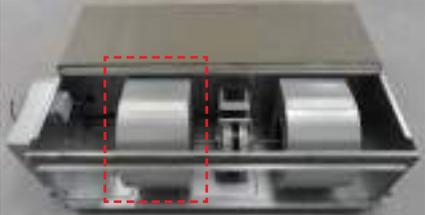
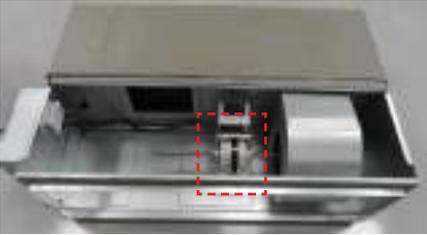
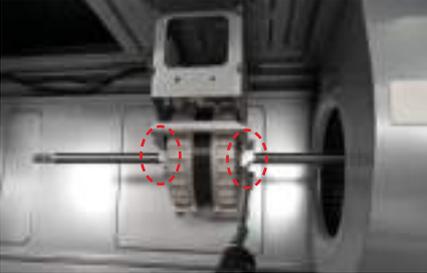
| No | Parts          | Procedure  | Remark  |
|----|----------------|--|---|
| 2  | Heat Exchanger | <p>1) Please unscrew the screw and separate the COVER.</p> <p>2) Please unscrew the SIDE CABINET screw.</p> <p>3) Please disassemble the fixing plate of heat exchanger and separate the heat exchanger.</p> |  |

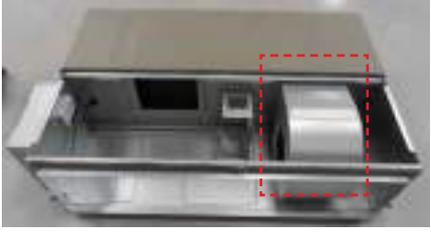
| No | Parts       | Procedure   | Remark  |
|----|-------------|---|---|
| 3  | Control Box | <p>1) Please unscrew the screw and separates the C-BOX COVER.</p> <p>2) Please unscrew the screw and separates the C-BOX.</p> |  |

| No | Parts       | Procedure  | Remark   |
|----|-------------|--|--|
| 4  | MOTOR & FAN | <ol style="list-style-type: none"> <li>1) Please unscrew the CABINET SIDE screw and separates the MOTOR CABINET.</li> <br/> <li>2) Please separate screw between the MOTOR and the MOTOR BLACKET.</li> <br/> <li>3) Please separate screw between the MOTOR BLACKET and the FAN BLOWER.</li> <br/> <li>4) Please separate screw between the MOTOR BLACKET and the FAN BLOWER.</li> <br/> <li>5) Please separate the FAN screw using hexagon-wrench.</li> </ol> | <br><br><br><br><br> |

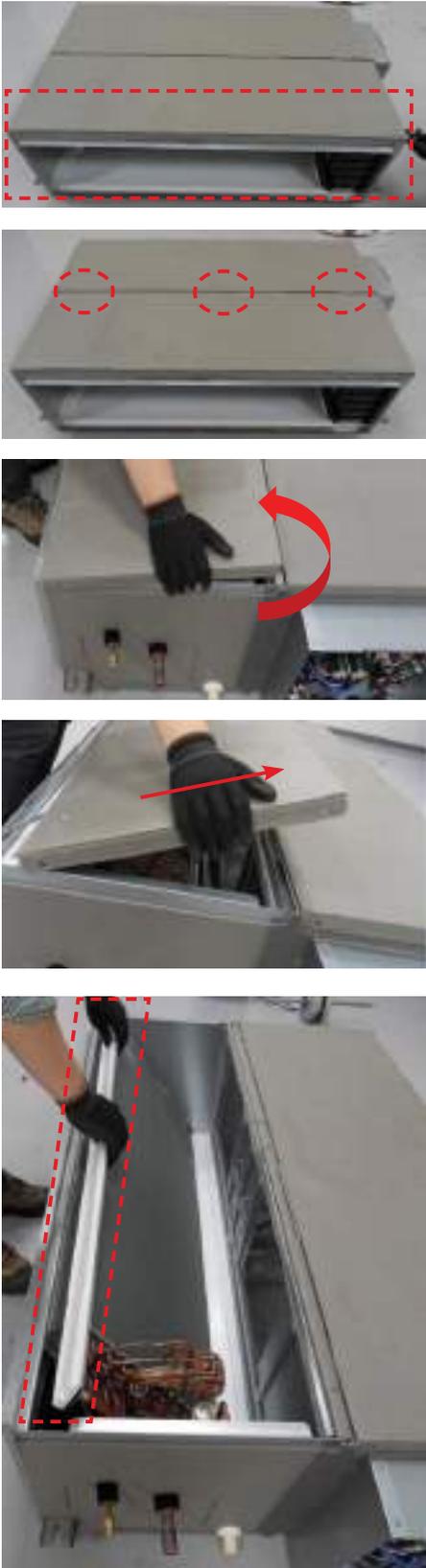
### 3-1-19 OAP Duct type

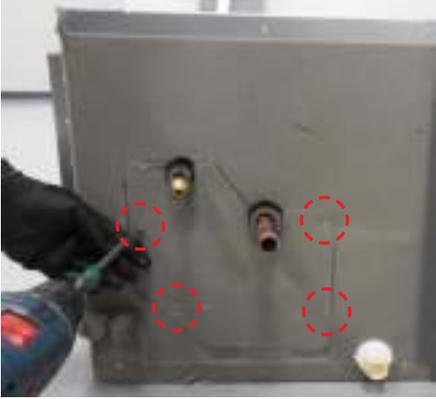
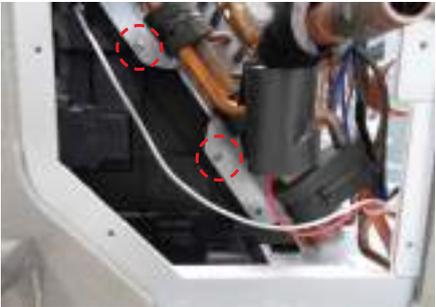
| No | Parts       | Procedure  | Remark   |
|----|-------------|--|--|
| 1  | Commom      | 2) Disasseble the Cover Control.<br>- Unscrew 2 screws.<br><b>⚠ You must turn off the Power before disassembly.</b>  |    |
| 2  | Motor & Fan | <p><b>&lt; Service from Top &amp; Bottom side &gt;</b></p> 1) Disassemble the connection wire to take the Motor Fan out. <p>2) Disassemble the Canibet Top Fan.<br/>                     - Unscrew 6 screws.</p> <p>3) Disassemble the Link Screw.<br/>                     - Unscrew 3 screws.</p> <p>4) Disassemble Cabinet Top Fan.</p> |  |

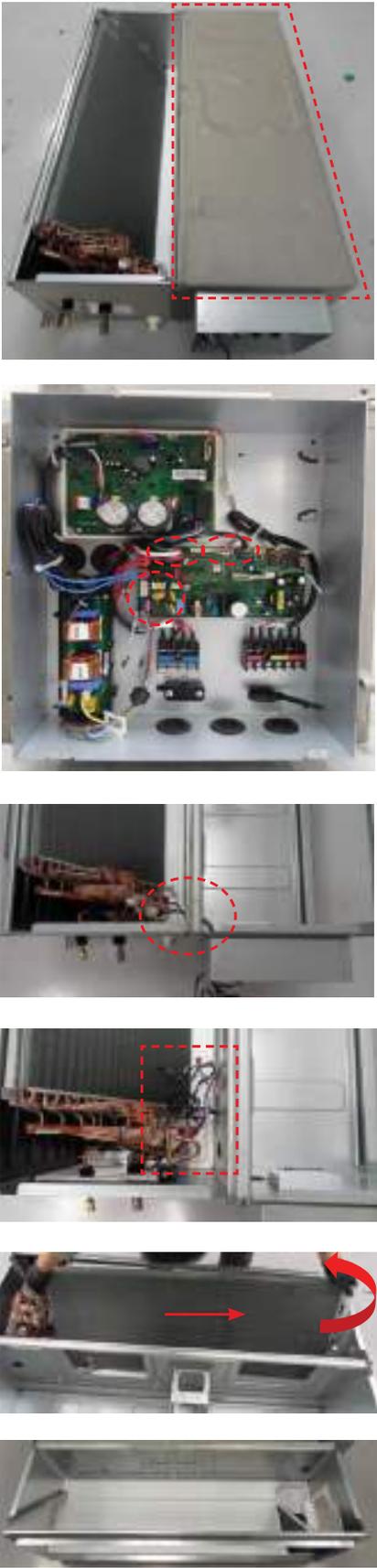
| No | Parts | Procedure  | Remark   |
|----|-------|--|--|
|    |       | <p>5) Disassemble C/BOX side Case Blower.<br/>                     - Unscrew 1 Blower screw using 3mm wrench.<br/>                     - Unscrew 6 screws.</p> |      |
|    |       | <p>6) Disassemble 1 Holder Motor.<br/>                     - Unscrew 2 screws.</p>   |   |
|    |       | <p>7) Disassemble Blower screw of opposite side<br/>                     - Unscrew 1 Blower screw using 3mm wrench</p>   |    |

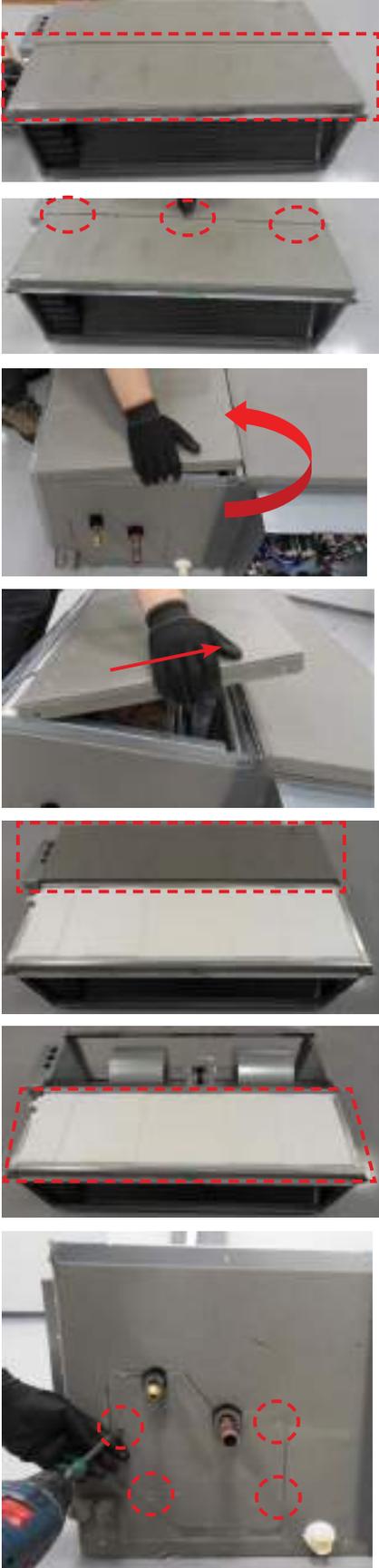
| No | Parts | Procedure   | Remark   |
|----|-------|---|--|
|    |       | <p>8) Disassemble Motor from the set<br/>                     - Disassemble motor wire from 3 holder wires .</p> <p><b>⚠ Please be careful, Avoiding injury when disassembly the steel blower.</b></p> <p>9) Disassemble Case blower.<br/>                     - Unscrew 6 screws</p> <p>10) Disassemble the Bell mouth for Blower change .<br/>                     - Unscrew 8 screws</p> <p><b>⚠ Please be careful, Avoiding injury when disassembly the steel blower.</b></p> |      |



| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
| 4  | Evap  | <p><b>&lt; Service from Top side &gt;</b></p> <p>1) Disassemble The Case Evap Top.<br/>- Unscrew 6 screws.</p> <p>2) Disassemble the Link Screw.<br/>- Unscrew 3 screws.</p> <p>3) Disassemble the Case Evap Top.</p> <p>4) Disassemble The Plate Front.</p> |  |

| No | Parts | Procedure  | Remark   |
|----|-------|--|--|
| 4  | Evap  | <p>5) Disassemble The Cover pipe.<br/>- Unscrew 4 screws</p> <p>6) Remove The cable tie on the Support Evap.</p> <p>7) Disassemble The Evap.<br/>- Unscrew 4 screws.</p> |     |

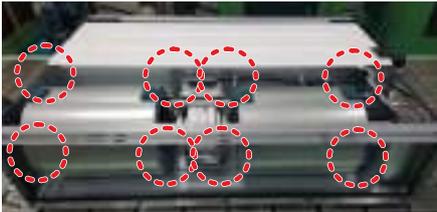
| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
| 4  | Evap  | <p>8) Disassemble the Case Fan Top.<br/>- Unscrew 6 screws.</p> <p>9) Disassemble Evap Sensor wire,EEV wire and Solenoid V/V wire from C/BOX.</p> <p>10) Disassemble the Evap.</p> |  |

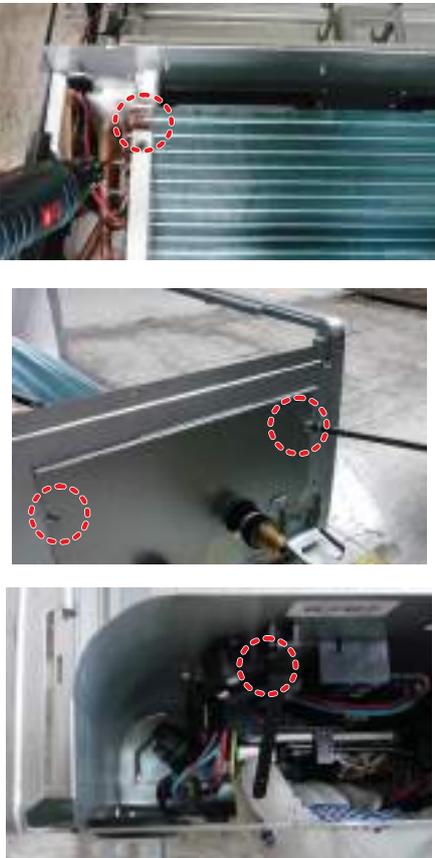
| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    | Evap  | <p><b>&lt; Service from Bottom side &gt;</b></p> <p>1) Disassemble The Case Evap Bottom.<br/>- Unscrew 7 screws.</p> <p>2) Disassemble the Link Screw.<br/>- Unscrew 3 screws.</p> <p>3) Disassemble the Case Evap Bottom.</p> <p>4) Disassemble The Case Fan Bottom.<br/>- Unscrew 6 screws.</p> <p>5) Disassemble the Drain Pan.</p> <p>6) Disassemble The Cover pipe.<br/>- Unscrew 4 screws.</p> |  |



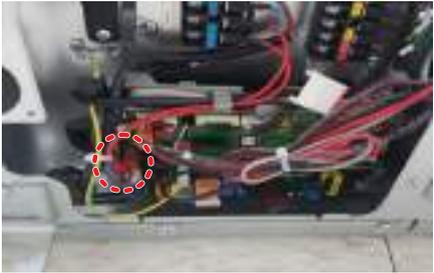
**3-1-20 Global Duct 1 (AM007/009/012/015/018MNMDC/AA, AM006RNMDCH/AA)**

| No | Parts          | Procedure  | Remark  |
|----|----------------|--|---|
| 1  | Motor & Blower | <p>1)Disassemble the Cabinet Bottom Fan.<br/>- Unscrew 10 screws</p> <p>2)Disassemble the Case Filter Pre.</p> <p>3)Disassemble the Cabinet Bottom Evap.<br/>- Unscrew 10 screws</p> <p>4)Disassemble the Cover Control.<br/>- Unscrew 2 screws</p> <p>5)Cut the cable-tie</p> |      |

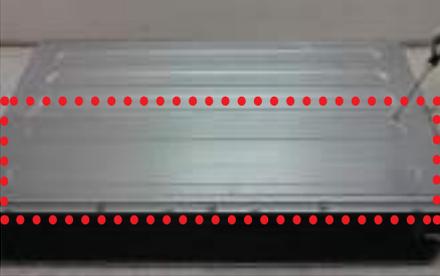
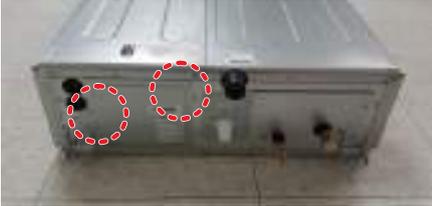
| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>6) Disconnect the wire between assy control out and motor.</p> <p>7) Disassemble the 2 Holder Motor.<br/>- Unscrew 2 screws</p> <p>8) Disassemble the fan casing.<br/>- Unscrew 8 screws</p> <p>9) Disassemble the motor.<br/>- Unscrew 2 screws.</p> <p>10) Disassemble the fan.<br/>- Unscrew 5 screws.</p> | <br><br><br><br> |

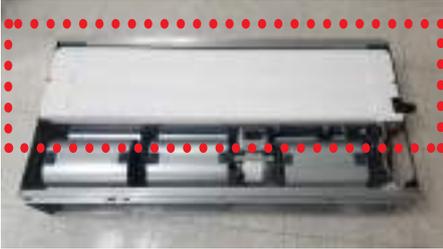
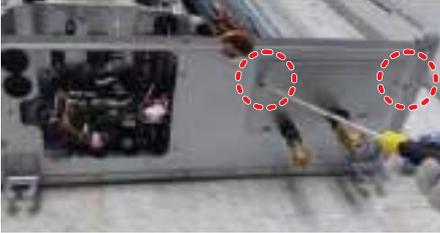
| No | Parts                  | Procedure  | Remark   |
|----|------------------------|--|--|
| 2  | Drain Pan & Drain Pump | <p>1) Disassemble the Cabinet Bottom Evap.<br/>- Unscrew 7 screws.</p> <p>2) Pull the Drain Pan Out.</p> <p>3) Disassemble the drain Pump.<br/>- Unscrew 5 screws and disassemble 2 connectors.</p>                |  <p>The first photo shows the interior of the cabinet with the bottom evaporator assembly highlighted by a red dashed box. The second photo shows a person pulling the white drain pan out of the cabinet. The third photo shows the drain pump assembly with red dashed circles highlighting the screws and connectors to be removed.</p>                            |
| 3  | EVAP                   | <p>1) Disassemble the Support Evap.<br/>- Unscrew 1 screw</p> <p>2) Disassemble the Cover Pipe.<br/>- Unscrew 2 screws</p> <p>3) Disconnect the wire between the control assembly and Evap. (TEMP sensor, EEV)</p> |  <p>The first photo shows the support evaporator with a red dashed circle highlighting the screw to be removed. The second photo shows the cover pipe with two red dashed circles highlighting the screws to be removed. The third photo shows the control assembly and evaporator with a red dashed circle highlighting the wire connection to be disconnected.</p> |

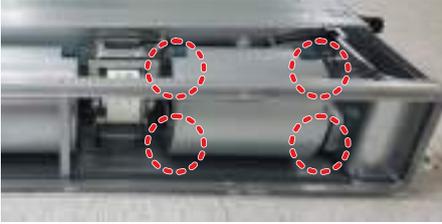
| No | Parts   | Procedure  | Remark   |
|----|---------|--|--|
|    |         | 4)Disassemble the Evap.<br>- Unscrew 3 screws.<br>Then pull the Evap out |  |
| 4  | Control | 1)Disassemble the Case Control.<br>- Unscrew 2 screws                    |  |

| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
| 5  | PBA   | <p>1) Disassemble the main PBA.<br/>- Unscrew 1 screw &amp; disassemble connectors.</p> <p>2) Disassemble the case PBA.<br/>- Unscrew 2 screws.</p> <p>3) Disassemble the BLDC PBA.<br/>- Unscrew 1 screw.</p> | <br><br> |
| 6  | Frame | <p>1) Disassemble the Frame.<br/>- Unscrew 6 screws</p>  |   |

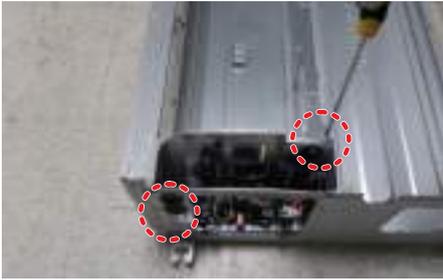
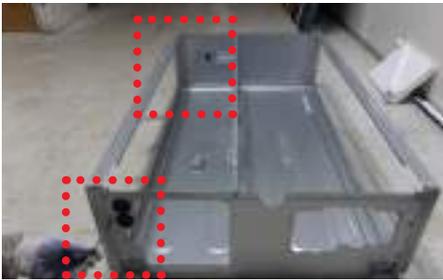
**3-1-21 Global Duct 2,3 (AM024/027/030/036/048MNMDCH/AA, AM018RNMDCH/AA)**

| No | Parts  | Procedure  | Remark   |
|----|--------|--|--|
| 1  | Common | <p>1)Disassemble the Cabinet Bottom Fan.<br/>- Unscrew 11 screws</p> <p>2)Disassemble the Case Filter Pre.</p> <p>3)Disassemble the Cover Control.<br/>- Unscrew 2 screws</p> <p>4)Disassemble the Cabinet Bottom Evap.<br/>- Unscrew 8 screws</p> | <br><br><br> |

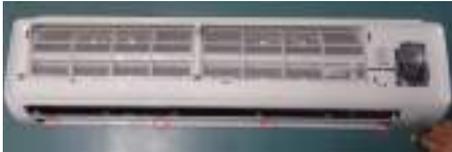
| No | Parts            | Procedure   | Remark  |
|----|------------------|---|---|
| 2  | Drain Pan & Evap | <p>1)Disassemble the Drain Pan from the set.</p> <p>2) Disassemble the Cover Pipe.<br/>- Unscrew 2 screws</p> <p>3)Disassemble the Support Evap.<br/>- Unscrew 1 screws</p> <p>4)Disassemble the Evap.<br/>- Unscrew 3 screws</p> | <br><br><br> |

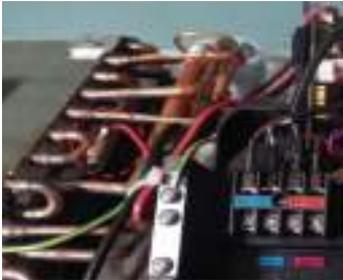
| No | Parts       | Procedure  | Remark  |
|----|-------------|--|---|
| 3  | Motor & Fan | <p>1)Disassembl the connection wire,the take the Motor Fan out</p> <p>2)Disassemble the 3 holder motor.<br/>- Unscrew 2 screws</p> <p>3)Disassemble the fan casing.<br/>- Unscrew 4 screws</p> <p>4)Disassemble the holder-shaft.<br/>- Unscrew 1 screw.</p> <p>5)Disassemble the frame.<br/>- Unscrew both side 3 screws.</p> |      |

| No | Parts   | Procedure  | Remark   |
|----|---------|--|--|
|    |         | <p>6)Disassemble the motor.<br/>- Unscrew 1 screw.</p> <p>7)Disassemble the fan.<br/>- Unscrew 5 screws.</p>                         | <br>     |
| 4  | Cushion | <p>1)Disassemble the Assy Cushion Right.<br/>- Unscrew 1 screws</p> <p>2)Disassemble the Seal Cushion LF.<br/>- Unscrew 1 screws</p> | <br> |

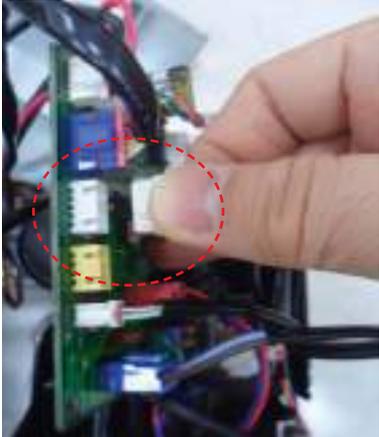
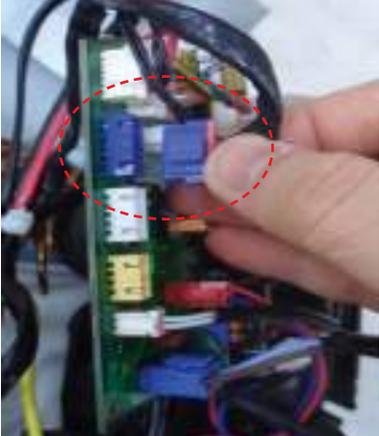
| No | Parts   | Procedure  | Remark   |
|----|---------|--|--|
| 5  | Control | 1)Disassemble the Case Control.<br>- Unscrew 2screws   |    |
| 6  | PBA     | 1) Disassemble the main PBA.<br>- Unscrew 1 screw & disassemble connectors.<br><br>2) Disassemble the case PBA.<br>- Unscrew 2 screws.<br><br>3) Disassemble the BLDC PBA.<br>- Unscrew 1 screw. |  <p style="text-align: center;">(Global Duct 2)</p>  <p style="text-align: center;">(Global Duct 3)</p>  <p style="text-align: center;">(Global Duct 3)</p> |
| 7  | Frame   | 1)Disassemble the Frame.- Unscrew 6 screws   |    |

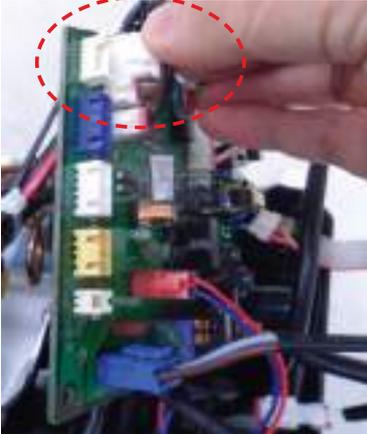
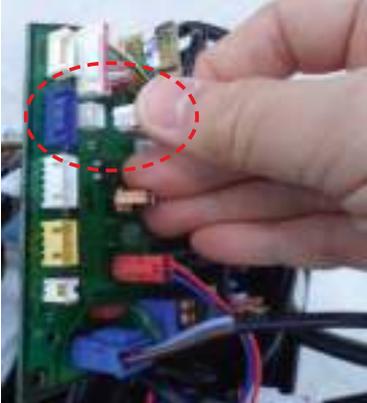
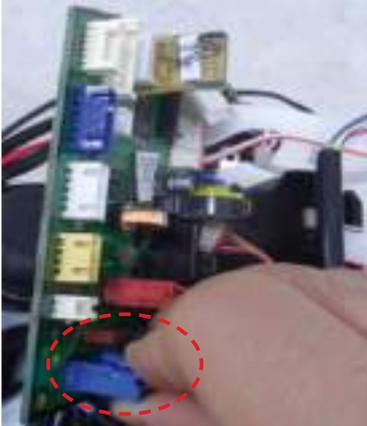
## 3-1-22 Wall Mounted type (MAX)

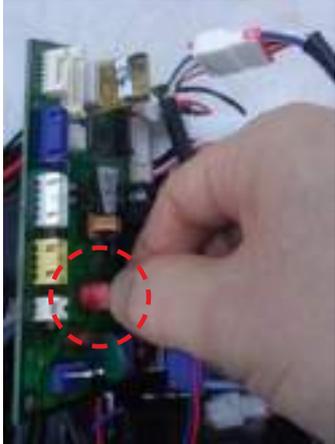
| No | Parts        | Procedure   | Remark   |
|----|--------------|---|--|
| 1  | Front Grille | <ol style="list-style-type: none"> <li>1) Stop the air conditioner operation and shut off the main power.</li> <li>2) Open the FRONT-GRILLE and pull out from the PANEL-FRONT.</li> <li>3) Detach COVER-TERMINAL from the PANEL-FRONT. (Use +Screw Driver.)</li> <li>4) Loosen connector wire (white) and detach the temperature sensor wire.</li> <li>5) To detach the FRONT-PANEL the main frame unfasten 2 screw at the gutter. (Use +Screw Driver.)</li> <li>6) Take off the FRONT-PANEL, lifting up the button.</li> </ol> |      |

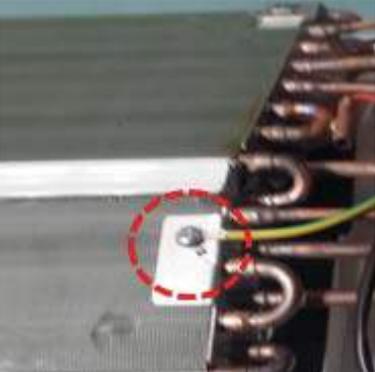
| No | Parts      | Procedure   | Remark   |
|----|------------|---|--|
| 2  | TRAY DRAIN | <ol style="list-style-type: none"> <li>1) Loosen stepping motor wire and detach the hook of main frame.</li> <li>2) To detach TRAY-DRAIN from the main frame, pull the bottom of the TRAY-DRAIN towards you.</li> <li>3) To detach TRAY-DRAIN from the main frame , pull the bottom of the TRAY-DRAIN towards you.</li> </ol> |          |
| 3  | CONTROL IN | <ol style="list-style-type: none"> <li>1) Unfasten the earth screw.(use + ScrewDriver)</li> <li>2) Detach the temperature sensor and Humidity sensor.</li> <li>3) Detach the temperature sensor.</li> </ol>   |    |

| No | Parts | Procedure  | Remark  |
|----|-------|--|---|
|    |       | <p>4) Loosen MOTOR wires(white).</p> <p>5) Take off the CASE-CONTROL from the main frame. (use + Screw Driver)</p> | <br> |

| No | Parts | Procedure   | Remark  |
|----|-------|---|---|
| 4  | PBA   | <p>1) Loosen the STEP UP/DOWN connector(CN802).</p> <p>⚠ When you separate the connector, pull pressing the locking button.</p> <p>2) Loosen the EEV connector(CN801).</p> <p>⚠ When you separate the connector, pull pressing the locking button.</p> <p>3) Loosen the FUSE CHK connector (CN140).</p> <p>⚠ When you separate the connector, pull pressing the locking button.</p> |    |

| No | Parts | Procedure  | Remark   |
|----|-------|--|--|
|    |       | <p>4) Loosen the EVA IN/OUT connector. (CN403)</p> <p>⚠ When you separate the connector, pull pressing the locking button.</p>   |    |
|    |       | <p>5) Loosen the Humidity sensor connector(CN401). → Option connector.</p> <p>⚠ The terminal is locking type. So, when you separate terminals, pull pressing the button.</p> |   |
|    |       | <p>6) Loosen the DISPLAY connector. (CN501).</p> <p>⚠ The terminal is locking type. So, when you separate terminals, pull pressing the button.</p>                           |  |
|    |       | <p>7) Loosen the POWER connector.</p> <p>⚠ When you separate the connector, pull pressing the locking button.</p>  |  |

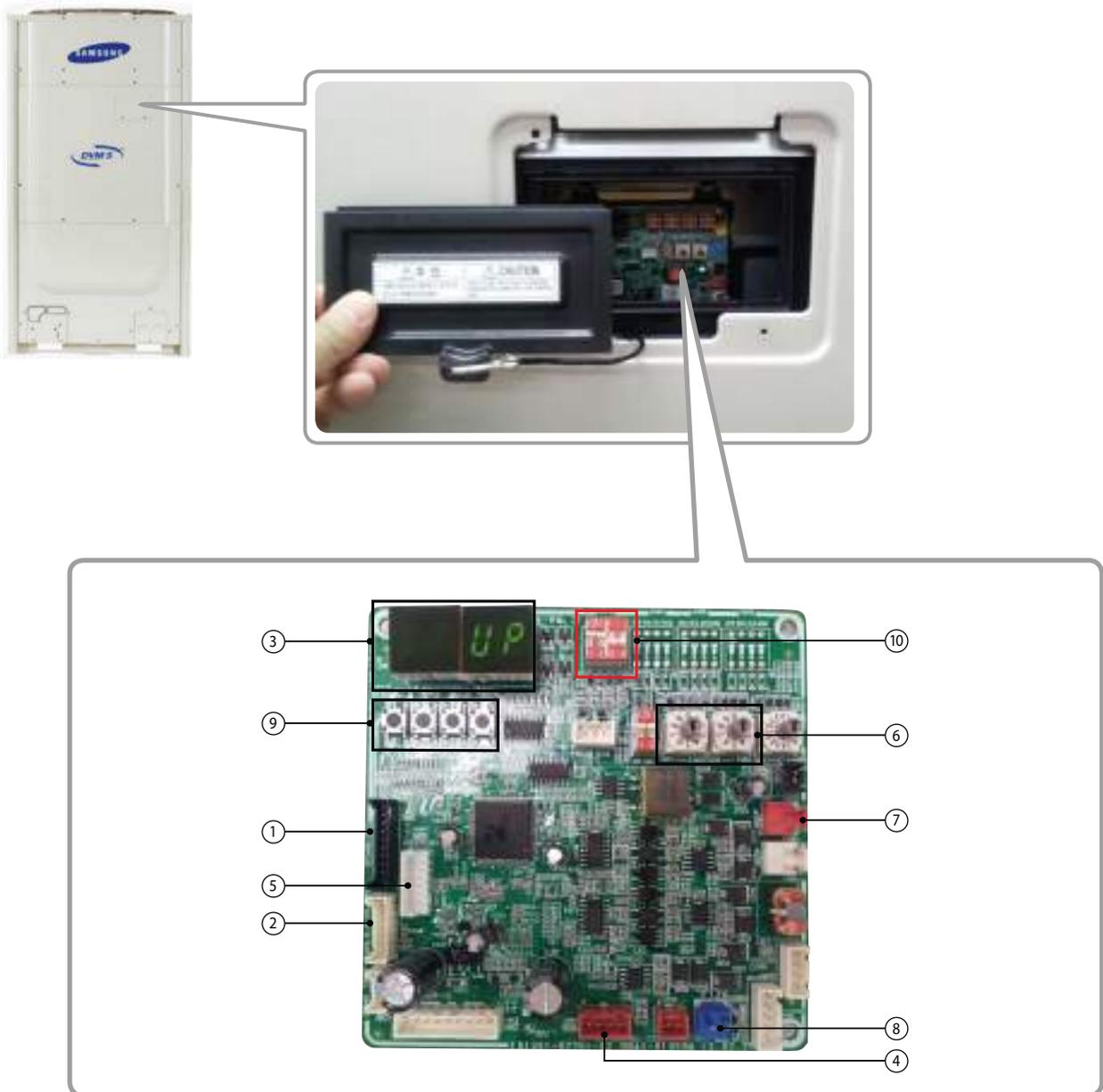
| No | Parts      | Procedure   | Remark   |
|----|------------|---|--|
|    |            | <p>8) Loosen the COMM wire connector(CN303).</p> <p>⚠ When you take off the PBA, don't touch the components. Please hold the PBA both side.</p> <p>9) Loosen the Motor connector(CN701).</p> <p>⚠ When you separate the connector, pull pressing the locking button.</p> <p>10) Take off the main PBA from the ASS'Y Control in.</p> <p>⚠ When you take off the PBA, don't touch the components. Please hold the PBA both side.</p> |    |
| 5  | EVAPORATOR | <p>1) Unfasten the screw at the right side. (use + ScrewDriver)</p>   |   |

| No | Parts | Procedure  | Remark   |
|----|-------|--|--|
|    |       | 2) Unfasten the screw at the left side.<br>(use + ScrewDriver)     |    |
|    |       | 3) Detach the HOLDER PIPE.<br>(use + Screw Driver)                 |    |
|    |       | 4) Detach the BRACKET-EVAP.<br>(use + Screw Driver)                |   |
|    |       | 5) Detach the HOLDER EVAP.<br>(use + Screw Driver)                 |  |
|    |       | 6) Loosen 1 fixing earth screw right side.<br>(use + Screw Driver) |  |

| No | Parts                 | Procedure   | Remark  |
|----|-----------------------|---|---|
| 6  | FAN MOTOR & CROSS FAN | <p>1) Loosen 6 fixing screws of HOLDER-MOTOR.</p> <p>2) Unfasten the screw a little.<br/>(use + Screw Driver)</p> <p>3) Unfasten the screw a little and pull the MOTOR FAN to the right side.<br/>(use + Screw Driver)</p> <p>4) Loosen 1 fixing screws of HOLDER-FAN.<br/>(use + Screw Driver)</p> <p>5) Unfasten the screw a little.<br/>(use + Screw Driver)</p> |      |

## 4. Troubleshooting

### 4-1 Check-up Window Description



| No. | Function                                       | No. | Function  |
|-----|--|-----|---|
| 1   | CN22 download (PC)<br>(SMW200-10 black)        | 6   | Set up the number of connected indoor units               |
| 2   | MICOM. download (AS-PRO)<br>(SMW200-07P white) | 7   | For checking indoor unit communication<br>(YW396-02P red) |
| 3   | ERROR DISPLAY                                  | 8   | Transmitter 12V<br>(YW396-02P blue)                       |
| 4   | State Check<br>(SMW250-04P red)                | 9   | Outdoor Unit Tact Switch                                  |
| 5   | EEPROM SOCKET                                  | 10  | Outdoor Unit Dip Switch                                   |

## 4-2 Service Operation

### 4-2-1 Special Operation

- ▶ Key input of the outdoor unit when the service enters the operation mode.

| K1 (Number of press)  | Key operation                                     | Display on segment |
|-----------------------|---|--------------------|
| 1 time                | Refrigerant charging in Heating mode              | K, 1, BLANK, BLANK |
| 2 times               | Trial operation in Heating mode                   | K, 2, BLANK, BLANK |
| 3 times               | Pump out in Heating mode (Outdoor unit address 1) | K, 3, BLANK, 1     |
| 4 times               | Pump out in Heating mode (Outdoor unit address 2) | K, 3, BLANK, 2     |
| 5 times               | Pump out in Heating mode (Outdoor unit address 3) | K, 3, BLANK, 3     |
| 6 times               | Pump out in Heating mode (Outdoor unit address 4) | K, 3, BLANK, 4     |
| 7 times               | Vacuumig (Outdoor unit address 1)                 | K, 4, BLANK, 1     |
| 8 times               | Vacuumig (Outdoor unit address 2)                 | K, 4, BLANK, 2     |
| 9 times               | Vacuumig (Outdoor unit address 3)                 | K, 4, BLANK, 3     |
| 10 times              | Vacuumig (Outdoor unit address 4)                 | K, 4, BLANK, 4     |
| 11 times              | Vacuuming (All outdoor units)                     | K, 4, BLANK, A     |
| 12 times              | End Key operation                                 | -                  |
| Press and hold 1 time | Auto trial operation                              | K, K, BLANK, BLANK |

| K2 (Number of press) | Key operation  | Display on segment  |
|----------------------|--|---|
| 1 time               | Refrigerant charging in Cooling mode   | K, 5, BLANK, BLANK  |
| 2 times              | Trial operation in Cooling mode  | K, 6, BLANK, BLANK  |
| 3 times              | Pump down all units in Cooling mode  | K, 7, BLANK, BLANK  |
| 4 times              | H/R: Checking the pipe connection<br>H/P: Automatic setting of operation mode (Cooling/Heating)<br>for trail operation | K, 8, BLANK, BLANK  |
| 5 times              | Checking the amount of refrigerant   | K 9 X X (Display of last two digits may differ depending on the progress) |
| 6 times              | Discharge mode of DC link voltage  | K, A, BLANK, BLANK  |
| 7 times              | Forced defrost operation   | K, B, BLANK, BLANK  |
| 8 times              | Forced oil collection  | K, C, BLANK, BLANK  |
| 9 times              | End Key operation  | -   |

- ※ Inv1 & Inv2 voltage during discharge mode are displayed alternately.
- ※ Outdoor Power Off even when the Inverter PCB, Fan PCB is a high DC voltage charging contacts at danger.
- ※ When you run the repair and replacement of the PCB should work after the power is turned off, the DC voltage discharge. (Natural discharge until Please wait for at least 15 minutes.)
- ※ If an error occurs, the discharge mode may not work properly. In particular, E464 & E364 is power devices can be damaged. Therefore, the discharge mode, do not use.

## ■ Commissioning

- ▶ After initial installation, stable operation for a certain period of time limited to operation conditions.

|                        | Cooling   | Heating                                    |
|------------------------|---|--|
| Method of Entry        | K2 Tact Switch twice  | K2 Tact Switch twice                       |
| Compressor             | Normal operation, but the maximum frequency limit (differ by model)   |  |
| Indoor Unit            | Whole operation (The set temperature=3°C)   | Whole operation (The set temperature=40°C) |
| Outdoor fan and valves | Normally control conduct  |  |
| Operation time         | Min : 60 minutes, Max : 10 hours  |  |
| Etc.                   | <ul style="list-style-type: none"> <li>· Exceed the maximum operating time at stops and waits.</li> <li>· Protection and control, self-diagnosis is performed.</li> </ul> |  |

## ■ Refrigerant filling operation

- ▶ Operation to filling the refrigerant compressor was fixed at a certain frequency.

|                        | Cooling   | Heating                                    |
|------------------------|---|--|
| Method of Entry        | K2 Tact Switch one time   | K1 Tact Switch one time                    |
| Compressor             | Starting frequency (Mild Start frequency) operation   |  |
| Indoor Unit            | Whole operation (The set temperature=3°C)   | Whole operation (The set temperature=40°C) |
| Outdoor fan and valves | Normally control conduct  |  |
| Operation time         | 60 minutes  |  |
| Etc.                   | During the filling operation does not enter the special operation, such as oil recovery, defrost. |  |

## ■ Heating Pump Out

- ▶ Operation for the repair of the Individual outdoor unit, the outdoor unit refrigerant emissions to the indoor part.
- ▶ Liquid pipe service valve and the gas pipe service valve operation, the operator manually need to close.
- ▶ Observe low pressure using View Mode of K4 button if compressor operate.  
If low pressure goes down below about 0.2 MPa.g : Immediately lock the gas side service valve, Pump Out operation is shut down.  
(Pump out operation shut down : K1 button once more press or K3 button one time press)
- ▶ If operation of low pressure goes down below 0.1 MPa.g : Will be stopped automatically for the protection of the compressor.

|                        |  |
|------------------------|--|
| How to Initiate        | K1 Tact Switch 3 times~6 times   |
| Compressor             | 60Hz   |
| Indoor Unit            | Whole Operation (The set temperature=40°C)   |
| 4Way Valve             | ON (Heating Mode)  |
| Outdoor Fan            | Maximum air flow   |
| Main EEV               | Operation side : 700 Step (Stop side : 0 step)   |
| Maximum Operation Time | 10 minutes   |
| Protection Control     | Conduct the discharge temperature, high pressure control. (Low pressure protection control is not carried out)<br>※ Low pressure is outside normal limits : Operation is shut down after gas pipe manually closed.         |
| Etc.                   | Entry after safety start. (Only the corresponding Outdoor Unit operation.)<br>To pump out more than 2 : Except communication between Outdoor Unit of relevant set after working for one, remainder set makes Pump Out add. |

## ■ Cooling Pump Down

- ▶ Recover the refrigerant of Indoor Unit and Piping to outdoor side.
- ▶ Liquid pipe service valve and the gas pipe service valve operation, the operator manually need to close.
- ▶ If the installation of the long pipe : Any refrigerant into the outdoor unit can not be recovered, therefore should use a separate container.
- ▶ Observe low pressure using View Mode of K4 button if compressor operate.  
If low pressure goes down below about 0.2 MPa.g : Immediately lock the gas side service valve, Pump Out operation is shut down.  
(Pump out operation shut down : K1 button once more press or K3 button one time press)
- ▶ If operation of low pressure goes down below 0.1 MPa.g : Will be stopped automatically for the protection of the compressor.

|                        |  |
|------------------------|--|
| How to Initiate        | K2 Tact Switch 3 times   |
| Compressor             | Address No.1 Outdoor Unit - 60Hz (Other Outdoor Unit COMP OFF)   |
| Indoor Unit            | Whole Operation (The set temperature=3°C)  |
| 4Way Valve             | OFF (Cooling Mode)   |
| Outdoor Fan            | Maximum air flow   |
| Main EEV               | Operation side : 2000 Step , Stop side : 2000 step   |
| Maximum Operation Time | 30 minutes   |
| Etc.                   | Does not conduct the operation of the special operation, and protection control.<br>Pressure and temperature is outside normal limits : Operation is shut down after gas pipe manually closed. |

## ■ Vacuum Operation

- ▶ Operation to facilitate vacuum to open the valve after the Outdoor Unit repair.

|                         |   |
|-------------------------|---|
| How to Initiate         | K1 Tact Switch 7 times~11 times   |
| Compressor              | OFF   |
| Indoor Unit/Outdoor Fan | OFF   |
| 4Way Valve              | OFF   |
| Valves                  | Open all valves maximum   |
| Etc.                    | If not turn off the vacuum mode, the start of normal operation is prohibited. |

## ■ Piping Inspection Operation

- ▶ Operation mode to check the status of the piping between the MCU and the indoor unit.
- ▶ Heat Pump Model : Outdoor temperature is more than 15°C / Cooling commissioning start  
Outdoor temperature is less than 15°C / Heating commissioning start

## ■ Discharge Mode Operation

- ▶ Outdoor power is turned off, the Inverter PCB and Fan PCB charging a high DC voltage, so dangerous to touch.
  - To replace the PCB, first turn off the power and the begin if DC voltage is discharged.
  - If not use the discharge mode, the discharge time of about 15 minutes takes.
  - If an error occurs, the discharge mode may not properly run. (Wait until natural discharge.)
  - In particular, E 464, E364, power devices may be damaged, therefore do not use the discharge mode.
- ▶ Block the Inverter PCB 3-phase relay after connected the power, and through compressor, DC voltage is discharging.
  - INV1 and INV2 DC voltage during discharge mode are displayed alternately.
  - Discharge mode Display (Rotate the three page display, as shown below.)  
 'K' 'A' ' ' ' ' → DC Link Volt1 ( For example, 120[V] 0 1 2 0 display)  
 → DCLinkVolt2 ( For example, 120[V] 0 1 2 0 display) → 'K' 'A' ' ' ' ' → DC Link Volt1 ...
- ▶ Discharge is complete, the power of the Inverter PCB and Fan PCB is being blocked, communication function is blocked, E206 will occur.
- ▶ If want operation again after complete discharge mode : Restart after K3 key to Reset or Power Reset.

### ■ Forced defrost operation

- ▶ Forced defrost operation : Is operation when Frost Formation occurs in the outdoor. (When carried out the service)

|                 |   |
|-----------------|---|
| Method of Entry | K2 Tact Switch 6 times  |
| Start pattern   | Heating commissioning pattern   |
| Defrost start   | Defrost start : It is after 10 minutes which Safety Start finishes.     |
| Defrost off     | General defrost operation conditions are the same as.                   |
| Etc.            | Defrost shut down and stop the normal pattern of the outdoor unit stop. |

### ■ Forced oil recovery operation

- ▶ Forced oil recovery operation : Oil recovery in the outdoor unit for the purpose of moving, installation if necessary.

|                    |  |
|--------------------|--|
| Method of Entry    | K2 Tact Switch 7 times   |
| Start pattern      | Outdoor temperature is more than 10°C : Cooling commissioning<br>Outdoor temperature is less than 10°C : Heating commissioning |
| Oil recovery start | Oil recovery start : It is after 10 minutes which Safety Start finishes.   |
| Etc.               | Oil recovery shut down and stop the normal pattern of the outdoor unit stop.   |

## 4-3 Troubleshooting

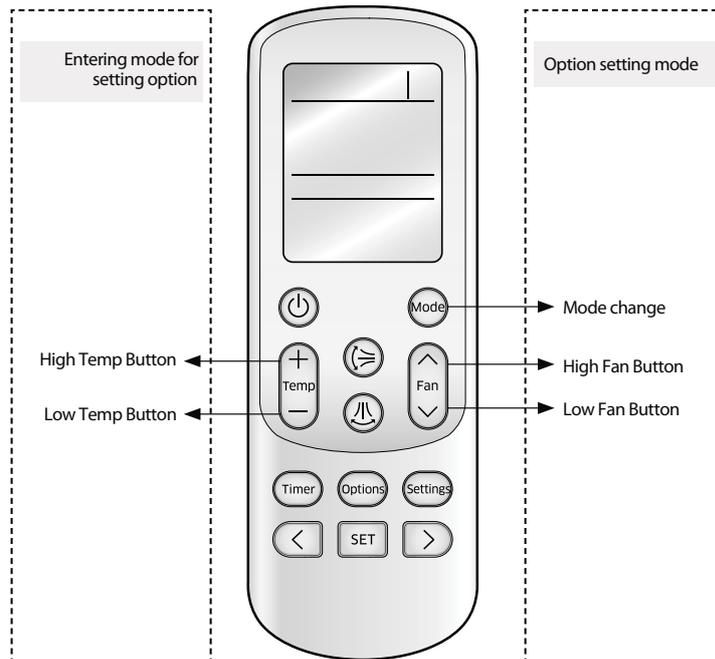
### 4-3-1 Setting Option Setup Method

#### 4-3-1-1 PCB option code input method

##### ■ Slim 1way, 4way Series

- ▶ Set the indoor unit address and installation option with remote controller option.  
Set the each option separately since you cannot set the ADDRESS setting and indoor unit installation setting option at the same time. You need to set twice when setting indoor unit address and installation option.

##### ■ The procedure of setting option



#### Step 1 Entering mode for option setting.

1. Remove batteries from the remote controller.
2. Insert the batteries while you press [+ Temperature] and [- Temperature] button at the same time.
3. Check if you have entered the option setting status. 

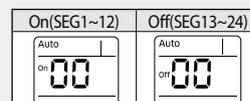
#### Step 2 Option setting procedure. (The option setting procedure is the same for other models.)

After entering the option setting status, select the option as listed below.

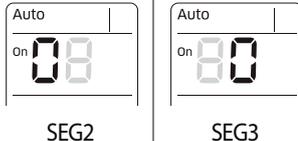
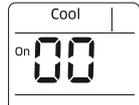
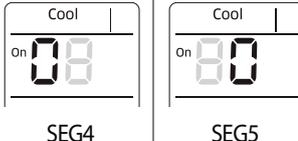
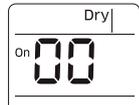
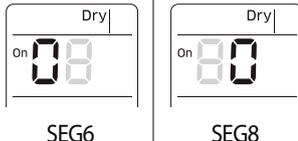
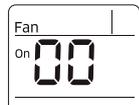
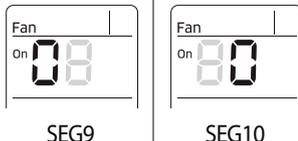
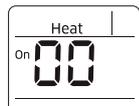
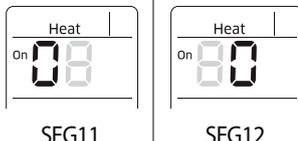
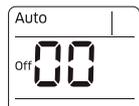
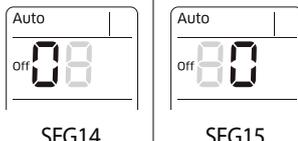


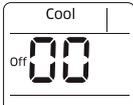
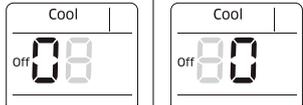
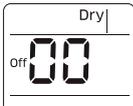
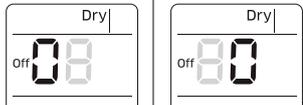
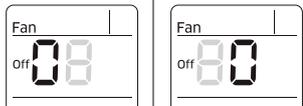
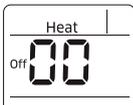
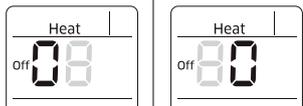
- Option setting is available from SEG1 to SEG 24.
- SEG1, SEG7, SEG13, SEG19 are not set as page option.
- Set the SEG2~SEG6, SEG8~SEG12 in the ON status and SEG14~18, SEG20~24 in the OFF status.

| SEG1  | SEG2  | SEG3  | SEG4  | SEG5  | SEG6  | SEG7  | SEG8  | SEG9  | SEG10 | SEG11 | SEG12 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0     | X     | X     | X     | X     | X     | 1     | X     | X     | X     | X     | X     |
| SEG13 | SEG14 | SEG15 | SEG16 | SEG17 | SEG18 | SEG19 | SEG20 | SEG21 | SEG22 | SEG23 | SEG24 |
| 2     | X     | X     | X     | X     | X     | 3     | X     | X     | X     | X     | X     |



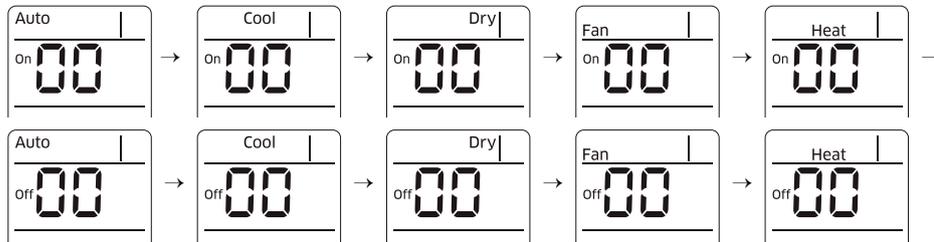
■ The procedure of setting option

| Option setting   | Status  |
|--|---|
| <p>1. Setting SEG2, SEG3 option<br/>                     Press Low Fan button(∨) to enter SEG2 value.<br/>                     Press High Fan button(∧) to enter SEG3 value.<br/>                     Each time you press the button,  →  → ...  →  will be selected in rotation .</p>     |  <p>SEG2      SEG3</p>     |
| <p>2. Setting Cool mode<br/>  Press Mode button to be changed to Cool mode in the ON status .</p>  |                            |
| <p>3. Setting SEG4, SEG5 option<br/>                     Press Low Fan button(∨) to enter SEG4 value.<br/>                     Press High Fan button(∧) to enter SEG5 value.<br/>                     Each time you press the button,  →  → ...  →  will be selected in rotation .</p>     |  <p>SEG4      SEG5</p>     |
| <p>4. Setting Dry mode<br/>  Press Mode button to be changed to DRY mode in the ON status .</p>  |                            |
| <p>5. Setting SEG6, SEG8 option<br/>                     Press Low Fan button(∨) to enter SEG6 value.<br/>                     Press High Fan button(∧) to enter SEG8 value.<br/>                     Each time you press the button,  →  → ...  →  will be selected in rotation .</p>     |  <p>SEG6      SEG8</p>    |
| <p>6. Setting Fan mode<br/>  Press Mode button to be changed to FAN mode in the ON status .</p>  |                          |
| <p>7. Setting SEG9, SEG10 option<br/>                     Press Low Fan button(∨) to enter SEG9 value.<br/>                     Press High Fan button(∧) to enter SEG10 value.<br/>                     Each time you press the button,  →  → ...  →  will be selected in rotation .</p>   |  <p>SEG9      SEG10</p>  |
| <p>8. Setting Heat mode<br/>  Press Mode button to be changed to HEAT mode in the ON status .</p>  |                          |
| <p>9. Setting SEG11, SEG12 option<br/>                     Press Low Fan button(∨) to enter SEG11 value.<br/>                     Press High Fan button(∧) to enter SEG12 value.<br/>                     Each time you press the button,  →  → ...  →  will be selected in rotation .</p> |  <p>SEG11      SEG12</p> |
| <p>10. Setting Auto mode<br/>  Press Mode button to be changed to AUTO mode in the OFF status.</p>   |                          |
| <p>11. Setting SEG14, SEG15 option<br/>                     Press Low Fan button(∨) to enter SEG14 value.<br/>                     Press High Fan button(∧) to enter SEG15 value.<br/>                     Each time you press the button,  →  → ...  →  will be selected in rotation.</p> |  <p>SEG14      SEG15</p> |

| Option setting   | Status  |
|--|---|
| <p>12. Setting Cool mode</p> <p> Press Mode button to be change to Cool mode in the OFF status.</p>   |    |
| <p>13. Setting SEG16, SEG17 option</p> <p>Press Low Fan button(∨) to enter SEG16 value.</p> <p>Press High Fan button(^) to enter SEG17 value.</p> <p>Each time you press the button,  →  → ...  →  will be selected in rotation.</p>         |  <p style="text-align: center;">SEG16                      SEG17</p>   |
| <p>14. Setting Dry mode</p> <p> Press Mode button to be change to Dry mode in the OFF status.</p>   |    |
| <p>15. Setting SEG18, SEG20 option</p> <p>Press Low Fan button(∨) to enter SEG18 value.</p> <p>Press High Fan button(^) to enter SEG20 value.</p> <p>Each time you press the button,  →  → ...  →  will be selected in rotation.</p>         |  <p style="text-align: center;">SEG18                      SEG20</p>   |
| <p>16. Setting Fan mode</p> <p> Press Mode button to be change to Fan mode in the OFF status.</p>   |   |
| <p>17. Setting SEG21, SEG22 option</p> <p>Press Low Fan button(∨) to enter SEG21 value.</p> <p>Press High Fan button(^) to enter SEG22 value.</p> <p>Each time you press the button,  →  → ...  →  will be selected in rotation.</p> |  <p style="text-align: center;">SEG21                      SEG22</p> |
| <p>18. Setting Heat mode</p> <p> Press Mode button to be change to HEAT mode in the OFF status.</p>   |    |
| <p>19. Setting SEG23, SEG24 mode</p> <p>Press Low Fan button(∨) to enter SEG23 value.</p> <p>Press High Fan button(^) to enter SEG24 value.</p> <p>Each time you press the button,  →  → ...  →  will be selected in rotation.</p>   |  <p style="text-align: center;">SEG23                      SEG24</p> |

**Step 3. Check the option you have set**

After setting option, press  button to check whether the option code you input is correct or not.



**Step 4. Input option**

Press the operation button  with the direction of remote control for set.

For the correct option setting, you must input the option twice.

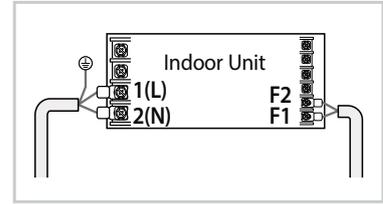
**Step 5. Check operation**

- 1) Reset the indoor unit by pressing the RESET button of indoor unit or outdoor unit.
- 2) Take the batteries out of the remote controller and insert them again and then press the operation button.

## - Setting an indoor unit address and installation option

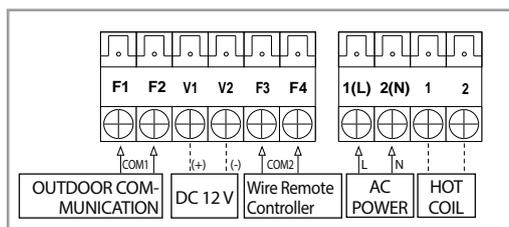
### ■ Setting an indoor unit installation option (suitable for the condition of each installation location)

1. Check whether power is supplied or not.
  - When the indoor unit is not plugged in, there should be additional power supply in the indoor unit.
2. The panel(display ) should be connected to an indoor unit to receive option.
3. Set the installation option according to the installation condition of an air conditioner.
  - The default setting of an indoor unit installation option is 020010-100000-200000-300000.
  - Individual control of a remote controller(SEG20) is the function that controls an indoor unit individually when there is more than one indoor unit.
4. Set the indoor unit option by wireless remote controller.



| SEG1  | SEG2                                      | SEG3   | SEG4   | SEG5                                   | SEG6                         |
|-------|---|--|--|--|------------------------------|
| 0     | 2   | RESERVED   | External room temperature sensor / Minimizing fan operation when thermostat is off | Central control                        | FAN RPM compensation         |
| SEG7  | SEG8                                      | SEG9   | SEG10  | SEG11                                  | SEG12                        |
| 1     | Drain pump                                | Hot water heater   | Electronic heater  | Opening the electronic expansion valve | Master / Slave               |
| SEG13 | SEG14                                     | SEG15  | SEG16  | SEG17                                  | SEG18                        |
| 2     | External control                          | External control output / External heater On or off signal | S-Plasma ion   | Buzzer                                 | Number of hours using filter |
| SEG19 | SEG20                                     | SEG21  | SEG22  | SEG23                                  | SEG24                        |
| 3     | Individual control of a remote controller | Heating setting compensation                               | EEV opening of an indoor unit stopped during oil return or Defrost operation.      | -                                      | Human sensor                 |

- ▶ 1WAY/2WAY/4WAY MODEL : Drain pump(SEG8) will be set to 'USE + 3minute delay' even if the drain pump is set to 0.
- ▶ 1 WAY/2WAY/4WAY,DUCT MODEL : Number of hours using filter(SEG18) will be set to '1000hour' even if the SEG18 is set to except for 2 or 6.
- ▶ If you input a number other than 0~4 of the individual control of the indoor unit(SEG20), the indoor is set as indoor 1.
- ▶ SEG5 central control option is basically set as 1 (Use), so you don't need to set the central control option additionally. However, if the central control is not connected but it doesn't indicate an error message, you need to set the central control option as 0 (Disuse) to exclude the indoor unit from the central control.
- ▶ The output of hot water heater in SEG9 is generated from the hot coil part of the terminal board in duct models.



\* The output of hot coil terminal is AC 220 V / 230 V (The same as Indoor Unit's input Power)

- ▶ The external output of SEG15 is generated by MIM-B14 connection. (Refer to the manual of MIM-B14.)

■ 02 series installation option(Detailed)

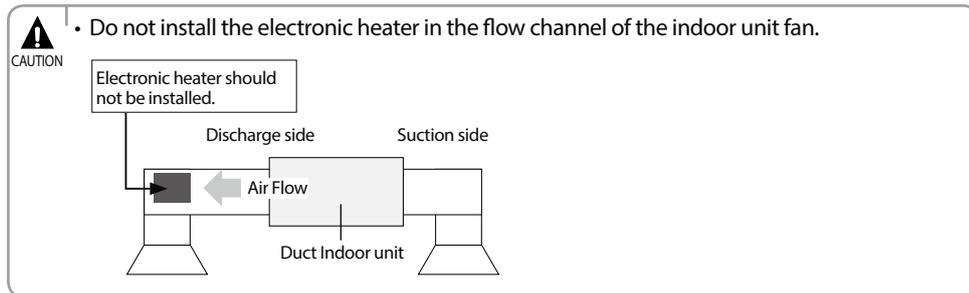
Option No. : 02XXXX-1XXXXX-2XXXXX-3XXXXX

| Option                 | SEG1       |         | SEG2       |                  | SEG3              |                  | SEG4  |  |   | SEG5                   |         | SEG6                 |         |
|------------------------|------------|---------|------------|------------------|-------------------|------------------|---|--|---|------------------------|---------|----------------------|---------|
| Explanation            | PAGE       |         | MODE       |                  | Evaporator Drying |                  | Use of external room temperature sensor / Minimizing fan operation when thermostat is off |  |   | Use of central control |         | FAN RPM compensation |         |
| Indication and Details | Indication | Details | Indication | Details          | Indication        | Details          | Indication  | Details                                    |   | Indication             | Details | Indication           | Details |
|                        |            |         |            |                  |                   |                  |   | Use of External room temperature sensor    | Minimizing fan operation when thermostat is off |                        |         |                      |         |
|                        | 0          | 2       | 4          | Use (10min) (*1) | 0                 | Disuse           | 0   | Default                                    | Default   | 0                      | Disuse  | 0                    | Disuse  |
|                        |            |         |            |                  |                   |                  | 1   | Use  | Disuse  |                        |         |                      |         |
|                        |            |         |            |                  |                   |                  | 2   | Disuse                                     | Use (Heating) (*2)                              |                        |         |                      |         |
|                        |            |         |            |                  | 2                 | Use (5min) (*1)  | 3   | Use  | Use (Heating) (*2)                              |                        |         |                      |         |
|                        |            |         |            |                  |                   |                  | 4   | Disuse                                     | Use (Cooling) (*2)                              |                        |         |                      |         |
|                        |            |         |            |                  |                   |                  | 5   | Use  | Use (Cooling) (*2)                              |                        |         |                      |         |
|                        |            |         |            |                  | 4                 | Use (30min) (*1) | 6   | Disuse                                     | Use (Heating / Cooling) (*2)                    |                        |         |                      |         |
|                        |            |         |            |                  |                   |                  | 7   | Use  | Use (Heating / Cooling) (*2)                    |                        |         |                      |         |
|                        |            |         |            |                  |                   |                  | 8   | Disuse                                     | Use (Cooling Ultra Low Fan) (*2)                |                        |         |                      |         |
|                        |            |         |            |                  |                   |                  | 9   | Use  | Use (Cooling Ultra Low Fan) (*2)                |                        |         |                      |         |
|                        |            |         |            |                  | 6                 | Use (30min) (*1) | A   | Disuse                                     | Use (Heating / Cooling Ultra Low Fan) (*2)      |                        |         |                      |         |
| B                      |            |         |            |                  |                   |                  | Use   | Use (Heating / Cooling Ultra Low Fan) (*2) |   |                        |         |                      |         |

| Option                 | SEG13      |         | SEG14                   |         | SEG15  |         |                       | SEG16 | SEG17          |         | SEG18                 |         |   |   |  |   |               |   |           |
|------------------------|------------|---------|-------------------------|---------|--|---------|-----------------------|-------|----------------|---------|-----------------------|---------|---|---|--|---|---------------|---|-----------|
| Explanation            | PAGE       |         | Use of external control |         | Setting the output of external control / External heater signal / Cooling operation signal / Free Cooling control signal |         |                       |       | Buzzer control |         | Hours of filter usage |         |   |   |  |   |               |   |           |
| Indication and Details | Indication | Details | Indication              | Details | Indication   | Details |                       |       | Indication     | Details | Indication            | Details |   |   |  |   |               |   |           |
|                        |            |         |                         |         |  | 0       | Disuse                |       |                |         |                       |         | 0 | External control (Thermo On)                      |  | 0 | Use buzzer    | 2 | 1000 Hour |
|                        |            |         |                         |         |  | 1       | ON/OFF control        |       |                |         |                       |         | 1 | External control (Operation On)                   |  |   |               |   |           |
|                        |            |         |                         |         |  |         |                       |       |                |         |                       |         | 2 | External heater signal (*4)                       |  |   |               |   |           |
|                        |            |         |                         |         |  | 2       | "OFF control"         |       |                |         |                       |         | 3 | External heater signal (*4)                       |  | 1 | Disuse buzzer | 6 | 2000 Hour |
|                        |            |         |                         |         |  |         |                       |       |                |         |                       |         | 4 | Cooling operation signal (*5)                     |  |   |               |   |           |
|                        |            |         |                         |         |  | 3       | Window ON/OFF control |       |                |         |                       |         | 5 | Free Cooling control (Cooling Thermo On) (*6)     |  |   |               |   |           |
|                        |            |         |                         |         |  |         |                       |       |                |         |                       |         | 6 | Free Cooling control (Cooling/Dry Thermo On) (*6) |  |   |               |   |           |

| Option                 | SEG19      |         | SEG20                                     |         | SEG21                        |         | SEG22  |         | SEG23 | SEG24 |   |        |           |   |         |   |                      |
|------------------------|------------|---------|---|---------|------------------------------|---------|--|---------|-------|-------|---|--------|-----------|---|---------|---|----------------------|
| Explanation            | PAGE       |         | Individual control of a remote controller |         | Heating setting compensation |         | Adjusted EEV step of stopped unit during oil return /defrost mode. |         |       |       |   |        |           |   |         |   |                      |
| Indication and Details | Indication | Details | Indication                                | Details | Indication                   | Details | Indication   | Details |       |       |   |        |           |   |         |   |                      |
|                        |            |         |   |         |                              |         |  |         |       |       | 3 | 0 or 1 | channel 1 | 0 | Default | 0 | Default              |
|                        |            |         |   |         |                              |         |  |         |       |       |   | 2      | channel 2 | 1 | 2 °C    | 1 | Adjusted EEV positon |
|                        |            |         |   |         |                              |         |  |         |       |       |   | 3      | channel 3 | 2 | 5 °C    |   |                      |
|                        |            |         |   |         |                              |         |  |         |       |       |   | 4      | channel 4 |   |         |   |                      |

- (\*1) When Cooling or dry mode is off. The indoor fan operate in setting minutes.
- (\*2) Minimizing fan operation when thermostat is off- Fan operates for 20 seconds at an interval of 5 minutes in heat mode.
  - Fan stops or operates Ultra low in Coolong when thermostat is off.
- (\*3) 1: Fan is turned on continually when the hot water heater is turned on,  
 3: Fan is turned off when the hot water heater is turned on with cooling only indoor unit  
 Cooling only indoor unit: To use this option,install the Mode Select switch(MCM-C200) on the outdoor unit and fix it as cool mode.
- (\*4) When the following 2 or 3 is used as external heater On/Off signal, the signal for monitoring external contact control will not be output.
  - 2: Fan is turned on continually when the external heater is turned on,
  - 3: Fan is turned off when the external heater is turned on with cooling only indoor unit
 Cooling only indoor unit: To use this option,install the Mode Select switch(MCM-C200) on the outdoor unit and fix it as cool mode.
  - If Fan is set to off for cooling only indoor unit by setting the SEG9=3 or SEG15=3, you need to use an external sensor or wired remote controller sensor to detect indoor temperature exactly."
- (\*5) When indoor unit is in cooling or Dry mode, The output signal is "ON"
- (\*6) For free cooling control, Economizer controller is required.



■ 05 series installation option(Detailed)

Option No. : 05XXXX-1XXXX-2XXXX-3XXXX

| Option                 | SEG1       |                                     | SEG2       |         | SEG3   |         | SEG4  |         | SEG5  |         | SEG6   |         |
|------------------------|------------|-------------------------------------|------------|---------|--|---------|---|---------|---|---------|--|---------|
| Explanation            | PAGE       |                                     | MODE       |         | Use of Auto Change Over for HR only in Auto mode / Use of Cooling only indoor unit of HR |         | (When setting SEG3) Standard heating temp. Offset |         | (When setting SEG3) Standard cooling temp. Offset |         | (When setting SEG3) Standard for mode change Heating → Cooling |         |
| Indication and Details | Indication | Details                             | Indication | Details | Indication   | Details | Indication  | Details | Indication  | Details | Indication   | Details |
|                        |            |                                     |            |         |  |         |   |         |   |         |  |         |
|                        | 1          | 0.5 °C                              | 1          | 0.5 °C  | 1  | 1.5 °C  |   |         |   |         |  |         |
|                        | 1          | Use Auto Change Over for HR only    | 2          | 1 °C    | 2  | 1 °C    | 2   | 2 °C    |   |         |  |         |
|                        |            |                                     | 3          | 1.5 °C  | 3  | 1.5 °C  | 3   | 2.5 °C  |   |         |  |         |
|                        |            |                                     | 4          | 2 °C    | 4  | 2 °C    | 4   | 3 °C    |   |         |  |         |
|                        | 2          | Use Cooling only indoor unit for HR | 5          | 2.5 °C  | 5  | 2.5 °C  | 5   | 3.5 °C  |   |         |  |         |
|                        |            |                                     | 6          | 3 °C    | 6  | 3 °C    | 6   | 4 °C    |   |         |  |         |
|                        |            |                                     | 7          | 3.5 °C  | 7  | 3.5 °C  | 7   | 4.5 °C  |   |         |  |         |

| Option                 | SEG7       |         | SEG8  |         | SEG9  |  | SEG10   |         | SEG11      |         | SEG12      |         |
|------------------------|------------|---------|---|---------|---|--|---|---------|------------|---------|------------|---------|
| Explanation            | PAGE       |         | (When setting SEG3) Standard for mode changing Cooling Heating mode |         | (When setting SEG3) Time required for mode change |  | Compensation option for Long pipe or height difference between indoor units |         | MTFC (*3)  |         |            |         |
| Indication and Details | Indication | Details | Indication  | Details | Indication  | Details  | Indication  | Details | Indication | Details | Indication | Details |
|                        |            |         |   |         |   |  |   |         |            |         |            |         |
|                        | 1          | 1.5 °C  | 1   | 7min    | 1   | (*1) Height difference is more than 30m or (*2) Distance is longer than 110m |   |         |            |         |            |         |
|                        | 2          | 2 °C    | 2   | 9min    |   |  |   |         |            |         |            |         |
|                        | 3          | 2.5 °C  | 3   | 11min   |   |  |   |         |            |         |            |         |
|                        | 4          | 3 °C    | 4   | 13min   |   |  |   |         |            |         |            |         |
|                        | 5          | 3.5 °C  | 5   | 15min   |   |  |   |         |            |         |            |         |
|                        | 6          | 4 °C    | 6   | 20min   |   |  |   |         |            |         |            |         |
|                        | 7          | 4.5 °C  | 7   | 30min   | 2   | (*1) Height difference is 15~30m or (*2) Distance is 50~110m                 |   |         |            |         |            |         |
|                        | 2          | Use     |   |         |   |  |   |         |            |         |            |         |
|                        |            |         |   |         |   |  |   |         |            |         |            |         |

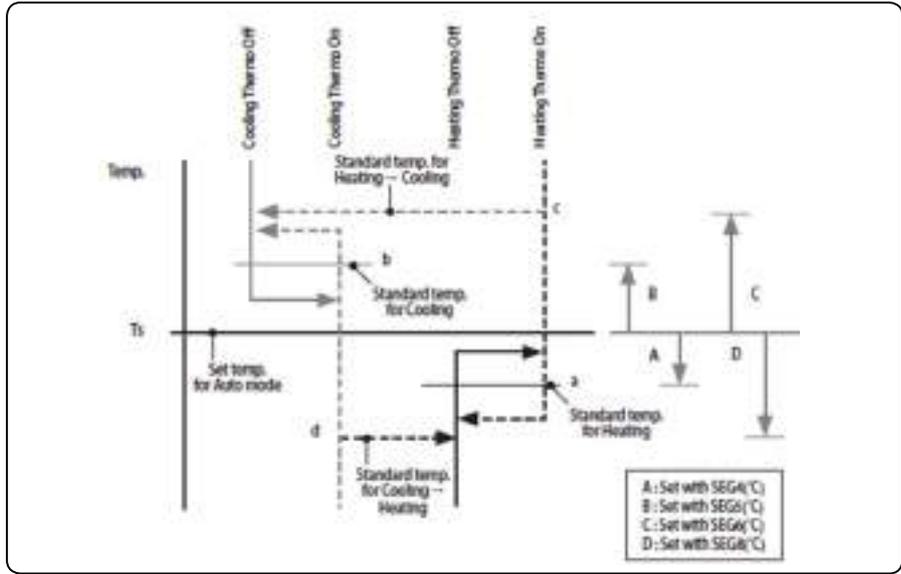
| Option                 | SEG13      |                               | SEG14 | SEG15 | SEG16 | SEG17 | SEG18   |         |  |  |
|------------------------|------------|-------------------------------|-------|-------|-------|-------|---|---------|--|--|
| Explanation            |            |                               |       |       |       |       | Control variables when using hot water / external heater (*4) |         |  |  |
| Indication and Details | Indication | Details                       |       |       |       |       | Indication  | Details |  |  |
|                        |            |                               |       |       |       |       |   | 2       |  |  |
|                        | 0          | At the same time as thermo on |       |       |       |       | No delay  |         |  |  |
|                        | 1          | At the same time as thermo on |       |       |       |       | 10 minutes  |         |  |  |
|                        | 2          | At the same time as thermo on |       |       |       |       | 20 minutes  |         |  |  |
|                        | 3          | 1.5 °C                        |       |       |       |       | No delay  |         |  |  |
|                        | 4          | 1.5 °C                        |       |       |       |       | 10 minutes  |         |  |  |
|                        | 5          | 1.5 °C                        |       |       |       |       | 20 minutes  |         |  |  |
|                        | 6          | 3.0 °C                        |       |       |       |       | No delay  |         |  |  |
|                        | 7          | 3.0 °C                        |       |       |       |       | 10 minutes  |         |  |  |
|                        | 8          | 3.0 °C                        |       |       |       |       | 20 minutes  |         |  |  |
|                        | 9          | 4.5 °C                        |       |       |       |       | No delay  |         |  |  |
|                        | A          | 4.5 °C                        |       |       |       |       | 10 minutes  |         |  |  |
|                        | B          | 4.5 °C                        |       |       |       |       | 20 minutes  |         |  |  |
|                        | C          | 6.0 °C                        |       |       |       |       | No delay  |         |  |  |
| D                      | 6.0 °C     | 10 minutes                    |       |       |       |       |   |         |  |  |
| E                      | 6.0 °C     | 20 minutes                    |       |       |       |       |   |         |  |  |

| Option                 | SEG19          | SEG20                   | SEG21                   | SEG22 | SEG23   | SEG24               |                     |
|------------------------|----------------|-------------------------|-------------------------|-------|---|---------------------|---------------------|
| Explanation            | PAGE           |                         |                         |       | Forcing FAN Operation for Heating and Cooling |                     |                     |
| Indication and Details | Indication     | Details                 |                         |       | Indication                                    | Details             |                     |
|                        |                |                         |                         |       |   | Cooling Fan Setting | Heating Fan Setting |
|                        | 0              | Disuse                  | Disuse                  |       |   |                     |                     |
|                        | 1              | Disuse                  | Use (Fan: User setting) |       |   |                     |                     |
|                        | 2              | Disuse                  | Use (Fan: High)         |       |   |                     |                     |
|                        | 3              | Disuse                  | Use (Fan: Low)          |       |   |                     |                     |
|                        | 4              | Use (Fan: User setting) | Disuse                  |       |   |                     |                     |
|                        | 5              | Use (Fan: User setting) | Use (Fan: User setting) |       |   |                     |                     |
|                        | 6              | Use (Fan: User setting) | Use (Fan: High)         |       |   |                     |                     |
|                        | 7              | Use (Fan: User setting) | Use (Fan: Low)          |       |   |                     |                     |
|                        | 8              | Use (Fan: High)         | Disuse                  |       |   |                     |                     |
|                        | 9              | Use (Fan: High)         | Use (Fan: User setting) |       |   |                     |                     |
|                        | A              | Use (Fan: High)         | Use (Fan: High)         |       |   |                     |                     |
|                        | B              | Use (Fan: High)         | Use (Fan: Low)          |       |   |                     |                     |
|                        | C              | Use (Fan: Low)          | Disuse                  |       |   |                     |                     |
|                        | D              | Use (Fan: Low)          | Use (Fan: User setting) |       |   |                     |                     |
|                        | E              | Use (Fan: Low)          | Use (Fan: High)         |       |   |                     |                     |
| F                      | Use (Fan: Low) | Use (Fan: Low)          |                         |       |   |                     |                     |

- (\*1) Height difference : The difference of the height between the corresponding indoor unit and the indoor unit installed at the lowest place.  
For example, When the indoor unit is installed 40m higher than the indoor unit installed at the lowest place, select the option "1".
- (\*2) Distance : The difference between the pipe length of the indoor unit installed at farthest place from an outdoor unit and the pipe length of the corresponding indoor unit from an outdoor unit.  
For example, when the farthest pipe length is 100 m(328 ft) and the corresponding indoor unit is 40 m away from an outdoor unit, select the option "2". (100 - 40 = 60m)
- (\*3) For MTFC option, MTFC(Multi Tenant Function Controller) kit is required.
- (\*4) Heater operation when the SEG9 of 02 series installation option is set to using hot water heater or when SEG15 is set to using external heater  
e.g. 1) Setting 02 series SEG9 = "1" / Setting 05 series SEG18 = "0": Hot water heater is turned on at the same time as the heating thermostat is on, and turned off when the heating thermostat is off.  
e.g. 2) Setting 02 series SEG15 = "2" / Setting 05 series SEG18 = "A": Room temp. ≤ set temp. + f(heating compensation temp.)  
- External heater is turned on when the temperature is maintained as 4.5 °C for 10 minutes. Room temp. > set temp. + f(heating compensation temp.)  
- External heater is turned off when the temperature is maintained as 4.5 °C + 1 °C (1 °C is the Hysteresis for On/Off selection.)

**SEG 3, 4, 5, 6, 8, 9 additional information**

When the SEG 3 is set as "1" and follow Auto Change Over for HR only operation, it will operation, it will operate as follows.



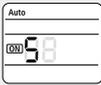
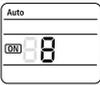
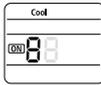
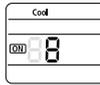
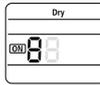
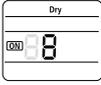
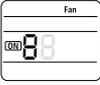
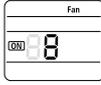
Cooling/Heating mode can be changed when Thermo Off status is maintained during the time with SEG9.

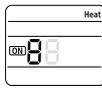
### 4-3-2 Option Items

| TYPE      |                | SAMSUNG MODEL NUMBER | Static Pressure             | Option                      | Install Code                | Cycle code                  | Install Code 2              |
|-----------|----------------|----------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Slim 1WAY | JSF-1          | AM007FN1DCH/AA       | -                           | 017044-1180C8-201616-330010 | 020010-100000-200000-300000 | 030000-100000-200000-300000 | 050000-100000-200000-300000 |
|           |                | AM009FN1DCH/AA       | -                           | 017044-1180F8-201C1C-330010 |                             |                             |                             |
|           |                | AM012FN1DCH/AA       | -                           | 017044-11545D-202323-330010 |                             |                             |                             |
| Mini 4WAY | Small          | AM009FNDNCH/AA       | -                           | 01504F-19540A-201C1C-330000 |                             |                             |                             |
|           |                | AM012FNDNCH/AA       | -                           | 01504F-19342C-202323-330000 |                             |                             |                             |
|           |                | AM018FNDNCH/AA       | -                           | 01504F-19547F-203434-330000 |                             |                             |                             |
| 4WAY      | Small          | AM020FNDNCH/AA       | -                           | 01504F-195591-203C3C-330000 |                             |                             |                             |
|           |                | AM009FN4DCH/AA       | -                           | 014047-195064-201A1A-330000 |                             |                             |                             |
|           |                | AM018FN4DCH/AA       | -                           | 014047-195097-203434-330000 |                             |                             |                             |
|           | Large          | AM024FN4DCH/AA       | -                           | 014047-1950C7-204848-330000 |                             |                             |                             |
|           |                | AM030FN4DCH/AA       | -                           | 014047-195409-205A5A-330020 |                             |                             |                             |
|           |                | AM036FN4DCH/AA       | -                           | 014047-19541B-206E6E-330020 |                             |                             |                             |
| SLIM DUCT | Slim1          | AM007FNLDCH/AA       | 0 mmAq                      | 010054-1254AE-201616-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-1255D1-201616-331110 |                             |                             |                             |
|           |                |                      | 2 mmAq                      | 010054-1255D1-201616-331110 |                             |                             |                             |
|           |                |                      | 4 mmAq                      | 010054-125904-201616-331110 |                             |                             |                             |
|           |                | AM009FNLDCH/AA       | 0 mmAq                      | 010054-121913-201C1C-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-121946-201C1C-331110 |                             |                             |                             |
|           |                |                      | 2 mmAq                      | 010054-121946-201C1C-331110 |                             |                             |                             |
|           |                |                      | 4 mmAq                      | 010054-121979-201C1C-331110 |                             |                             |                             |
|           |                | AM012FNLDCH/AA       | 0 mmAq                      | 010054-121946-202323-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-121979-202323-331110 |                             |                             |                             |
|           |                |                      | 2 mmAq                      | 010054-121979-202323-331110 |                             |                             |                             |
|           |                |                      | 4 mmAq                      | 010054-1219AC-202323-331110 |                             |                             |                             |
|           | Slim2          | AM018FNLDCH/AA       | 0 mmAq                      | 010054-1259BA-203434-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-1259ED-203434-331110 |                             |                             |                             |
|           |                |                      | 2 mmAq                      | 010054-1259ED-203434-331110 |                             |                             |                             |
|           |                |                      | 4 mmAq                      | 010054-125E10-203434-331110 |                             |                             |                             |
|           |                | AM024FNLDCH/AA       | 0 mmAq                      | 010054-125D2D-204848-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-125E50-204848-331110 |                             |                             |                             |
|           |                |                      | 2 mmAq                      | 010054-125E50-204848-331110 |                             |                             |                             |
|           |                |                      | 4 mmAq                      | 010054-125E83-204848-331110 |                             |                             |                             |
|           | Slim3          | AM030FNLDCH/AA       | 0 mmAq                      | 010054-1B5915-205A5A-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-1B5948-205A5A-331110 |                             |                             |                             |
|           |                |                      | 3 mmAq                      | 010054-1B599F-205A5A-331110 |                             |                             |                             |
|           |                |                      | 6 mmAq                      | 010054-1B5AE4-205A5A-331110 |                             |                             |                             |
|           |                | AM036FNLDCH/AA       | 0 mmAq                      | 010054-1B5956-206E6E-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-1B5989-206E6E-331110 |                             |                             |                             |
|           |                |                      | 3 mmAq                      | 010054-1B5AD0-206E6E-331110 |                             |                             |                             |
|           |                |                      | 6 mmAq                      | 010054-1B5E25-206E6E-331110 |                             |                             |                             |
|           |                | AM048FNLDCH/AA       | 0 mmAq                      | 010054-1B59B9-209191-331110 |                             |                             |                             |
|           |                |                      | 1 mmAq                      | 010054-1B59EC-209191-331110 |                             |                             |                             |
|           |                |                      | 3 mmAq                      | 010054-1B5E33-209191-331110 |                             |                             |                             |
|           |                |                      | 6 mmAq                      | 010054-1B5E88-209191-331110 |                             |                             |                             |
|           | MSP DUCT       | MSP-S                | AM018FNMDCH/AA              | 0 mmAq                      | 010054-125904-204747-331110 |                             |                             |
|           |                |                      |                             | 2 mmAq                      | 010054-125593-203434-331110 |                             |                             |
|           |                |                      |                             | 4 mmAq                      | 010054-1255C5-203434-331110 |                             |                             |
|           |                |                      |                             | 6 mmAq                      | 010054-1255F5-203434-331110 |                             |                             |
|           |                |                      |                             | 8 mmAq                      | 010054-125957-203434-331110 |                             |                             |
|           |                |                      |                             | 0 mmAq                      | 010054-125904-204848-331110 |                             |                             |
|           |                |                      | AM024FNMDCH/AA              | 2 mmAq                      | 010054-125936-204848-331110 |                             |                             |
|           |                |                      |                             | 4 mmAq                      | 010054-125979-204848-331110 |                             |                             |
|           |                |                      |                             | 6 mmAq                      | 010054-125DF9-204848-331110 |                             |                             |
|           |                |                      |                             | 8 mmAq                      | 010054-125DFC-204848-331110 |                             |                             |
|           |                |                      |                             | 6 mmAq                      | 010054-1259CE-205A5A-331110 |                             |                             |
|           |                |                      |                             | 8 mmAq                      | 010054-125E02-205A5A-331110 |                             |                             |
|           |                | MSP-1                | AM030FNMDCH/AA              | 10 mmAq                     | 010054-125E46-205A5A-331110 |                             |                             |
|           |                |                      |                             | 6 mmAq                      | 010054-125E00-206E6E-331110 |                             |                             |
|           |                |                      |                             | 8 mmAq                      | 010054-125E44-206E6E-331110 |                             |                             |
|           |                |                      | AM036FNMDCH/AA              | 10 mmAq                     | 010054-125E88-206E6E-331110 |                             |                             |
| 6 mmAq    |                |                      |                             | 010054-125E20-209191-331110 |                             |                             |                             |
| 8 mmAq    |                |                      |                             | 010054-125E43-209191-331110 |                             |                             |                             |
| MSP-2     |                | AM048FNMDCH/AA       | 10 mmAq                     | 010054-125E86-209191-331110 |                             |                             |                             |
|           |                |                      | 4 mmAq                      | 010054-125E79-20A0A0-331110 |                             |                             |                             |
|           |                |                      | 6 mmAq                      | 010054-125EAA-20A0A0-331110 |                             |                             |                             |
|           |                |                      | 8 mmAq                      | 010054-125EDB-20A0A0-331110 |                             |                             |                             |
|           |                |                      | 10 mmAq                     | 010054-125EFC-20A0A0-331110 |                             |                             |                             |
|           |                |                      | 12 mmAq                     | 010054-125EFD-20A0A0-331110 |                             |                             |                             |
|           | AM054KNMDCH/AZ | 14 mmAq              | 010054-125EFE-20A0A0-331110 |                             |                             |                             |                             |

■ 05 series installation option(Detailed)

Option No. : 05XXXX-1XXXXX-2XXXXX-3XXXXX

| Option                    | SEG1       |         | SEG2  |         | SEG3  |                                  | SEG4   |                   | SEG5  |  | SEG6  |         |     |     |
|---------------------------|------------|---------|---|---------|---|----------------------------------|--|-------------------|---|--|---|---------|-----|-----|
| Explanation               | PAGE       |         | MODE  |         | Use of Auto Change Over for HR only in Auto mode                                    |                                  | (When setting SEG3) Standard heating temp. Offset  |                   | (When setting SEG3) Standard cooling temp. Offset                                   |  | (When setting SEG3) Standard for mode change Heating → Cooling                      |         |     |     |
| Remote Controller Display |            |         |    |         |    |                                  |             |                   |  |  |  |         |     |     |
| Indication and Details    | Indication | Details | Indication  | Details | Indication  | Details                          | Indication   | Details           | Indication  | Details  | Indication  | Details |     |     |
|                           | 0          |         | 5   |         | 0   | Follow product option            | 0  | 0                 | 0   | 0  | 0   | 1       |     |     |
|                           |            |         |   |         | 1   | Use Auto Change Over for HR only | 1  | 1.5               | 1   | 0.5  | 1   | 0.5     | 1   | 1.5 |
|                           |            |         |   |         |   |                                  | 2  | 2                 | 2   | 1  | 2   | 1       | 2   | 2   |
|                           |            |         |   |         |   |                                  | 3  | 2.5               | 3   | 1.5  | 3   | 1.5     | 3   | 2.5 |
|                           |            |         |   |         |   |                                  | 4  | 3                 | 4   | 2  | 4   | 2       | 4   | 3   |
|                           |            |         |   |         |   |                                  | 5  | 3.5               | 5   | 2.5  | 5   | 2.5     | 5   | 3.5 |
|                           |            |         |   |         |   |                                  | 6  | 4                 | 6   | 3  | 6   | 3       | 6   | 4   |
| 7                         |            |         |   |         |   |                                  | 4.5  | 7                 | 3.5   | 7  | 3.5   | 7       | 4.5 |     |
| Option                    | SEG7       |         | SEG8  |         | SEG9  |                                  | SEG10  |                   | SEG11   |  | SEG12   |         |     |     |
| Explanation               | PAGE       |         | (When setting SEG3) Standard for mode changing Cooling → Heating mode               |         | (When setting SEG3) Time required for mode change                                   |                                  | Compensation option for Long pipe or height difference between indoor units                  |                   |   |  |   |         |     |     |
| Remote Controller Display |            |         |  |         |  |                                  |           |                   |   |  |   |         |     |     |
| Indication and Details    | Indication | Details | Indication  | Details | Indication  | Details                          | Indication   | Details           |   |  |   |         |     |     |
|                           | 1          |         | 0   | 1       | 0   | 5 min.                           | 0  | Use default value | 1   | 1) Height difference <sup>(*)</sup> is more than 30 m or<br>2) Distance <sup>(**)</sup> is longer than 110 m |   |         |     |     |
|                           |            |         | 1   | 1.5     | 1   | 7 min.                           |  |                   |   |  |   |         |     |     |
|                           |            |         | 2   | 2       | 2   | 9 min.                           |  |                   |   |  |   |         |     |     |
|                           |            |         | 3   | 2.5     | 3   | 11 min.                          |  |                   |   |  |   |         |     |     |
|                           |            |         | 4   | 3       | 4   | 13 min.                          |  |                   |   |  |   |         |     |     |
|                           |            |         | 5   | 3.5     | 5   | 15 min.                          |  |                   |   |  |   |         |     |     |
|                           |            |         | 6   | 4       | 6   | 20 min.                          |  |                   |   |  |   |         |     |     |
| 7                         |            |         | 4.5   | 7       | 30 min.   | 2                                | 1) Height difference <sup>(*)</sup> is 15~30 m or<br>2) Distance <sup>(**)</sup> is 50~110 m |                   |   |  |   |         |     |     |

| Option                    | SEG13            | SEG14      | SEG15 | SEG16 | SEG17 | SEG18 (*3)  |                                   |                          |
|---------------------------|------------------|------------|-------|-------|-------|---|-----------------------------------|--------------------------|
| Explanation               |                  |            |       |       |       | Control variables when using hot water / external heater                            |                                   |                          |
| Remote Controller Display |                  |            |       |       |       |  |                                   |                          |
| Indication and Details    |                  |            |       |       |       | Indication  | Details                           |                          |
|                           |                  |            |       |       |       |   | Set temp. for heater On/Off       | Delay time for heater On |
|                           |                  |            |       |       |       | 0   | At the same time as thermostat on | No delay                 |
|                           |                  |            |       |       |       | 1   | At the same time as thermostat on | 10 minutes               |
|                           |                  |            |       |       |       | 2   | At the same time as thermostat on | 20 minutes               |
|                           |                  |            |       |       |       | 3   | 2.7 °F (1.5 °C)                   | No delay                 |
|                           |                  |            |       |       |       | 4   | 2.7 °F (1.5 °C)                   | 10 minutes               |
|                           |                  |            |       |       |       | 5   | 2.7 °F (1.5 °C)                   | 20 minutes               |
|                           |                  |            |       |       |       | 6   | 5.4 °F (3.0 °C)                   | No delay                 |
|                           |                  |            |       |       |       | 7   | 5.4 °F (3.0 °C)                   | 10 minutes               |
|                           |                  |            |       |       |       | 8   | 5.4 °F (3.0 °C)                   | 20 minutes               |
|                           |                  |            |       |       |       | 9   | 8.1 °F (4.5 °C)                   | No delay                 |
|                           |                  |            |       |       |       | A   | 8.1 °F (4.5 °C)                   | 10 minutes               |
|                           |                  |            |       |       |       | B   | 8.1 °F (4.5 °C)                   | 20 minutes               |
|                           |                  |            |       |       |       | C   | 10.8 °F (6.0 °C)                  | No delay                 |
| D                         | 10.8 °F (6.0 °C) | 10 minutes |       |       |       |   |                                   |                          |
| E                         | 10.8 °F (6.0 °C) | 20 minutes |       |       |       |   |                                   |                          |

(\*1) Height difference : The difference of the height between the corresponding indoor unit and the indoor unit installed at the lowest place.  
 For example, When the indoor unit is installed 40 m(131.23 ft) higher than the indoor unit installed at the lowest place, select the option 1.

(\*2) Distance : The difference between the pipe length of the indoor unit installed at farthest place from an outdoor unit and the pipe length of the corresponding indoor unit from an outdoor unit.  
 For example, when the farthest pipe length is 100 m(328 ft) and the corresponding indoor unit is 40 m(131.23 ft) away from an outdoor unit, select the option 2.  
 (100 m(328 ft) - 40 m(131.23 ft) = 60 m(196.85 ft))

(\*3) Heater operation when the SEG9 of O2 series installation option is set to using hot water heater or when SEG15 is set to using external heater  
 e.g. 1) Setting O2 series SEG9 =1 / Setting O5 series SEG18 = 0: Hot water heater is turned on at the same time as the heating thermostat is on, and turned off when the heating thermostat is off.  
 e.g. 2) Setting O2 series SEG15 =2 / Setting O5 series SEG18 =A:  
 Room temp. ≤ set temp. + f(heating compensation temp.)  
 - External heater is turned on when the temperature is maintained as 8.1 °F(4.5 °C) for 10 minutes.  
 Room temp. > set temp. + f(heating compensation temp.)  
 - External heater is turned off when the temperature is maintained as 8.1 °F(4.5 °C) + 1.8 °F(1 °C)  
 (1 °C is the Hysteresis for On/Off selection.)

**Option Items(cont.)**

| TYPE                       |          | SAMSUNG MODEL NUMBER | Static Pressure             | Option                      | Install Code | Cycle code | Install Code 2 |  |
|----------------------------|----------|----------------------|-----------------------------|-----------------------------|--------------|------------|----------------|--|
| NEO FORTE<br>(without EEV) | Small    | AM007FNTDCH/AA       | -                           | 010044-1170FA-201616-330000 |              |            |                |  |
|                            |          | AM009FNTDCH/AA       | -                           | 010044-1170FA-201C1C-330000 |              |            |                |  |
|                            |          | AM012FNTDCH/AA       | -                           | 010044-11744D-202323-330000 |              |            |                |  |
|                            | Large    | AM018FNTDCH/AA       | -                           | 010044-11645E-203434-330020 |              |            |                |  |
|                            |          | AM020FNTDCH/AA       | -                           | 010044-11646F-203C3C-330020 |              |            |                |  |
| NEO FORTE<br>(with EEV)    | Small    | AM007HNQDCH/AA       | -                           | 010044-1170FA-201616-330000 |              |            |                |  |
|                            |          | AM009HNQDCH/AA       | -                           | 010044-1170FA-201C1C-330000 |              |            |                |  |
|                            |          | AM012HNQDCH/AA       | -                           | 010044-11744D-202323-330000 |              |            |                |  |
|                            | Large    | AM018HNQDCH/AA       | -                           | 010044-11645E-203434-330020 |              |            |                |  |
|                            |          | AM020HNQDCH/AA       | -                           | 010044-11646F-203C3C-330020 |              |            |                |  |
|                            |          | AM024HNQDCH/AA       | -                           | 010044-11648F-204848-330020 |              |            |                |  |
| A3050                      |          | AM005MNV DCH/AA      | -                           | 012044-1990D9-200F0F-310000 |              |            |                |  |
|                            |          | AM007MNV DCH/AA      | -                           | 012044-19942A-201616-310000 |              |            |                |  |
|                            |          | AM019MNV DCH/AA      | -                           | 012044-19945C-201C1C-310000 |              |            |                |  |
|                            |          | AM012MNV DCH/AA      | -                           | 012044-19845E-202424-310010 |              |            |                |  |
|                            |          | AM015MNV DCH/AA      | -                           | 012044-1955A2-202D2D-310010 |              |            |                |  |
|                            |          | AM018MNV DCH/AA      | -                           | 012044-19942C-203838-310020 |              |            |                |  |
|                            |          | AM024MNV DCH/AA      | -                           | 012044-19847F-204747-310020 |              |            |                |  |
|                            |          | AM028MNV DCH/AA      | -                           | 012044-1955A3-205252-310020 |              |            |                |  |
| BORACAY                    |          | AM007KNQDCH/AZ       | -                           | 010044-1190FA-201616-310000 |              |            |                |  |
|                            |          | AM009KNQDCH/AZ       | -                           | 010044-1160C8-201C1C-310000 |              |            |                |  |
|                            |          | AM012KNQDCH/AZ       | -                           | 010044-11540B-202323-310000 |              |            |                |  |
|                            |          | AM018KNQDCH/AZ       | -                           | 010044-11542C-203434-310020 |              |            |                |  |
|                            |          | AM020KNQDCH/AZ       | -                           | 010044-11542C-203C3C-310020 |              |            |                |  |
| BORACAY<br>(with EEV)      |          | AM024KNQDCH/AZ       | -                           | 010044-11644F-204848-310020 |              |            |                |  |
|                            |          | AM007KNTDCH/AZ       | -                           | 010044-1160C8-201C1C-330000 |              |            |                |  |
|                            |          | AM009KNTDCH/AZ       | -                           | 010044-1160C8-201C1C-330000 |              |            |                |  |
|                            |          | AM012KNTDCH/AZ       | -                           | 010044-11540B-202323-330000 |              |            |                |  |
|                            |          | AM018KNTDCH/AZ       | -                           | 010044-11542C-203434-330020 |              |            |                |  |
|                            |          | AM020KNTDCH/AZ       | -                           | 010044-11542C-203C3C-330020 |              |            |                |  |
| HSP DUCT                   | Small    | AM036FNHDCH/AA       | 5 mmAq                      | 010054-135A50-206E6E-331110 |              |            |                |  |
|                            |          |                      | 10 mmAq                     | 010054-135AD7-206E6E-331110 |              |            |                |  |
|                            |          |                      | 15 mmAq                     | 010054-135E5F-206E6E-331110 |              |            |                |  |
|                            |          |                      | 20 mmAq                     | 010054-135F96-206E6E-331110 |              |            |                |  |
|                            |          | AM048FNHDCH/AA       | 5 mmAq                      | 010054-135AC3-209191-331110 |              |            |                |  |
|                            |          |                      | 10 mmAq                     | 010054-135E6A-209191-331110 |              |            |                |  |
|                            |          |                      | 15 mmAq                     | 010054-135FA3-209191-331110 |              |            |                |  |
|                            |          |                      | 20 mmAq                     | 010054-135FC8-209191-331110 |              |            |                |  |
|                            | BIG DUCT | AM076FNHDCH/AA       | 5 mmAq                      | 011054-195097-20DCDC-331110 |              |            |                |  |
|                            |          |                      | 10 mmAq                     | 011054-1950C7-20DCDC-331110 |              |            |                |  |
|                            |          |                      | 15 mmAq                     | 011054-1950E8-20DCDC-331110 |              |            |                |  |
|                            |          |                      | 20 mmAq                     | 011054-19544D-20DCDC-331110 |              |            |                |  |
|                            |          | AM096FNHDCH/AA       | 25 mmAq                     | 011054-19549F-20DCDC-331110 |              |            |                |  |
|                            |          |                      | 5 mmAq                      | 011054-195407-231C1C-331110 |              |            |                |  |
|                            |          |                      | 10 mmAq                     | 011054-195429-231C1C-331110 |              |            |                |  |
|                            |          |                      | 15 mmAq                     | 010054-19545B-231C1C-331110 |              |            |                |  |
|                            |          | 20 mmAq              | 011054-19549E-231C1C-331110 |                             |              |            |                |  |
|                            |          | 25 mmAq              | 011054-1955D1-231C1C-331110 |                             |              |            |                |  |
|                            |          | 28 mmAq              | 011054-1955F3-231C1C-331110 |                             |              |            |                |  |
| Ceiling                    |          | AM018FNCDCH/AA       | -                           | 013054-105000-203434-330010 |              |            |                |  |
|                            |          | AM024FNCDCH/AA       | -                           | 013054-105000-204848-330010 |              |            |                |  |
| Big Ceiling                |          | AM036JNCDCH/AA       | -                           | 013054-1C2479-206969-330000 |              |            |                |  |
|                            |          | AM048JNCDCH/AA       | -                           | 013054-1C54BE-208D8D-330000 |              |            |                |  |

| TYPE           |                | SAMSUNG MODEL NUMBER | Static Pressure             | Option                      | Install Code | Cycle code | Install Code 2 |
|----------------|----------------|----------------------|-----------------------------|-----------------------------|--------------|------------|----------------|
| Floor Standing | CONCEALED      | AM006JNFDCH/AA       | -                           | 01A054-105000-201212-330010 |              |            |                |
|                |                | AM009JNFDCH/AA       | -                           | 01A054-105000-201C1C-330010 |              |            |                |
|                |                | AM012JNFDCH/AA       | -                           | 01A054-105000-202323-330010 |              |            |                |
|                |                | AM018JNFDCH/AA       | -                           | 01A054-105000-203434-330010 |              |            |                |
|                | EXPOSED        | AM006JNGDCH/AA       | -                           | 01A054-105000-201212-330010 |              |            |                |
|                |                | AM009JNGDCH/AA       | -                           | 01A054-105000-201C1C-330010 |              |            |                |
|                |                | AM012JNGDCH/AA       | -                           | 01A054-105000-202323-330010 |              |            |                |
|                |                | AM018JNGDCH/AA       | -                           | 01A054-105000-203434-330010 |              |            |                |
| OAP DUCT       | AM072JNESCH/AA | 5mmAq                | 01B064-193020-231515-333000 |                             |              |            |                |
|                |                | 10mmAq               | 01B064-193051-231515-333000 |                             |              |            |                |
|                |                | 15mmAq               | 01B064-193097-231515-333000 |                             |              |            |                |
|                |                | 20mmAq               | 01B064-1930EC-231515-333000 |                             |              |            |                |
|                |                | 25mmAq (Standard)    | 01B064-19343E-231515-333000 |                             |              |            |                |
|                |                | 30mmAq               | 01B064-19348E-231515-333000 |                             |              |            |                |
|                | AM096JNESCH/AA | 5mmAq                | 01B064-193030-231C1C-333000 |                             |              |            |                |
|                |                | 10mmAq               | 01B064-193061-231C1C-333000 |                             |              |            |                |
|                |                | 15mmAq               | 01B064-1930A8-231C1C-333000 |                             |              |            |                |
|                |                | 20mmAq               | 01B064-19340E-231C1C-333000 |                             |              |            |                |
|                |                | 25mmAq (Standard)    | 01B064-19345E-231C1C-333000 |                             |              |            |                |
|                |                | 30mmAq               | 01B064-1934AE-231C1C-333000 |                             |              |            |                |
| MAX            | AM032MNQDCH/AA |                      | 013044-19746E-205D5D-310020 |                             |              |            |                |

| Model                  | AM007JNMDCH                 | AM009JNMDCH                 | AM012JNMDCH                 | AM015JNMDCH                 | AM018JNMDCH                 |
|------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Static Pressure (mmAq) | Option code for indoor unit |                             |                             |                             |                             |
| $0 < SP \leq 1$        | 010054-1B5095-201616-331110 | 010054-1B5096-201C1C-331110 | 010054-1B50A5-202323-331110 | 010054-1B50F9-202C2C-331110 | 010054-1B542C-203535-331110 |
| $1 < SP \leq 3$        | 010054-1B50F8-201616-331110 | 010054-1B50FA-201C1C-331110 | 010054-1B5409-202323-331110 | 010054-1B544D-202C2C-331110 | 010054-1B5570-203535-331110 |
| $3 < SP \leq 5$        | 010054-1B544B-201616-331110 | 010054-1B544D-201C1C-331110 | 010054-1B545C-202323-331110 | 010054-1B5580-202C2C-331110 | 010054-1B55B4-203535-331110 |
| $5 < SP \leq 7.5$      | 010054-1B549E-201616-331110 | 010054-1B5591-201C1C-331110 | 010054-1B54AF-202323-331110 | 010054-1B55D3-202C2C-331110 | 010054-1B5907-203535-331110 |
| $7.5 < SP \leq 10$     | 010054-1B55D1-201616-331110 | 010054-1B55E4-201C1C-331110 | 010054-1B55F2-202323-331110 | 010054-1B5915-202C2C-331110 | 010054-1B594A-203535-331110 |
| $10 < SP \leq 12.5$    | 010054-1B5913-201616-331110 | 010054-1B5917-201C1C-331110 | 010054-1B5934-202323-331110 | 010054-1B5968-202C2C-331110 | 010054-1B599D-203535-331110 |
| $12.5 < SP \leq 15$    | 010054-1B5956-201616-331110 | 010054-1B595A-201C1C-331110 | 010054-1B5967-202323-331110 | 010054-1B59AB-202C2C-331110 | 010054-1B5AD0-203535-331110 |

| Model                  | AM024JNHDCH                 | AM027JNHDCH                 | AM030JNHDCH                 | AM036JNHDCH                 | AM048JNHDCH                 |
|------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Static Pressure (mmAq) | Option code for indoor unit |                             |                             |                             |                             |
| $3 < SP \leq 5.2$      | 010054-1355A6-204646-331110 | 010054-1355C7-204F4F-331110 | 010054-1355D8-205858-331110 | 010054-135919-206969-331110 | 010054-135A60-208D8D-331110 |
| $5.2 < SP \leq 7.5$    | 010054-1355F9-204646-331110 | 010054-13591C-204F4F-331110 | 010054-13593A-205858-331110 | 010054-135A70-206969-331110 | 010054-135AC5-208D8D-331110 |
| $7.5 < SP \leq 10$     | 010054-13594E-204646-331110 | 010054-13595F-204F4F-331110 | 010054-13598E-205858-331110 | 010054-135AB4-206969-331110 | 010054-135E18-208D8D-331110 |
| $10 < SP \leq 12.5$    | 010054-135A70-204646-331110 | 010054-135A93-204F4F-331110 | 010054-135AB1-205858-331110 | 010054-135AF7-206969-331110 | 010054-135E5B-208D8D-331110 |
| $12.5 < SP \leq 15$    | 010054-135AA3-204646-331110 | 010054-135AC5-204F4F-331110 | 010054-135AF4-205858-331110 | 010054-135E39-206969-331110 | 010054-135E9F-208D8D-331110 |
| $15 < SP \leq 17.5$    | 010054-135AE6-204646-331110 | 010054-135E08-204F4F-331110 | 010054-135E37-205858-331110 | 010054-135E6C-206969-331110 | 010054-135FB2-208D8D-331110 |
| $17.5 < SP \leq 20$    | 010054-135E18-204646-331110 | 010054-135E3A-204F4F-331110 | 010054-135E59-205858-331110 | 010054-135EAF-206969-331110 | 010054-135FC5-208D8D-331110 |

- Note :
- represents E.S.P (External Static Pressure)range of factory setting.  
 You don't have to adjust the fan speed separately if the external static pressure of the installation place is in   .  
 When it is out of   , input the appropriate option code.
  - If you input the inappropriate option code,error may occur or the air conditioner is out of order.  
 The option code must be inputted correctly by the installation specialist or service agent.

| Model                  | AM006RNMDCH                 | AM007MNMDCH                 | AM009MNMDCH                 | AM012MNMDCH                 | AM015MNMDCH                 | AM018MNMDCH                 |
|------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Static Pressure (mmAq) | Option code for indoor unit |                             |                             |                             |                             |                             |
| 0 < SP ≤ 1             | 010054-1E5060-201212-331101 | 010054-1E5060-201616-331100 | 010054-1E5060-201C1C-331100 | 010054-1E5072-202323-331100 | 010054-1E5095-202C2C-331100 | 010054-1E50F8-203535-331100 |
| 1 < SP ≤ 3             | 010054-1E50D4-201212-331101 | 010054-1E50D4-201616-331100 | 010054-1E50D4-201C1C-331100 | 010054-1E50D6-202323-331100 | 010054-1E50F9-202C2C-331100 | 010054-1E545B-203535-331100 |
| 3 < SP ≤ 5             | 010054-1E5437-201212-331101 | 010054-1E5437-201616-331100 | 010054-1E5437-201C1C-331100 | 010054-1E5449-202323-331100 | 010054-1E545D-202C2C-331100 | 010054-1E54DF-203535-331100 |
| 5 < SP ≤ 7.5           | 010054-1E54AA-201212-331101 | 010054-1E54DA-201616-331100 | 010054-1E54DA-201C1C-331100 | 010054-1E54DD-202323-331100 | 010054-1E55D3-202C2C-331100 | 010054-1E5914-203535-331100 |
| 7.5 < SP ≤ 10          | 010054-1E581E-201212-331101 | 010054-1E581E-201616-331100 | 010054-1E581E-201C1C-331100 | 010054-1E5911-202323-331100 | 010054-1E5938-202C2C-331100 | 010054-1E5979-203535-331100 |
| 10 < SP ≤ 12.5         | 010054-1E5972-201212-331101 | 010054-1E5972-201616-331100 | 010054-1E5972-201C1C-331100 | 010054-1E5976-202323-331100 | 010054-1E598D-202C2C-331100 | 010054-1E59CD-203535-331100 |
| 12.5 < SP ≤ 15         | 010054-1E59C5-201212-331101 | 010054-1E59C5-201616-331100 | 010054-1E59C5-201C1C-331100 | 010054-1E59C9-202323-331100 | 010054-1E5AD0-202C2C-331100 | 010054-1E5E10-203535-331100 |

| Model                  | AM018RNMDCH                 | AM024MNHDC                  | AM027MNHDC                  | AM030MNHDC                  | AM036MNHDC                  | AM048MNHDC                  |
|------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Static Pressure (mmAq) | Option code for indoor unit |                             |                             |                             |                             |                             |
| 3 < SP ≤ 5.2           | 010054-1E50C3-203434-331113 | 010054-1E54BB-204646-331110 | 010054-1E55C0-204F4F-331110 | 010054-1E55D3-205858-331110 | 010054-1E542A-206969-331120 | 010054-1E548D-208D8D-331129 |
| 1 < SP ≤ 3             | 010054-1E5436-203434-331113 | 010054-1E581F-204646-331110 | 010054-1E5924-204F4F-331110 | 010054-1E5938-205858-331110 | 010054-1E546C-206969-331120 | 010054-1E55C0-208D8D-33112A |
| 3 < SP ≤ 5             | 010054-1E5498-203434-331113 | 010054-1E5973-204646-331110 | 010054-1E5989-204F4F-331110 | 010054-1E598C-205858-331110 | 010054-1E55B0-206969-331120 | 010054-1E55F2-208D8D-33112A |
| 5 < SP ≤ 7.5           | 010054-1E54FB-203434-331113 | 010054-1E59C6-204646-331110 | 010054-1E59DC-204F4F-331110 | 010054-1E5E01-205858-331110 | 010054-1E55F3-206969-331120 | 010054-1E5935-208D8D-33112A |
| 7.5 < SP ≤ 10          | 010054-1E586E-203434-331113 | 010054-1E5D1A-204646-331110 | 010054-1E5E20-204F4F-331110 | 010054-1E5E35-205858-331110 | 010054-1E5936-206969-331120 | 010054-1E5989-208D8D-33112A |
| 10 < SP ≤ 12.5         | 010054-1E59B1-203434-331113 | 010054-1E5D6D-204646-331110 | 010054-1E5E63-204F4F-331110 | 010054-1E5E78-205858-331110 | 010054-1E597A-206969-331120 | 010054-1E59CC-208D8D-33112A |
| 12.5 < SP ≤ 15         | 010054-1E5D04-203434-331113 | 010054-1E5EA0-204646-331110 | 010054-1E5EB7-204F4F-331110 | 010054-1E5ECC-205858-331110 | 010054-1E59BD-206969-331120 | 010054-1E5D0F-208D8D-33112A |

- Note :
- represents E.S.P (External Static Pressure)range of factory setting.  
 You don't have to adjust the fan speed separately if the external static pressure of the installation place is in   .  
 When it is out of   , input the appropriate option code.
  - If you input the inappropriate option code,error may occur or the air conditioner is out of order.  
 The option code must be inputted correctly by the installation specialist or service agent.

### 4-3-3 What to check before diagnosis

#### 4-3-3-1 Lamp combination expression method display (cassette type indoor unit)

##### - Slim 1-Way, 2 -Way, Mini 4-Way cassette type

###### ■ Error detection and restart

- When error occurs during operation, indicate a problem with LED flashes, and no other operations but LED stops.
- When restarting operation with remote controller or switch, it will determine the appropriate error mode after normal operation

###### ■ LED lamp display with error detection

| Abnormal condition  | Error code                                   | LED Display |     |   |   |   |
|---|--|-------------|-----|---|---|---|
|   |  |             |     |   |   |   |
|   |  | Green       | Red |   |   |   |
| Error on indoor temperature sensor (Short or Open)  | E121   | ×           | ×   |   | × | × |
| 1. Error on Eva-in sensor (Short or Open)<br>2. Error on Eva-out sensor (Short or Open)<br>3. Discharge sensor error (Short or Open)  | E122<br>E123<br>E126                         |             | ×   |   | × | × |
| Indoor fan error  | E154   | ×           | ×   | × |   | × |
| 1. Error on outdoor temperature sensor (Short or Open)<br>2. Error on cond sensor<br>3. Error on discharge sensor<br>Other outdoor unit sensor error that is not on the above list  | E221<br>E237<br>E251                         |             | ×   | × |   | × |
| 1. When there is no communication between the indoor-outdoor units for 2 minutes<br>2. Communication error received from the outdoor unit<br>3. 3 minute tracking error on outdoor unit<br>4. Communication error after tracking due to unmatching number of installed units<br>5. Error due to repeated communication address<br>6. Communication address not confirmed Other outdoor unit communication error that is not on the above list | E101<br>E102<br>E202<br>E201<br>E108<br>E109 | ×           | ×   |   |   | × |
| Self diagnosis error display<br>1. Error due to opened EEV (2nd detection)<br>2. Error due to closed EEV (2nd detection)<br>3. Eva in sensor is detached<br>4. Eva out sensor is detached<br>5. Thermal fuse error (Open)   | E151<br>E152<br>E128<br>E129<br>E198         | ×           | ×   |   |   |   |

● : On   ◐ : Flickering   × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.
- When E108 error occurs, change the address and reset the system.
- Ex.) When address of the indoor unit #1 and #2 are set as 5, address of the indoor unit #1 will become 5 and indoor unit #2 will display E108, A002.

■ LED lamp display with error detection (cont.)

| Abnormal condition   | Error code | LED Display |     |   |   |   |
|--|------------|-------------|-----|---|---|---|
|  |            |             |     |   |   |   |
|  |            | Green       | Red |   |   |   |
| 1. COND mid sensor is detached   | E241       |             |     |   |   |   |
| 2. Refrigerant leakage (2nd detection)   | E554       |             |     |   |   |   |
| 3. Abnormally high temperature on Cond (2nd detection)                           | E450       |             |     |   |   |   |
| 4. Low pressure s/w (2nd detection)  | E451       |             |     |   |   |   |
| 5. Abnormally high temperature on discharged air on outdoor unit (2nd detection) | E416       |             |     |   |   |   |
| 6. Indoor operation stop due to unconfirmed error on outdoor unit                | E559       |             |     |   |   |   |
| 7. Error due to reverse phase detection  | E425       |             |     |   |   |   |
| 8. Comp stop due to freeze detection (6th detection)                             | E403       |             |     |   |   |   |
| 9. High pressure sensor is detached  | E301       | ×           | ×   | ● | ● | ● |
| 10. Low pressure sensor is detached  | E306       |             |     |   |   |   |
| 11. Outdoor unit copression ration error   | E428       |             |     |   |   |   |
| 12. Outdoor sump down_1 prevetion control  | E413       |             |     |   |   |   |
| 13. Compressor down due to low pressure sensor prevention control_1              | E410       |             |     |   |   |   |
| 14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection)        | E180       |             |     |   |   |   |
| 15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection)        | E181       |             |     |   |   |   |
| Other outdoor unit self-diagnosis error that is not on the above list            |            |             |     |   |   |   |
| Flowating s/w (2nd detection)  | E153       | ×           | ×   | × | ● | ● |
| EEPROM error   | E162       | ●           | ●   | ● | ● | ● |
| EEPROM option error  | E163       | ●           | ●   | ● | ● | ● |
| Error due to incompatible indoor unit  | E164       | ×           | ×   | × | × | ● |

● : On   ● : Flickering   × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
  - If you re-operate the air conditioner, it operates normally at first, then detect an error again.
  - When E108 error occurs, change the address and reset the system.
- Ex.) When address of the indoor unit #1 and #2 are set as 5, address of the indoor unit #1 will become 5 and indoor unit #2 will display E108, A002.

## - Global 4way cassette type

### ■ Error detection and restart

- When error occurs during operation, indicate a problem with LED flashes, and no other operations but LED stops.
- When restarting operation with remote controller or switch, it will determine the appropriate error mode after normal operation

### ■ LED lamp display with error detection

| Abnormal condition   | Error code   | LED Display  |   |   |   |
|--|--|--|---|---|---|
|  |  | Operation  | Defrost   | Timer   | Filter  |
|  |  |    |    |    |    |
| Error on indoor temperature sensor (Short or Open)   | E121   | ×  |    | ×   | ×   |
| 1. Error on Eva-in sensor (Short or Open)<br>2. Error on Eva-out sensor (Short or Open)<br>3. Discharge sensor error (Short or Open)   | E122<br>E123<br>E126   |    |    | ×   | ×   |
| Indoor fan error   | E154   | ×  | ×   |    | ×   |
| 1. Error on outdoor temperature sensor (Short or Open)<br>2. Error on cond sensor<br>3. Error on discharge sensor<br>Other outdoor unit sensor error that is not on the above list   | E221<br>E237<br>E251   |    | ×   |    | ×   |
| 1. When there is no communication between the indoor-outdoor units for 2 minutes<br>2. Communication error received from the outdoor unit<br>3. 3 minute tracking error on outdoor unit<br>4. Communication error after tracking due to unmatching number of installed units<br>5. Error due to repeated communication address<br>6. Communication address not confirmed<br>Other outdoor unit communication error that is not on the above list   | E101<br>E102<br>E202<br>E201<br>E108<br>E109   | ×  |  |  | ×   |
| Self diagnosis error display<br>1. Error due to opened EEV (2nd detection)<br>2. Error due to closed EEV (2nd detection)<br>3. Eva in sensor is detached<br>4. Eva out sensor is detached<br>5. Thermal fuse error (Open)  | E151<br>E152<br>E128<br>E129<br>E198   | ×  |  |  |  |
| 1. COND mid sensor is detached.<br>2. Refrigerant leakage (2nd detection).<br>3. Abnormally high temperature on Cond. (2nd detection)<br>4. Low pressure s/w. (2nd detection)<br>5. Abnormally high temperature on discharged air on outdoor unit. (2nd detection)<br>6. Indoor operation stop due to unconfirmed error on outdoor unit.<br>7. Error due to reverse phase detection.<br>8. Comp stop due to freeze detection. (6th detection)<br>9. High pressure sensor is detached.<br>10. Low pressure sensor is detached.<br>11. Outdoor unit copression ration error<br>12. Outdoor sump down_1 prevetion control<br>13. Compressor down due to low pressure sensor prevention control_1<br>14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection)<br>15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection)<br>Other outdoor unit self-diagnosis error that is not on the above list | E241<br>E554<br>E450<br>E451<br>E416<br>E559<br>E425<br>E403<br>E301<br>E306<br>E428<br>E413<br>E410<br>E180<br>E181 | ×  |  |  |  |
| Flowating s/w (2nd detection)  | E153   | ×  | ×   |  |  |
| EEPROM error   | E162   |  |  |  |  |

■ LED lamp display with error detection (cont.)

| Abnormal condition                    | Error code | LED Display  |   |   |   |
|---------------------------------------|------------|--|---|---|---|
|                                       |            | Operation  | Defrost   | Timer   | Filter  |
|                                       |            |  |  |  |  |
| EEPROM option error                   | E163       |  |  |  |  |
| Error due to incompatible indoor unit | E164       |  |  | ×   |  |

●: On ○: Flickering ×: Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
  - If you re-operate the air conditioner, it operates normally at first, then detect an error again.
  - When E108 error occurs, change the address and reset the system.
- Ex.) When address of the indoor unit #1 and #2 are set as 5, address of the indoor unit #1 will become 5 and indoor unit #2 will display E108, A002.

## - Duct type

### ■ Error detection and restart

- When error occurs during operation, indicate a problem with LED flashes, and no other operations but LED stops.
- When restarting operation with remote controller or switch, it will determine the appropriate error mode after normal operation

### ■ LED lamp display with error detection(Remote Control Receiver)

| Abnormal condition   | Error code   | LED Display |   |   |   |   |
|--|--|-------------|---|---|---|---|
|  |  |             |   |   |   |   |
| Error on indoor temperature sensor (Short or Open)   | E121   | ×           | × | ◐ | × | × |
| 1. Error on Eva-in sensor (Short or Open)<br>2. Error on Eva-out sensor (Short or Open)<br>3. Discharge sensor error (Short or Open)   | E122<br>E123<br>E126                                 | ◐           | × | ◐ | × | × |
| Indoor fan error   | E154   | ×           | × | × | ◐ | × |
| 1. Error on outdoor temperature sensor (Short or Open)<br>2. Error on cond sensor<br>3. Error on discharge sensor<br>Other outdoor unit sensor error that is not on the above list   | E221<br>E237<br>E251                                 | ◐           | × | × | ◐ | × |
| 1. When there is no communication between the indoor-outdoor units for 2 minutes<br>2. Communication error received from the outdoor unit<br>3. 3 minute tracking error on outdoor unit<br>4. Communication error after tracking due to unmatching number of installed units<br>5. Error due to repeated communication address<br>6. Communication address not confirmed<br>Other outdoor unit communication error that is not on the above list | E101<br><br>E102<br>E202<br>E201<br><br>E108<br>E109 | ×           | × | ◐ | ◐ | × |
| Self diagnosis error display<br>1. Error due to opened EEV (2nd detection)<br>2. Error due to closed EEV (2nd detection)<br>3. Eva in sensor is detached<br>4. Eva out sensor is detached<br>5. Thermal fuse error (Open)  | E151<br>E152<br>E128<br>E129<br>E198                 | ×           | × | ◐ | ◐ | ◐ |

● : On ◐ : Flickering × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.
- When E108 error occurs, change the address and reset the system.Ex.) When address of the indoor unit #1 and #2 are set as 5, address of the indoor unit #1 will become 5 and indoor unit #2 will display E108, A002.

■ LED lamp display with error detection(Remote Control Receiver) (cont.)

| Abnormal condition   | Error code   | LED Display |   |   |   |   |
|--|--|-------------|---|---|---|---|
|  |  |             |   |   |   |   |
| 1. COND mid sensor is detached<br>2. Refrigerant leakage (2nd detection)<br>3. Abnormally high temperature on Cond (2nd detection)<br>4. Low pressure s/w (2nd detection)<br>5. Abnormally high temperature on discharged air on outdoor unit (2nd detection)<br>6. Indoor operation stop due to unconfirmed error on outdoor unit<br>7. Error due to reverse phase detection<br>8. Comp stop due to freeze detection (6th detection)<br>9. High pressure sensor is detached<br>10. Low pressure sensor is detached<br>11. Outdoor unit copression ration error<br>12. Outdoor sump down_1 prevetion control<br>13. Compressor down due to low pressure sensor prevention control_1<br>14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection)<br>15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection)<br>Other outdoor unit self-diagnosis error that is not on the above list | E241<br>E554<br>E450<br>E451<br>E416<br><br>E559<br>E425<br>E403<br>E301<br>E306<br>E428<br>E413<br>E410<br>E180<br>E181 |             |   |   |   |   |
| Flowating s/w (2nd detection)  | E153   | ×           | × | × | ● | ● |
| EEPROM error   | E162   | ●           | ● | ● | ● | ● |
| EEPROM option error  | E163   | ●           | ● | ● | ● | ● |
| Error due to incompatible indoor unit  | E164   | ×           | × | × | × | ● |

● : On   ● : Flickering   × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.
- When E108 error occurs, change the address and reset the system.Ex.) When address of the indoor unit #1 and #2 are set as 5, address of the indoor unit #1 will become 5 and indoor unit #2 will display E108, A002.

## - Ceiling type

### ■ Error detection and reoperation

- If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

### ■ Indoor unit LED lamp display at error detecting

| Abnormal condition   | Error code   | LED Display |   |   |   |   |
|--|--|-------------|---|---|---|---|
|  |  |             |   |   |   |   |
| Error on indoor temperature sensor (Short or Open)   | E121   | ×           | × | ● | × | × |
| 1. Error on Eva-in sensor (Short or Open)<br>2. Error on Eva-out sensor (Short or Open)  | E122<br>E123   | ●           | × | ● | × | × |
| Indoor fan error   | E154   | ×           | × | × | ● | × |
| 1. Error on outdoor temperature sensor (Short or Open)<br>2. Error on cond sensor<br>3. Error on discharge sensor  | E221<br>E237<br>E251   | ●           | × | × | ● | × |
| 1. When there is no communication between the indoor-outdoor units for 2 minutes<br>2. Communication error received from the outdoor unit<br>3. 3 minute tracking error on outdoor unit<br>4. Communication error after tracking due to unmatching number of installed units<br>5. Error due to repeated communication address   | E101<br>E102<br>E202<br>E201<br>E108   | ×           | × | ● | ● | × |
| Self diagnosis error display<br>1. Error due to opened EEV (2nd detection)<br>2. Error due to closed EEV (2nd detection)<br>3. Eva in sensor is detached<br>4. Eva out sensor is detached<br>5. Thermal fuse error (Open)  | E151<br>E152<br>E128<br>E128<br>E198   | ×           | × | ● | ● | ● |
| 1. COND mid sensor is detached<br>2. Refrigerant leakage (2nd detection)<br>3. Abnormally high temperature on Cond (2nd detection)<br>4. Low pressure s/w. (2nd detection)<br>5. Abnormally high temperature on discharged air on outdoor unit. (2nd detection)<br>6. Indoor operation stop due to unconfirmed error on outdoor unit<br>7. Error due to reverse phase detection<br>8. Comp stop due to freeze detection (6th detection)<br>9. High pressure sensor is detached<br>10. Low pressure sensor is detached<br>11. Outdoor unit copression ration error<br>12. Outdoor sump down_1 prevention control<br>13. Compressor down due to low pressure sensor prevention control_1<br>14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection)<br>15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection) | E241<br>E554<br>E450<br>E451<br>E416<br>E559<br>E425<br>E403<br>E301<br>E306<br>E428<br>E413<br>E410<br>E180<br>E181 | ×           | × | ● | ● | ● |
| Flowating s/w (2nd detection)  | E153   | ×           | × | × | ● | ● |
| EEPROM error   | E162   | ●           | ● | ● | ● | ● |
| EEPROM option error  | E163   | ●           | ● | ● | ● | ● |
| Error due to incompatible indoor unit  | E164   | ×           | × | × | × | ● |

● : On   ● : Flickering   × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

## - Big Ceiling

### ■ Error detection and reoperation

- If error occurs during the operation, badness is indicated by LED flickering and all operation is stopped except LED.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

### ■ Indoor unit LED lamp display at error detecting

| Error mode   | Product operation with error |       |        |     | Remarks               |
|--|------------------------------|-------|--------|-----|-----------------------|
|  | Blue                         | Green | Orange | Red |                       |
| Power reset  | ◐                            | X     | X      | X   | 0.5[S]=On, 0.5[S]=Off |
| Operation on   | ●                            | X     | X      | X   |                       |
| Operation off  | X                            | X     | X      | X   | -                     |
| Reservation  | X                            | ●     | X      | X   | -                     |
| Filter sign  | X                            | X     | ●      | X   | -                     |
| Defrosting   | ◐                            | X     | X      | X   | 1[S]=On, 9[S]=Off     |
| Communication error between indoor units               | X                            | ◐     | X      | X   | -                     |
| EEPROM error / EEPROM option error                     | ◐                            | X     | X      | ◐   | -                     |
| Error of temperature sensor in indoor unit(open/short) | X                            | X     | X      | ◐   | -                     |
| Error of outdoor Unit/ Self-Diagnosis                  | X                            | X     | ◐      | X   | -                     |
| Error of the indoor Unit pipe sensor                   | X                            | ◐     | X      | ◐   |                       |
| Indoor fan error                                       | ◐                            | ◐     | X      | X   |                       |
| Thermal Fuse open error                                | ◐                            | X     | ◐      | X   |                       |
| Indoor unit float S/W 2nd detection                    | X                            | ◐     | ◐      | X   |                       |

● : On ◐ : Flickering × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detects an error again.
- If the LED displays only one color, it is turned on for a second and turned off for a second.
- If the LED displays more than two colors, each color is shown for a second alternately.

## - Wall-mounted type

### ■ Error detection and reoperation

- If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

### ■ Indoor unit LED lamp display at error detecting

| Abnormal condition  | Error code   | LED Display |   |   |
|---|--|-------------|---|---|
|   |  |             |   |   |
| Error on indoor temperature sensor (Short or Open)  | E121   | ×           | ● | × |
| 1. Error on Eva-in sensor (Short or Open)<br>2. Error on Eva-out sensor (Short or Open)   | E122<br>E123   | ●           | ● | × |
| Indoor fan error  | E154   | ×           | × | ● |
| 1. Error on outdoor temperature sensor (Short or Open)<br>2. Error on cond sensor<br>3. Error on discharge sensor   | E221<br>E237<br>E251   | ●           | × | ● |
| 1. When there is no communication between the indoor-outdoor units for 2 minutes<br>2. Communication error received from the outdoor unit<br>3. 3 minute tracking error on outdoor unit<br>4. Communication error after tracking due to unmatching number of installed units<br>5. Error due to repeated communication address  | E101<br>E102<br>E202<br>E201<br>E108   | ×           | ● | ● |
| Self diagnosis error display<br>1. Error due to opened EEV (2nd detection)<br>2. Error due to closed EEV (2nd detection)<br>3. Eva in sensor is detached<br>4. Eva out sensor is detached<br>5. Thermal fuse error (Open)   | E151<br>E152<br>E128<br>E128<br>E198   | ●           | ● | ● |
| 1. COND mid sensor is detached<br>2. Refrigerant leakage (2nd detection)<br>3. Abnormally high temperature on Cond (2nd detection)<br>4. Low pressure s/w (2nd detection)<br>5. Abnormally high temperature on discharged air on outdoor unit (2nd detection)<br>6. Indoor operation stop due to unconfirmed error on outdoor unit<br>7. Error due to reverse phase detection<br>8. Comp stop due to freeze detection (6th detection)<br>9. High pressure sensor is detached<br>10. Low pressure sensor is detached<br>11. Outdoor unit copression ration error<br>12. Outdoor sump down_1 prevetion control<br>13. Compressor down due to low pressure sensor prevention control_1<br>14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection)<br>15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection) | E241<br>E554<br>E450<br>E451<br>E416<br>E559<br>E425<br>E403<br>E301<br>E306<br>E428<br>E413<br>E410<br>E180<br>E181 | ●           | ● | ● |
| EEPROM error  | E162   | ●           | ● | ● |
| EEPROM option error   | E163   | ●           | ● | ● |
| Error due to incompatible indoor unit   | E164   | ●           | ● | ● |

● : On   ● : Flickering   × : Off

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.

### 4-3-4 Number Display Method (Outdoor Unit, MCU, Cable remote control, wall-mount, etc.)

#### ■ How to Display Integrated Error Code

► Meanings of First Alphabetical Character / Number of Error Code

| Displayed alphabet | Explanation   |   |
|--------------------|---|---|
| <i>E</i>           | When displaying Error 101~700   |   |
| <i>P</i>           | When displaying Error 701~800   |   |
| <i>C</i>           | When E206 occurs  | Displays address of subordinate within the set<br>C001 : HUB, C002: FAN, C003: INV1, C004: INV2 |
|                    | When MCU error occurs   | Displays address of MCU<br>Ex) C100: MCU address 0, C101: MCU address 1, C102: MCU address 2    |
| <i>U</i>           | When displaying outdoor unit address<br>Ex) U200: Outdoor unit 1, U201: Outdoor unit 2, U202: Outdoor unit 3, U203: Indoor unit 4 |   |
| <i>A</i>           | When displaying indoor unit address<br>Ex) A000: Indoor unit adress 0, A001: Indoor unit address 1, A002: Indoor unit address 2   |   |

► Order of Error Display

| Classification  | Error display method  | Display Example  |
|---|---|--|
| Display method for error that occurred in indoor unit                                     | Error Number → Indoor unit address →<br>Error Number, repeat display  | E471 → A002 → E471 → A002                              |
| Display method for error that occurred in outdoor unit and other methods of error display | Error Number → Outdoor unit address →<br>Error Number, repeat display | E471 → U200 → E471 → U200<br>E206 → C001 → E206 → C002 |

## ■ Diagnosis and Adjustment (Error Code)

### ▶ Error code related indoor unit

| CODE  | Explanation  |
|-------|--|
| E-101 | Indoor unit communication error. Indoor unit can not receive any data from outdoor unit.   |
| E-102 | Communication error between indoor unit and outdoor unit. Displayed in indoor unit.  |
| E-108 | Error due to repeated address setting (When 2 or more devices has same address within the network)   |
| E-121 | Error on indoor temperature sensor of indoor unit (Short or Open)  |
| E-122 | Error on EVA IN sensor of indoor unit (Short or Open)  |
| E-123 | Error on EVA OUT sensor of indoor unit (Short or Open)   |
| E-128 | EVA IN temperature sensor of indoor unit is detached from EVA IN pipe  |
| E-129 | EVA OUT temperature sensor of indoor unit is detached from EVA OUT pipe  |
| E-130 | Heat exchanger in/out sensors of indoor unit are detached  |
| E-135 | RPM feedback error of indoor unit's cleaning fan   |
| E-151 | Error due to opened EEV of indoor unit (2nd detection)   |
| E-152 | Error due to closed EEV of indoor unit (2nd detection)   |
| E-153 | Error on floating switch of indoor unit (2nd detection)  |
| E-154 | RPM feedback error of indoor unit  |
| E-161 | Mixed operation mode error of indoor unit; When outdoor unit is getting ready to operate in cooling (or heating) and some of the indoor unit is trying to operate in heating (or cooling) mode |
| E-162 | EEPROM error of MICOM (Physical problem of parts/circuit)  |
| E-163 | Indoor unit's remote controller option input is Incorrect or missing.<br>Outdo or unit EEPROM data error   |
| E-180 | Simultaneous opening of cooling/heating MCU SOL V/V (1st detection)  |
| E-181 | Simultaneous opening of cooling/heating MCU SOL V/V (2nd detection)  |
| E-185 | Cross wiring error between communication and power cable of indoor unit  |
| E-186 | Connection error or problem on SPi   |
| E-190 | No temperature changes in EVA IN during pipe inspection or changes in temperature is seen in indoor unit with wrong address  |
| E-191 | No temperature changes in EVA OUT during pipe inspection or changes in temperature is seen in indoor unit with wrong address   |
| E-198 | Error due to disconnected thermal fuse of indoor unit  |

## ■ Diagnosis and Adjustment (Error Code)

▶ Error code related to the Communications / Settings / HW (cont.)

| CODE  | Explanation   |
|-------|---|
| E-201 | Communication error between indoor and outdoor units (installation number setting error, repeated indoor unit address, indoor unit communication cable error)                         |
| E-202 | Communication error between indoor and outdoor units (Communication error on all indoor unit, outdoor unit communication cable error)   |
| E-203 | Communication error between main and sub outdoor units  |
| E-205 | Communication error on all PBA within the outdoor unit C-Box, communication cable error   |
| E-206 | E206-C001: HUB PBA communication error / E206-C002: FAN PBA communication error<br>E206-C003: INV1 PBA communication error / E206-C004: INV2 PBA communication error                  |
| E-211 | When single indoor unit uses 2 MCU ports that are not in series.  |
| E-212 | If the rotary switch (on the MCU) for address setting of the indoor unit has 3 or more of the same address  |
| E-213 | When total number of indoor units assigned to MCU is same as actual number of installed indoor units but there is indoor unit that is not installed even though it is assigned on MCU |
| E-214 | When number of MCU is not set correctly on the outdoor unit or when two or more MCU was installed some of them have the same address  |
| E-215 | When two different MCU's have same address value on the rotary switch   |
| E-216 | When indoor unit is not installed to a MCU port but the switch on the port is set to On.  |
| E-217 | When indoor unit is connected to a MCU port but indoor unit is assigned to a MCU and the switch on the port is set to Off   |
| E-218 | When there's at least one or more actual number of indoor unit connection compared to number of indoor units assigned to MCU  |
| E-219 | Error on temperature sensor located on MCU intercooler inlet (Short or Open)  |
| E-220 | Error on temperature sensor located on MCU intercooler outlet (Short or Open)   |
| E-221 | Error on outdoor temperature sensor of outdoor unit (Short or open)   |
| E-231 | Error on COND OUT temperature sensor of main outdoor unit (Short or Open)   |
| E-241 | COND OUT sensor is detached   |
| E-251 | Error on discharge temperature sensor of compressor 1 (Short or Open)   |
| E-257 | Error on discharge temperature sensor of compressor 2 (Short or Open)   |
| E-262 | Discharge temperature sensor of compressor 1 is detached from the sensor holder on the pipe   |
| E-263 | Discharge temperature sensor of compressor 2 is detached from the sensor holder on the pipe   |
| E-266 | Top sensor of compressor 1 is detached  |
| E-267 | Top sensor of compressor 2 is detached  |
| E-269 | Suction temperature sensor is detached from the sensor holder on the pipe   |
| E-276 | Error on top sensor of compressor 1 (Short or Open)   |
| E-277 | Error on top sensor of compressor 2 (Short or Open)   |
| E-291 | Refrigerant leakage or error on high pressure sensor (Short or Open)  |
| E-296 | Refrigerant leakage or error on low pressure sensor (Short or Open)   |
| E-308 | Error on suction temperature sensor (Short or Open)   |

## ■ Diagnosis and Adjustment (Error Code)

▶ Error code related to the Communications / Settings / HW (cont.)

| CODE  | Explanation  |
|-------|--|
| E-311 | Error on temperature sensor of double layer pipe/liquid pipe(sub heat exchanger) (Short or Open)           |
| E-321 | Error on EVI (ESC) IN temperature sensor (Short or Open)   |
| E-322 | Error on EVI (ESC) OUT temperature sensor (Short or Open)  |
| E-323 | Error on suction sensor 2 (Short or Open)  |
| E-346 | Error due to operation failure of Fan2   |
| E-347 | Motor wire of Fan2 is not connected  |
| E-348 | Lock error on Fan2 of outdoor unit   |
| E-353 | Error due to overheated motor of outdoor unit's Fan2   |
| E-355 | Error due to overheated IPM of Fan2  |
| E-361 | Error due to operation failure of inverter compressor 2  |
| E-364 | Error due to over-current of inverter compressor 2   |
| E-365 | V-limit error of inverter compressor 2   |
| E-366 | Error due to over voltage /low voltage of inverter PBA2  |
| E-367 | Error due to unconnected wire of compressor 2  |
| E-368 | Output current sensor error of inverter PBA2   |
| E-369 | DC voltage sensor error of inverter PBA2   |
| E-374 | Heat sink temperature sensor error of inverter PBA2  |
| E-378 | Error due to overcurrent of Fan2   |
| E-385 | Error due to input current of inverter 2   |
| E-386 | Over-voltage/low-voltage error of Fan2   |
| E-387 | Hall IC connection error of Fan2   |
| E-389 | V-limit error on Fan2 of compressor  |
| E-393 | Output current sensor error of Fan2  |
| E-396 | DC voltage sensor error of Fan2  |
| E-399 | Heat sink temperature sensor error of Fan2   |
| E-400 | Error due to overheat caused by contact failure on IPM of Inverter PBA2                                    |
| E-407 | Compressor operation stop due to high pressure protection control  |
| E-410 | Compressor operation stop due to low pressure protection control or refrigerant leakage                    |
| E-416 | Compressor operation stop due to discharge temperature protection control                                  |
| E-425 | Phase reversal or phase failure (3Ø outdoor unit wiring, R-S-T-N ), connection error on 3 phase input      |
| E-428 | Compressor operation stop due abnormal compression ratio   |
| E-438 | EVI (ESC) EEV leakage or internal leakage of intercooler or incorrect connector insertion of EVI (ESC) EEV |
| E-439 | Error due to refrigerant leakage   |
| E-440 | Heating mode restriction due to high air temperature   |
| E-441 | Cooling mode restriction due to low air temperature  |
| E-442 | Refrigerant charging restriction in heating mode when air temperature is over 15 °C                        |
| E-443 | Operation prohibited due to low pressure   |
| E-445 | CCH is deatched  |
| E-446 | Error due to operation failure of Fan1   |

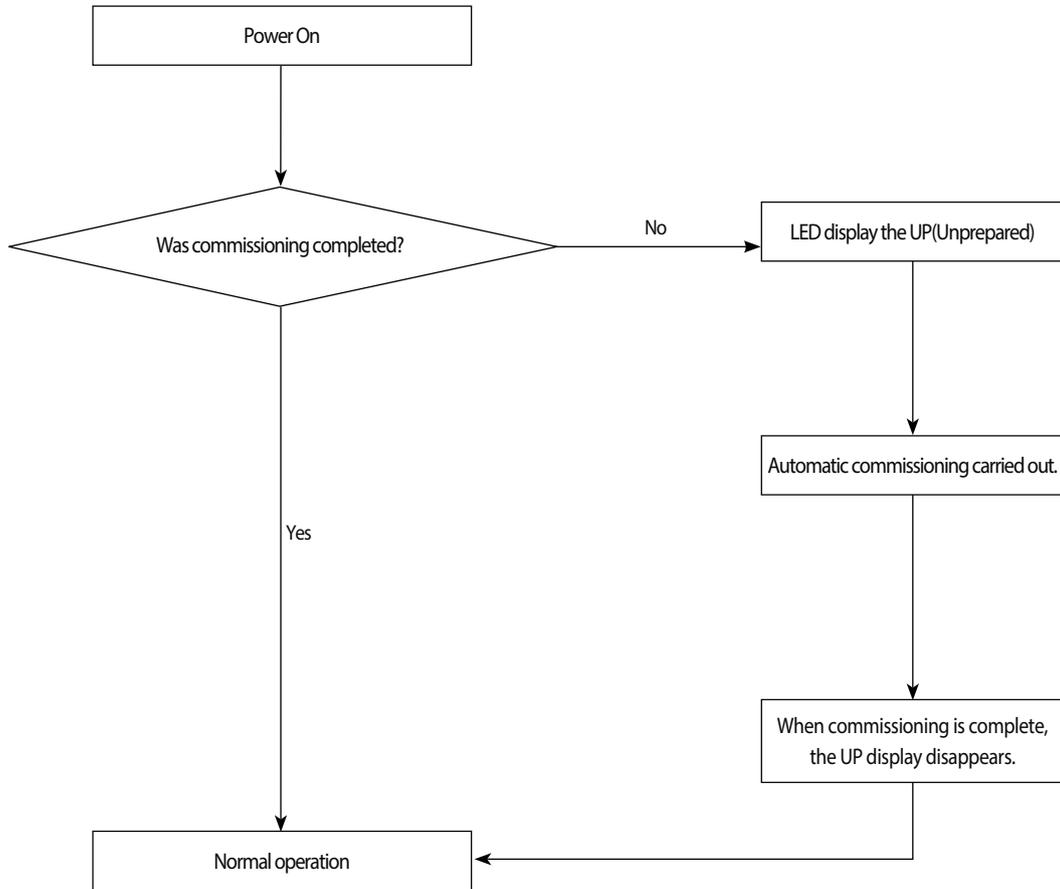
## ■ Diagnosis and Adjustment (Error Code)

▶ Error code related to the Communications / Settings / HW (cont.)

| CODE  | Explanation  |
|-------|--|
| E-447 | Motor wire of Fan1 is not connected  |
| E-448 | Lock error on Fan1   |
| E-452 | Error due to ZPC detection circuit problem or power failure  |
| E-453 | Error due to overheated motor of outdoor unit's Fan1   |
| E-455 | Error due to overheated IPM of Fan1  |
| E-461 | Error due to operation failure of inverter compressor 1  |
| E-462 | Compressor stop due to full current control or error due to low current on CT2   |
| E-464 | Error due to over-current of inverter compressor 1   |
| E-465 | V-limit error of inverter compressor 1   |
| E-466 | Error due to over voltage /low voltage of inveter PBA1   |
| E-467 | Error due to unconnected wire of compressor 1  |
| E-468 | Output current sensor error of inverter PBA1   |
| E-469 | DC voltage sensor error of inver PBA1  |
| E-474 | Heat sink temperature sensor error of inverter PBA1  |
| E-478 | Error due to overcurrent of Fan1   |
| E-485 | Error due to input current of inverter 1   |
| E-486 | Error due to over voltage/low voltage of Fan   |
| E-487 | Hall IC error of Fan1  |
| E-489 | V-limit error on Fan1 of compressor  |
| E-493 | Output current sensor error of Fan1  |
| E-496 | DC voltage sensor error of Fan1  |
| E-499 | Heat sink temperature sensor error of Fan1   |
| E-500 | Error due to overheat caused by contact failure on IPM of Inverter PBA1  |
| E-503 | Error due to alert the user to check if the service valve is closed  |
| E-504 | Error due to self diagnosis of compressor operation  |
| E-505 | Error due to self diagnosis of high pressure sensor  |
| E-506 | Error due to self diagnosis of low pressure sensor   |
| E-560 | Outdoor unit's option switch setting error (when inappropriate option switch is on)  |
| E-563 | Error due to module installation of indoor unit with old version (Micom version needs to be checked)   |
| E-573 | Error due to using single type outdoor unit in a module installation   |
| E-702 | Error due to closed EEV of indoor unit (1st detection)   |
| E-703 | Error due to opened EEV of indoor unit (1st detection)   |
| UP    | Trial operation incompleted (UnPrepared) - It will be cleared when trial operation was executed for 1 hour or when automatic inspection is completed |

## 4-4 Appropriate Measures for Different Symptom

### 4-4-1 Outdoor Unit Operation Flow



#### Commissioning if it is not running - UP is displayed

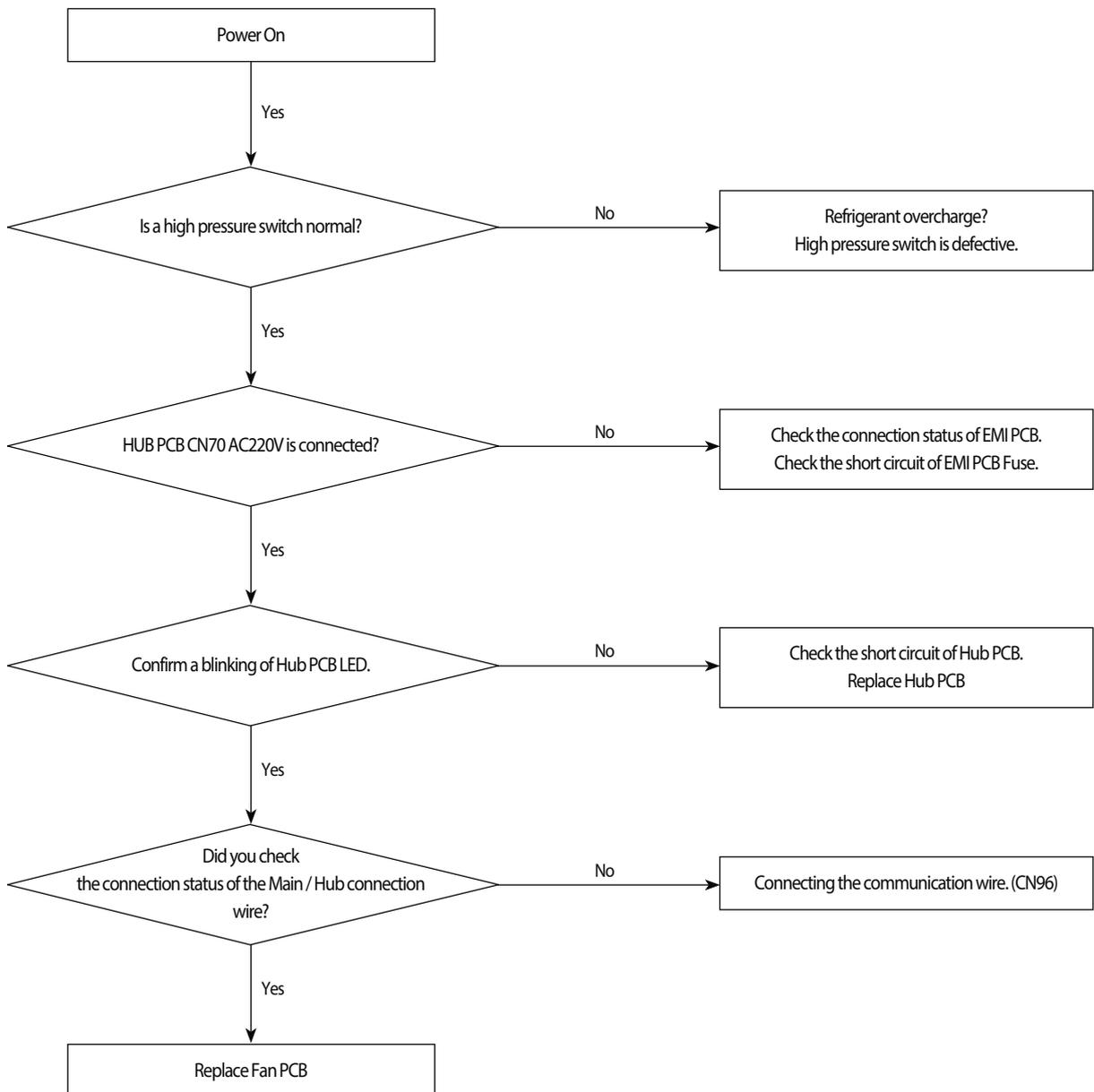
Prior to starting the air conditioning operation after the initial installation and automatic commissioning is carried out. This process, the stable operation to protect the system and verify the defect of the product.

1. Tracking is complete and after the initial installation, if you do not have a history of commissioning is completed, UP will be displayed.
2. Execute the automatic commissioning by Tact Switch.
3. UP display disappears after commissioning is complete, normal operation is possible.
4. Automatic commissioning is completed, if there is a history, normal operation execution immediately.

### 4-4-2 Main PCB has no power phenomenon

|                      |  |
|----------------------|--|
| Outdoor unit display | Main PCB has no power phenomenon (7-seg does not blink)  |
| Judgment Method      | Hub PCB power and connection wire to detect.   |
| Cause of problem     | <ul style="list-style-type: none"> <li>· HUB PCB connector wire defects and the connection is not.</li> <li>· Main PCB defective.</li> <li>· Hub PCB defective.</li> <li>· High pressure switch operation</li> </ul> |

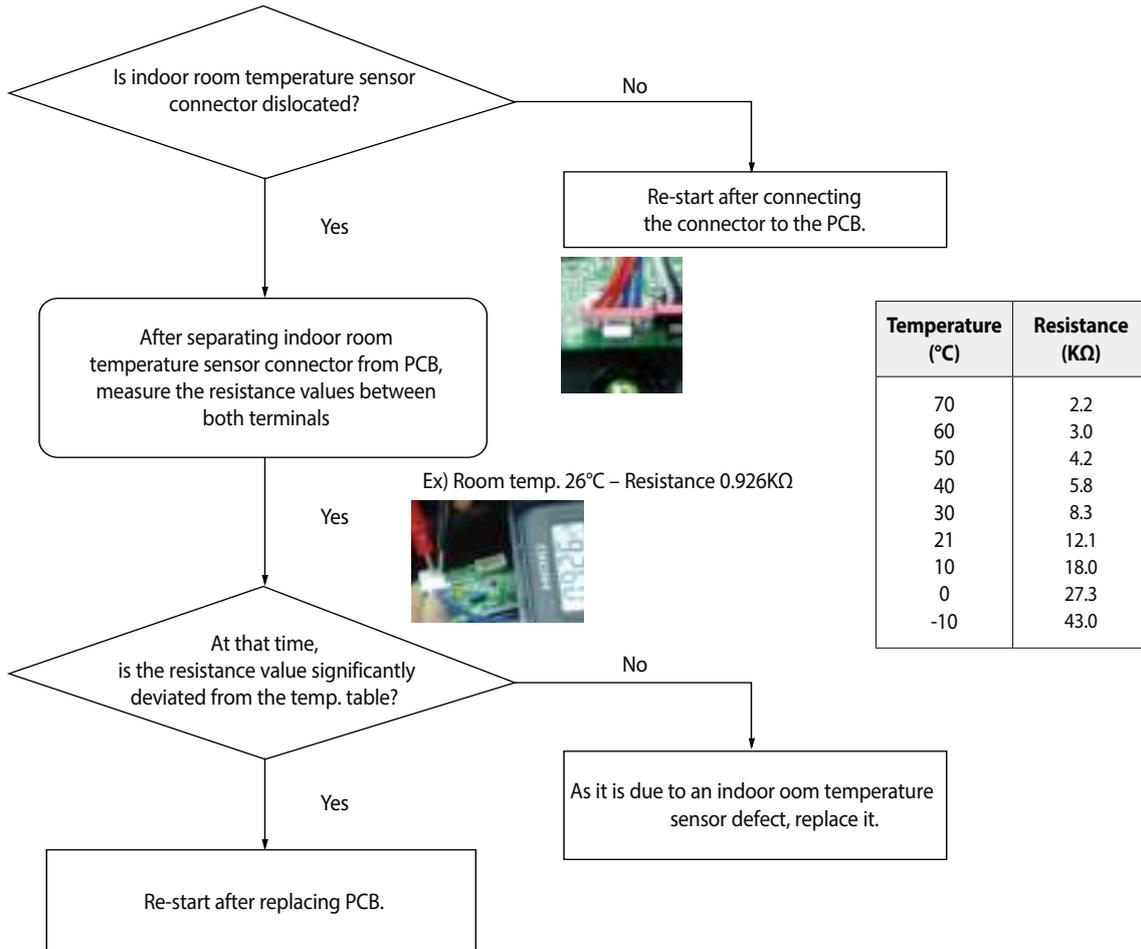
1. Cause of problem



### 4-4-3 Indoor Unit ROOM sensor Error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E 121 → A xxx (xxx: The address of the error occurred indoor unit)            |
| Indoor unit display  | ×(Operation) ● (Timer) ×(Fan) ×(Filter) ×(Defrost)                            |
| Criteria             | • Refer to how to determine below   |
| Cause of problem     | • The room temperature sensor of No. XXX indoor unit has defective OPEN/SHORT |

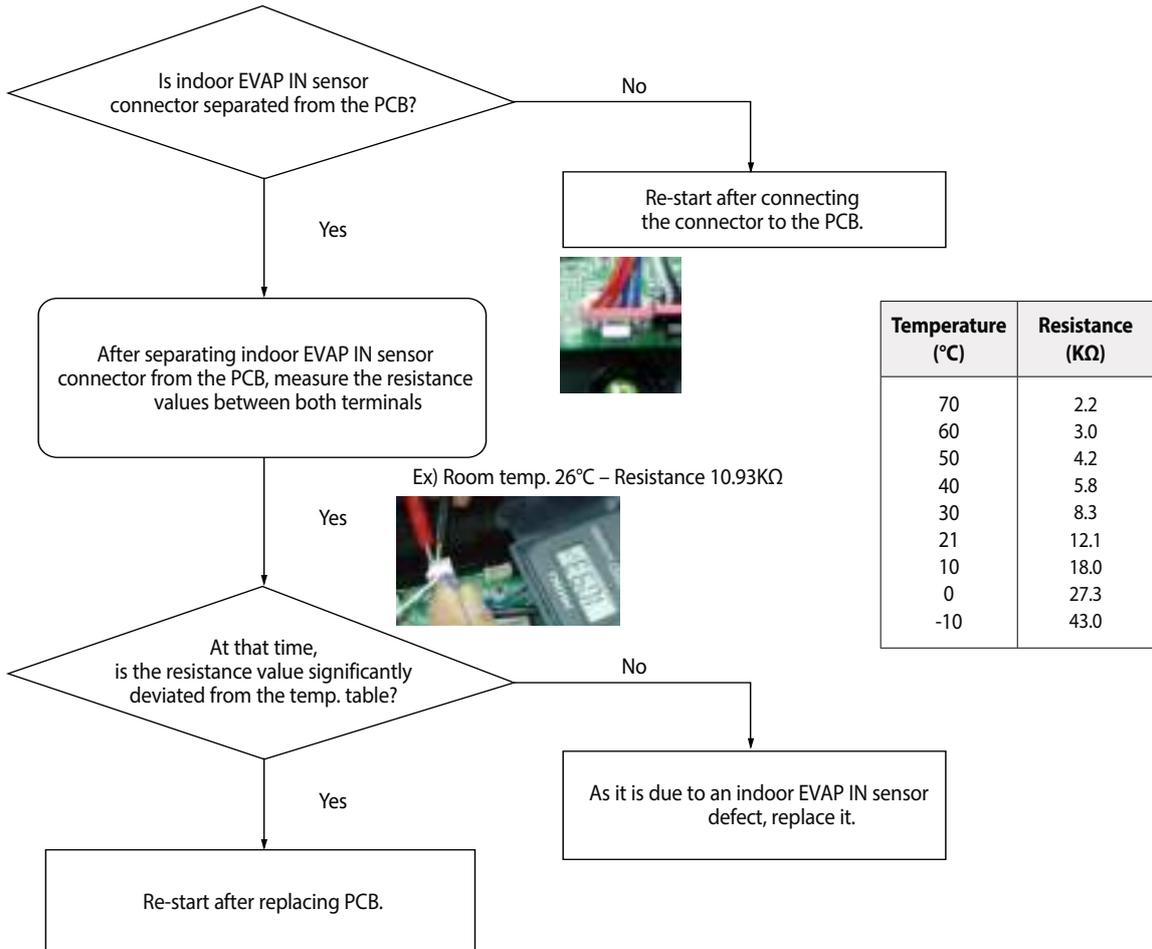
1. How to check



### 4-4-4 Indoor unit EVAP IN sensor Error (Open/Short)

|                      |  |
|----------------------|--|
| Outdoor unit display | <i>E 122</i> ↔ <i>A</i> xxx (xxx: The address of the error occurred indoor unit) |
| Indoor unit display  | ● (Operation) ● (Timer) ×(Fan) ×(Filter) ×(Defrost)                              |
| Criteria             | • Refer to how to determine below  |
| Cause of problem     | • The EVAP IN sensor of No. XXX indoor unit has defective OPEN/SHORT             |

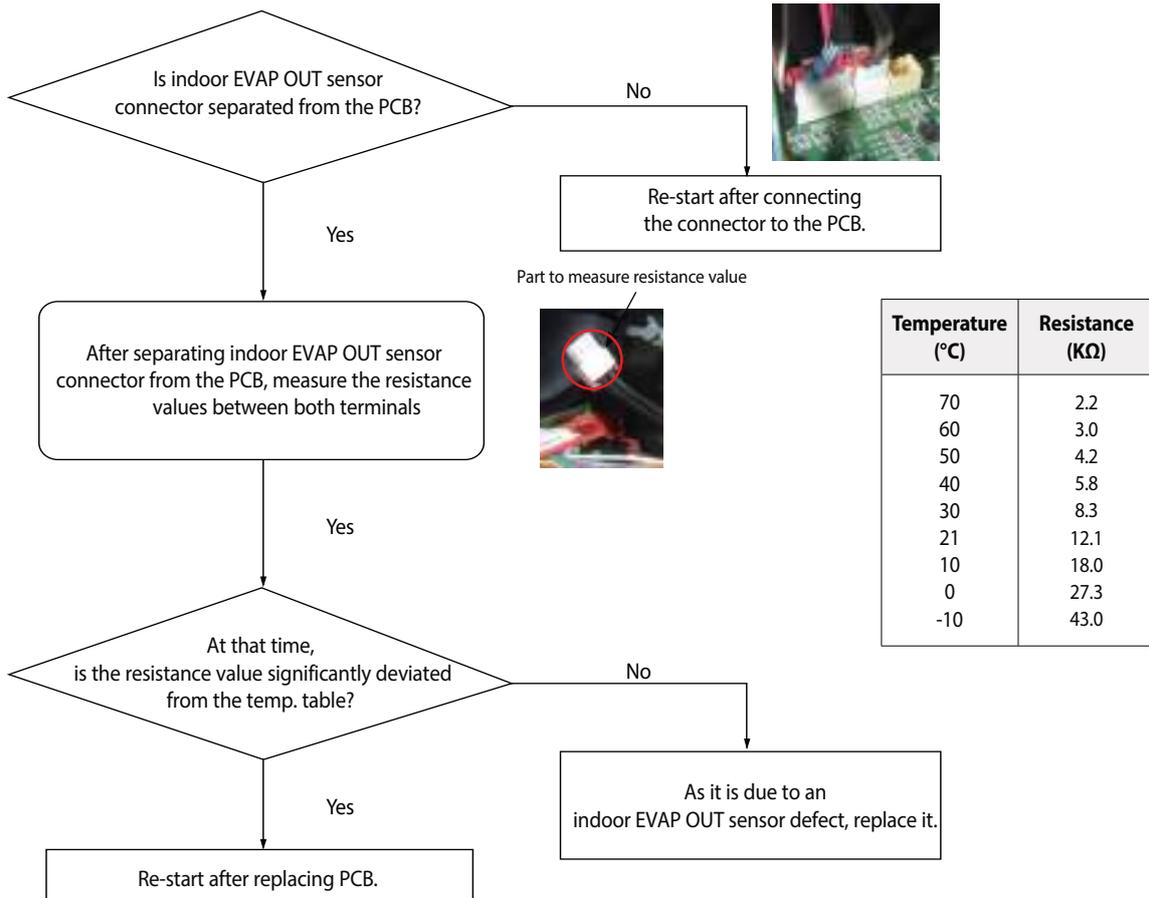
1. How to check



### 4-4-5 Indoor EVAP OUT sensor Error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E 123 → A xxx (xxx: The address of the error occurred indoor unit)    |
| Indoor unit display  | ●(Operation) ●(Timer) ×(Fan) ×(Filter) ×(Defrost)                     |
| Criteria             | • Refer to how to determine below                                     |
| Cause of problem     | • The EVAP out sensor of No. XXX indoor unit has defective OPEN/SHORT |

1. How to check



### 4-4-6 Indoor Heat Exchanger's EVAP IN sensor dislocation error

|                      |   |
|----------------------|---|
| Outdoor unit display | E 128 ↔ A x x x (x x x : The address of the error occurred indoor unit) |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                       |
| Criteria             | • Refer to how to determine below                                       |
| Cause of problem     | • Indoor heat exchanger's EVAP IN piping sensor has been dislocated     |

1. How to diagnose

1) During Cooling Operation

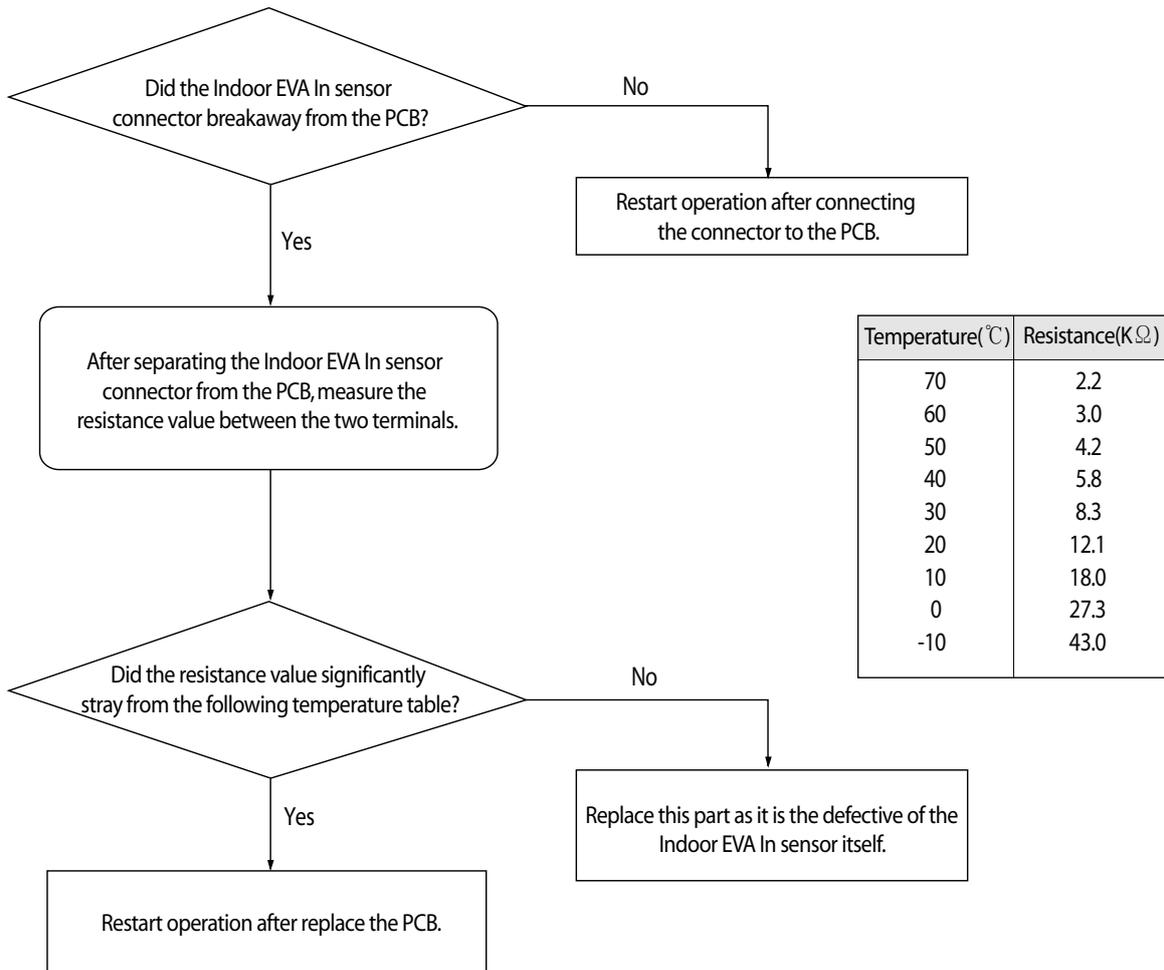
|   |   |
|---|---|
| Tcond, out - Tair, out > 3°C                                | OK  |
| Tair, in - Teva, out > 4°C                                  | NO  |
| Tair, in - Teva, out > 4°C                                  | OK  |
| Compressor in operation & Indoor Unit operation & Thermo On | OK  |
| Error details   | Breakaway Error of Indoor Heat Exchanger EVA Out sensor |

\* Hydro Unit : Before and after the Compressor operation, EVA Out temperature difference is less than 3°C.

2) During Heating operation

|   |   |
|---|---|
| Average high pressure > 25kg/cm <sup>2</sup>                | OK  |
| Average low pressure > 8.5kg/cm <sup>2</sup>                | OK  |
| Tcond, out - Tair, out ≥ 3°C                                | OK  |
| Tair, in - Teva, out ≥ 2°C                                  | NO  |
| Tcond, out - Tair, out < -2°C                               | OK  |
| Compressor in operation & Indoor Unit operation & Thermo On | OK  |
| Error details   | Breakaway Error of Indoor Heat Exchanger EVA Out sensor |

2. How to check



### 4-4-7 Indoor Heat Exchanger's EVA OUT sensor dislocation error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E 129 ↔ A xxx (xxx : The address of the error occurred indoor unit) |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                   |
| Criteria             | • Refer to the judgment method below.                               |
| Cause of problem     | • Breakaway of Indoor Heat Exchanger EVA Out sensor                 |

1. How to diagnose

1) During Cooling Operation

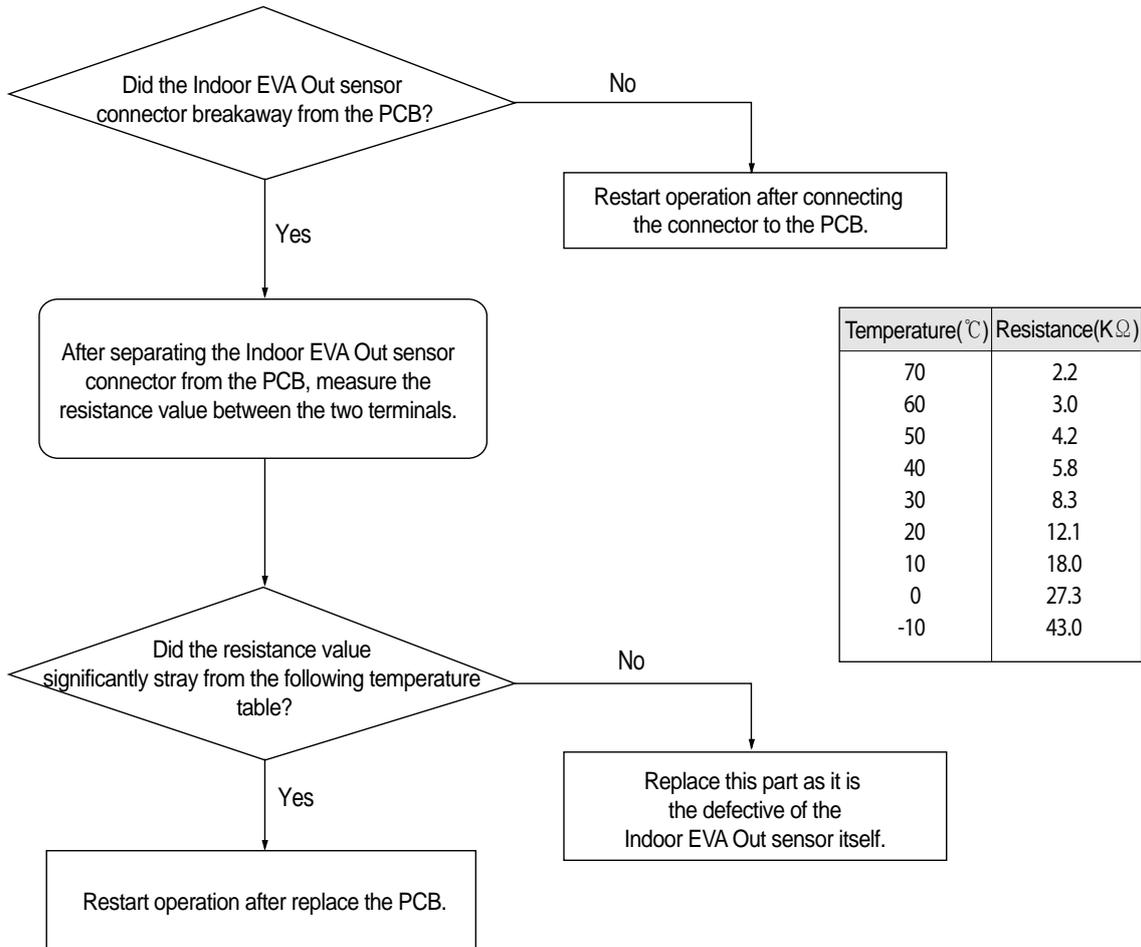
|   |   |
|---|---|
| Tcond, out - Tair, out > 3°C                                | OK  |
| Tair, in - Teva, out > 4°C                                  | NO  |
| Tair, in - Teva, out > 4°C                                  | OK  |
| Compressor in operation & Indoor Unit operation & Thermo On | OK  |
| Error details   | Breakaway Error of Indoor Heat Exchanger EVA Out sensor |

\* Hydro Unit : Before and after the Compressor operation, EVA Out temperature difference is less than 3°C.

2) During Heating operation

|   |   |
|---|---|
| Average high pressure > 25kg/cm <sup>2</sup>                | OK  |
| Average low pressure > 8.5kg/cm <sup>2</sup>                | OK  |
| Tcond, out - Tair, out ≥ 3°C                                | OK  |
| Tair, in - Teva, out ≥ 2°C                                  | NO  |
| Tcond, out - Tair, out < -2°C                               | OK  |
| Compressor in operation & Indoor Unit operation & Thermo On | OK  |
| Error details   | Breakaway Error of Indoor Heat Exchanger EVA Out sensor |

2. How to check



#### 4-4-8 Simultaneous Indoor Heat Exchanger's EVA IN, OUT sensor dislocation error (Open/Short)

1. How to diagnose

1) During Cooling Operation

|  |  |
|--|--|
| Tcond, out - Tair, out > 3°C                                   | OK   |
| Tair, in - Teva, out > 4°C                                     | NO   |
| Tair, in - Teva, out > 4°C                                     | NO   |
| Compressor in operation &<br>Indoor unit operation & Thermo On | OK   |
| Error details  | Simultaneous indoor heat exchanger's<br>EVA IN, OUT sensor dislocation error |

2) During Heating operation

|  |  |
|--|--|
| Average high pressure > 25kg/cm <sup>2</sup>                   | OK   |
| Average low pressure > 8.2kg/cm <sup>2</sup>                   | OK   |
| Teva, out - Tair, out ≥ 3°C                                    | NO   |
| Tair, in - Teva, out ≥ 2°C                                     | NO   |
| Tcond, out - Tair, out < -2°C                                  | OK   |
| Compressor in operation &<br>Indoor unit operation & Thermo On | OK   |
| Error details  | Simultaneous Indoor heat exchanger's<br>EVA IN, OUT sensor dislocation error |

2. How to check

Check if an Indoor heat exchanger's EVA IN, OUT sensor has been dislocated then is correct after assembling.

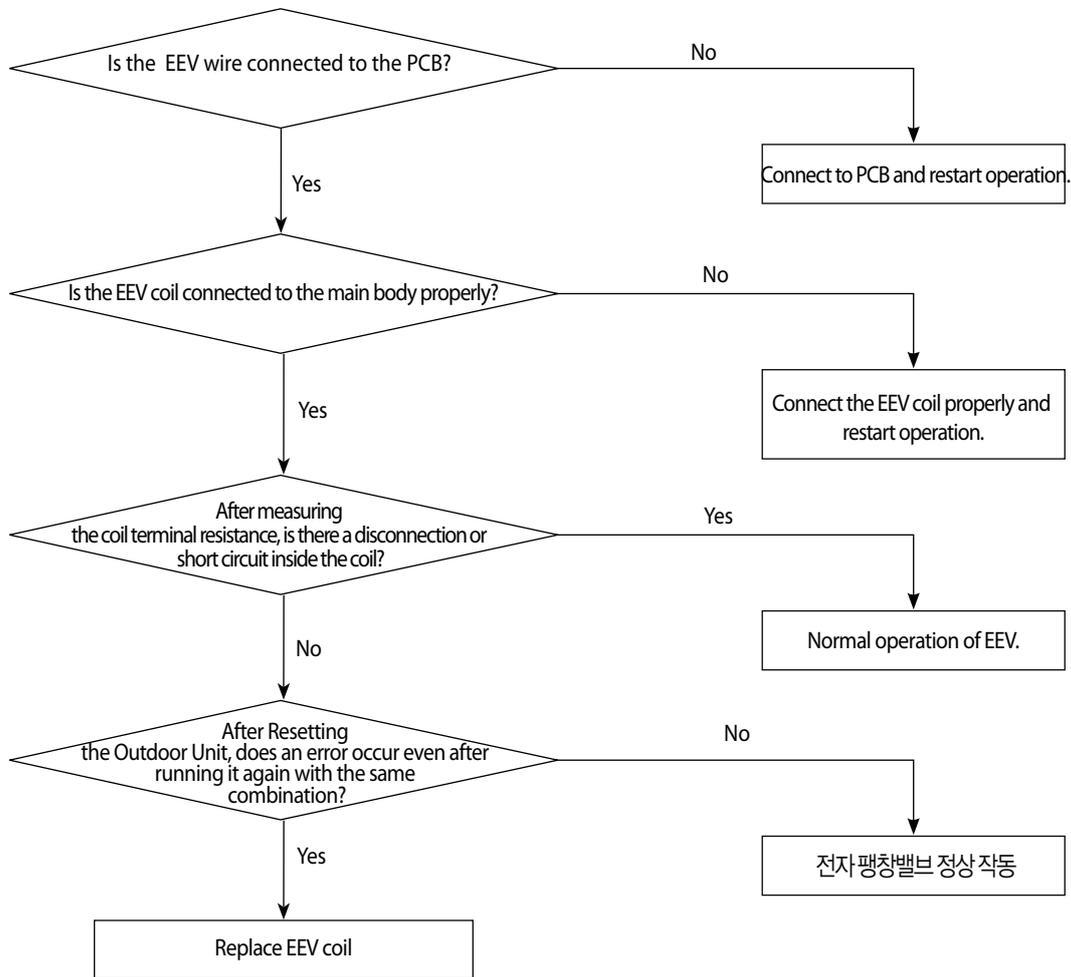
### 4-4-9 Electronic Expansion Valve opening malfunction (2nd stage) - E 135

|                             |   |
|-----------------------------|---|
| <b>Outdoor unit display</b> | 1st detection : P703 (Outdoor Unit display only)<br>2nd detection : <b>E 135</b> → <b>A</b> ××× (××× : The address of the error occurred indoor unit) |
| <b>Indoor unit display</b>  | ×(Operation) ×(Timer) ●(Fan) ×(Filter) ×(Defrost)   |
| <b>Criteria</b>             | • Refer to the judgment method below.   |
| <b>Cause of problem</b>     | • Faulty Indoor Unit EEV action. (Refrigerant will leak into the stopped Indoor Unit.)  |

1. How to diagnose

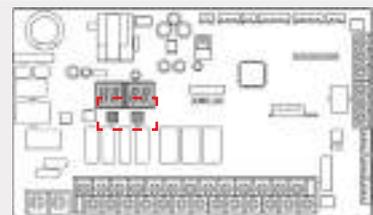
- During Cooling operation, the temperature of the inlet or outlet of stopped Heat Exchanger is kept lower than 0°C for more than 20 minutes without cessation.
- Hydro Unit : During the defrost operation, detection from stop-side Indoor Unit. (Temperature of the inlet of Heat Exchanger is kept lower than 0°C for more than 20 minutes without cessation.)

2. How to check



**\* How to turn off the Hydro Unit E151**

- Hydro Unit PCB k1, k2 switch : At the same time push for more than 4 seconds.
- After resolving the cause of the error, restart operation.  
(Excessive reset operation, can cause damage to the Heat Exchanger.)



#### 4-4-10 Breakdown of EEV (2<sup>nd</sup>)

1. How to diagnose

Detect only on cooling operation. (No detection during heating operation.)

During cooling operation, the temperature of the inlet or outlet ducts of heat exchanger is kept below 0°C for more than 20 minutes without cessation

2. How to check

1) Check if the wire of electronic expansion valve is correctly connected to the PCB of indoor unit.

2) Check if the coil of an electronic expansion valve is correctly plugged into the main body.

3) Check if there is any rust on the surface of the electronic expansion valve with naked eyes then check the resistance between each terminal to find any wire breaking or short circuit.

4) Press the RESET KEY (K3) of the outdoor unit then see if the same error occurs.

- In case of closure problem, operate the indoor unit in which the error has occurred.

- In case of opening problem, please do not operate the indoor unit in which the error has occurred.

5) If there is no problem with the above checkup items, replace the electronic expansion valve of the troubled indoor unit.

- As an electronic expansion valve replacement is tricky work that requires collecting refrigerants in all systems, please check the above items before replacement.

### 4-4-11 Problem with EEV closure (2<sup>nd</sup>)

1. How to diagnose

1) During Cooling operation(Each of the below conditions have to be met for at least 20 minutes.)

|  |   |
|--|---|
| Tcond, out - Tair, out > 3°C                                   | OK  |
| Tair, in - Teva, out > 4°C                                     | NO  |
| Tair, in - Teva, out > 4°C                                     | NO  |
| Compressor in operation &<br>Indoor unit operation & Thermo On | OK  |
| Error details  | Electrically operated valve closure breakdown |

2) During heating operation (must satisfy all conditions below)

- When more than 2 indoor units are on Thermo On heating operation.
- When average high pressure is over 18kg/cm<sup>2</sup>
- 5 minutes after finishing Safety Start
- Keep Indoor units' T(Eva\_In)<T(Room) +3°C and T(Eva\_Out)<T(Room) +3°C condition for more than 5 minutes

2. How to check

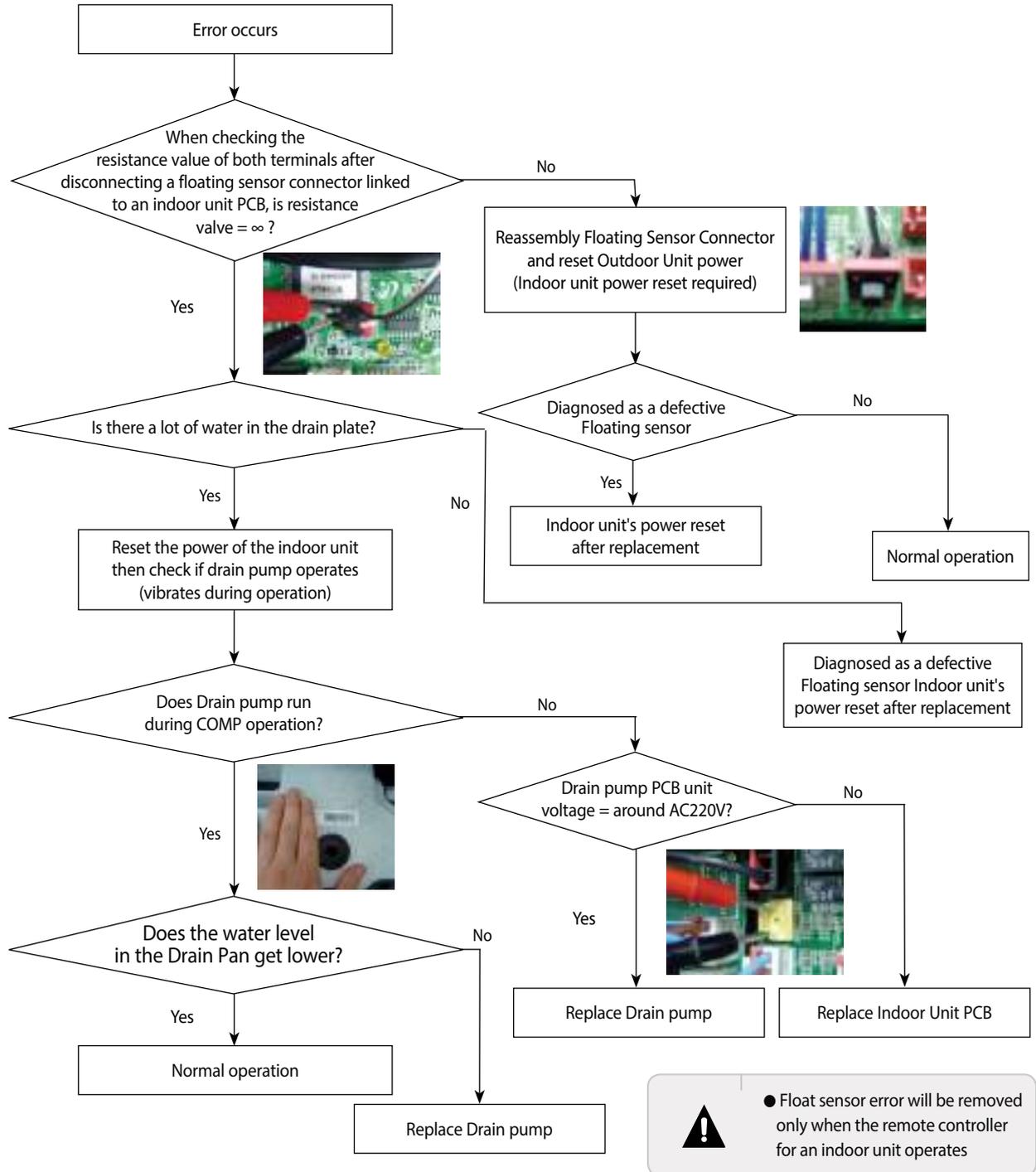
- 1) Check if the wire of electronic expansion valve is correctly connected to the PCB of indoor unit.
- 2) Check if the coil of electronic expansion valve is correctly plugged into the main body.
- 3) Check if there is any rust on the surface of the electronic expansion valve with naked eye then check the resistance between each terminal to find any wire breaking or short circuit.
- 4) Press the RESET KEY (K3) of the outdoor unit then see if the same error occurs.
  - In case of closure problem, operate the indoor unit in which the error has occurred.
  - In case of opening problem, please do not operate the indoor unit in which the error has occurred.
- 5) If there is no problem with the above checkup items, replace the electronic expansion valve of the troubled indoor unit.
  - As electronic expansion valve replacement is tricky work that requires collecting refrigerants in all systems, please check the above items before replacement.

### 4-4-12 E 153 : Detection of Floating Switch of Indoor Unit's Drain Pump

|                      |   |
|----------------------|---|
| Outdoor unit display | E 153 ↔ A ×××(××× : The address of the error occurred indoor unit)  |
| Indoor unit display  | ×(Operation) ×(Timer) ●(Fan) ●(Filter) ×(Defrost)   |
| Criteria             | • Refer to how to determine below   |
| Cause of problem     | • Due to the breakdown of a drain pump of the indoor unit, an increase in the water level in the drainage plate or defective detection sensor |

S To release E153 error, you must reset the power of the indoor unit.

1. How to check



### 4-4-13 The operational error of Indoor Unit's Fan Motor

|                      |  |
|----------------------|--|
| Outdoor unit display | E 154 ↔ A x x x(x x x : The address of the error occurred indoor unit) |
| Indoor unit display  | ×(Operation) ×(Timer) ●(Fan) ×(Filter) ×(Defrost)                      |
| Criteria             | • Refer to how to determine below                                      |
| Cause of problem     | • The operational error of the fan motor of No. XXX indoor unit        |

1. How to diagnose
  - 1) Occurs when RPM valve fails to feedback to MICOM at a PID control-type fan motor
  
2. How to check
  - 1) Check HALL IC connector that carries out feedback of RPM value.
  - 2) If a fan motor operation capacitor is a PCB separating type, check the connection terminal.
  - 3) Check the operational status of the fan motor.
  - 4) If there is no problem with the above checkup items, replace the PCB.

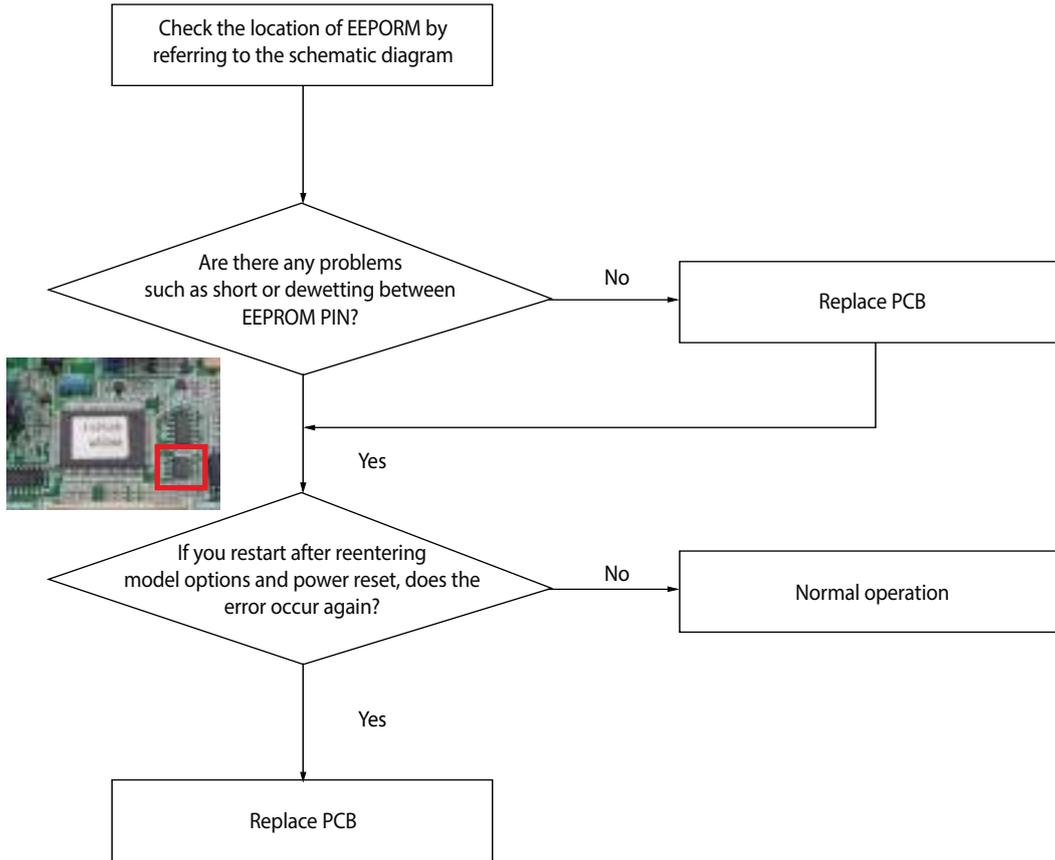
#### **4-4-14 Mixed operation Error (Only applicable to Heat Pump Model/Not to HR model)**

- Mixed operation error is applicable only to Heat Pump Model and not to HR model.
- Mixed operation error is not due to a product problem but is displayed when the operational mode input in an indoor unit is different from current operational status (other indoor unit's operational mode).
- Check the operational mode of outdoor unit or other indoor unit then re-enter or stop the operational mode of the relevant unit.
- If it is necessary to apply a different operational mode to an indoor unit from others, please stop other indoor units then operate the indoor unit.

### 4-4-15 EEPROM error

|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E 162</i>                                      |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost) |
| Criteria             | • Communication failure between EEPROM and MICOM  |
| Cause of problem     | • PCB replacement due to defective EEPROM         |

1. How to check



#### 4-4-16 Option error of the Remote Controller for an Indoor Unit

|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E 163</i>  |
| Indoor unit display  | ●(Operation) ●(Timer) ●(Fan) ●(Filter) ●(Defrost)                               |
| Criteria             | • Display number type of indoor unit – E163 occurs, Lamp type – all lamps flash |
| Cause of problem     | • Missed or erroneous input of remote controller options                        |

- Check relevant remote controller options for each model then enter correct options

#### 4-4-17 Error due to confused use of Fahrenheit and Celsius

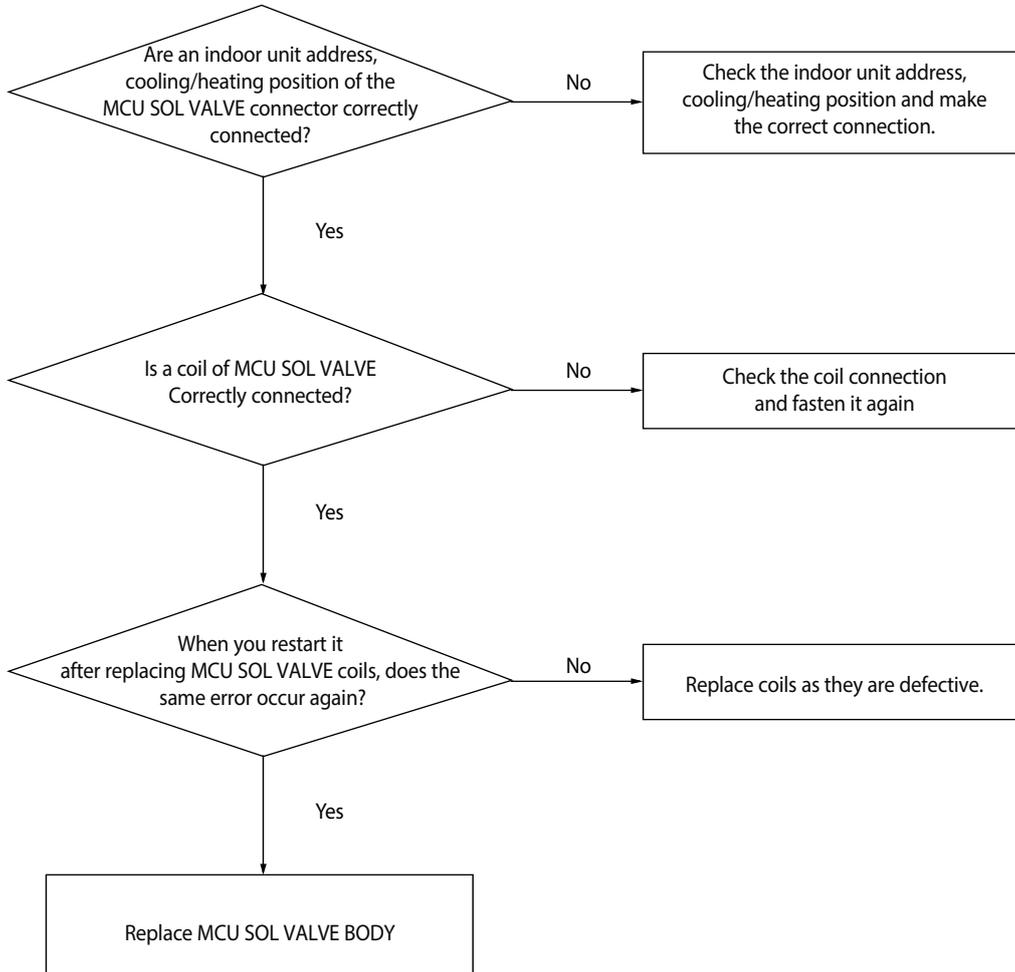
|                      |  |
|----------------------|--|
| Outdoor unit display | <i>E 170</i>   |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)  |
| Criteria             | • Display number type of indoor unit – E170 occurs, Lamp type – all lamps flash<br>• Occurs in an indoor unit with Celsius setting |
| Cause of problem     | • Missed input of remote controller options  |

- Check relevant remote controller options for each model then enter correct options
- As this happens only in a Celsius setting model, it is necessary to reenter option codes for error-free models in a region where Celsius is used.

### 4-4-18 Simultaneous opening of Cooling/heating MCU SOL Valves 1<sup>st</sup>/2<sup>nd</sup>

- During the first detection, as the system restarts after making an automatic stop to check a problem with the system
- During the second detection, please refer to the following check-up methods.

1. How to check



#### 4-4-19 Error due to incorrect Indoor Unit Power/Communication Cable Connection

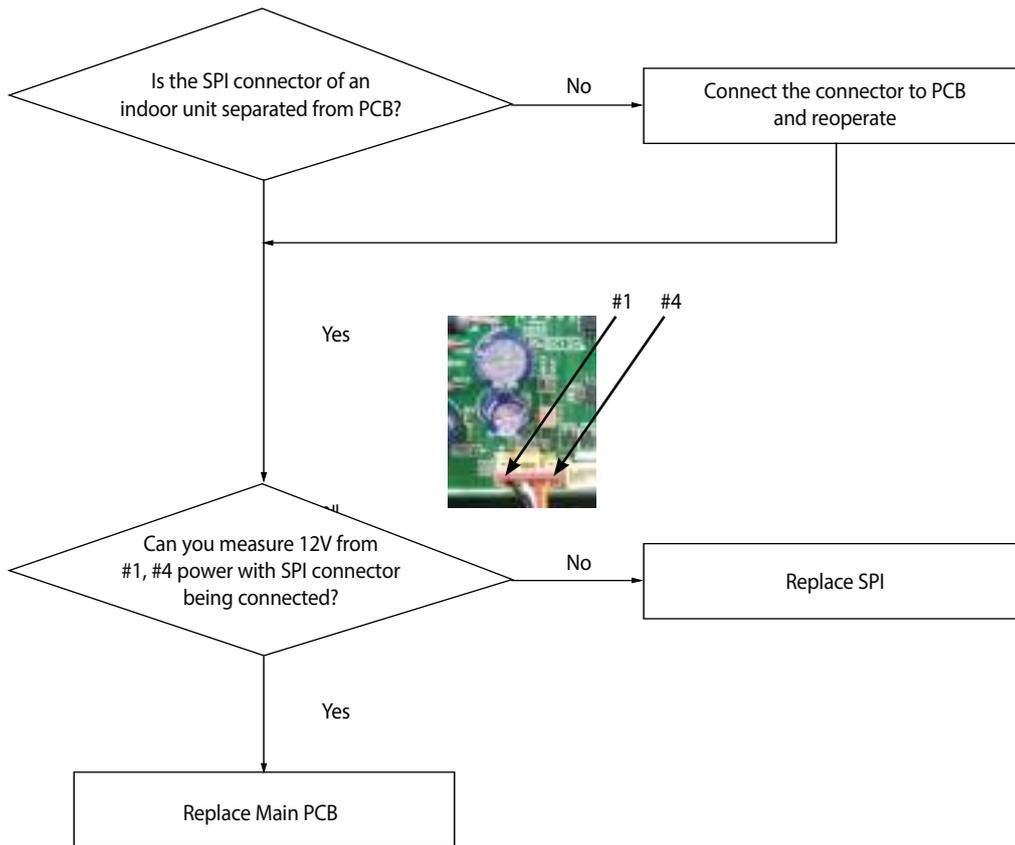
|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E 185</i>  |
| Indoor unit display  | <i>E 185</i> (wall mount type)  |
| Criteria             | • Check for Power input(220V) for the Terminal block(F1/F2).                        |
| Cause of problem     | • Apply power (220V) to the terminal of the indoor unit communication block (F1/F2) |

- Check for disconnected line after turning off the Main power.

### 4-4-20 SPI Feedback Error

|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E 186</i>                                      |
| Indoor unit display  | ●(Operation) ●(Timer) ×(Fan) ●(Filter) ×(Defrost) |
| Criteria             | • Check if the output of SPI Feedback is 12V      |
| Cause of problem     | • SPI defect                                      |

1. How to check



#### 4-4-21 Outdoor Unit Pipe Inspection Error

|                      |   |
|----------------------|---|
| Outdoor Unit Display | <i>E 190</i> : No change of EVA IN or wrong EVAN IN change during pipe inspection.<br><i>E 191</i> : No change of EVA OUT or wrong EVA OUT change during pipe inspection. |
| Indoor Unit Display  | -   |
| Judgment Method      | • Refer to the judgment method below  |
| Special Cause        | • The liquid pipe/gas pipe of the indoor unit is not correctly connected to the port set in MCU.  |

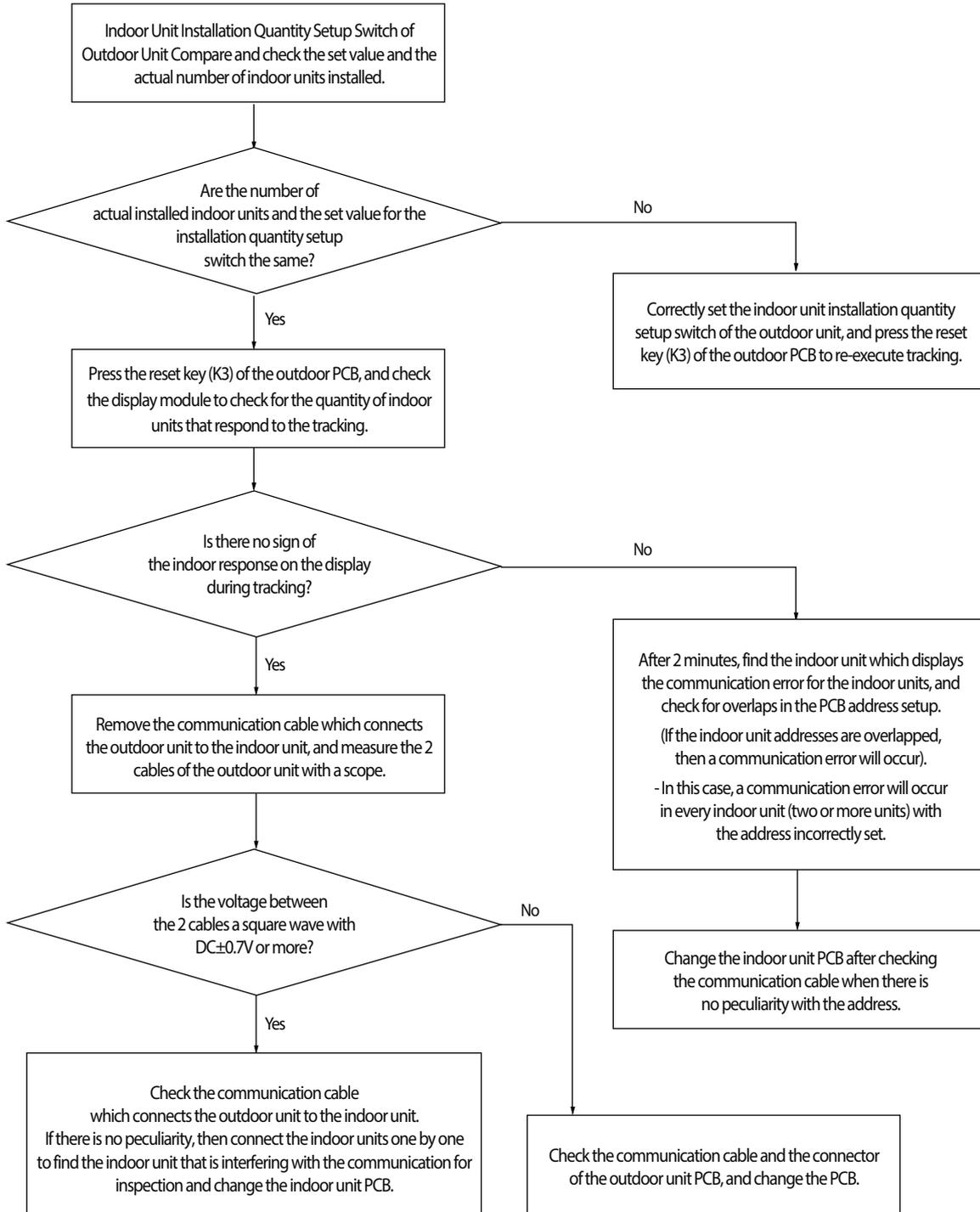
##### 1. Judgment Method

- Check if the indoor address settings are the same for the address of the indoor units connected to each port of the MCU and the address of the indoor units of the relevant MCU ports.
- Check if the indoor unit usage setup switch is turned on for the MCU port connected to the indoor unit.

### 4-4-22 Communication Error between Indoor and Outdoor Units during Tracking

|                      |   |
|----------------------|---|
| Outdoor unit display | E201  |
| Indoor unit display  | ×(Operation) ●(Reservation) ●(Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Communication error between indoor and outdoor units.   |
| Cause of problem     | · Refer to the judgment method below.                     |

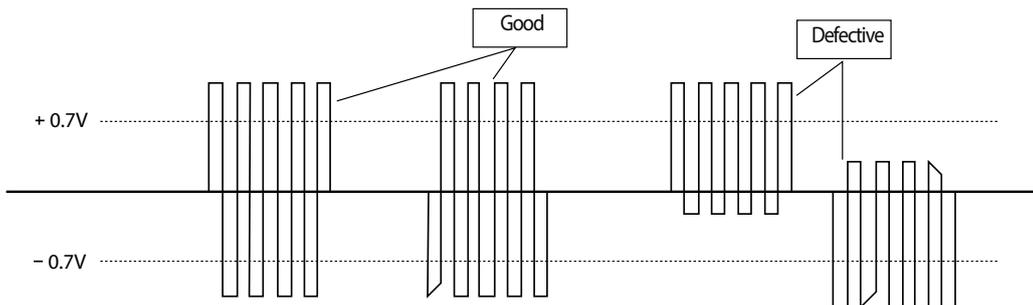
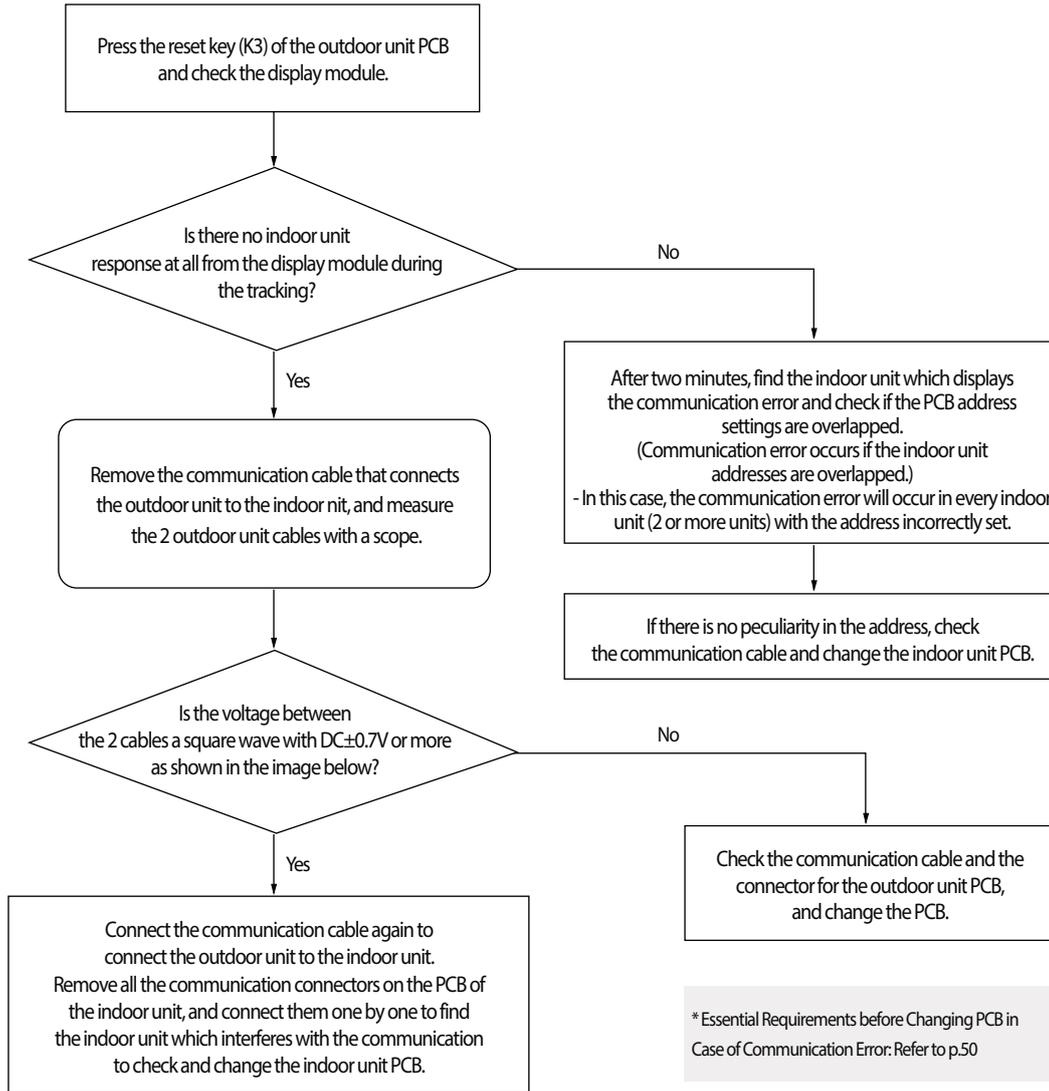
1. Cause of problem



### 4-4-23 Communication Error between Indoor and Outdoor Units after Tracking

|                      |   |
|----------------------|---|
| Outdoor unit display | E202  |
| Indoor unit display  | ×(Operation) ●(Reservation) ●(Blast) ×(Filter) ×(Defrost)   |
| Judgment Method      | · Outdoor unit is unable to communicate for two minutes during operation. (no reception of relocation)                    |
| Cause of problem     | · Communication error between indoor and outdoor units and setup error of indoor unit installation quantity setup switch. |

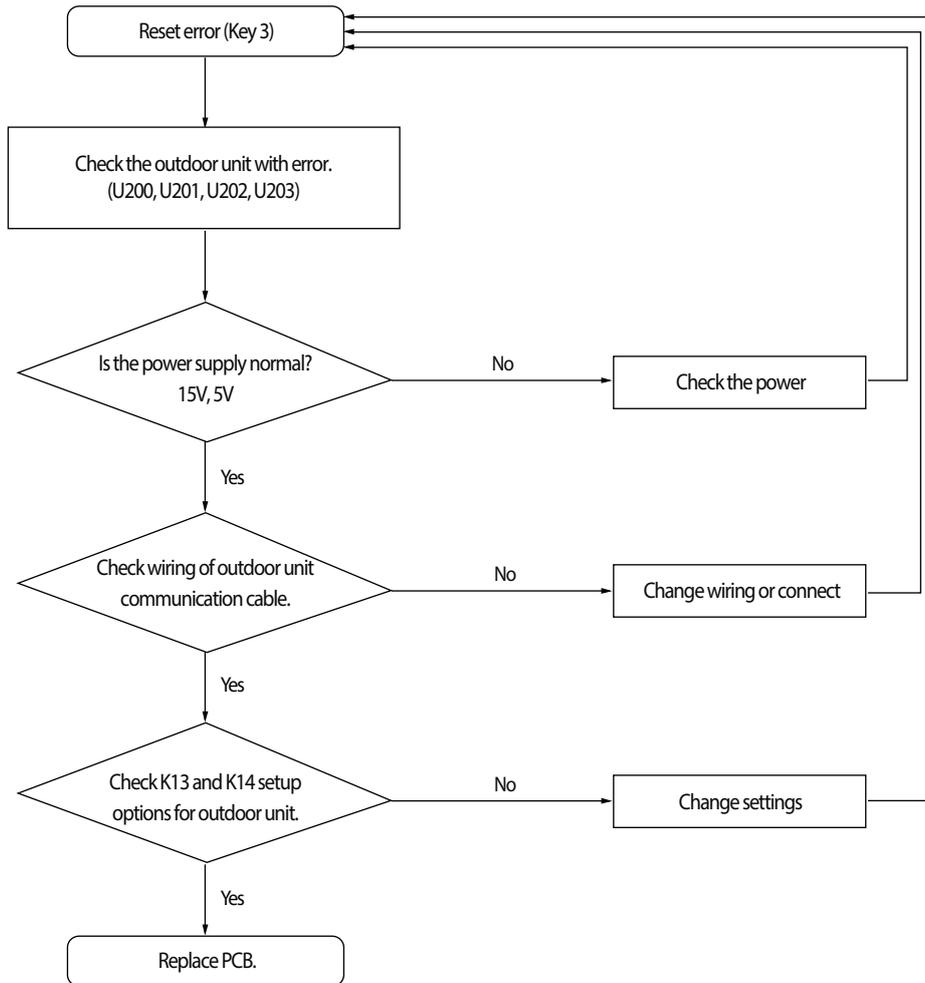
1. Cause of problem



**4-4-24 Communication error between main and sub Unit of outdoor unit or between outdoor units**

|                      |  |
|----------------------|--|
| Outdoor unit display | <i>E203</i>                                  |
| Indoorunit display   | -  |
| Judgment Method      | · Refer to the judgment method below.        |
| Cause of problem     | · Communication error between outdoor units. |

1. Cause of problem

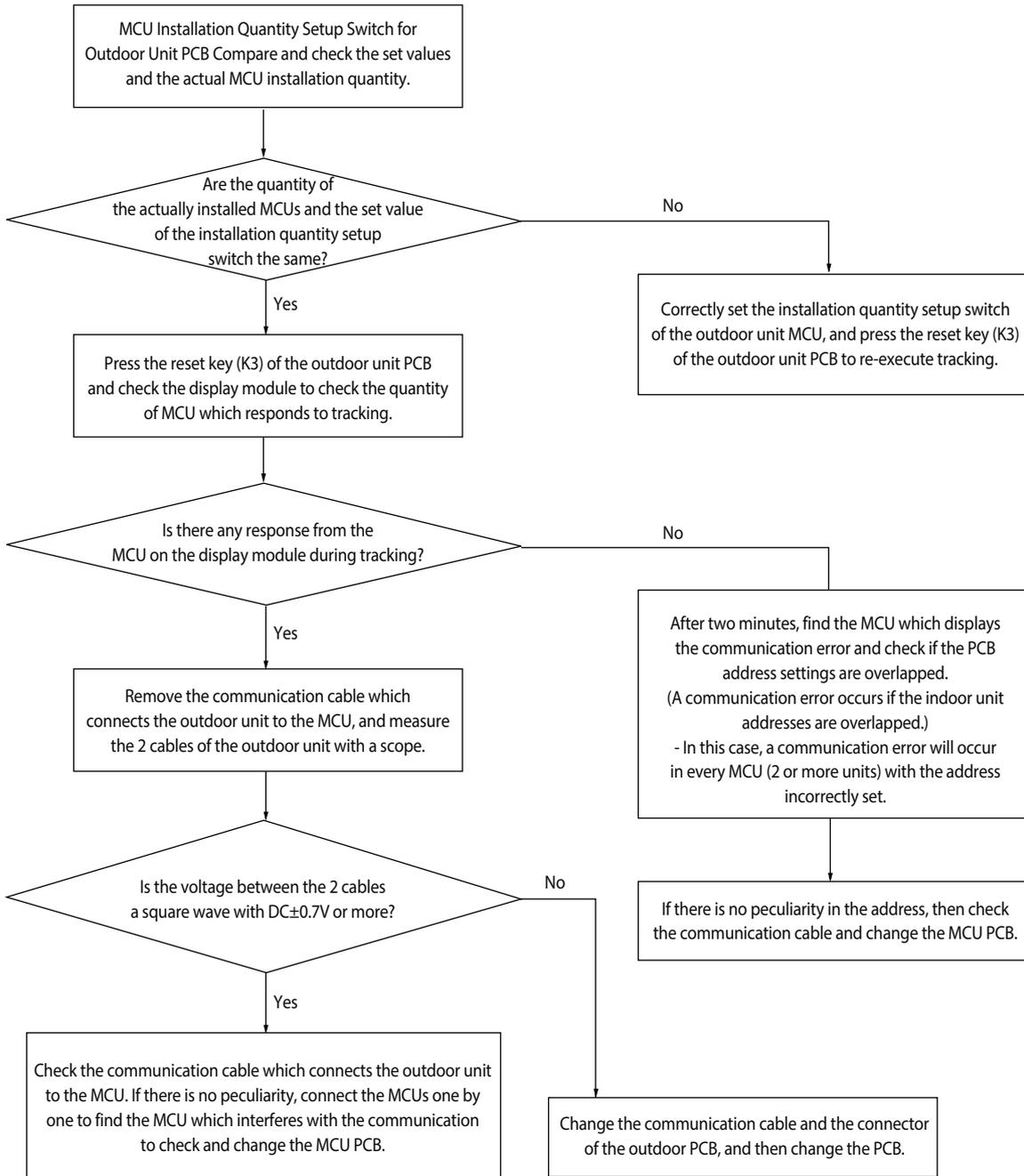


Essential Requirements before Changing PCB in Case of Communication Error: Refer to p.59

### 4-4-25 Communication Error between MCU and Outdoor Unit

|                      |  |
|----------------------|--|
| Outdoor Unit Display | E204   |
| Indoor Unit Display  | -  |
| Judgment Method      | • Communication Error between MCU and outdoor unit |
| Special Cause        | • Reference below                                  |

#### 1. Inspection Method

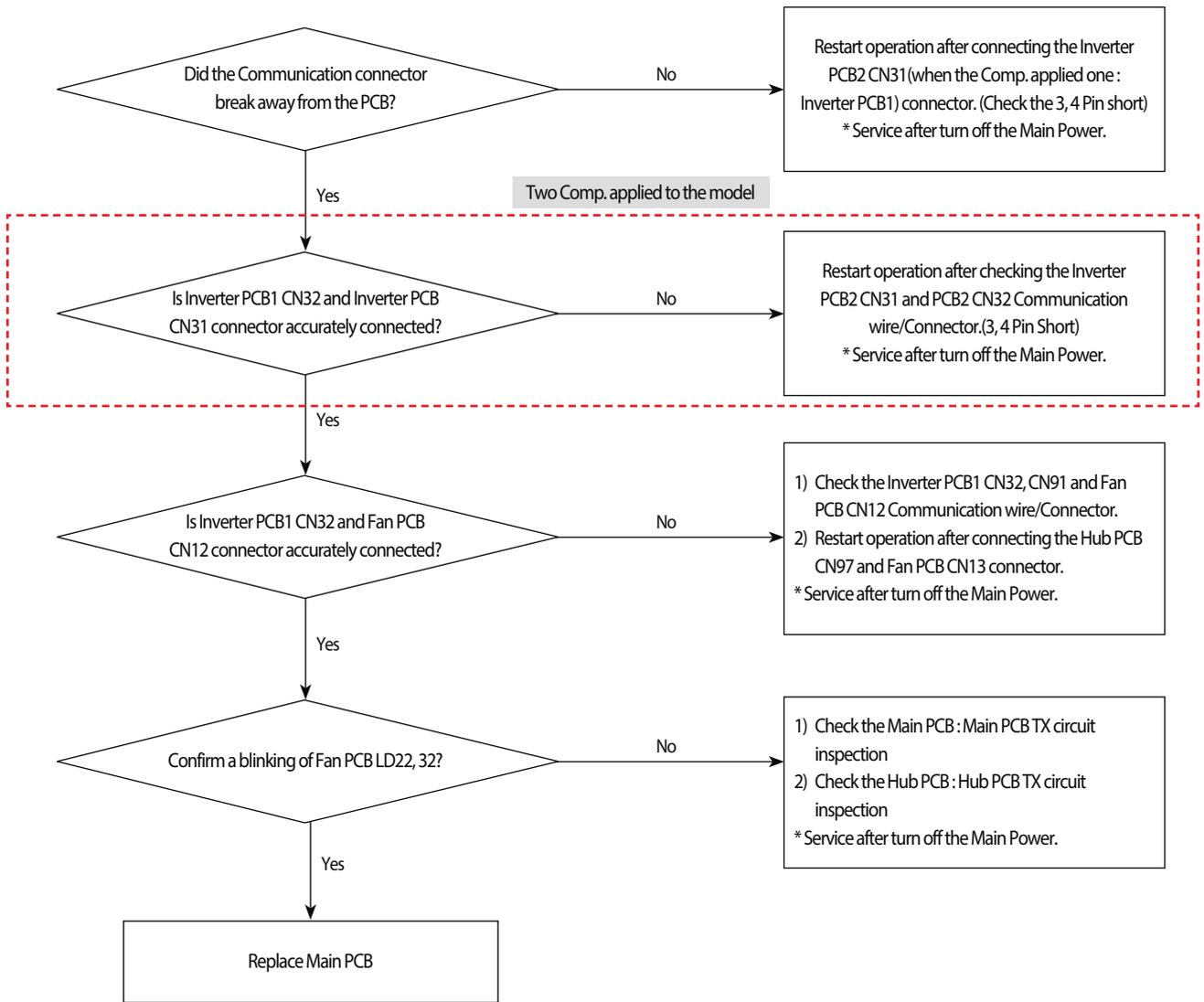


□ Essential Requirements before Changing PCB in Case of Communication Error: Refer to p.4-80

### 4-4-26 Internal Communication error of the Outdoor Unit C-Box

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E205</b>  |
| Indoorunit display   | ×(Operation) ● (Reservation) ● (Blast) ×(Filter) ×(Defrost)                  |
| Judgment Method      | · Communication error between the C-Box PCB                                  |
| Cause of problem     | · Communication wire inside the C-Box is unconnected<br>· Main PCB defective |

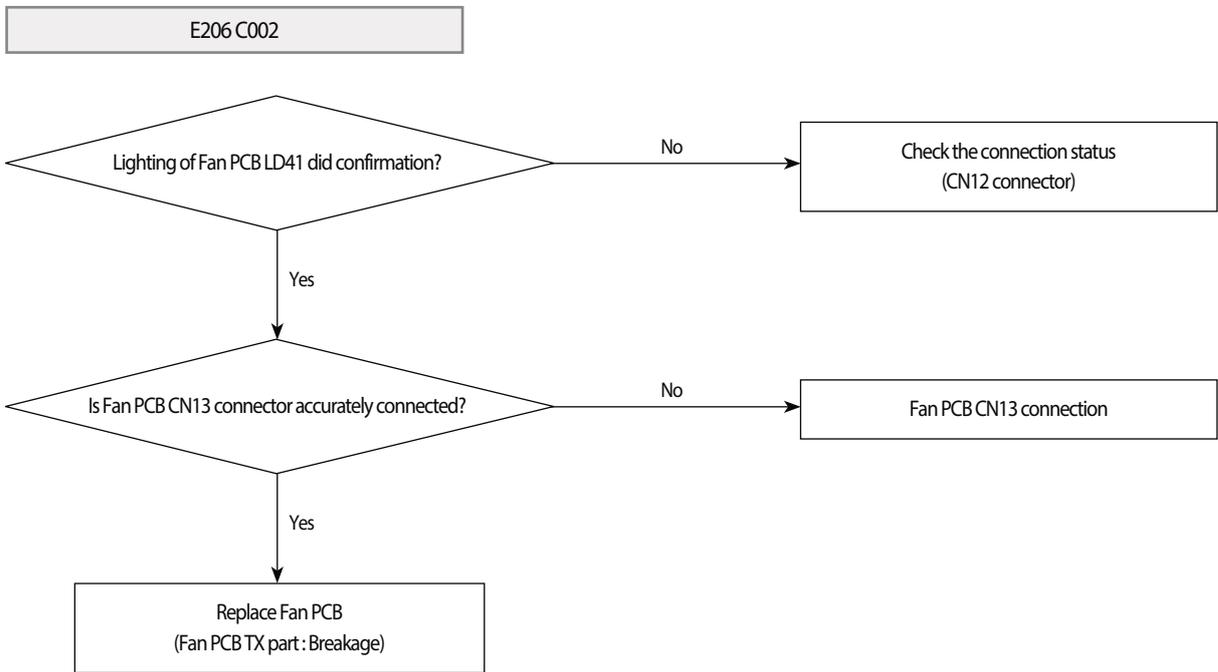
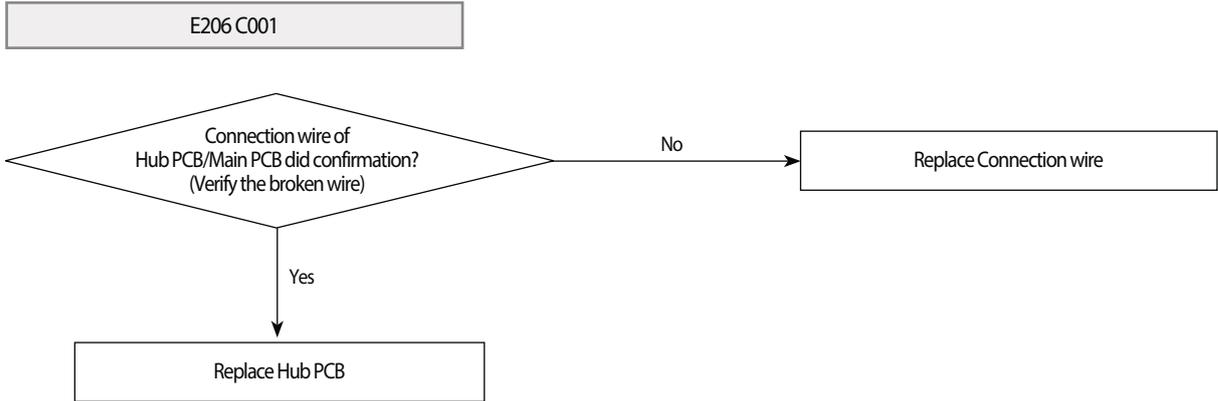
1. Cause of problem



### 4-4-27 Internal PCB Communication error of the Outdoor Unit C-Box

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E206</b>   |
| Indoorunit display   | ×(Operation) ● (Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · PCB does not respond to the invoked Main PCB              |
| Cause of problem     | · C-Box internal Inverter PCB, Fan PCB, Hub PCB defective   |

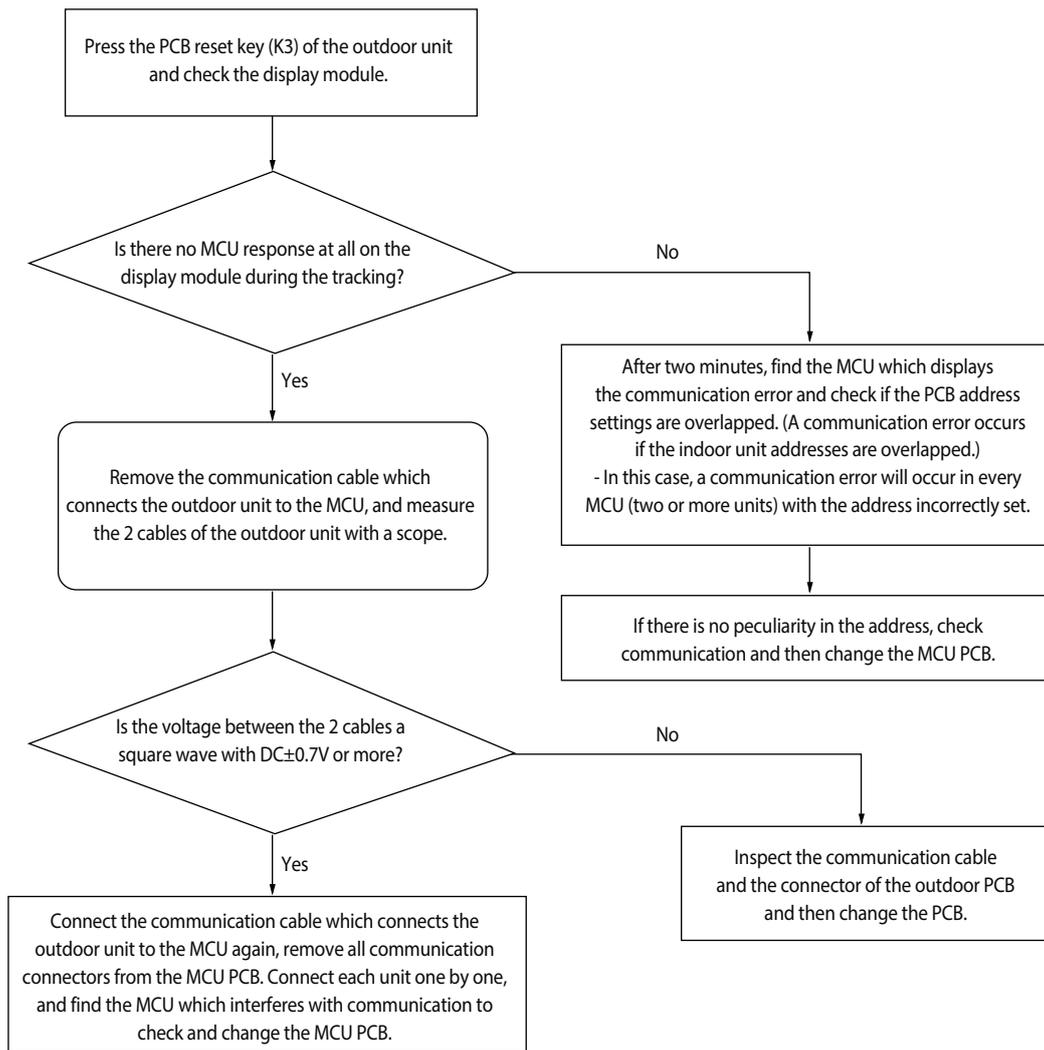
1. Cause of problem



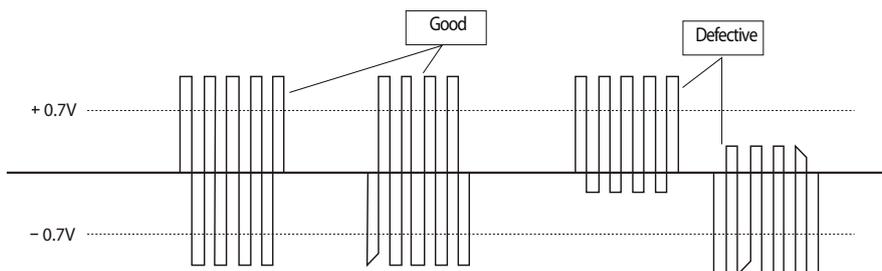
### 4-4-28 Communication Error between MCU and Outdoor Unit after Tracking is Completed

|                      |  |
|----------------------|--|
| Outdoor Unit Display | E2 10  |
| Indoor Unit Display  | -  |
| Judgment Method      | • Outdoor unit is unable to communicate for two or more minutes during operation (no reception of relocation)            |
| Special Cause        | • Communication error between indoor and outdoor units and setup error of indoor unit installation quantity setup switch |

#### 1. Inspection Method



□ Essential Requirements before Changing PCB in Case of Communication Error: Refer to p.4-80

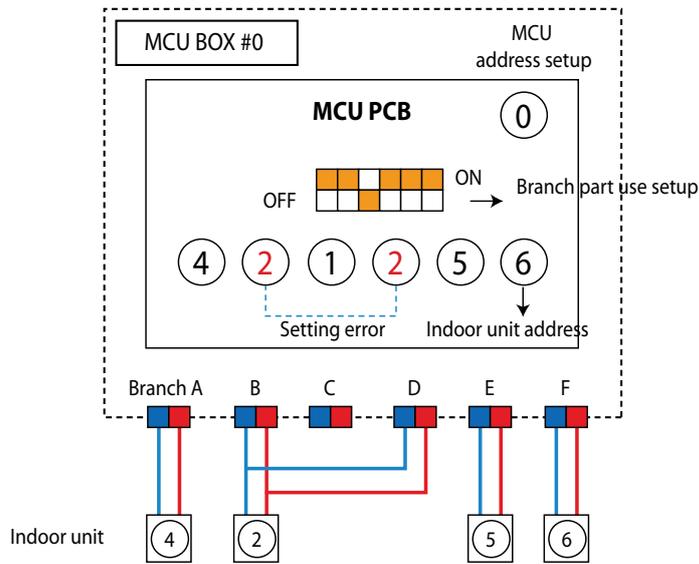


### 4-4-29 MCU branch part setup error – inconsecutive connection with the use of 2 branch parts

|                      |   |
|----------------------|---|
| Outdoor unit display | E211  |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)   |
| Criteria             | • When 2 branch parts are used for one indoor unit without connecting them consecutively. |
| Cause of problem     | • Branch part assembly error  |

1. How to check

Find an MCU that is composed as the following picture to carry out assembly of branch part again. After completing the re-setting, press K3 button on the button to reset or turn it off to restart.

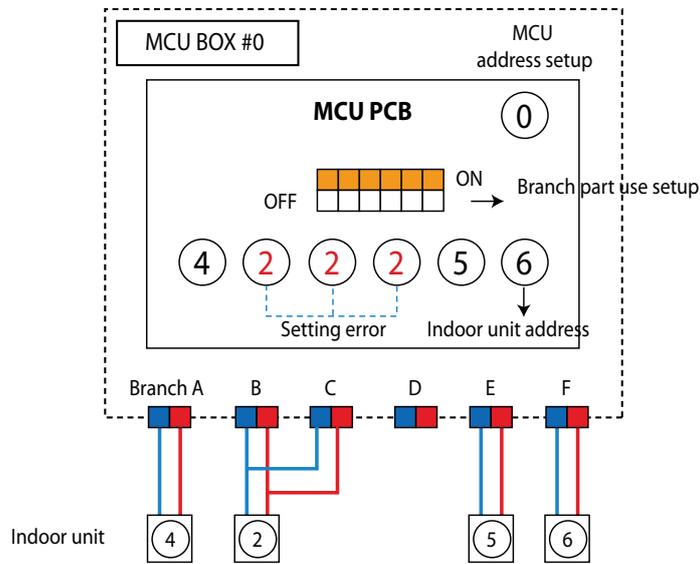


### 4-4-30 MCU branch part setup error – Repeated setup for the same address over 3 times

|                      |   |
|----------------------|---|
| Outdoor unit display | E2 12   |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                 |
| Criteria             | • The same indoor unit address was setup more than 3 times in MCU |
| Cause of problem     | • MCU indoor unit address setting error                           |

1. How to check

Find an MCU that is composed as the following picture to carry out assembly of branch part again. After completing the re-setting, press K3 button on the button to reset or turn it off to restart.

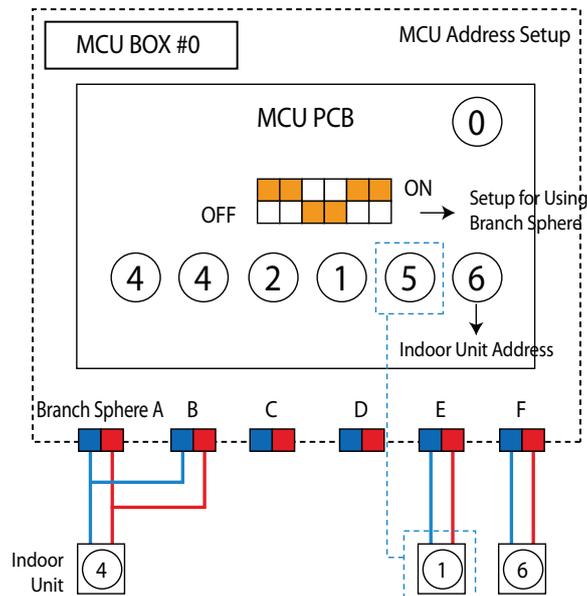


### 4-4-31 MCU branch part setup error – non-installed address setup

|                      |  |
|----------------------|--|
| Outdoor unit display | E2 13  |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                                    |
| Criteria             | • If there is an indoor unit that is not installed among MCU registered indoor units |
| Cause of problem     | • Indoor unit, with the assigned address on MCU, not installed.                      |

1. How to check

Find an MCU that is composed as the following picture to carry out assembly of branch part again. After completing the re-setting, press K3 button on the button to reset or turn it off to restart.



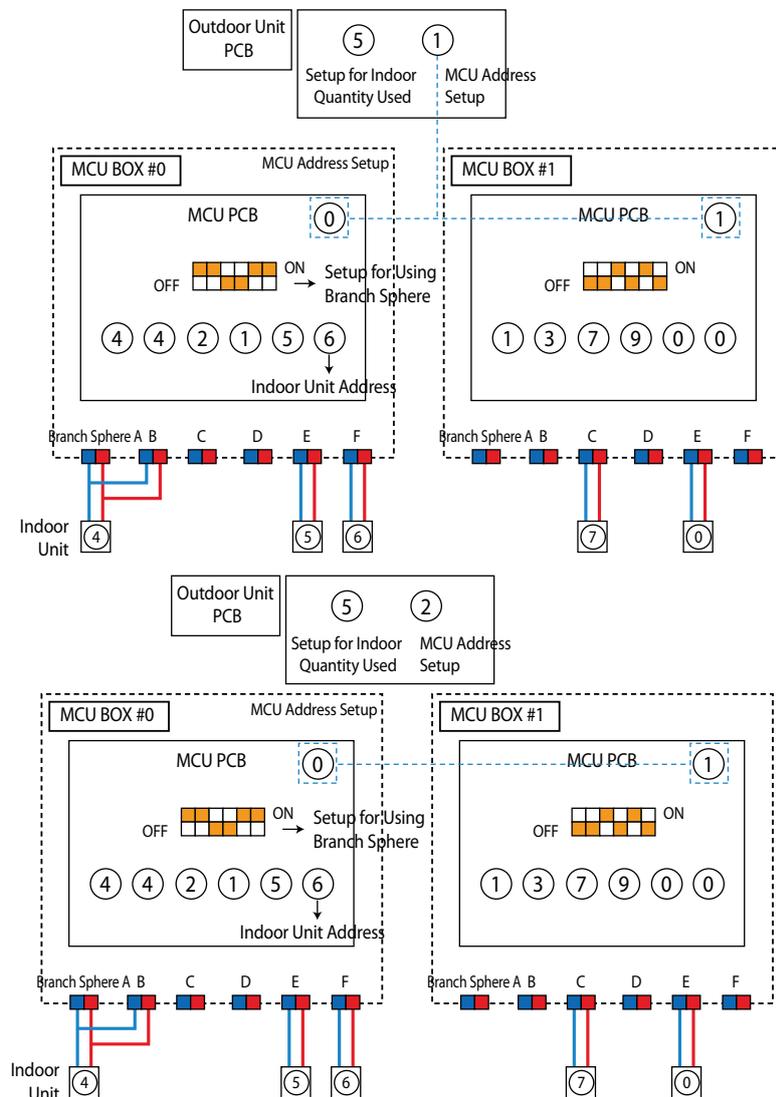
### 4-4-32 Setup Error for MCU Branch part – Setup Error for MCU Quantity Used

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E214  |
| Indoor Unit Display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| Judgment Method      | <ul style="list-style-type: none"> <li>Occurs when the quantity of MCU is incorrectly set by the outdoor unit.</li> <li>Occurs when same addresses are found when two or more MCU are connected.</li> </ul> |
| Special Cause        | <ul style="list-style-type: none"> <li>Outdoor unit MCU setup and same address errors when connecting two or more MCUs .</li> </ul>   |

1. Inspection Method : Re-check the MCU quantity setup switch from the outdoor unit.

Check for overlaps in each MCU address setup switch.

To use, reset by pressing the K3 button of the outdoor unit after the reset is completed, or reset after turning off the power and then turn it on again.



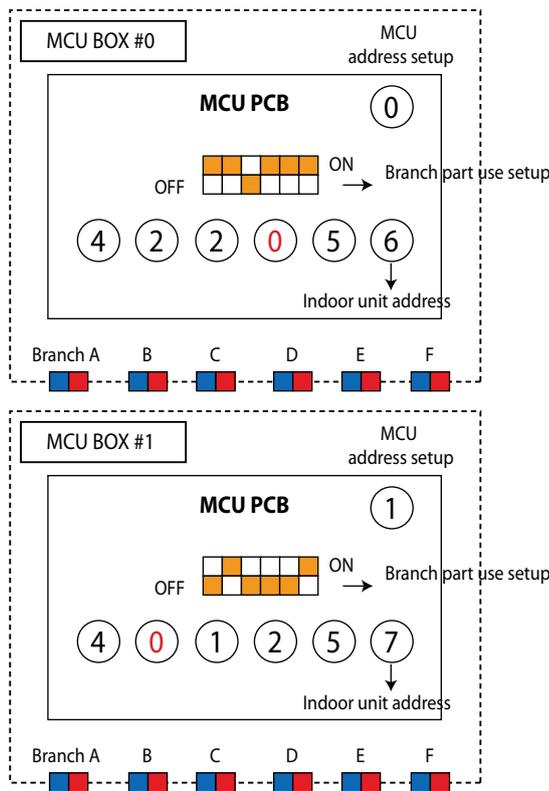
### 4-4-33 MCU branch part setup error – Overlapping Indoor unit Address setup

|                      |  |
|----------------------|--|
| Outdoor unit display | E2 15  |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                            |
| Criteria             | • Occurs when an indoor unit address setup switch in MCU has been overlapped |
| Cause of problem     | • Repeated indoor unit address   |

1. How to check

Check the setup switch for the number of indoor units in MCU

After completing resetting, press the outdoor unit's K3 button to reset or turn off to restart.

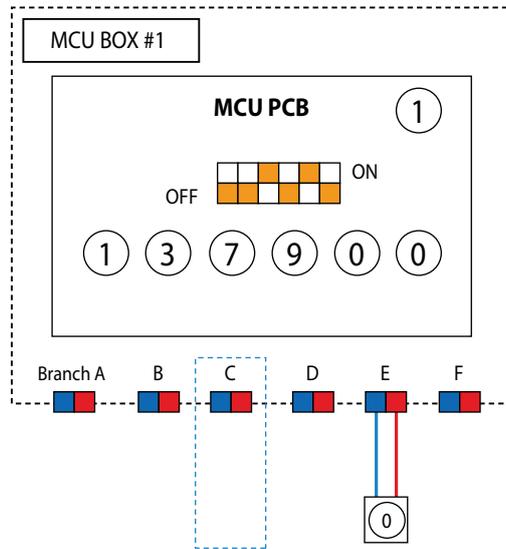


### 4-4-34 MCU branch part setup error – Set as being used without connection to an Indoor unit

|                      |  |
|----------------------|--|
| Outdoor unit display | E2 16  |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                                |
| Criteria             | • Occurs when MCU PIPE is set as being used, yet not connected to an indoor unit |
| Cause of problem     | • Pipe is not installed to the indoor unit with assigned address on MCU          |

1. How to check

Adjust the Dip switch that sets up the use of MCU branch part to 'Not-Used'. After completing resetting, press the outdoor unit's K3 button to reset or turn off to restart.

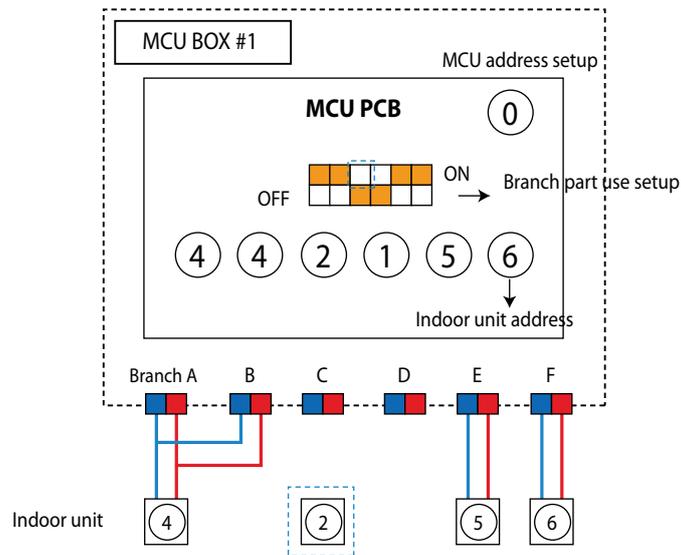


### 4-4-35 MCU branch part setup error – Connect an Indoor unit to a branch part not being used

|                      |  |
|----------------------|--|
| Outdoor unit display | E2 17  |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                      |
| Criteria             | • Occurs when MCU PIPE is turned off, yet an indoor unit is registered |
| Cause of problem     | • Indoor unit connection to the unused branch part                     |

1. How to check

Check the actual use of the branch part. If it is used, turn on the Dip switch for branch part setup. After completing resetting, press the outdoor unit's K3 button to reset or turn off to restart.

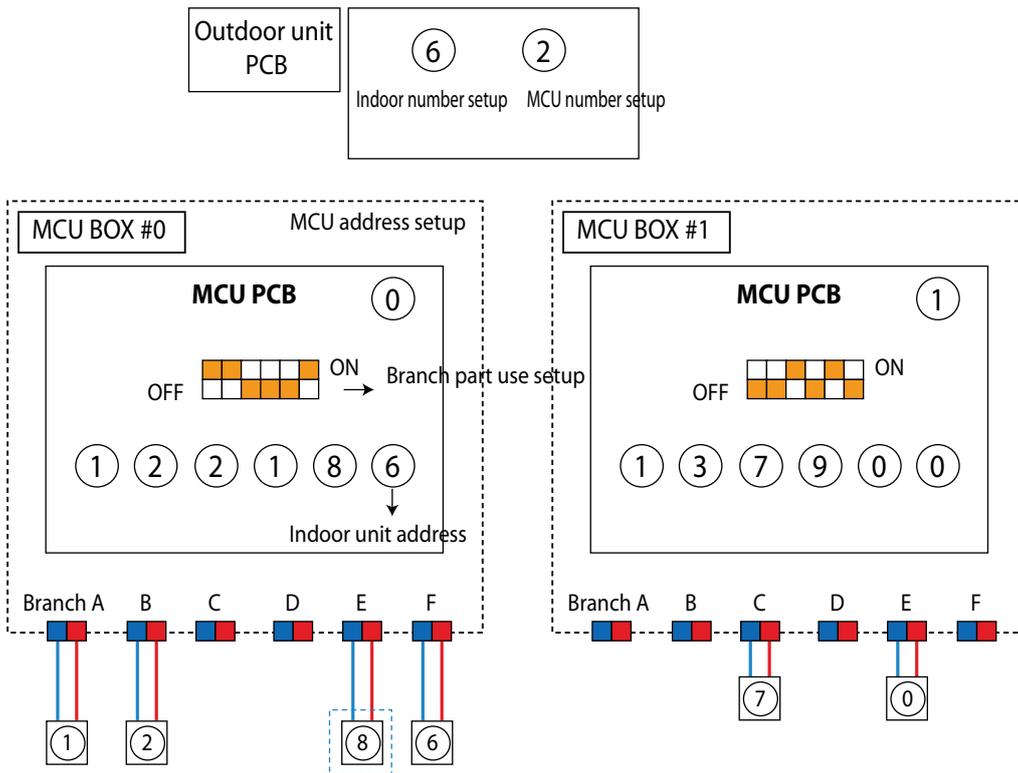


### 4-4-36 MCU branch part setup error – Connect more Indoor units than what is actually set up in MCU

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E2 18</b>  |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)                                 |
| Criteria             | • Occurs when the number of indoor units installed exceeds that registered in MCU |
| Cause of problem     | • Number of indoor units exceeds number of indoor units entered on MCU setting    |

1. How to check

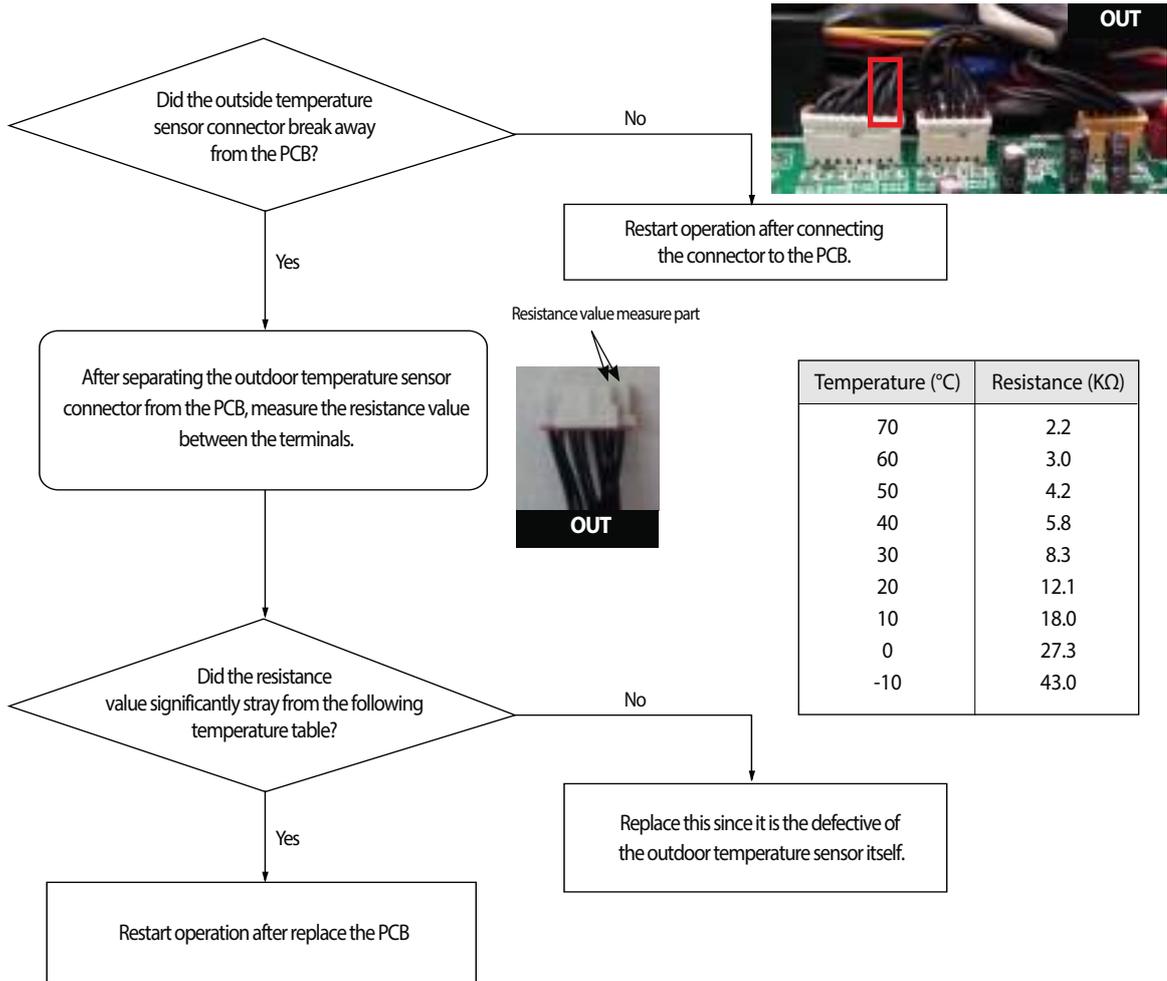
Check the number of indoor units connected to MCU then readjust the switch for the number of units  
 After completing resetting, press the outdoor unit's K3 button to reset or turn off to restart.



### 4-4-37 Outdoor Temperature Sensor Error

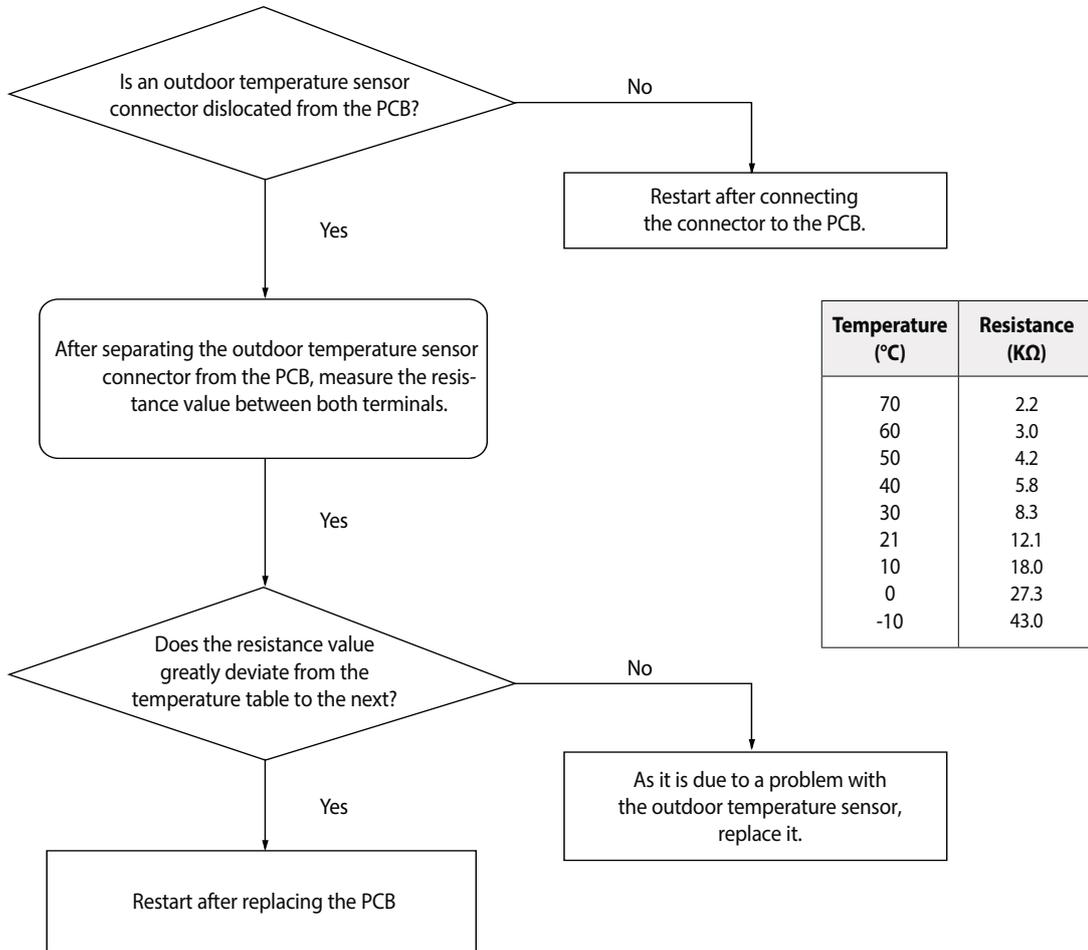
|                      |   |
|----------------------|---|
| Outdoor unit display | E221  |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                       |
| Cause of problem     | · Outdoor temperature sensor Open/Short is defective.       |

1. Cause of problem



### 4-4-38 Outdoor Temperature dislocation error

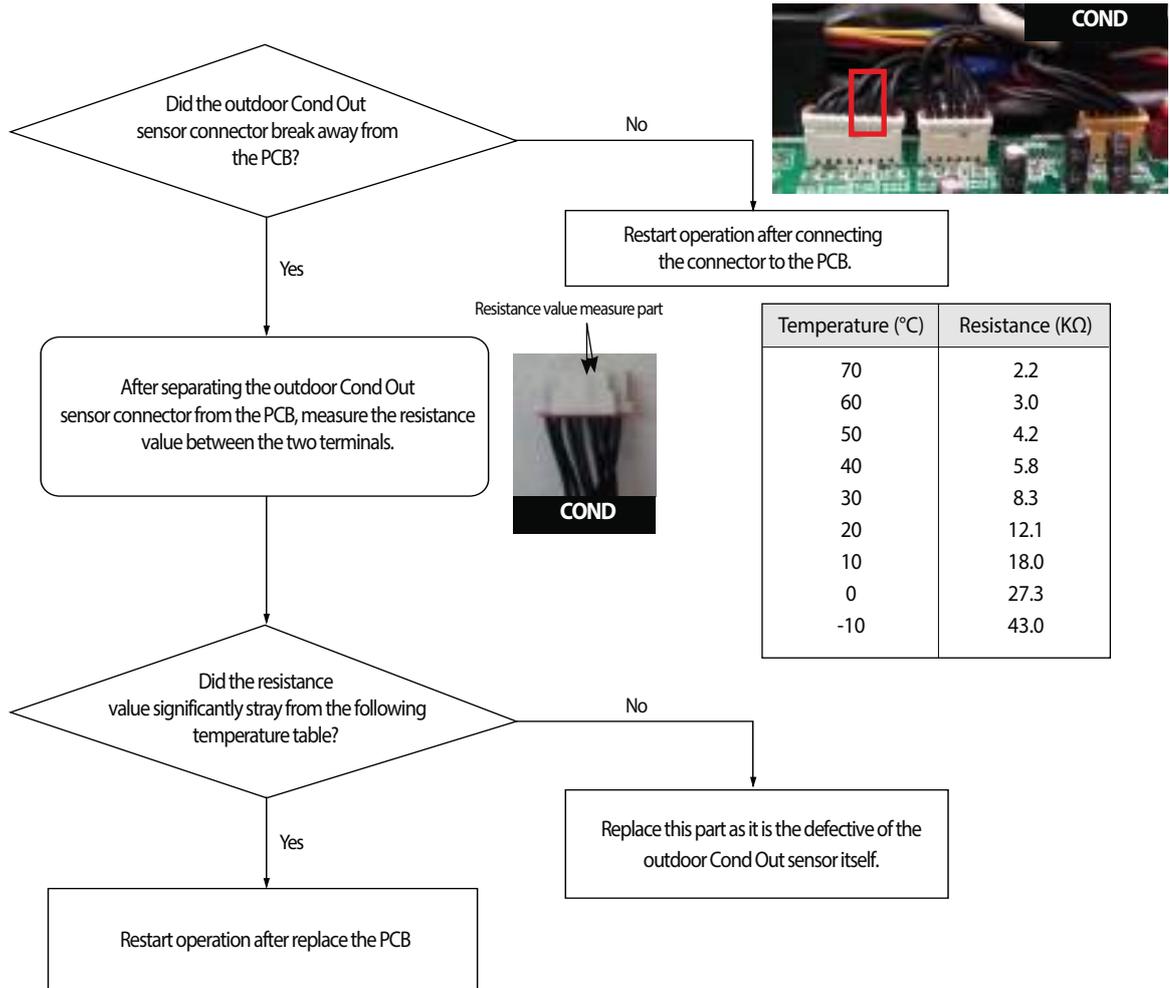
1. How to check



### 4-4-39 Cond Out Temperature Sensor Error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E231  |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                       |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.            |

1. Cause of problem



### 4-4-40 Outdoor Cond Out sensor breakaway error

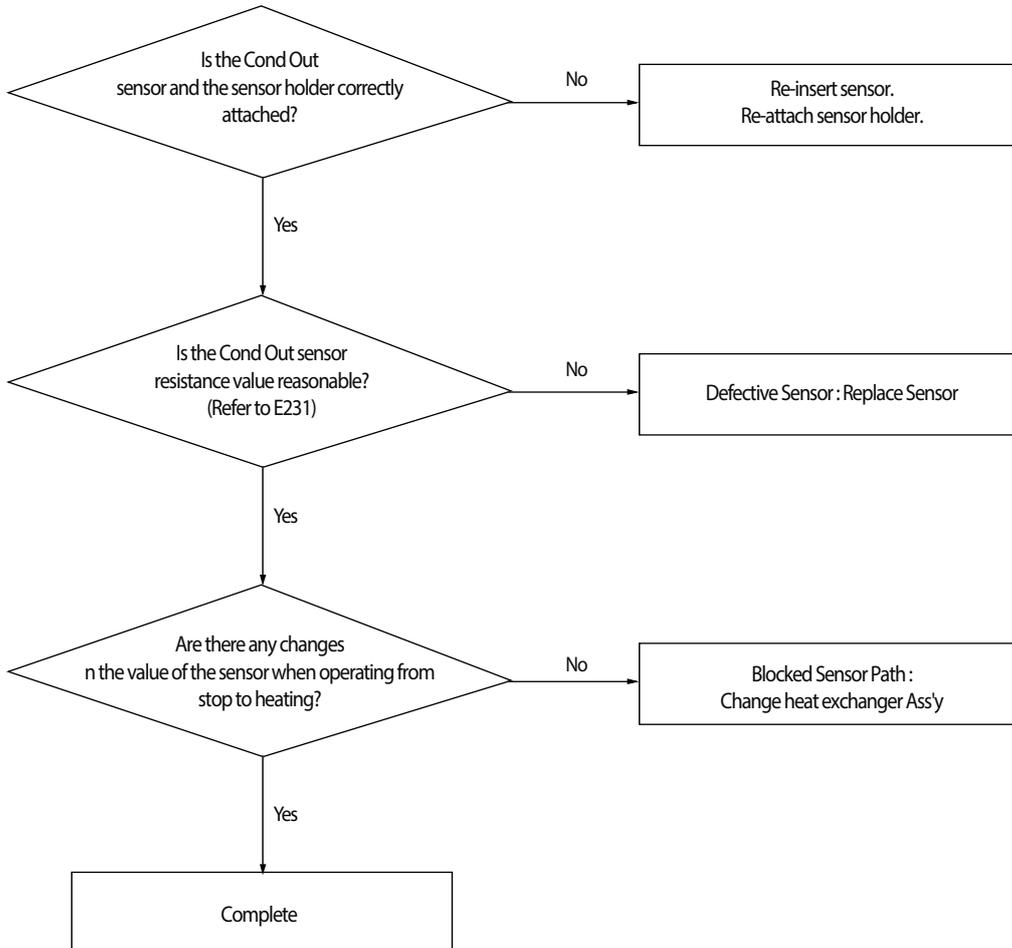
|                      |   |
|----------------------|---|
| Outdoor unit display | E241  |
| Indoor unit display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)             |
| Judgment Method      | · Refer to the judgment method below.                                 |
| Cause of problem     | · Outdoor Cond Out sensor breakaway/defective/ relevant path blocked. |

1. Judgment Method

- 1) No inspection for Cooling operation.
- 2) For heating operation (Each of the conditions below needs to be satisfied for more than 20 minutes.)

|  |   |
|--|---|
| High pressure average > 25kg/cm <sup>2</sup>                           | OK                                      |
| Low pressure average < 8.5kg/cm <sup>2</sup>                           | OK                                      |
| Teva, out - Tair, in ≥ 3°C   | OK                                      |
| Teva, in - Tair, in ≥ 2°C  | OK                                      |
| Tcond, out - Tair, out ≤ 0°C   | NO                                      |
| Every compressor is in operation & indoor unit operation and Thermo On | OK                                      |
| Error Content  | Outdoor Cond Out sensor breakaway error |

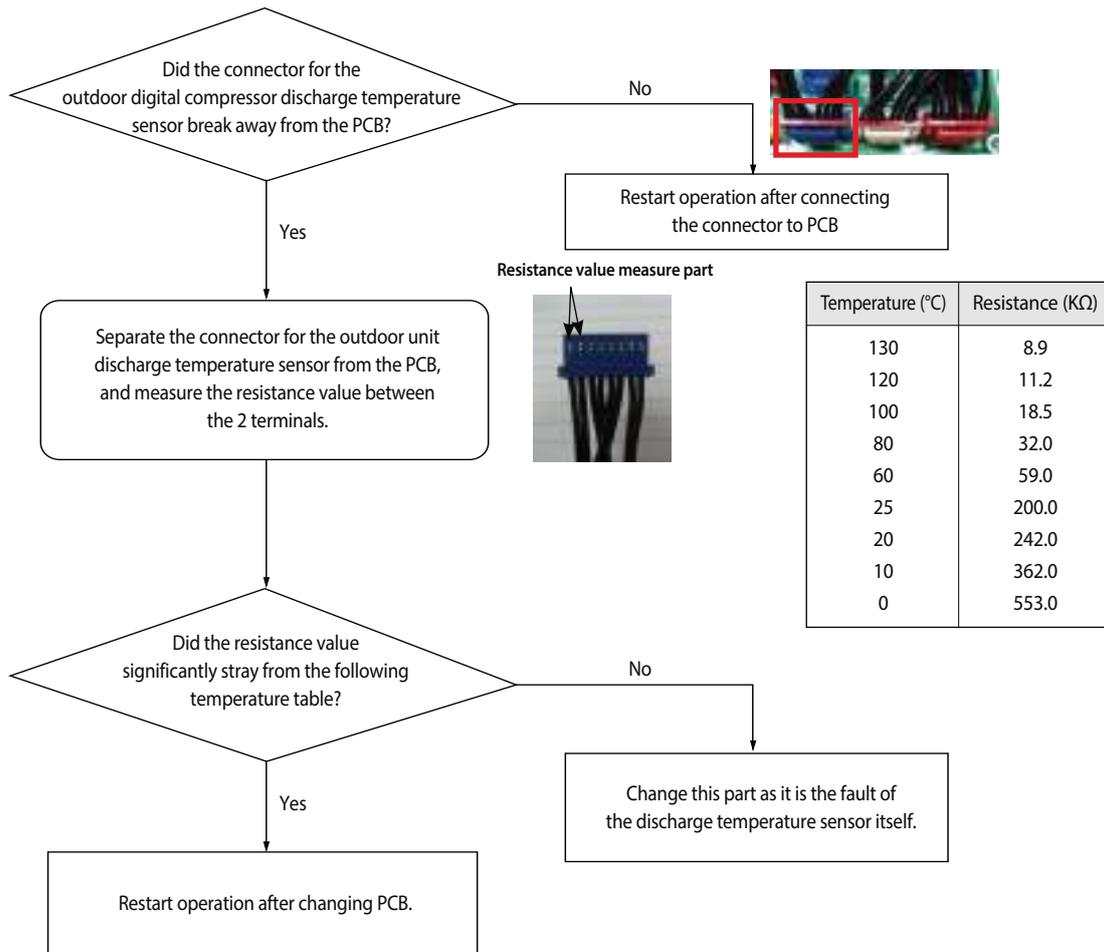
2. Cause of problem



### 4-4-41 Digital Compressor Discharge Temperature Sensor Error (OPEN/SHORT)

|                      |  |
|----------------------|--|
| Outdoor Unit Display | E251   |
| Indoor Unit Display  | ●(Operation) ×(Reservation) ●(Blast) ×(Filter) ×(Defrost)            |
| Judgment Method      | • Refer to the inspection method below,                              |
| Special Cause        | • Digital compressor discharge temperature sensor OPEN/SHORT problem |

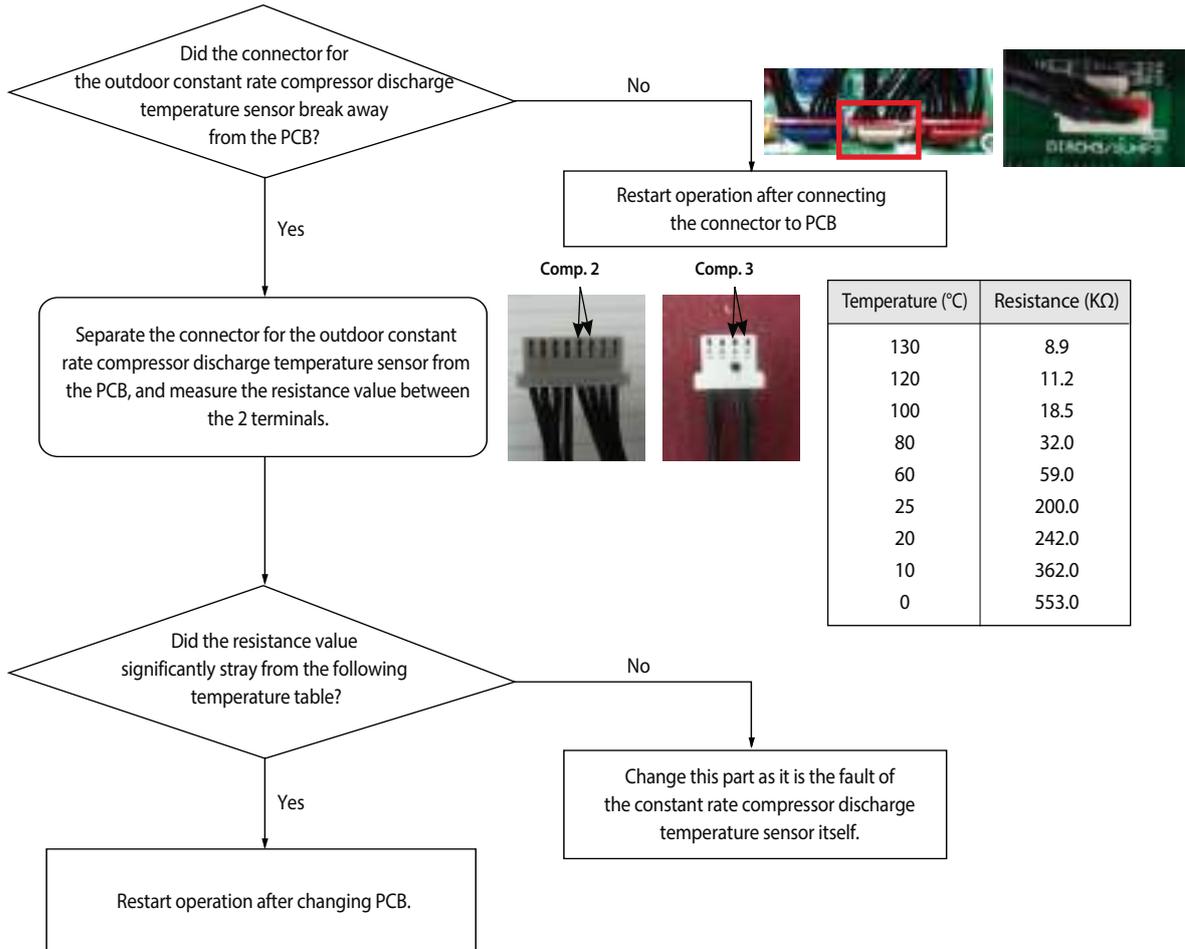
#### 1. Inspection Method



### 4-4-42 Constant Rate Compressor Discharge Temperature Sensor Error (OPEN/SHORT)

|                      |  |
|----------------------|--|
| Outdoor Unit Display | E257, E258 (Compressor 2, Compressor 3)                                    |
| Indoor Unit Display  | ●(Operation) ×(Reservation) ●(Blast) ×(Filter) ×(Defrost)                  |
| Judgment Method      | • Refer to the inspection method below.                                    |
| Special Cause        | • Constant rate compressor discharge temperature sensor OPEN/SHORT problem |

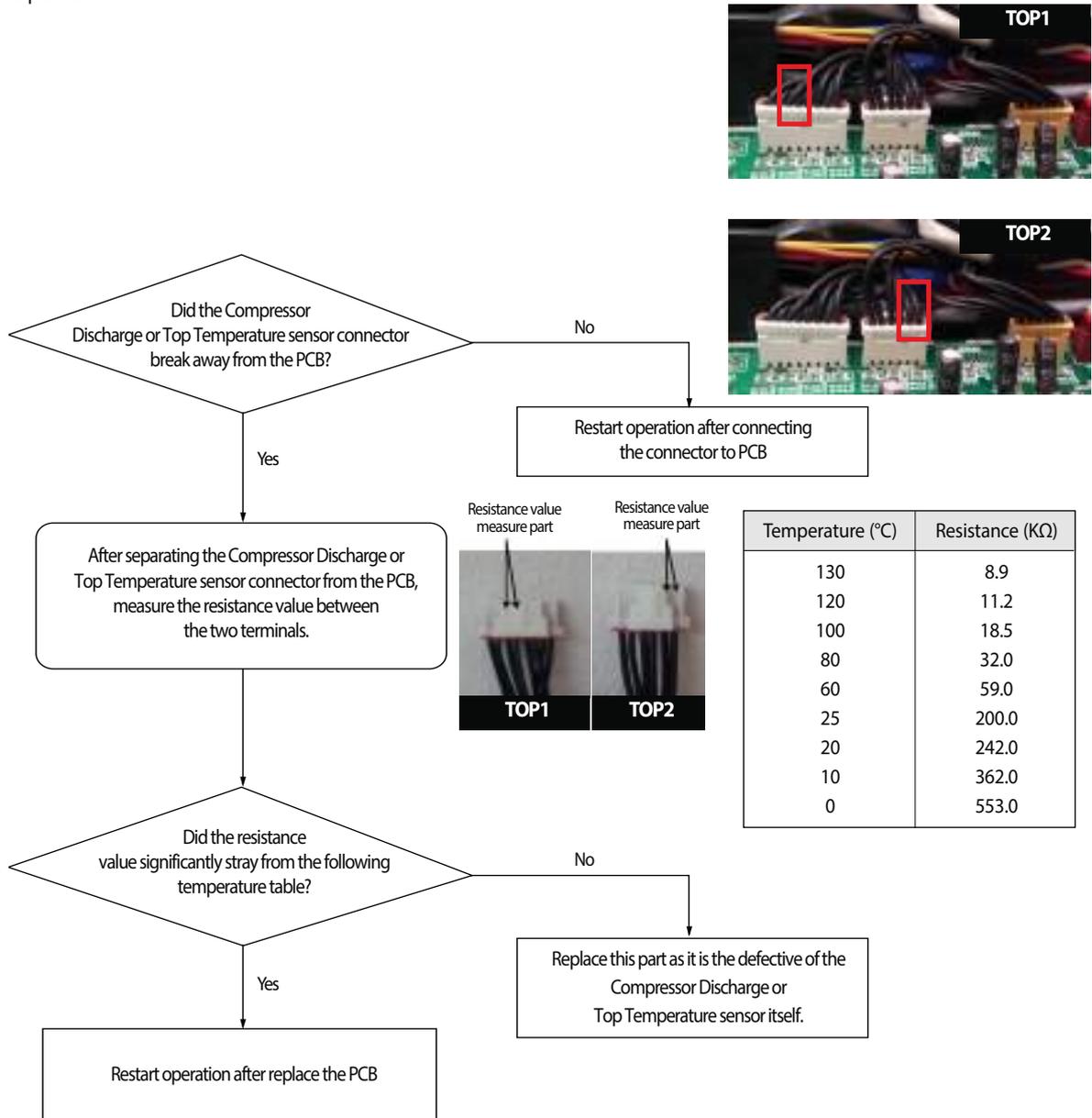
#### 1. Inspection Method



### 4-4-43 Compressor Discharge or Top 1/2 Temperature sensor error

|                      |  |
|----------------------|--|
| Outdoor unit display | <i>E262</i> (Compressor 1 Discharge) <i>E263</i> (Compressor 2 Discharge)<br><i>E266</i> (Compressor 1 Top) <i>E267</i> (Compressor 2 Top) |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost)  |
| Judgment Method      | · Refer to the judgment method below.  |
| Cause of problem     | · Compressor Discharge or Top Temperature sensor defective. (Open/Short)   |

1. Cause of problem



**4-4-44 E265 : Dislocation error of Compressor SUMP Temperature (oil temperature) Sensor**

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E265</b> (digital compressor or fixed compressor 1) |
| Indoor unit display  | ×(Operation) ●(Timer) ●(Fan) ●(Filter) ×(Defrost)      |
| Criteria             | • Refer to how to determine below                      |
| Cause of problem     | • Sump (oil) temperature sensor dislocation error      |

## 1. How to diagnose

- 1) If the Sump temperature right before the start of compressor =  $T_{\text{sump.ini}}$ , current compressor's SUMP temp =  $T_{\text{sump.real}}$ ,  
 When the difference between  $T_{\text{sump.ini}}$  and  $T_{\text{sump.real}}$  is an absolute value so that it cannot be more than 2°C,  
 In other words, the condition of  $T_{\text{sump.real}} - T_{\text{sump.ini}} < 2^{\circ}\text{C}$  has been satisfied for 60 minutes since a compressor started, it is diagnosed as an error.  
 After 60 minutes of compressor operation, there will be no Sump sensor dislocation detection.

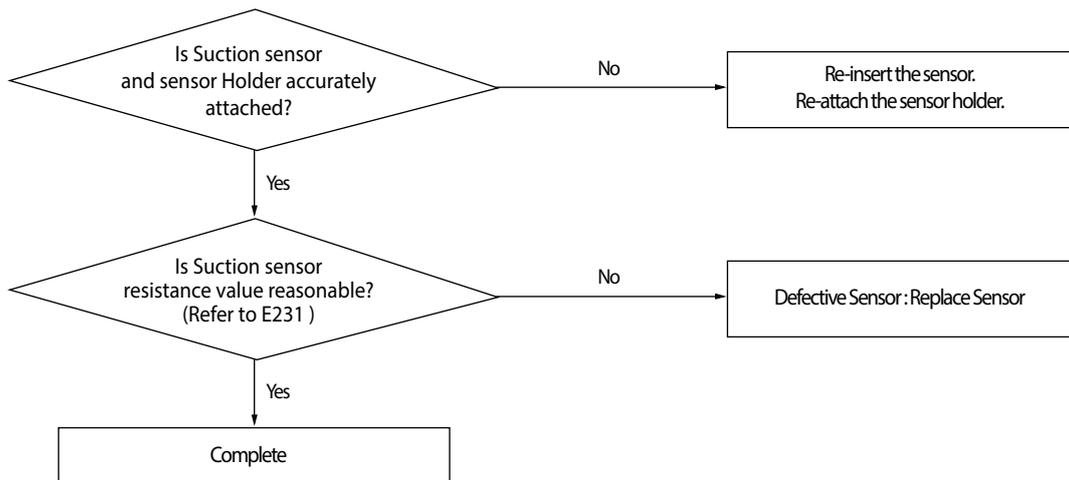
## 2. How to check

- 1) Check if a sensor of the relevant compressor has been dislocated in accordance with error code, assemble and correct the error.

### 4-4-45 E269 : Suction Temperature sensor breakaway error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E269</b>   |
| Indoorunit display   | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| Judgment Method      | · If the suction temperature right before operating the Comp, when the operating order is highest, is set at $T_{suc, ini}$ , and the suction temperature of the current Comp is set at $T_{suc, real}$ , it is considered to have an error if the condition of $T_{suc, real} < T_{suc, ini}   < 2^{\circ}C$ is maintained for 30 minutes. |
| Cause of problem     | · Suction temperature sensor breakaway/defective.   |

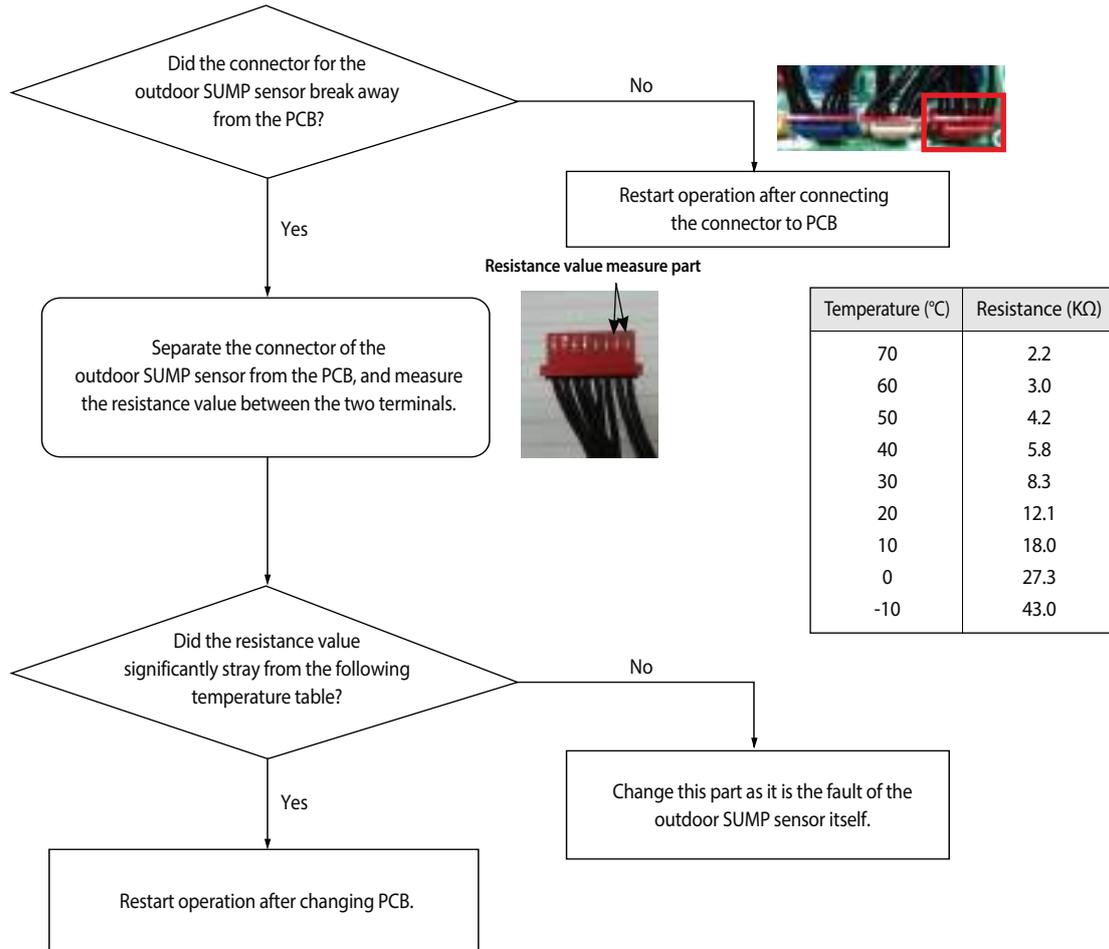
1. Cause of problem



### 4-4-46 SUMP Temperature Sensor Error (OPEN/SHORT)

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E271  |
| Indoor Unit Display  | ●(Operation) ×(Reservation) ●(Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | • Refer to the judgment method below.                     |
| Special Cause        | • Disconnection or breakdown of relevant sensor           |

#### 1. Inspection Method

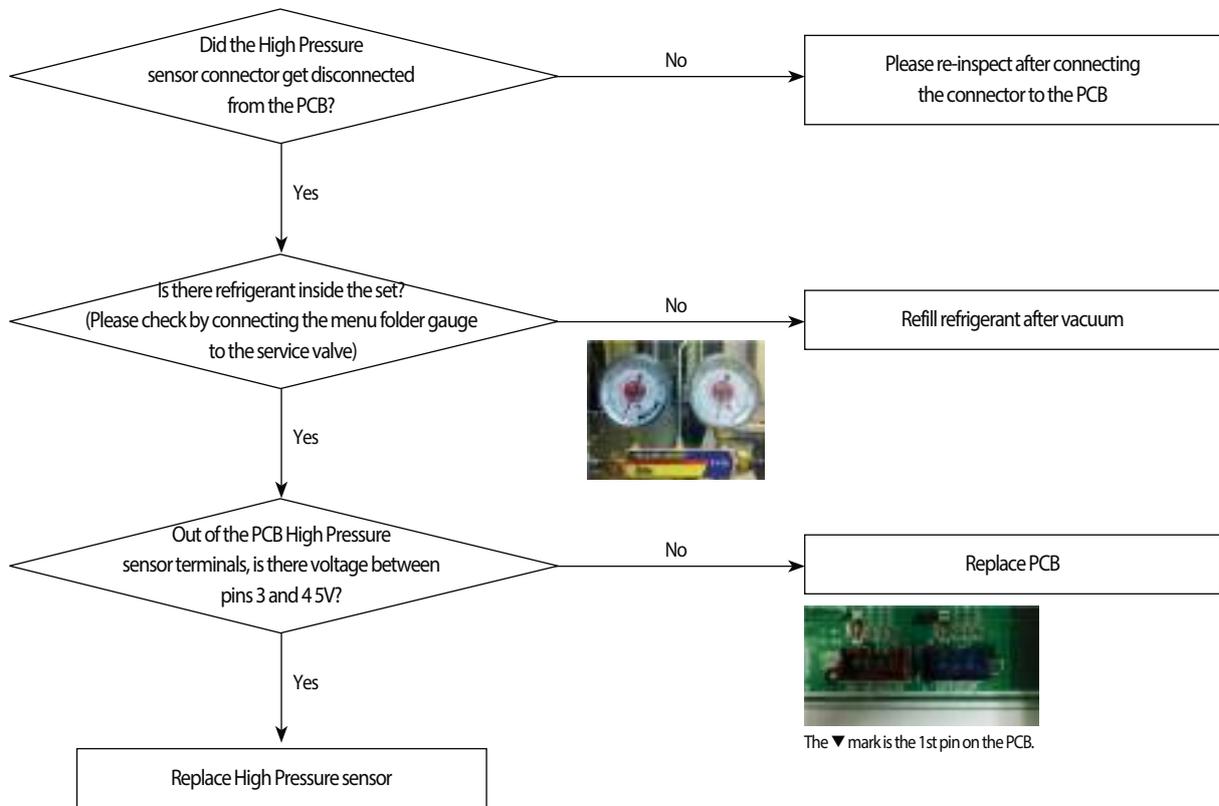


### 4-4-47 High Pressure sensor error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E291  |
| Indoorunit display   | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                     |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.          |

- High Pressure sensor Open/Short error determination method
  - Identifies from when power is supplied or 2 minutes after RESET, and only when set is stopped.
  - An Open/Short error will occur if the input voltage standard range of 0.5V ~ 4.95V is exceeded.

#### 2. Inspection Method



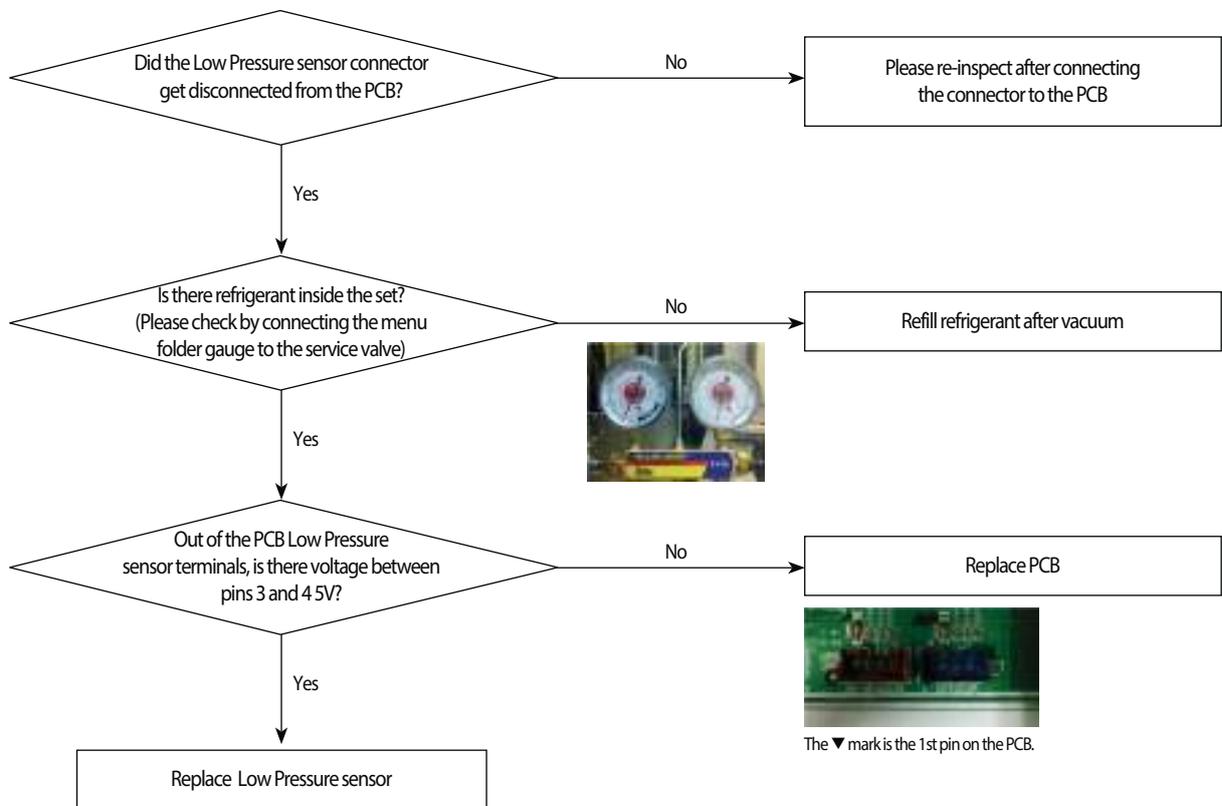
### 4-4-48 Low Pressure sensor error (Open/Short)

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E296</b>  |
| Indoorunit display   | ● (Operation) ● (Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                        |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.             |

1. Low Pressure sensor Open/Short error determination method

- 1) Identifies from when power is supplied or 2 minutes after RESET, and only when set is stopped.
- 2) An Open/Short error will occur if the input voltage standard range of 0.5V ~ 4.95V is exceeded.

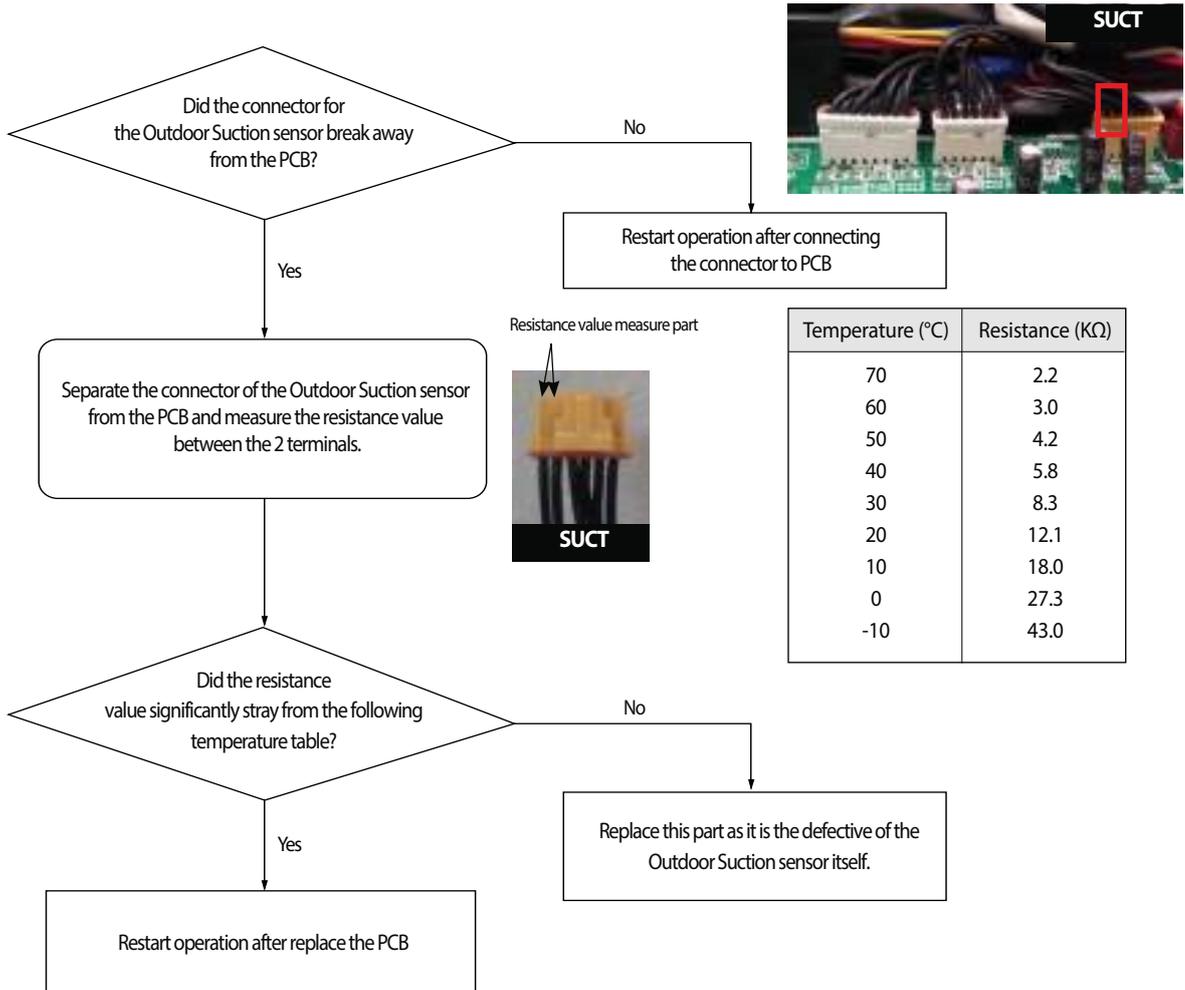
2. Inspection Method



### 4-4-49 Suction Temperature sensor error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E308</b>   |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                       |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.            |

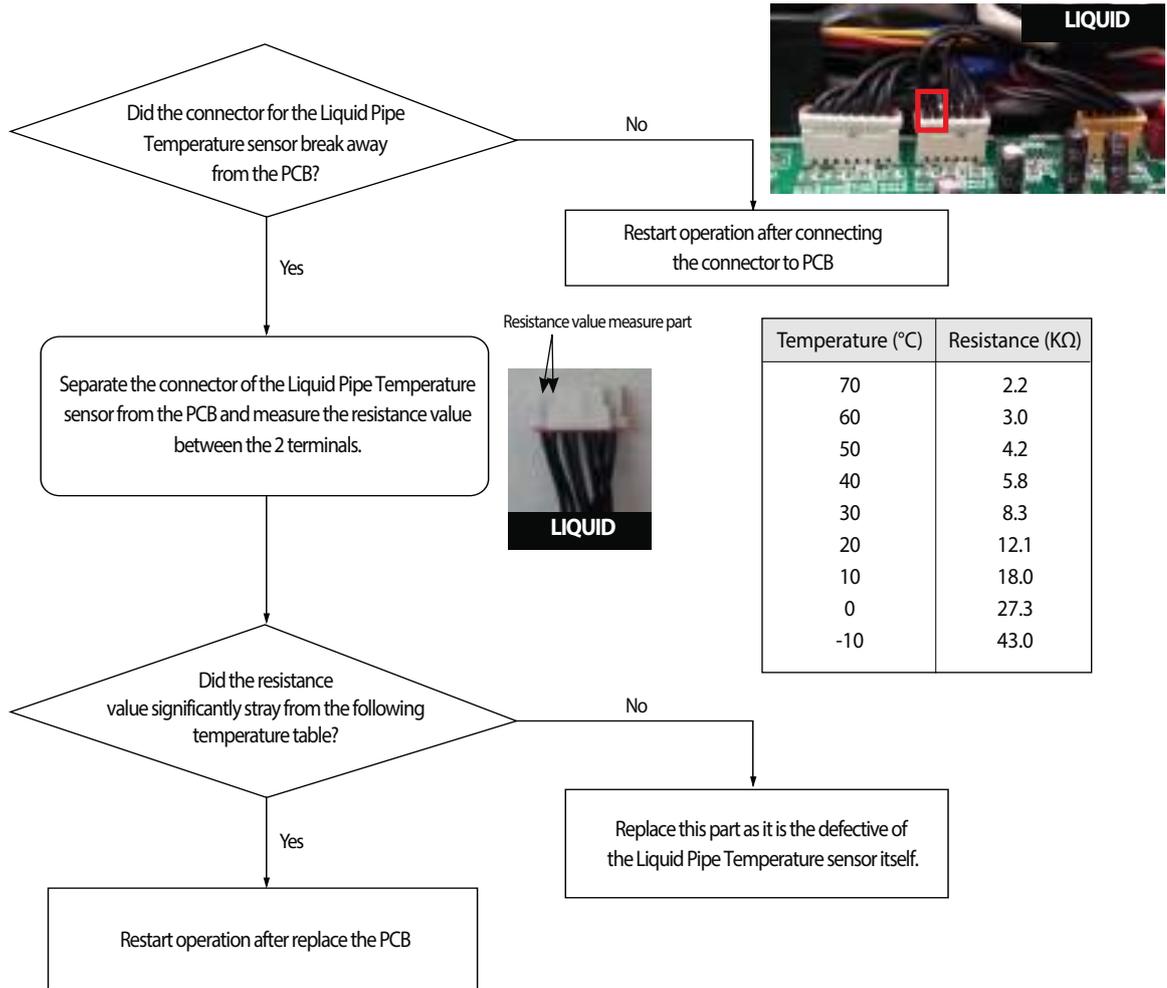
1. Cause of problem



### 4-4-50 Liquid Pipe Temperature sensor error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E311  |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                       |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.            |

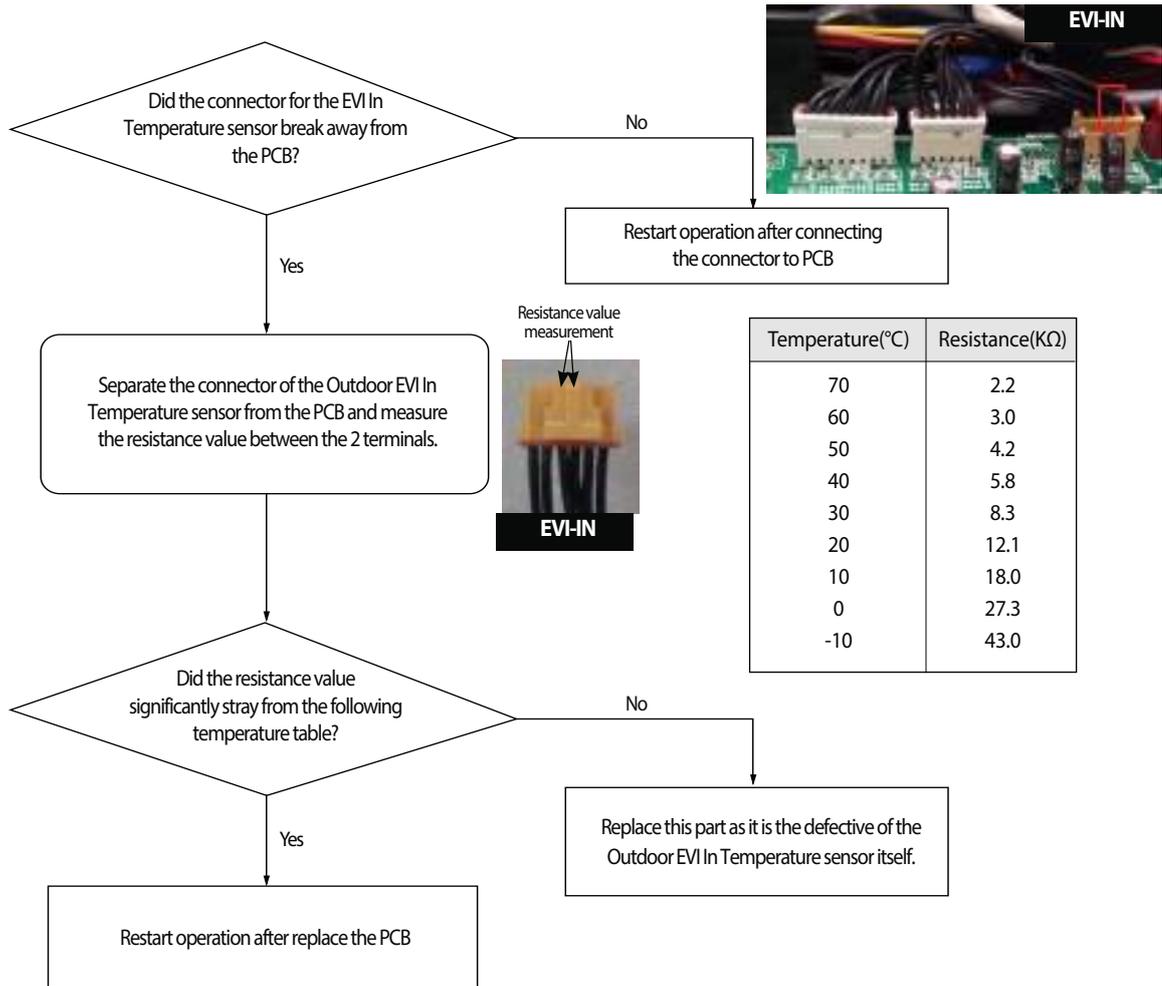
1. Cause of problem



### 4-4-51 EVI In Temperature sensor error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E321</b>   |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                       |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.            |

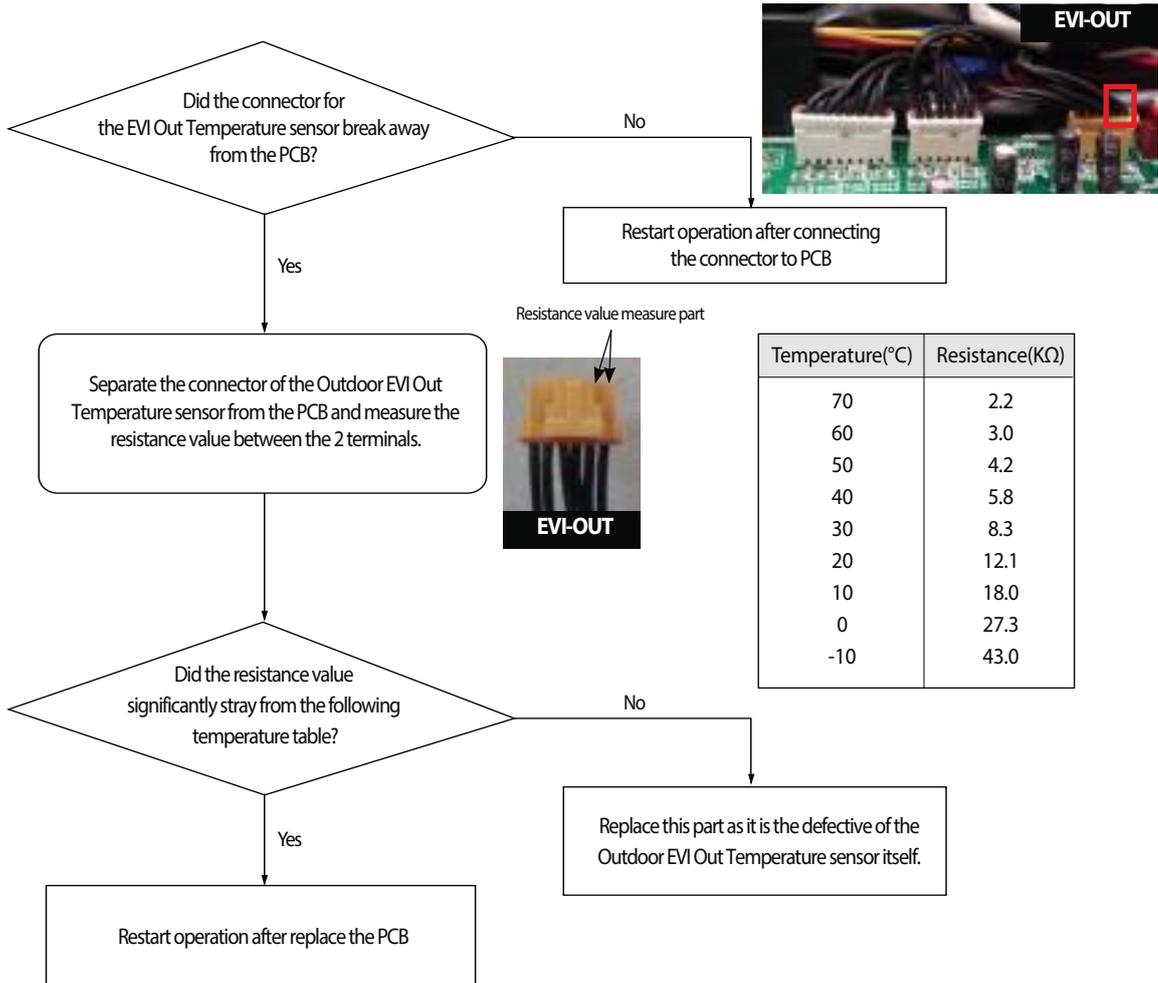
1. Cause of problem



### 4-4-52 EVI Out Temperature sensor error (Open/Short)

|                      |   |
|----------------------|---|
| Outdoor unit display | E322  |
| Indoorunit display   | ● (Operation) ×(Reservation) ● (Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | · Refer to the judgment method below.                       |
| Cause of problem     | · Disconnection or breakdown of relevant sensor.            |

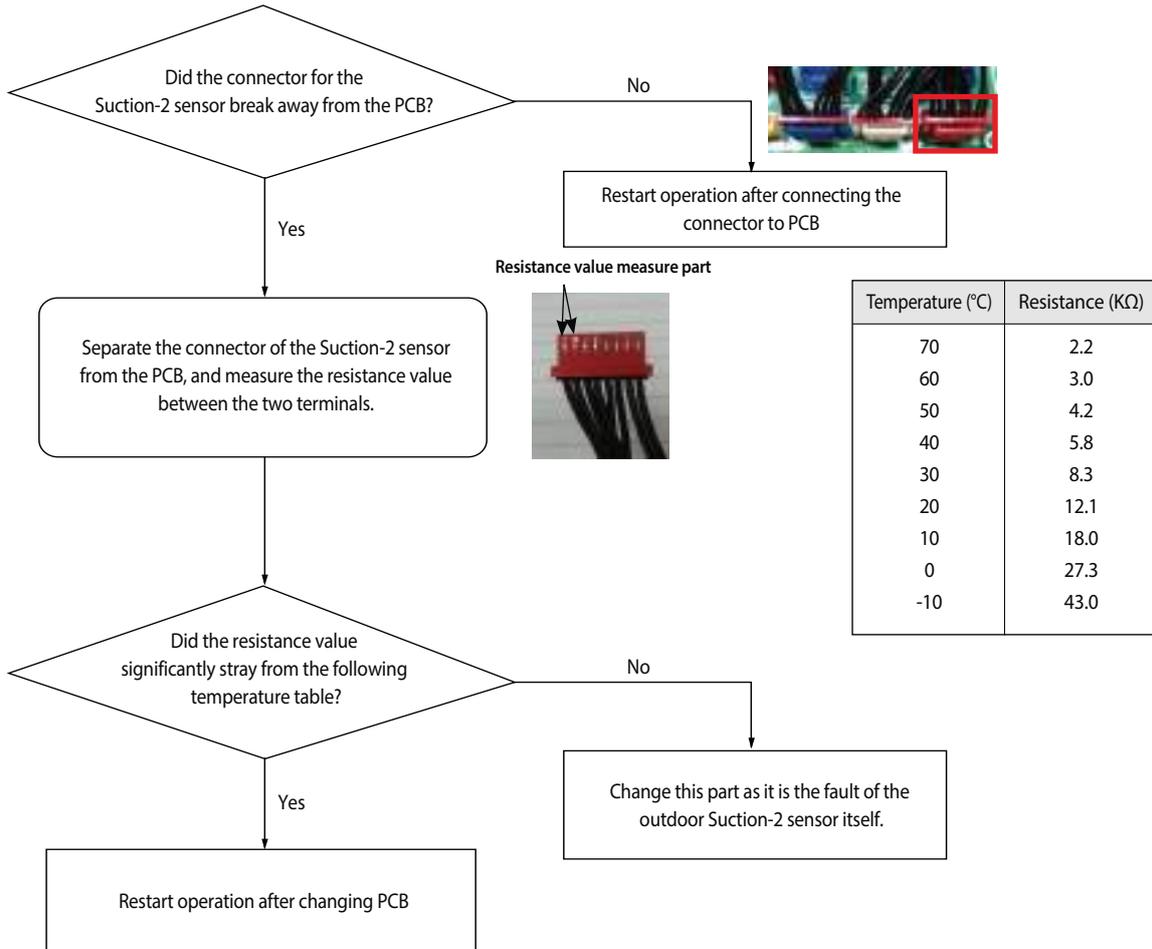
1. Cause of problem



### 4-4-53 Suction-2 Temperature Sensor Error (OPEN/SHORT)

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E323  |
| Indoor Unit Display  | ●(Operation) ×(Reservation) ●(Blast) ×(Filter) ×(Defrost) |
| Judgment Method      | • Refer to the judgment method below.                     |
| Special Cause        | • Disconnection or breakdown of relevant sensor           |

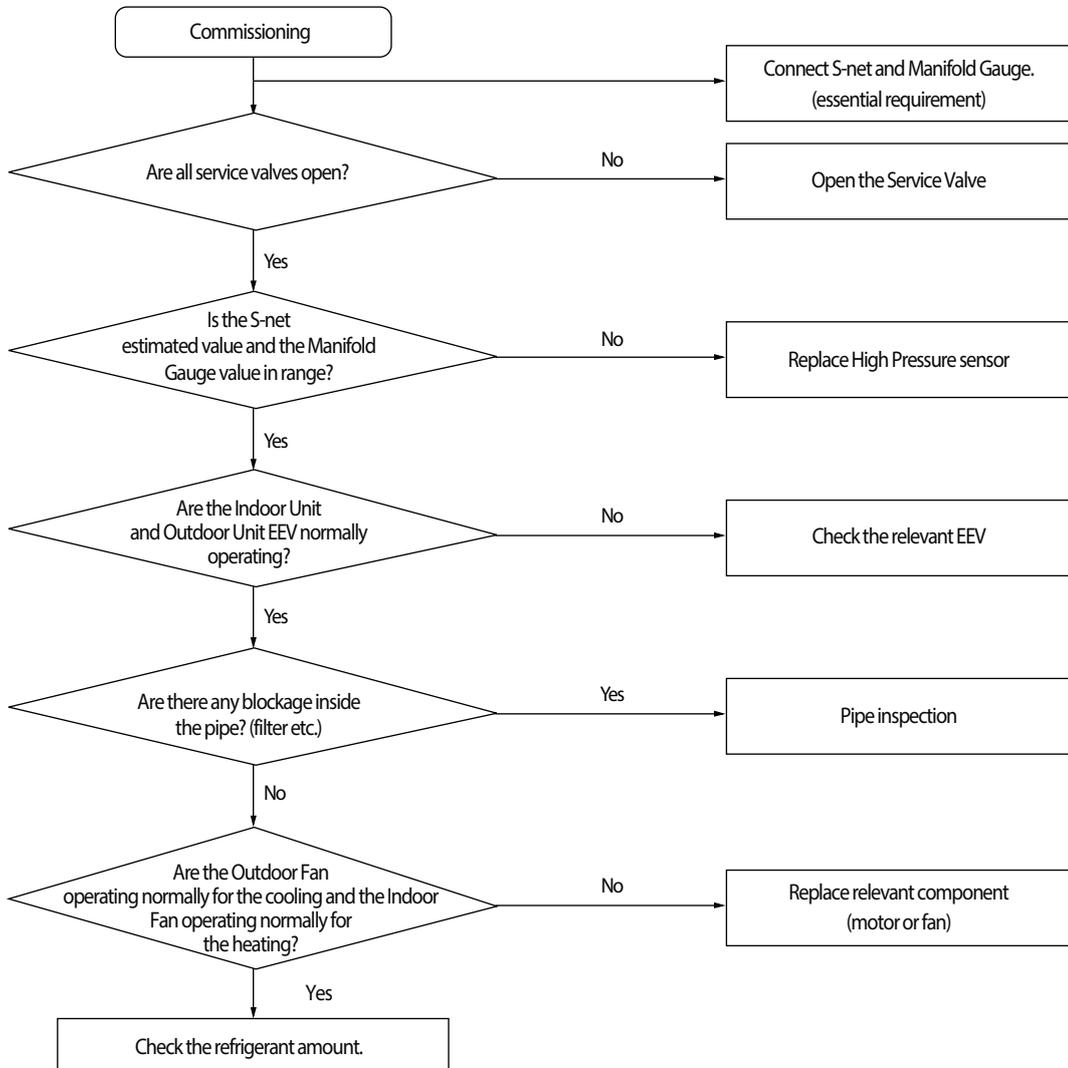
#### 1. Inspection Method



### 4-4-54 E407 : Comp. Down due to High Pressure Protection Control

|                      |   |
|----------------------|---|
| Outdoor unit display | E407  |
| Indoor unit display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| Judgment Method      | Value of the high pressure sensor is detected at 40kg/cm <sup>2</sup> or more   |
| Cause of problem     | <p><b>&lt;Cooling Operation&gt;</b></p> <ul style="list-style-type: none"> <li>· Outdoor unit fan motor problem (constrained, defective)</li> <li>· Motor driver defective or wire is cut</li> <li>· Outdoor heat exchanger is contaminated.</li> <li>· Service valve locked/Fill refrigerant</li> </ul> <p><b>&lt;Heating Operation&gt;</b></p> <ul style="list-style-type: none"> <li>· Outdoor unit fan motor problem (constrained, defective)</li> <li>· Motor driver defective or wire is cut</li> <li>· Service valve locked/Excessive refrigerant</li> </ul> |

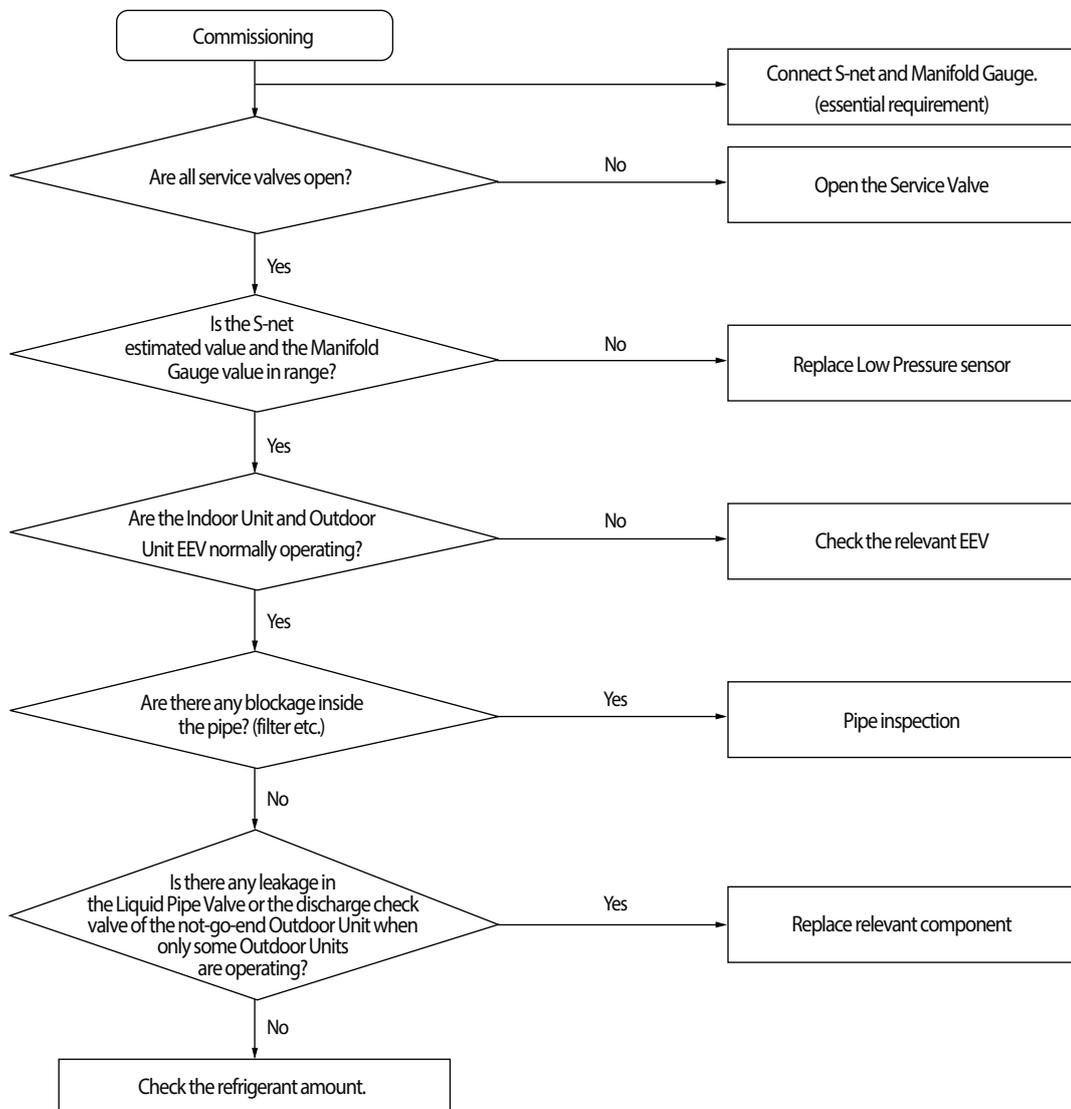
1. Cause of problem



### 4-4-55 E4 10 : Comp. Down due to Low Pressure Protection Control

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E4 10</b>   |
| Indoorunit display   | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)  |
| Judgment Method      | · Inspection when the value of low pressure sensor is 0.8kg/cm <sup>2</sup> , or less for air conditioning and 0.6kg/cm <sup>2</sup> for heating   |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Refrigerant shortage</li> <li>· Electronic expansion valve blocked</li> <li>· Service valve blocked</li> <li>· Low pressure sensor defective</li> <li>· Leakage of compressor discharge check valve of not-go-end outdoor unit</li> <li>· Error may be found when used in temperature range outside the conditions of use (Operating outside temperature at -20°C or less for heating and operating outside temperature at -5°C or less for Cooling)</li> </ul> |

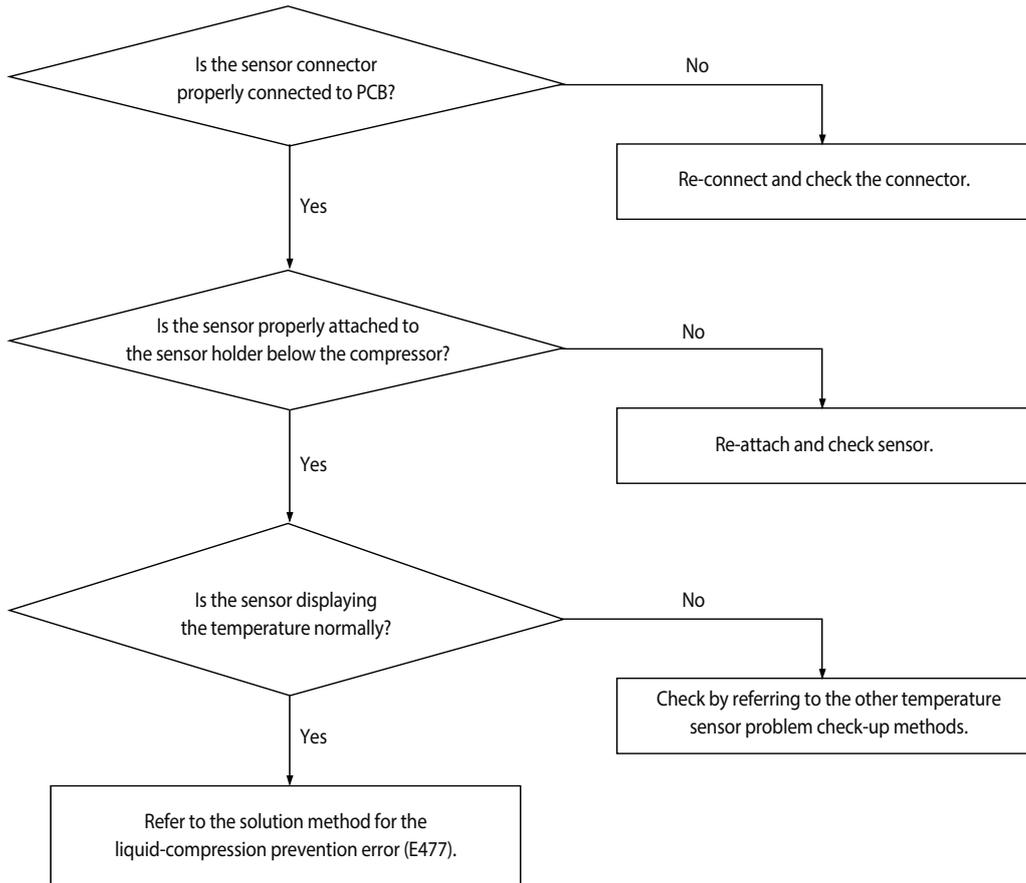
1. Cause of problem



### 4-4-56 Sump Sensor Error Due to Protection Control

|                      |  |
|----------------------|--|
| Outdoor Unit Display | E413   |
| Indoor Unit Display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)    |
| Judgment Method      | • Maintain sump temperature of 95°C or more for five minutes |
| Special Cause        | • Compressor loading faulty/sump temperature sensor faulty   |

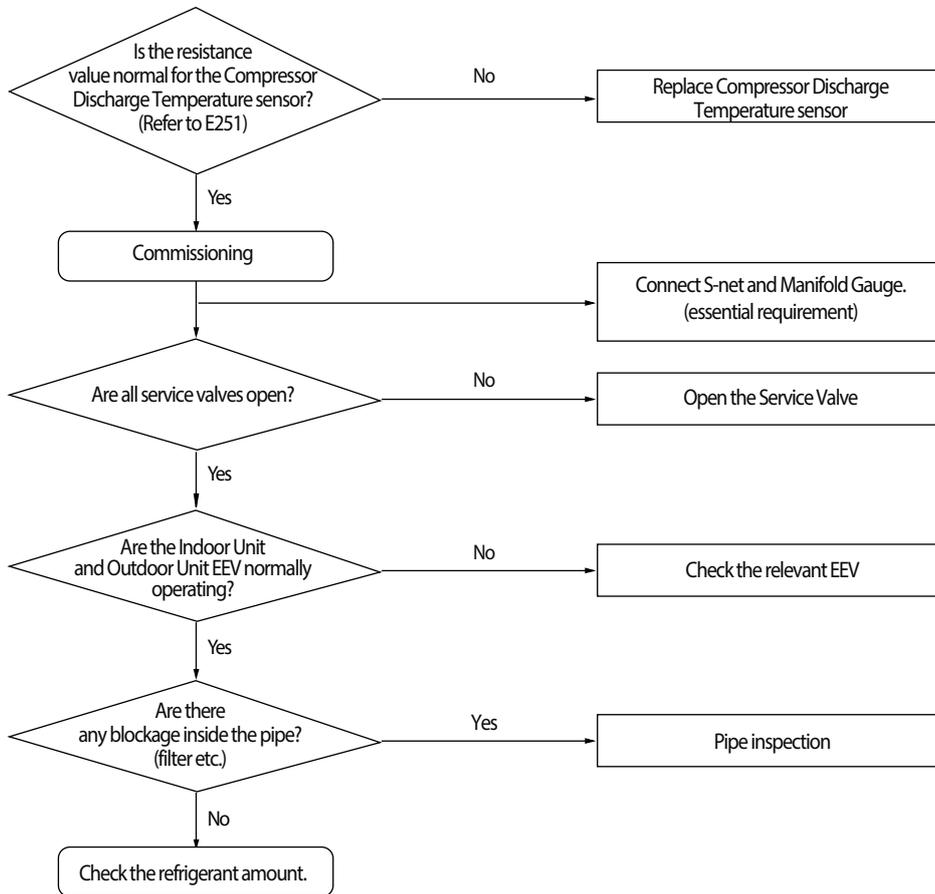
#### 1. Inspection Method



### 4-4-57 E4 16 : Comp. Down due to Compressor Discharge Temperature sensor

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E4 16</b>  |
| Indoorunit display   | ×(Operation) ● (Reservation) ● (Blast) ● (Filter) ×(Defrost)  |
| Judgment Method      | · When value of compressor discharge temperature sensor is checked at 120°C or more   |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Refrigerant shortage</li> <li>· Electronic expansion valve is blocked.</li> <li>· Service valve blocked</li> <li>· Defective discharge temperature sensor</li> <li>· Blocked pipe and defective</li> <li>· Leakage of compressor discharge check valve of not-go-end outdoor unit</li> </ul> |

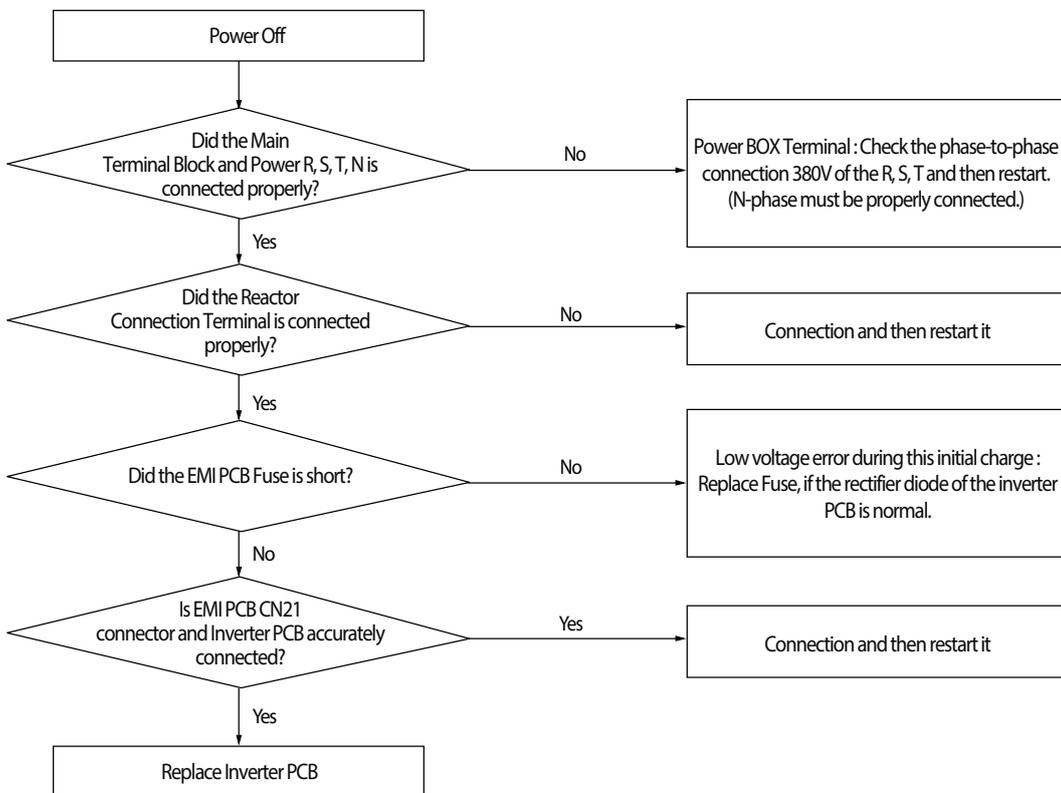
1. Cause of problem



### 4-4-58 3-phase Input Wiring error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E425</b>   |
| Indoorunit display   | ×(Operation) ● (Reservation) ● (Blast) ● (Filter) ×(Defrost)  |
| Judgment Method      | <ul style="list-style-type: none"> <li>When turn on the power and check the status of the power from the inverter.</li> <li>If the phase does not connect the power(no phase) : E425 or E466 (E366) is displayed (Air conditioner to maintain the normal state.)</li> <li>However) N-phase must be properly connected.</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>Check the input wiring</li> <li>EMI Fuse short</li> </ul>  |

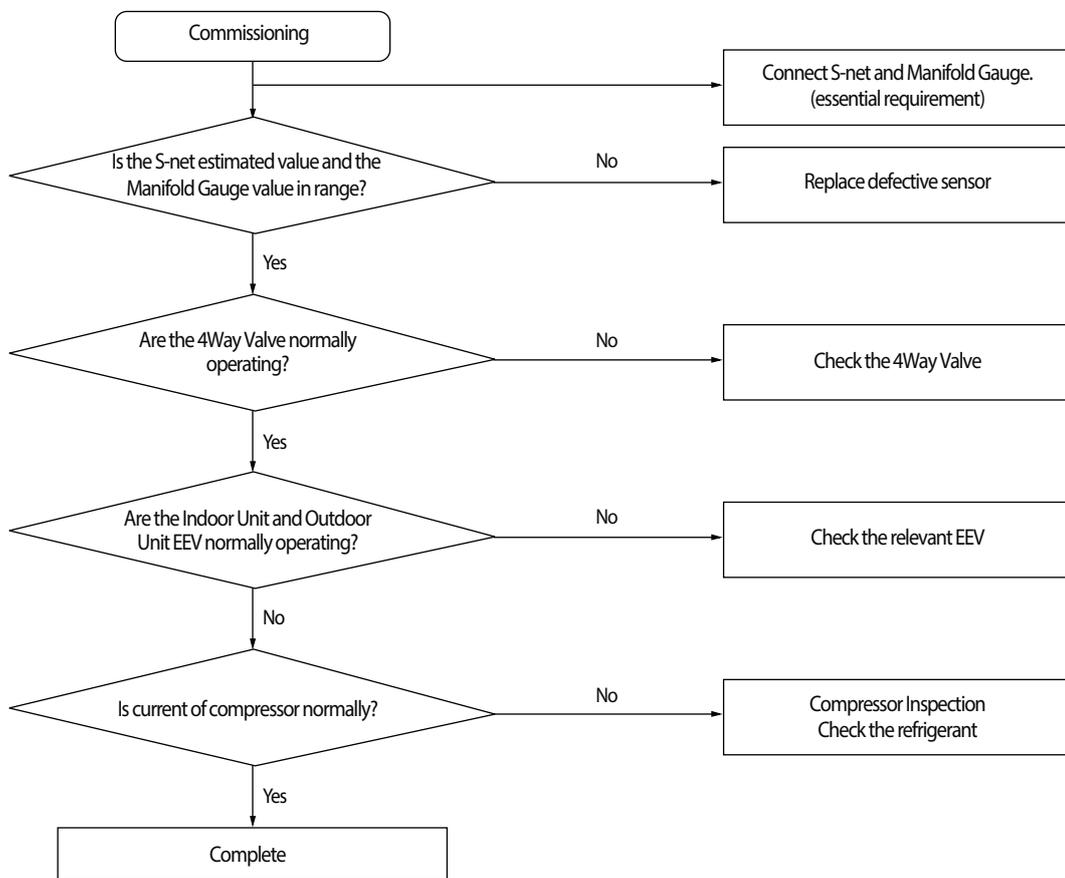
#### 1. Cause of problem



### 4-4-59 E428 : Comp. Down by Compression Ratio Control

|                      |   |
|----------------------|---|
| Outdoor unit display | E428  |
| Indoorunit display   | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| Judgment Method      | <ul style="list-style-type: none"> <li>· When compression ratio (high pressure+1)/(low pressure+1) less than 1.5 and lasts for 10 minutes or more</li> <li>· Differential pressure (high pressure - low pressure) less than 0.4 MPa.g and lasts for 10 minutes or more</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Indoor and Outdoor EEV breakdown</li> <li>· 4Way Valve breakdown</li> <li>· High and Low pressure sensor defective</li> <li>· Refrigerant shortage</li> </ul>  |

1. Cause of problem



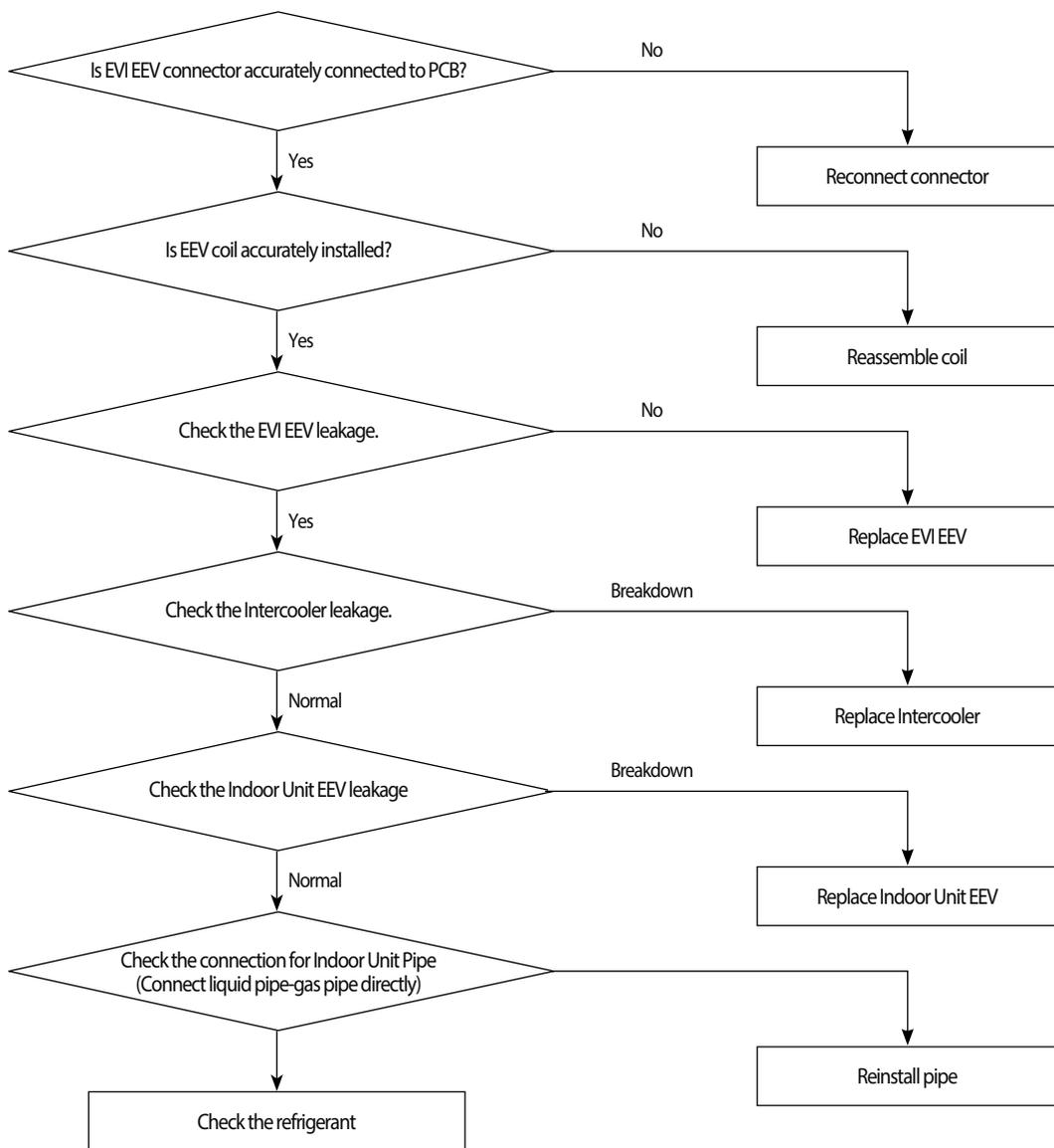
### 4-4-60 EVI EEV Open error

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E438</b>  |
| Indoorunit display   | -  |
| Judgment Method      | . DSH <10 °C, EVI Out-in <= 0°C & frequency> 65Hz 40 minutes maintaining   |
| Cause of problem     | . EVI EEV and Intercooler leakage, excessive refrigerant amount, Outdoor Check Valve inserted opposite.<br>. Indoor Unit EEV leakage, direct connection between Indoor Liquid Pipe and the Gas Pipe. |

※ Indoor EEV leakage can be easily checked during the operation of cooling operation and during the not-go-end blast operation.  
(In case it is normal, the EVA In and Out temperatures for the blast may rise.)

※ If cooling operation is operated for low temperature with excessive refrigerant amount, then the DSH may descend.

1. Cause of problem



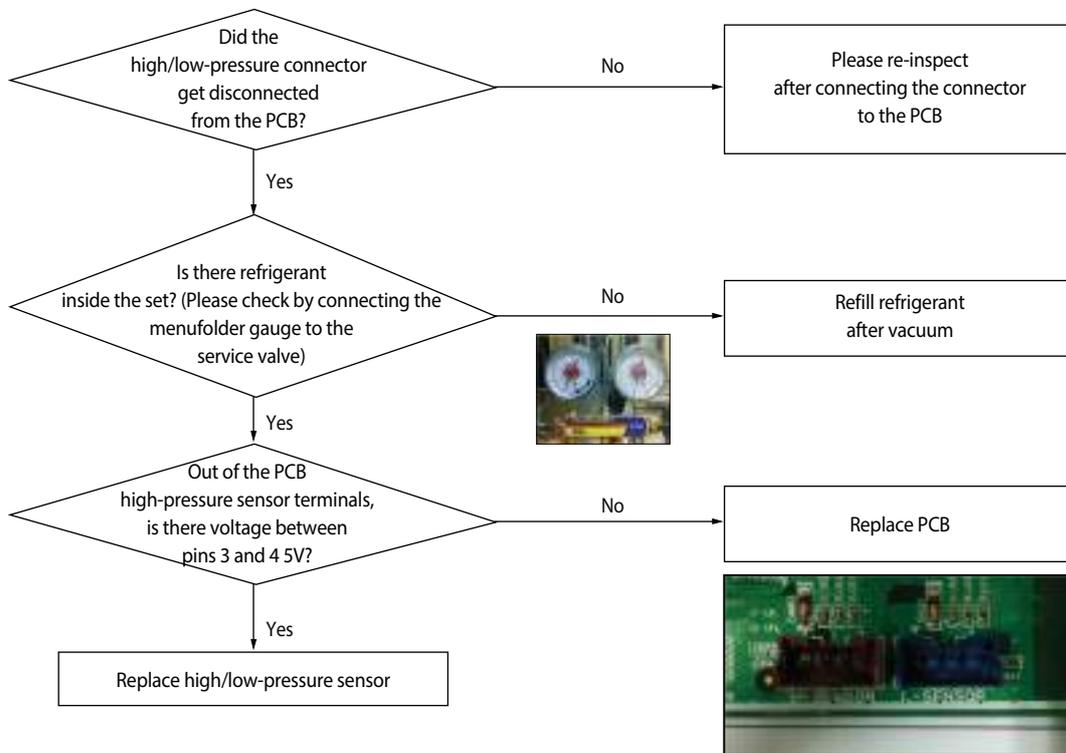
### 4-4-61 Refrigerant Leakage Error

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E439  |
| Indoor Unit Display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)             |
| Judgment Method      | • Refer to the judgment method below                                  |
| Special Cause        | • Leakage of refrigerant, simultaneous malfunction of pressure sensor |

■ Low-pressure sensor OPEN/SHORT error determination method

1. Identifies from when power is supplied or 2 minutes after RESET, and only when set is stopped.
2. An E439 error will occur if the input voltage standard ranges of 0.5V ~ 4.95V of both the high- and low-pressure sensors are exceeded.
3. Will occur if the measured value of both high- and low-pressure sensors is 1kgf/cm<sup>2</sup>G

1. Inspection method



The ▼ mark is the 1st pin on the PCB.

#### 4-4-62 E440, E442 : Prohibition of the operation of Compressor due to Outdoor Temperature

|                      |  |
|----------------------|--|
| Outdoor unit display | E440 (prohibit heating operation in outdoor temperature over 30°C)<br>E442 (prohibit heat filling operation in outdoor temperature over 15°C)  |
| Indoor unit display  | No sign  |
| Criteria             | E440 : Right before an outdoor unit starts heating operation by On signal of an indoor Remocon, the error occurs and prohibits the operation in outdoor temperature over 30°C<br>E442 : Right before operating heat refrigerant filling mode by the K1 switch of an outdoor PCB, the error occurs and prohibits the operation in outdoor temperature over 15°C |
| Cause of problem     | • Operation Prohibition mode by the indoor temperature limit   |

##### 1. How to check

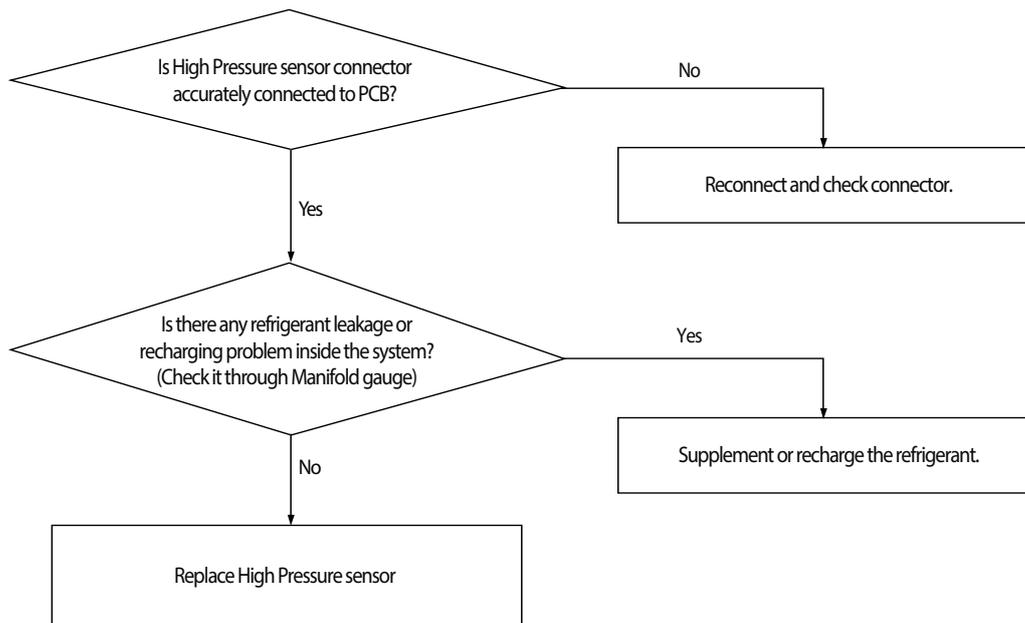
The above error code is not caused by a product's problem but a function to protect the product by limiting the available temperature range so please refer to the usable temperature range in the product manual.

If the error code is displayed despite a condition that does not belong to any of the above diagnosis methods, read the temperature sensor value of the outdoor inlet air with View Mode or S-net, and if the actual outdoor temperature is different, please replace the temperature sensor.

### 4-4-63 High Pressure Standard Not Met before Air Conditioning (Inability to Re-operate)

|                      |  |
|----------------------|--|
| Outdoor unit display | E443   |
| Indoorunit display   | ×(Operation) ● (Reservation) ● (Blast) ● (Filter) ×(Defrost)   |
| Judgment Method      | · Operation should be forbidden if High Pressure sensor value of the Main Unit before the pump down is started at 2.2kg/cm <sup>2</sup> g or below for air-conditioning and 1.0kg/cm <sup>2</sup> G or less for heating for three consecutive seconds.<br>(Restarting operation is not possible, and an error displayed on the indoor unit.) |
| Cause of problem     | · Refrigerant leakage/fault in High Pressure sensor .  |

1. Cause of problem



### 4-4-64 CCH Malfunction and Sump Sensor Miswiring Error

|                      |  |
|----------------------|--|
| Outdoor Unit Display | E445   |
| Indoor Unit Display  | -  |
| Judgment Method      | • Refer to the judgment method below   |
| Special Cause        | • CCH Connector PCB is not connected / Sump sensor compressor separated / Own problem of CCH |

#### 1. Judgment Method

Tini = Sump temperature when entering the CH operation delay condition

Tlast= Sump temperature when maintaining CH operation delay for two hours

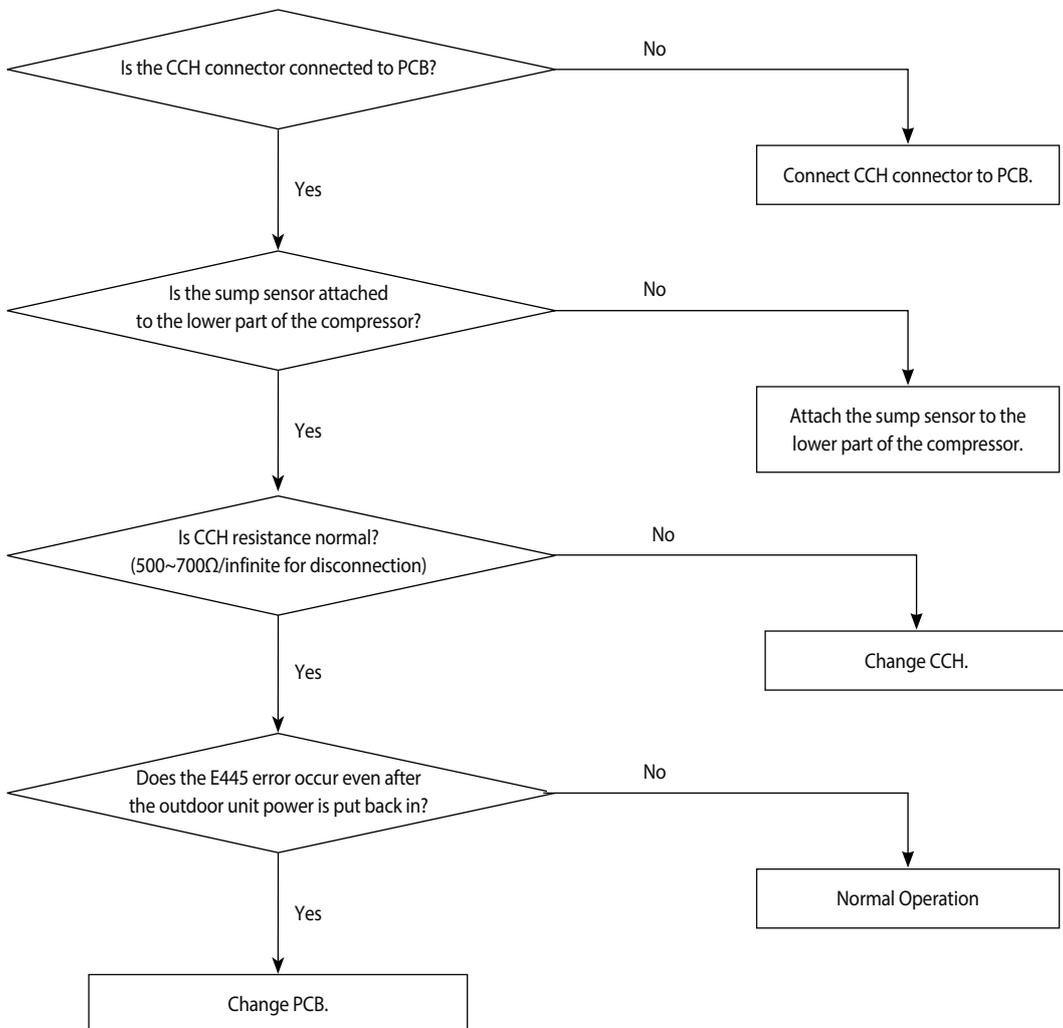
Outside Air Temperature Sensor Value: Outside air temperature when maintaining CH operation delay for two hours

① Tlast – Tini < 2°C

② Tlast < Outside Air Temperature Sensor Value + 2°C

③ Outside Air Temperature Sensor Value < 30°C

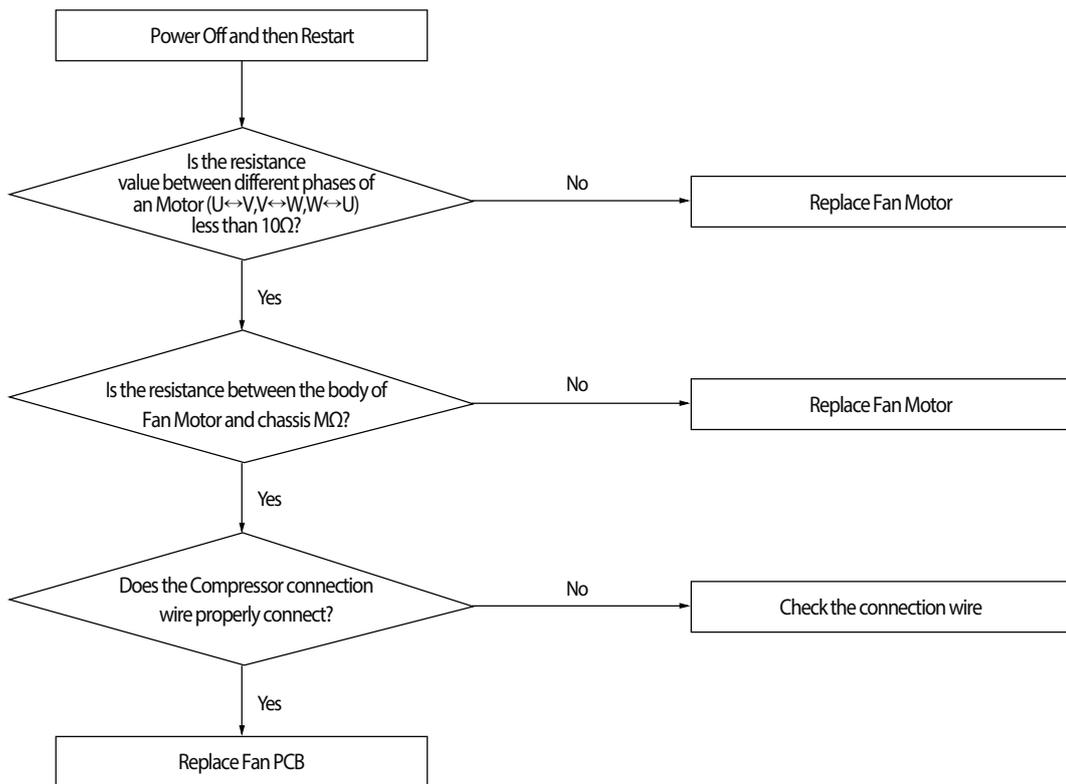
If ①, ② and ③ are satisfied at the same time, then display E445.



### 4-4-65 Fan starting error

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E446</b> (FAN PCB(FAN1))<br><b>E346</b> (FAN PCB(FAN2))   |
| Judgment Method      | <ul style="list-style-type: none"> <li>· Startup, and then if the speed increase is not normally.</li> <li>· Detected by H/W or S/W</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Compressor connection error</li> <li>· Defective Compressor</li> <li>· Defective PCB</li> </ul>       |

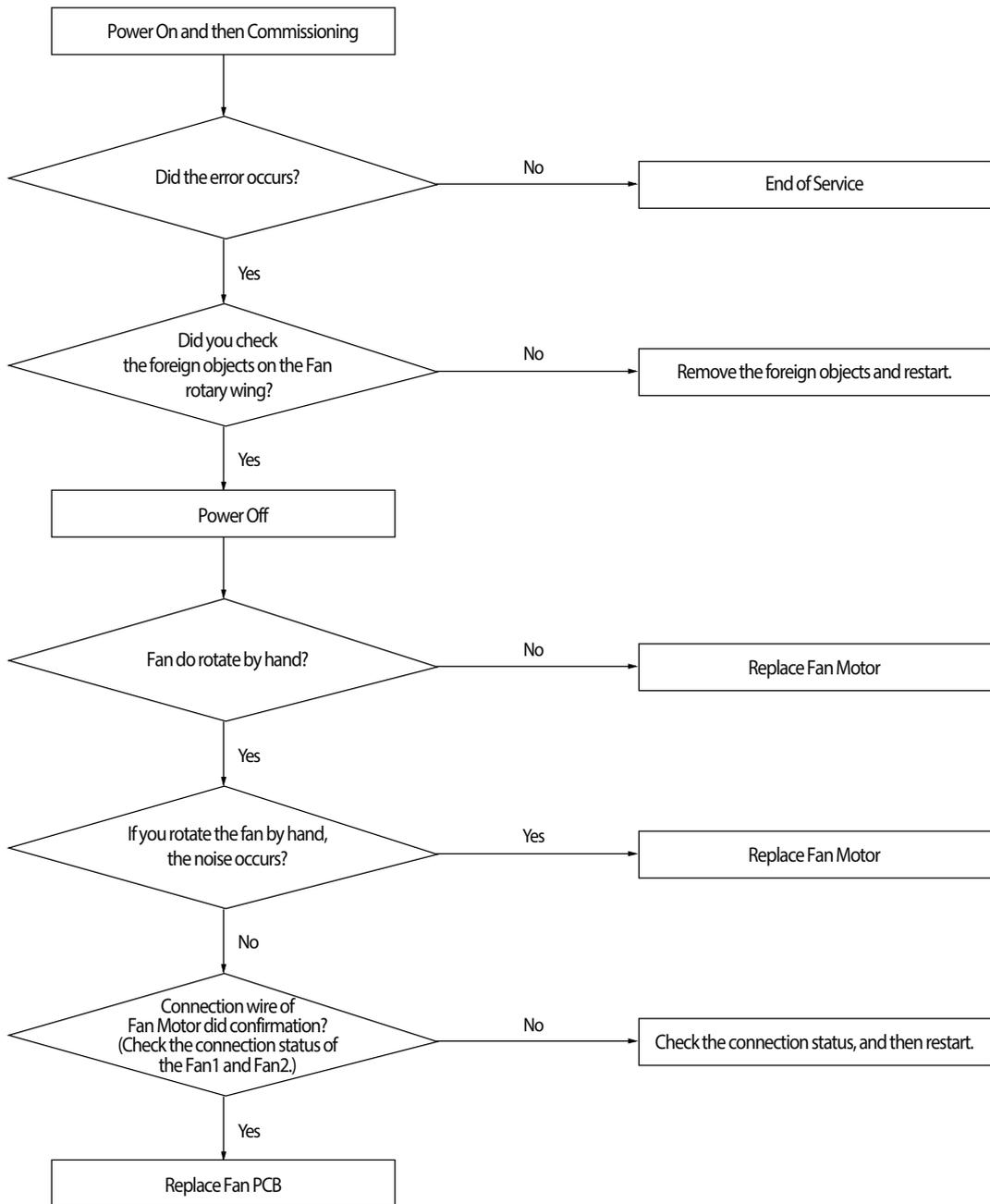
1. Cause of problem



### 4-4-66 Fan lock error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E448</b> (FAN PCB(FAN1))<br><b>E348</b> (FAN PCB(FAN2))          |
| Judgment Method      | · Is checked symptoms by phase current of Fan Motor.                |
| Cause of problem     | · Fan Motor connection error.<br>· Defective Fan<br>· Defective PCB |

#### 1. Cause of problem



### 4-4-67 Momentary Blackout error

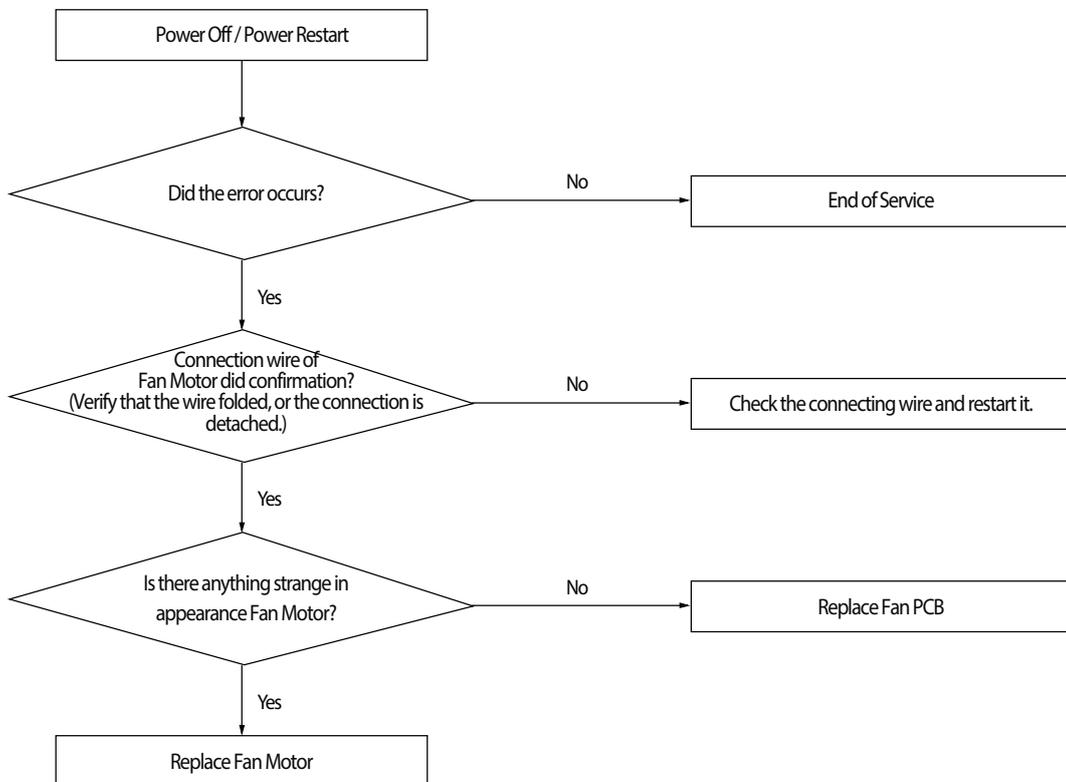
|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E452</b>   |
| Indoorunit display   | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost) |
| Judgment Method      | ·Momentary stop of compressor due to momentary blackout.  |
| Cause of problem     | ·Momentary stop of compressor due to momentary blackout.  |

1. Precautions : Replace Hub PCB or Main Hub Connection wire.

### 4-4-68 Outdoor Fan Motor overheating

|                      |  |
|----------------------|--|
| Outdoor unit display | <b>E453</b> (FAN PCB(FAN1))<br><b>E353</b> (FAN PCB(FAN2))   |
| Judgment Method      | · Overheating due to the internal sensor of the Fan Motor.   |
| Cause of problem     | · Defective connection wire<br>· Defective Fan Motor<br>· Defective PCB<br>· Defective installation conditions |

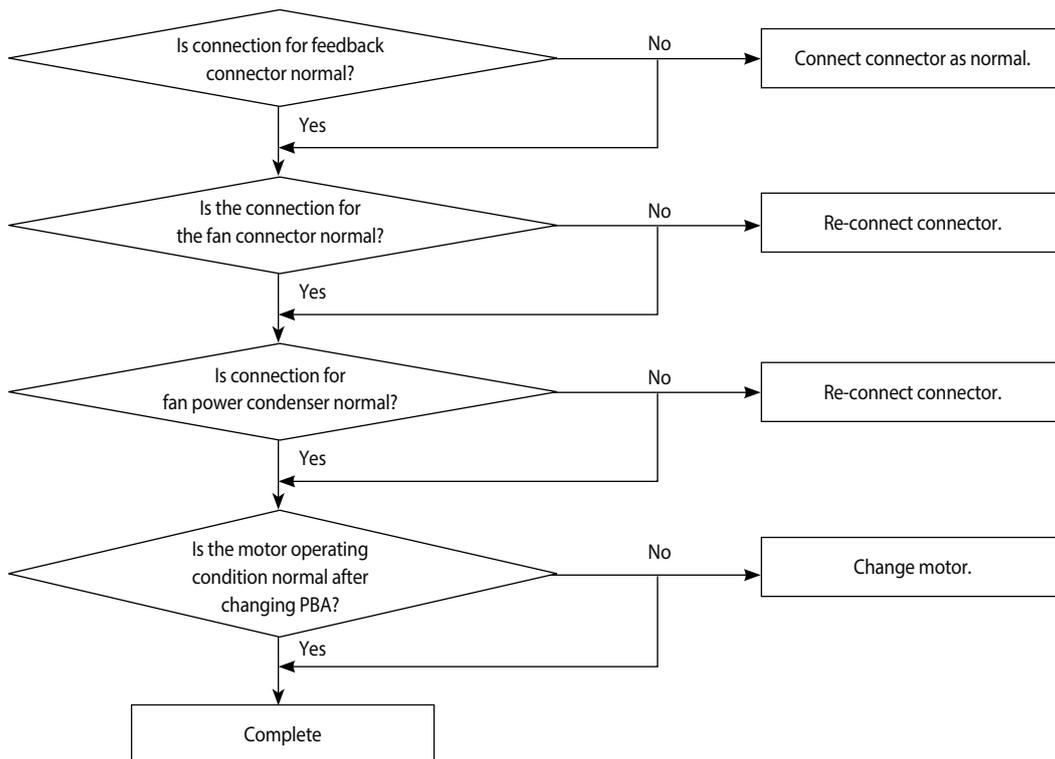
1. Cause of problem



### 4-4-69 Outdoor Unit Fan Motor RPM Error

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E454  |
| Indoor Unit Display  | -   |
| Judgment Method      | • In case the number of the revolutions of the outdoor unit fan motor in motion is different by 100 rpm or more compared to the instructed value. |
| Special Cause        | • Outdoor unit fan motor constrained or faulty of operation   |

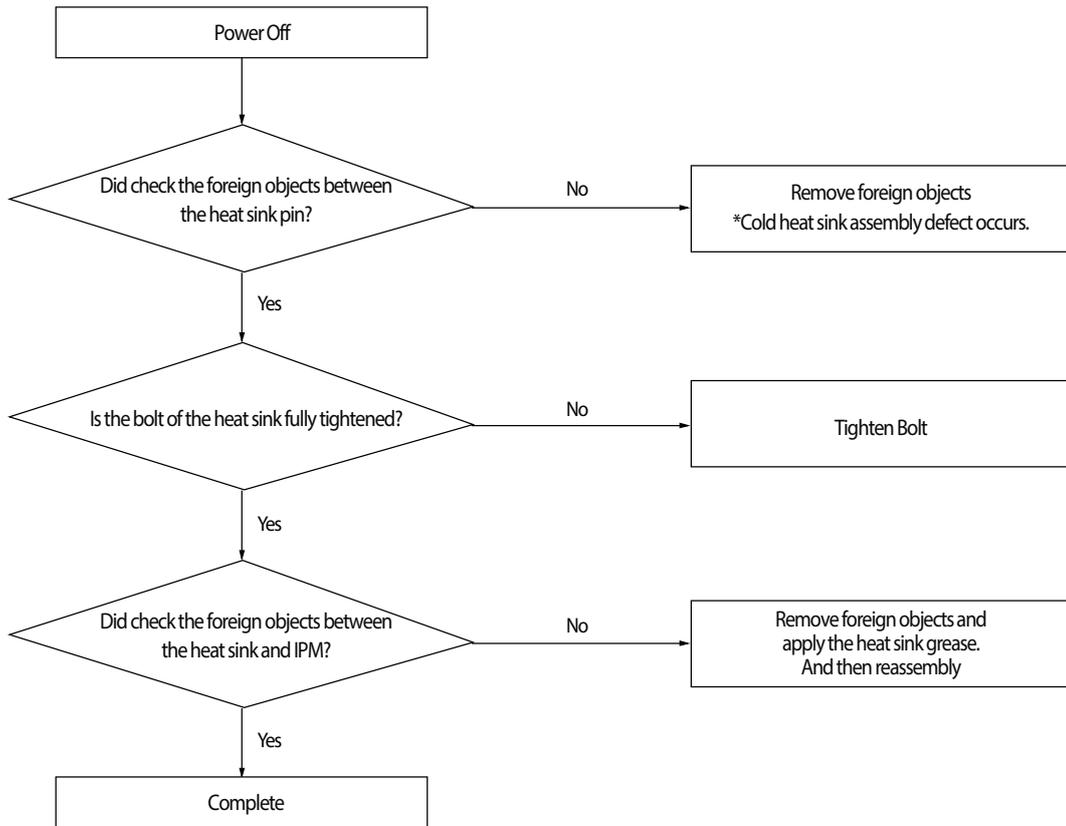
#### 1. Inspection Method



### 4-4-70 Fan IPM Overheat error

|                      |  |
|----------------------|--|
| Outdoor unit display | <i>E455</i> (FAN1 PCB)<br><i>E355</i> (FAN2 PCB)                         |
| Judgment Method      | · IPM internal temperature more than 85°C (E455, E355)                   |
| Cause of problem     | · Heat sink and IPM assembly defective.<br>· Defective heat sink cooling |

1. Cause of problem



#### 4-4-71 Over-Voltage Error of an Outdoor Fan Motor

|                      |   |
|----------------------|---|
| Outdoor unit display | E456  |
| Indoor unit display  | -   |
| Criteria             | • When the current of an operating outdoor fan motor is more than 7A for 1 minute |
| Cause of problem     | • Outdoor fan motor lock or defect<br>• Occurs by abrupt start or overload        |

1. How to check

- 1) Check if outdoor fan motor rotates or is locked
- 2) If it is not locked, the above error occurs due to overload and signals by abnormal operation, and it indicates the overload status. Thus, it is not breakdown.
- 3) Need to check if there is a problem with fan load status

#### 4-4-72 Counter-Rotation Error of an Outdoor Fan Motor

|                      |   |
|----------------------|---|
| Outdoor unit display | E457  |
| Indoor unit display  | -   |
| Criteria             | • When the rotational direction of an outdoor fan motor is counter-clockwise before operating |
| Cause of problem     | • Due to wind that can run the fan counter-wise   |

1. How to diagnose

- 1) Check if the start instruction of outdoor unit's fan is counter-clockwise

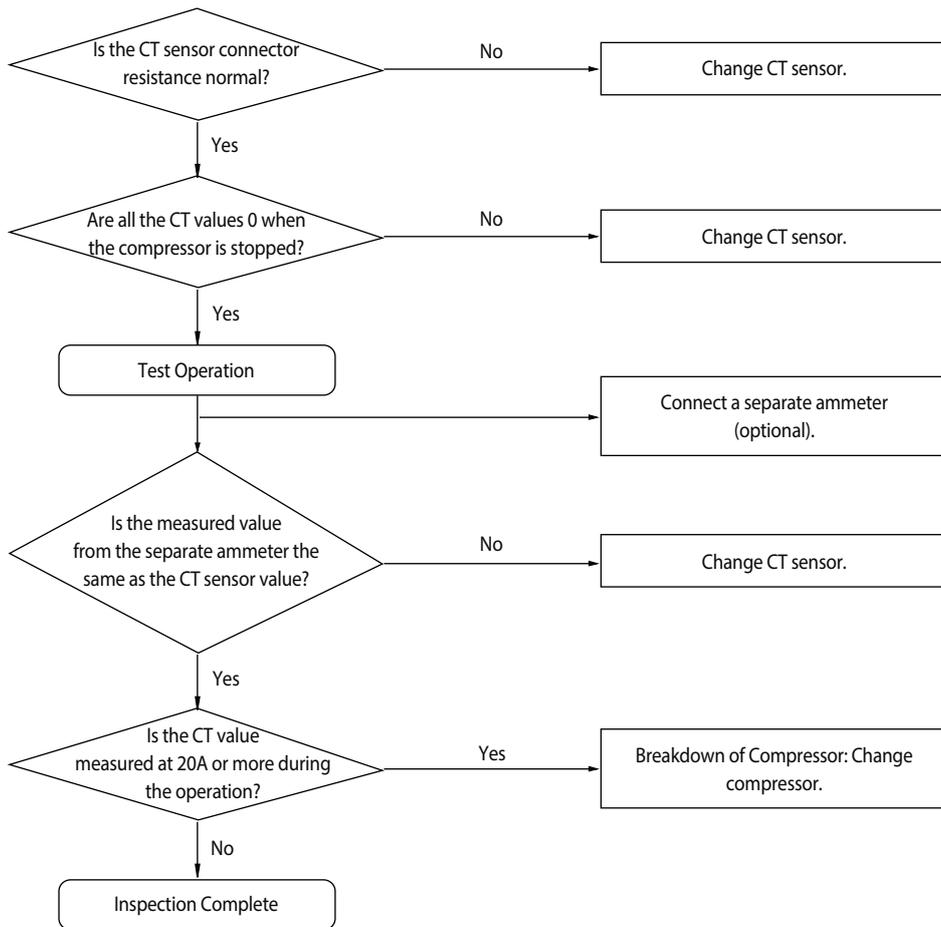
2. How to check

- 1) It is a signal to protect a motor by checking the operational condition of the outdoor unit's fan motor without power so as not to operate it in counter-clockwise condition.
- 2) Check if there is wind strong enough to force a fan to rotate counter-clockwise where the outdoor unit is installed.

### 4-4-73 E458 : Compressor Excess Current Error

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E458  |
| Indoor Unit Display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| Judgment Method      | • Error displayed if the CT sensor value of the relevant compressor is 20A or more and is maintained for more than 3 seconds. |
| Special Cause        | • Breakdown of compressor/Faulty CT sensor  |

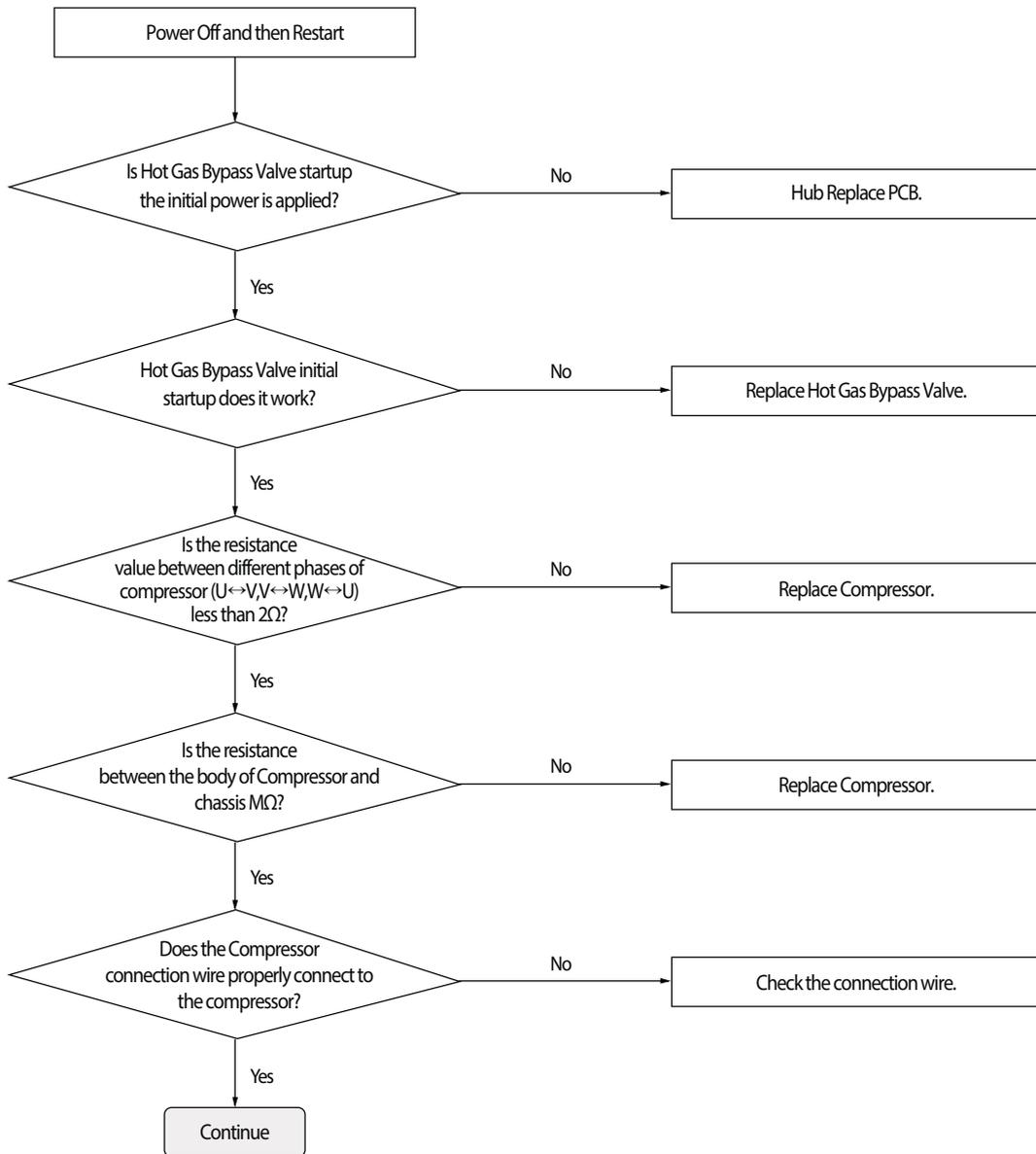
#### 1. Inspection Method



### 4-4-74 Compressor starting error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E461</b> (INVERTER1 PCB)<br><b>E361</b> (INVERTER2 PCB)  |
| Judgment Method      | <ul style="list-style-type: none"> <li>Startup, and then if the speed increase is not normally.</li> <li>Detected by H/W or S/W.</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>Compressor connection error</li> <li>Defective Compressor</li> <li>Defective PCB</li> </ul>          |

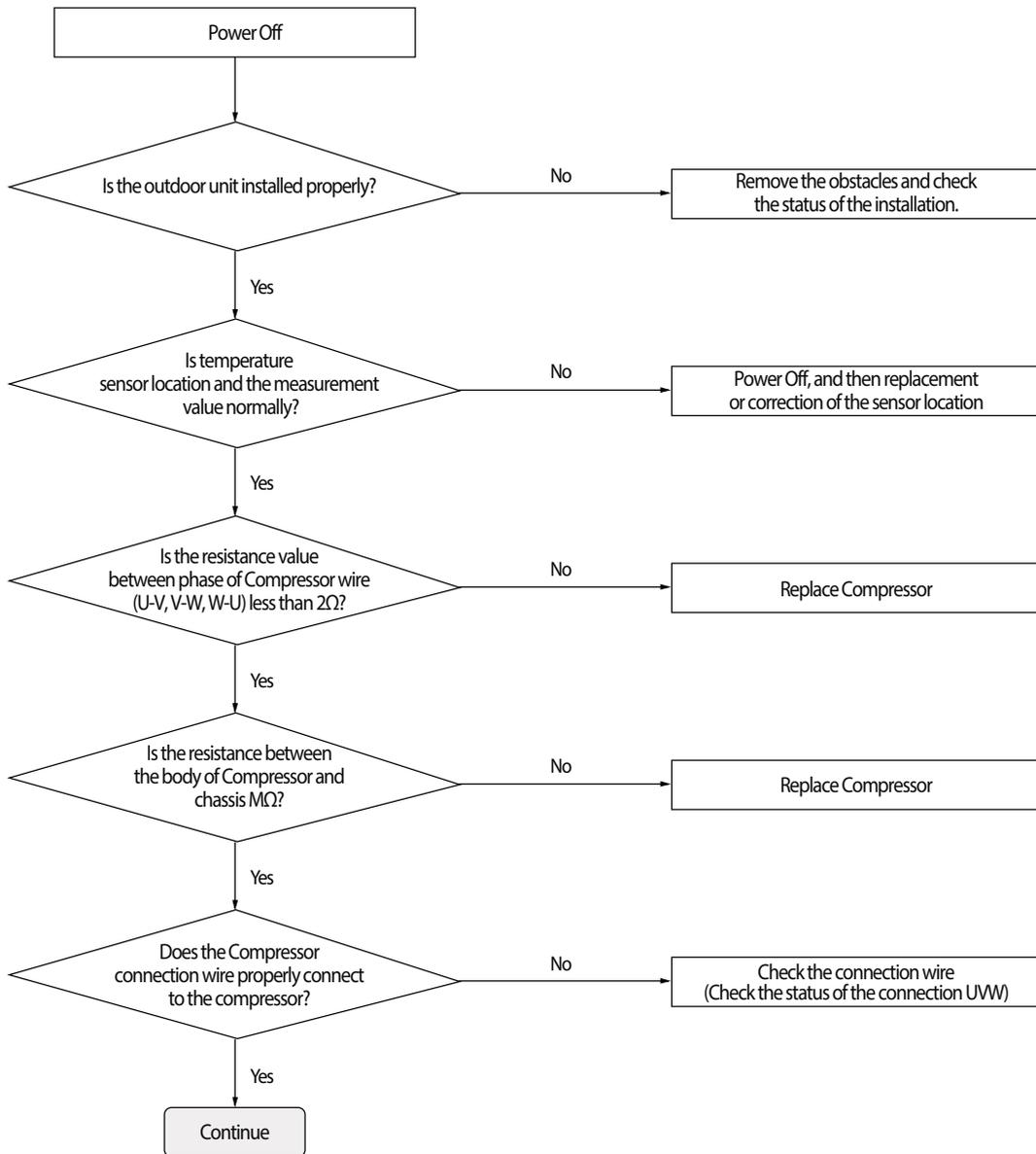
#### 1. Cause of problem



### 4-4-75 Inverter Overcurrent error

|                      |   |  |
|----------------------|---|--|
| Outdoor unit display | <i>E464/E465</i> (INVERTER1 PCB)<br><i>E364/E365</i> (INVERTER2 PCB)  |  |
| Judgment Method      | <ul style="list-style-type: none"> <li>· Will occur if the overcurrent flowing in the IPM.</li> <li>· Detected by H/W or S/W</li> </ul> |  |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Installation defective</li> <li>· Comp. defective</li> <li>· PCB defective</li> </ul>          | <ul style="list-style-type: none"> <li>· Connection wire error</li> <li>· Motor defective</li> </ul> |

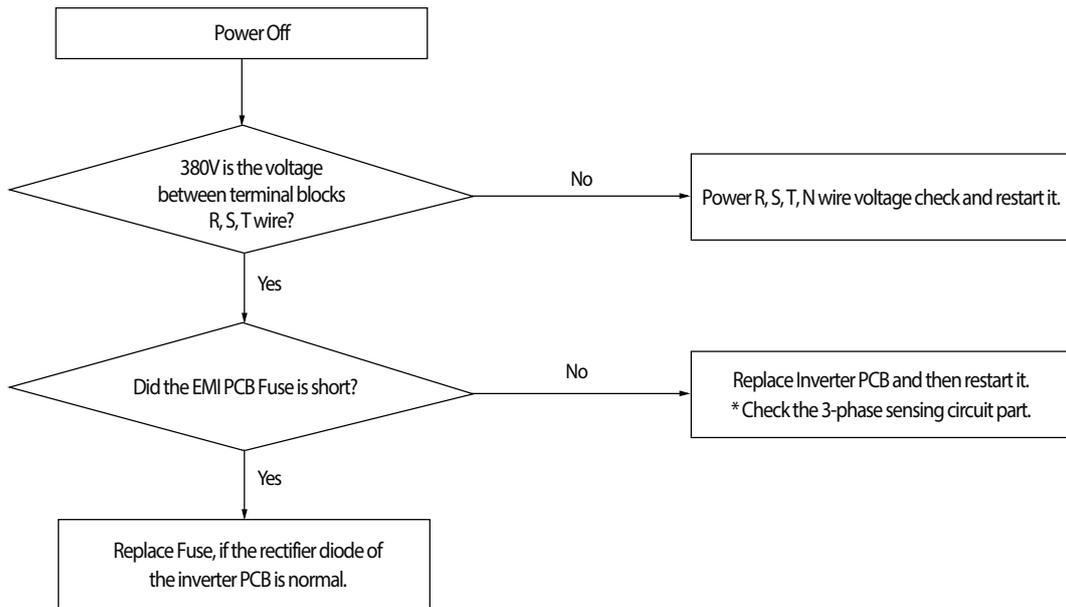
#### 1. Cause of problem



### 4-4-76 Overvoltage / Low voltage error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E466</b> (INVERTER1 PCB)<br><b>E366</b> (INVERTER2 PCB)  |
| Judgment Method      | <ul style="list-style-type: none"> <li>· N-phase wiring error and EMI Fuse short.</li> <li>· DC-Link Overvoltage / Low voltage occurs.</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Check the input wiring</li> <li>· EMI Fuse short</li> </ul>  |

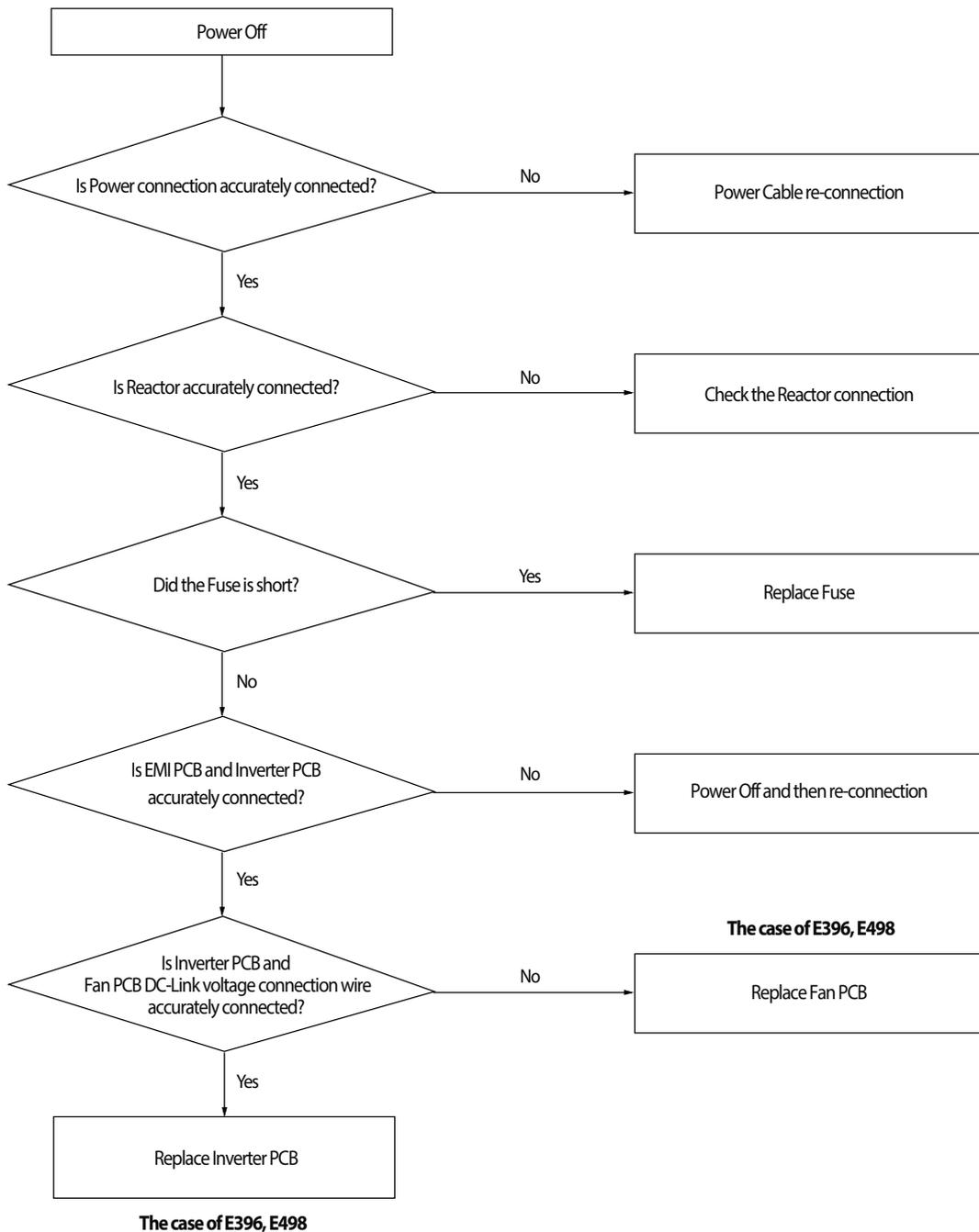
1. Cause of problem



### 4-4-77 DC Link voltage sensor error

|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E469</i> (INVERTER1 PCB) <i>E369</i> (INVERTER2 PCB)<br><i>E496</i> (OUTDOOR FAN 1 PCB) <i>E396</i> (OUTDOOR FAN 2 PCB)                      |
| Judgment Method      | · DC voltage detection : Judged as an error if the detected value is more than 2.8V or 0.2V less than   |
| Cause of problem     | · Input voltage defective<br>· AC Power wiring error<br>· Momentary Overvoltage / Low voltage occurs<br>· PCB voltage sensing circuit defective |

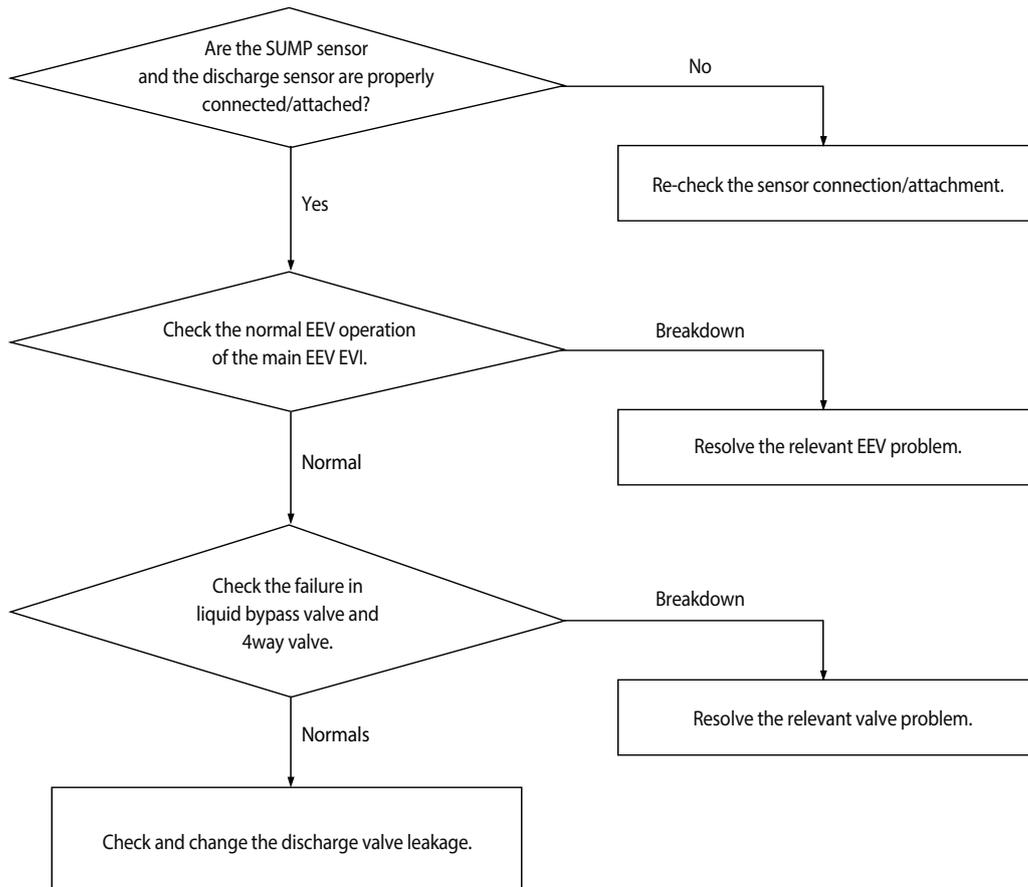
1. Cause of problem



### 4-4-78 Liquid Compression Prevention Control

|                      |   |
|----------------------|---|
| Outdoor Unit Display | E477  |
| Indoor Unit Display  | -   |
| Judgment Method      | • SUMP temperature decrease & DSH < 5°C 25 min.   |
| Special Cause        | • EVI EEV and super cooler, liquid bypass valve leakage, refrigerant overcharge, indoor unit EEV leakage, direct connection between indoor liquid pipe-gas pipe, faulty main EEV, and failure to operate compressor |

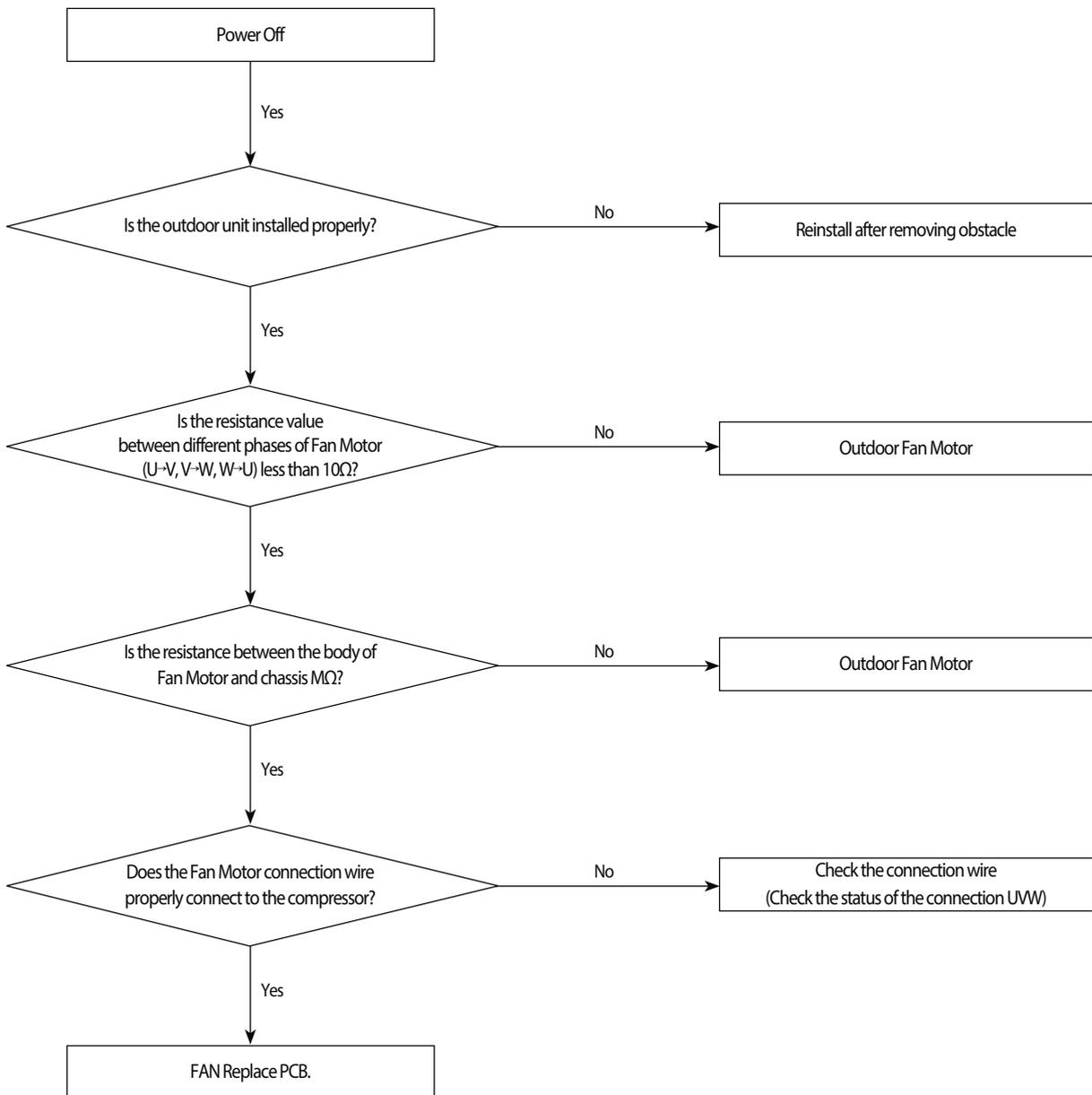
#### 1. Inspection Method



### 4-4-79 Fan Motor Overcurrent error

|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E478/E489</i> (FAN PCB(FAN1))<br><i>E378/E389</i> (FAN PCB(FAN2))  |
| Judgment Method      | <ul style="list-style-type: none"> <li>· Occurs when overcurrent flows in the IPM.</li> <li>· Detected by H/W or S/W</li> </ul>   |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Installation error</li> <li>· Defective Comp</li> <li>· Defective PCB</li> <li>· Connector error</li> <li>· Defective Motor</li> </ul> |

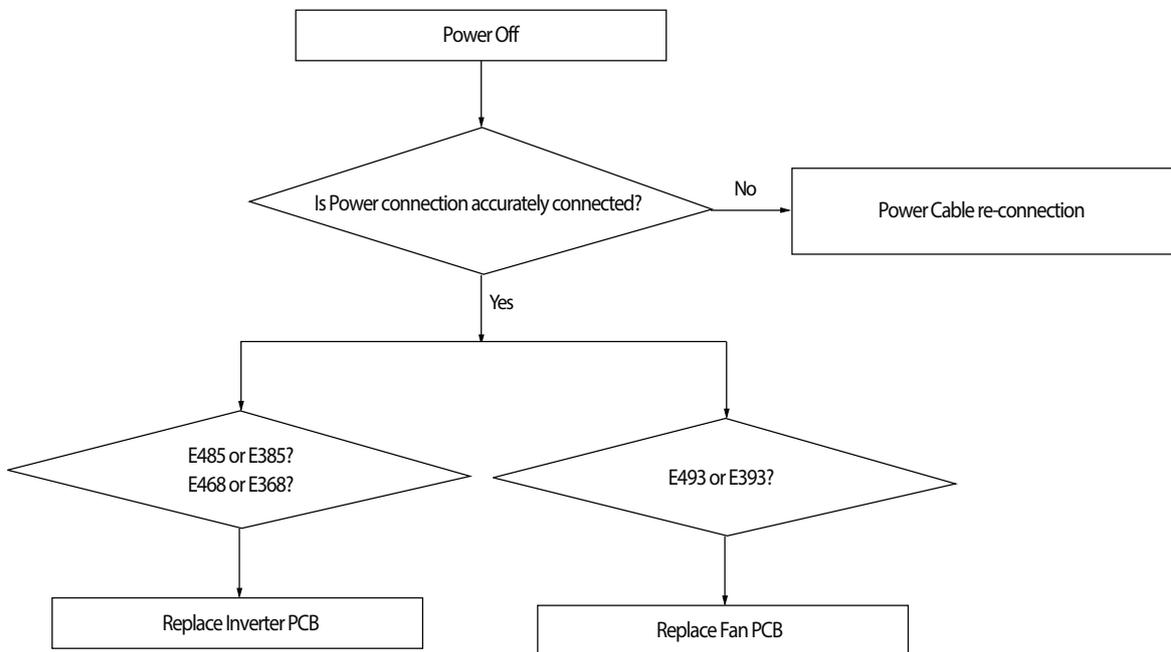
#### 1. Cause of problem



### 4-4-80 Input / Output Current sensor error

|                      |  |
|----------------------|--|
| Outdoor unit display | <p><i>E485</i> INVERTER1 PCB(Input Current sensor)</p> <p><i>E385</i> INVERTER2 PCB(Input Current sensor)</p> <p><i>E468</i> INVERTER1 PCB(Output Current sensor)</p> <p><i>E368</i> INVERTER 2 PCB(Output Current sensor)</p> <p><i>E493</i> OUTDOOR FAN PCB (FAN1 Output Current sensor)</p> <p><i>E393</i> OUTDOOR FAN PCB (FAN2 Output Current sensor)</p> |
| Judgment Method      | · Sensor Output detection : Judged as an error if the detected value is more than 2.8V or 0.2V less than   |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Input voltage defective</li> <li>· PCB voltage sensing circuit defective</li> </ul>   |

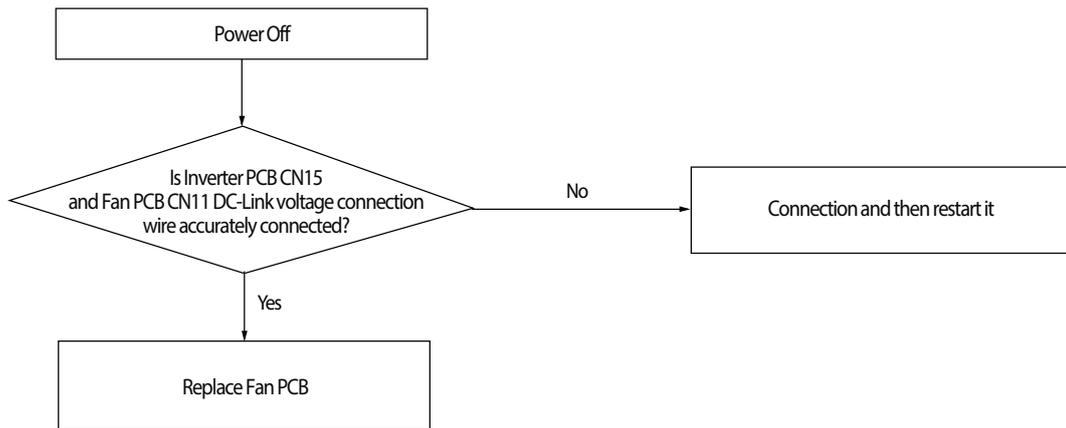
1. Cause of problem



### 4-4-81 Outdoor Fan PCB Overvoltage / Low voltage error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E486</b>   |
| Judgment Method      | <ul style="list-style-type: none"> <li>· N-phase wiring error and EMI Fuse short.</li> <li>· DC-Link Overvoltage / Low voltage occurs.</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Check the input wiring</li> <li>· EMI Fuse short</li> </ul>  |

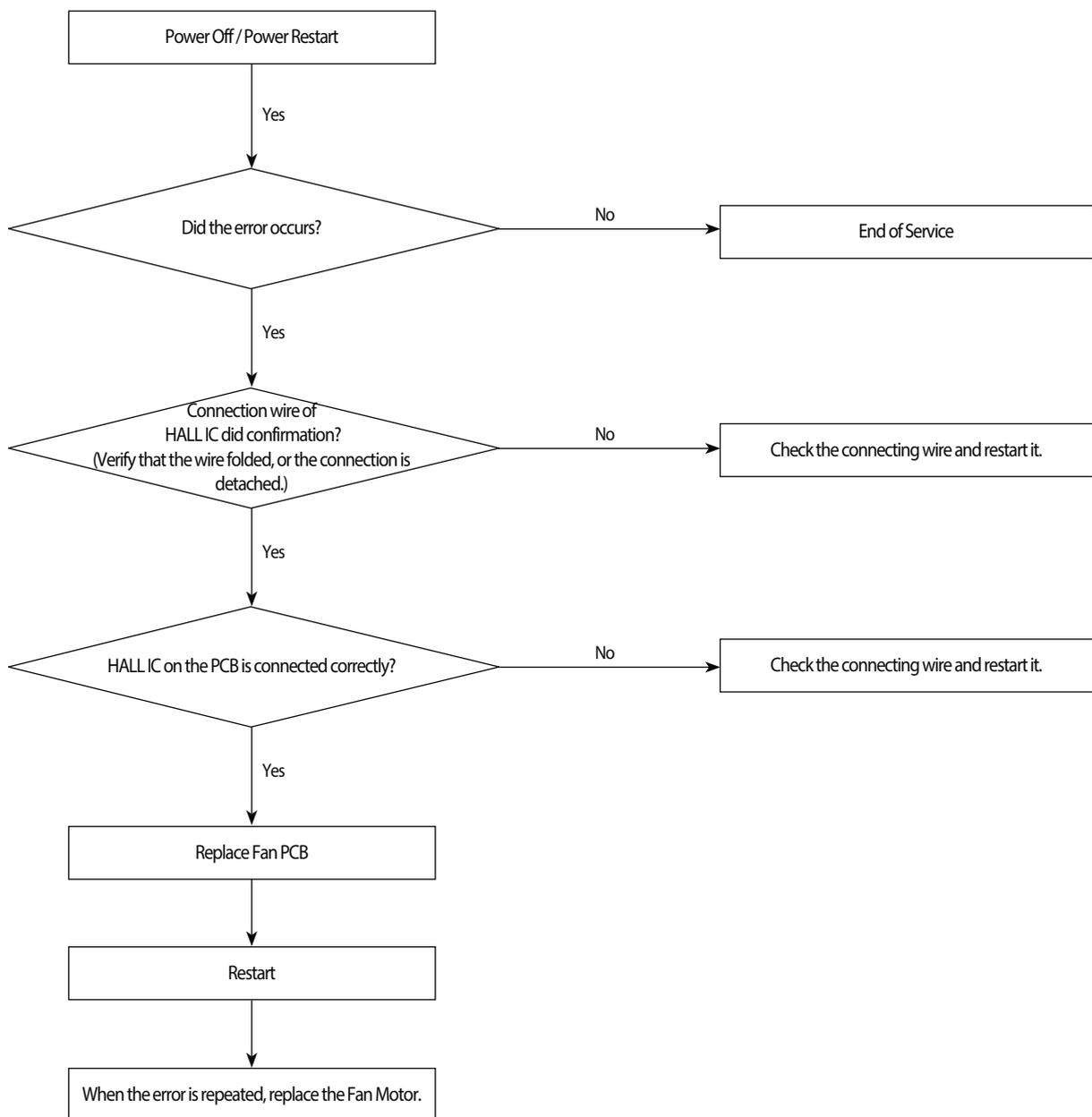
1. Cause of problem



### 4-4-82 Hall IC(Fan) error

|                      |   |
|----------------------|---|
| Outdoor unit display | <i>E487</i> (FAN PCB(FAN1))<br><i>E387</i> (FAN PCB(FAN2))  |
| Judgment Method      | <ul style="list-style-type: none"> <li>· Fan rotation defective or vibration and noise of the defective operation.</li> <li>· Hall IC there is no signal input.</li> </ul>  |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Connection status error.</li> <li>· Hall IC wire disconnection.</li> <li>· Defective circuit parts and defective manufacturing.</li> <li>· Fan Motor defective.</li> </ul> |

1. Cause of problem



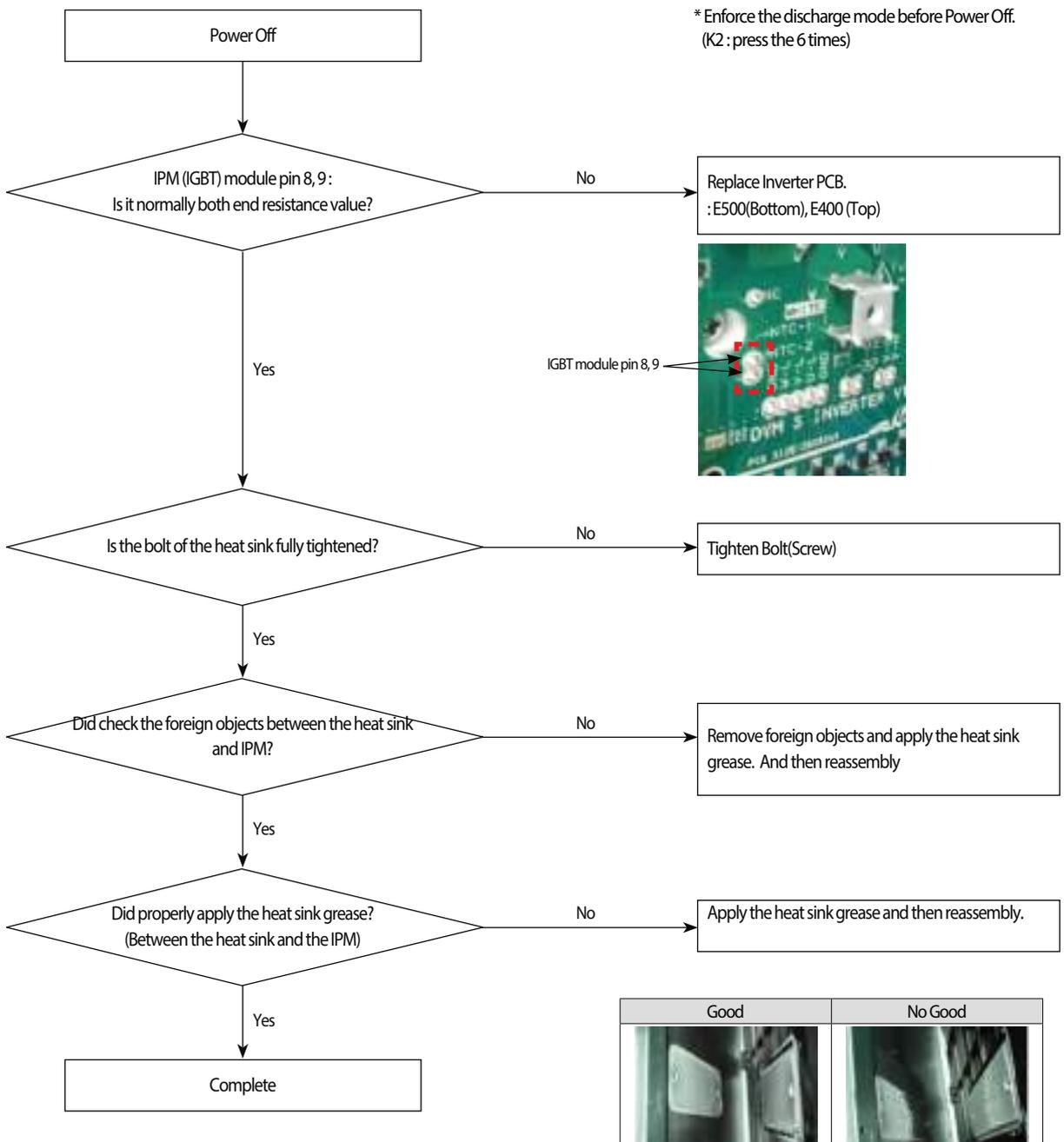
### 4-4-83 Inverter Overheat error

|                      |   |
|----------------------|---|
| Outdoor unit display | <b>E500</b> (INVERTER1 PCB)<br><b>E400</b> (INVERTER2 PCB)  |
| Judgment Method      | · IGBT module internal temperature :<br>105°C more than (E500, E400)  |
| Cause of problem     | · Cooling Pin and the IGBT junction part assembly defective.<br>· Refrigerant cooling heat sink and refrigerant piping assembly defective.<br>· Assembled bolt defective. |

Both end resistance values of IGBT module pin(8, 9 pin)

| Temperature [°C] | NTC [ohm] | AD [V] | Temperature [°C] | NTC [ohm] | AD [V] |
|------------------|-----------|--------|------------------|-----------|--------|
| 10               | 9000      | 2.58   | 100              | 500       | 0.55   |
| 20               | 6000      | 2.33   | 105              | 450       | 0.51   |
| 30               | 4000      | 2.03   | 110              | 380       | 0.44   |
| 40               | 3000      | 1.80   | 120              | 300       | 0.35   |
| 50               | 2000      | 1.47   | 130              | 250       | 0.30   |
| 60               | 1600      | 1.29   | 140              | 200       | 0.25   |
| 70               | 1200      | 1.07   |                  |           |        |
| 80               | 750       | 0.76   |                  |           |        |
| 90               | 650       | 0.68   |                  |           |        |

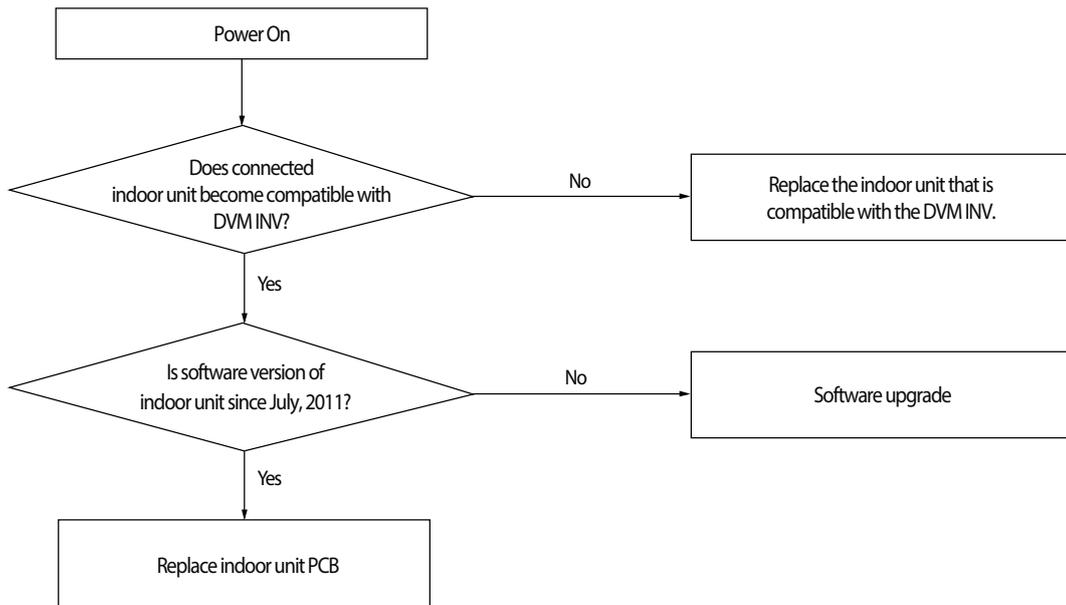
1. Cause of problem



### 4-4-84 Model mismatching of Indoor unit.

|                      |  |
|----------------------|--|
| Outdoor unit display | <i>E563</i>  |
| Judgment Method      | <ul style="list-style-type: none"> <li>· Prior to July 2011, if the software version of the indoor unit.</li> <li>· Prior to July 2011, if the software version of the indoor unit.</li> </ul> |
| Cause of problem     | <ul style="list-style-type: none"> <li>· Check the software version of the indoor unit.</li> <li>· Check whether the support of the indoor unit.</li> </ul>                                    |

1. Cause of problem



#### 4-4-85 Breakdown of an EEV(1<sup>st</sup>)

##### 1. How to diagnose

Detect only on cooling operation. (No detection during heating operation.)

During cooling operation, the temperature of the inlet or outlet ducts of heat exchanger is kept lower than 0°C for more than 20 minutes without cessation

##### 2. How to check

1) Check if the wire of an electronic expansion valve is correctly connected to the PCB of indoor unit.

2) Check if the coil of an electronic expansion valve is correctly plugged into the main body.

3) Check if there is any rust on the surface of the coil of an electronic expansion valve with the naked eye, and then check the resistance between each terminal to find any wire breaking or short circuit.

4) Press the RESET KEY (K3) of the outdoor unit then see if the same error occurs.

- In case of closure problem, operate the indoor unit in which the error has occurred.

- In case of opening problem, please do not operate the indoor unit in which the error has occurred.

5) If there is no problem with the above checkup items, replace the electronic expansion valve of the troubled indoor unit.

- As an electronic expansion valve replacement is tricky work that requires collecting refrigerants in all systems, please make sure to check the above items before replacement.

## 4-4-86 Breakdown of an EEV closure

### 1. How to diagnose

1) During cooling operation (It must satisfy each of the following conditions for over 20minutes.)

|   |                       |
|---|-----------------------|
| Tair in - Teva in in $\geq 4^{\circ}\text{C}$               | OK                    |
| Tair in - Teva out in $\geq 4^{\circ}\text{C}$              | OK                    |
| Tcond, out - Tair, out $> 3^{\circ}\text{C}$                | NO                    |
| Compressor in operation & Indoor unit operation & Thermo On | OK                    |
| Error details   | EEV closure breakdown |

2) During heating operation (It must satisfy each of the following conditions for over 20minutes.)

- When more than 2 indoor units are on Thermo On heating operating.
- When average high pressure is over 25 kg/cm<sup>2</sup>G
- 5 minutes after finishing Safety Start.
- Keep indoor units'  $T(\text{Eva\_IN}) < T(\text{Room}) + 3^{\circ}\text{C}$  and  $T(\text{Eva\_Out}) < T(\text{Room}) + 3^{\circ}\text{C}$  condition for more than five minutes.

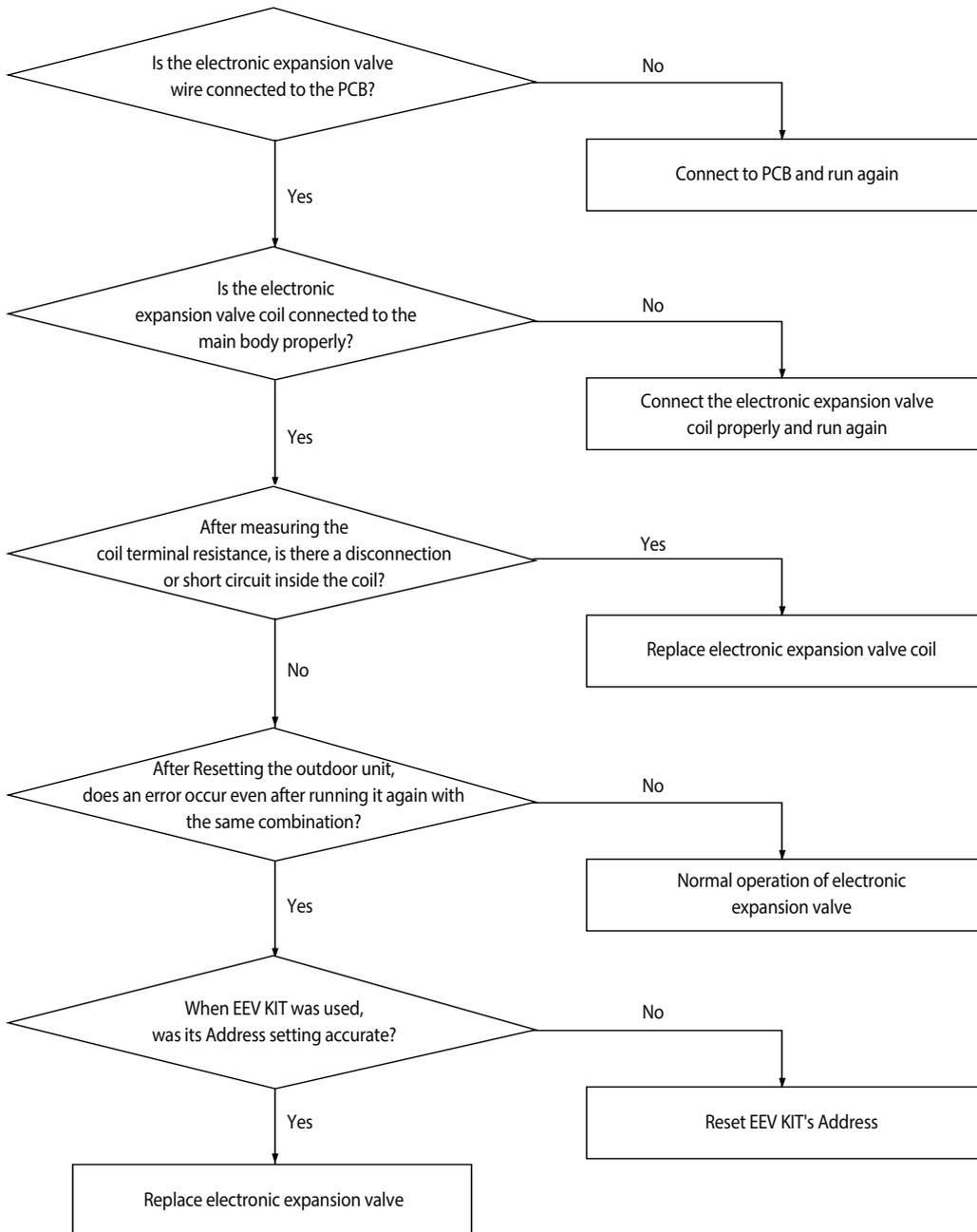
### 2. How to check

- 1) Check if the wire of an electronic expansion valve is correctly connected to the PCB of indoor unit.
- 2) Check if the coil of an electronic expansion valve is correctly plugged into the main body.
- 3) Check if there is any rust on the surface of the coil of an electronic expansion valve with the naked eye, and then check the resistance between each terminal to find any wire breaking or short circuit.
- 4) Press the RESET KEY (K3) of the outdoor unit then see if the same error occurs.
  - In case of closure problem, operate the indoor unit in which the error has occurred.
  - In case of opening problem, please do not operate the indoor unit in which the error has occurred.
- 5) If there is no problem with the above checkup items, replace the electronic expansion valve of the troubled indoor unit.
  - As an electronic expansion valve replacement is tricky work that requires collecting refrigerant in all systems, please make sure to check the above items before replacement.

### 4-4-87 Electronic expansion valve closing malfunction (2<sup>nd</sup> stage)

|                      |   |
|----------------------|---|
| Outdoor unit display | 1 <sup>st</sup> stage inspection: <i>P702</i> (only displays on outdoor unit)<br>2 <sup>nd</sup> stage inspection: <i>E 152</i> ↔ <i>A</i> <sup>x x x</sup> (x x x: error occurred) |
| Indoor unit display  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| Criteria             | • Please refer to determining method below  |
| Cause of problem     | • Faulty indoor unit electronic expansion valve action (valve will not open)<br>• Address setup error in indoor unit (RAC) using EEV KIT  |

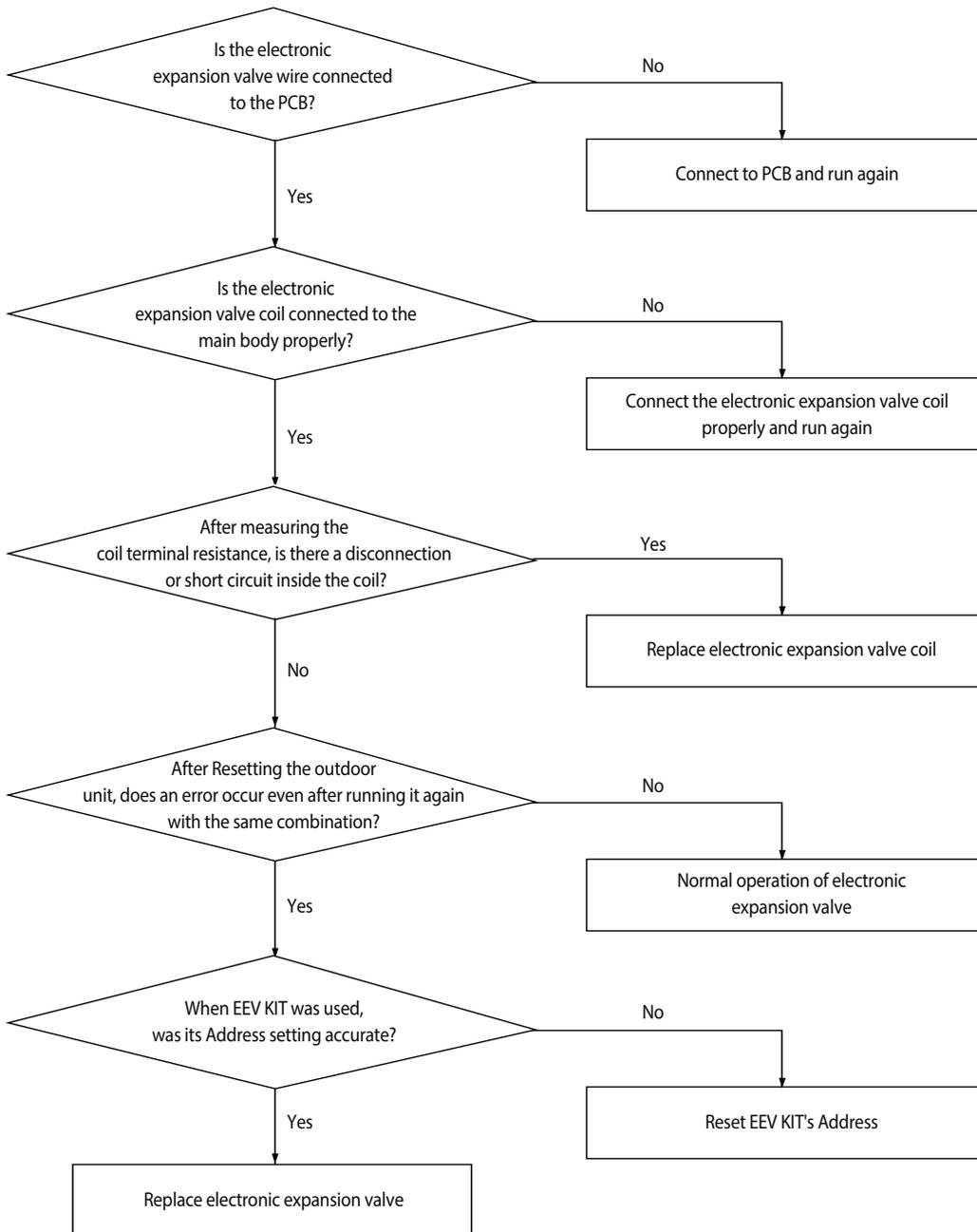
#### 1. Inspection Method



### 4-4-88 Electronic expansion valve opening malfunction (2<sup>nd</sup> stage)

|                             |   |
|-----------------------------|---|
| <b>Outdoor unit display</b> | 1 <sup>st</sup> stage inspection: <i>P703</i> (only displays on outdoor unit)<br>2 <sup>nd</sup> stage inspection: <i>E151</i> ↔ <i>A<sup>x</sup>x<sup>x</sup></i> (x x x: indoor unit address of where error occurred) |
| <b>Indoor unit display</b>  | ×(Operation) ●(Reservation) ●(Blast) ●(Filter) ×(Defrost)   |
| <b>Criteria</b>             | • Please refer to determining method below  |
| <b>Cause of problem</b>     | • Faulty indoor unit electronic expansion valve action (refrigerant will leak into the stopped indoor unit)<br>• Address setup error in indoor unit (RAC) using EEV KIT   |

#### 1. Inspection Method



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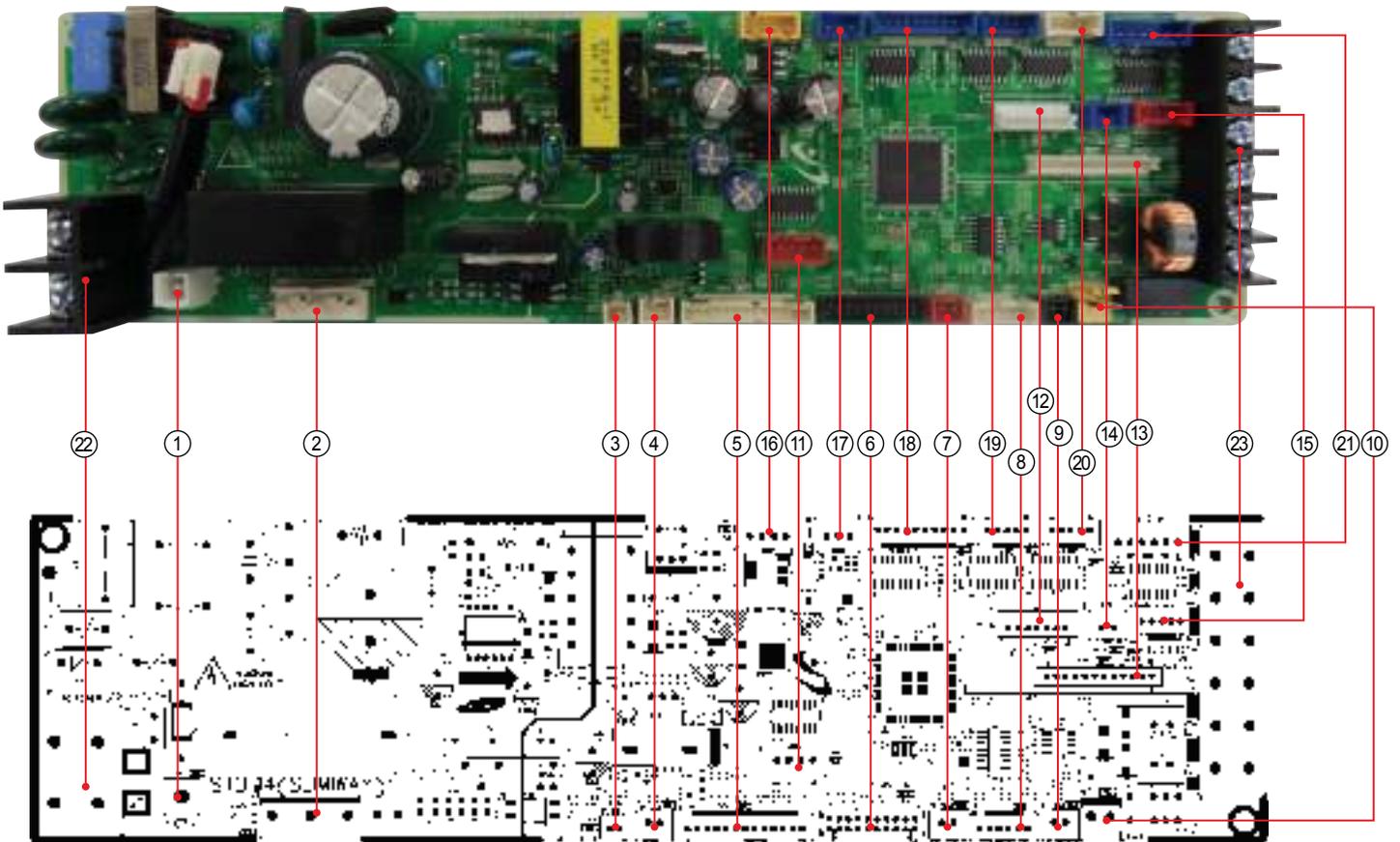
## 5. PCB Diagram and Parts List

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### 5-1 Indoor Unit

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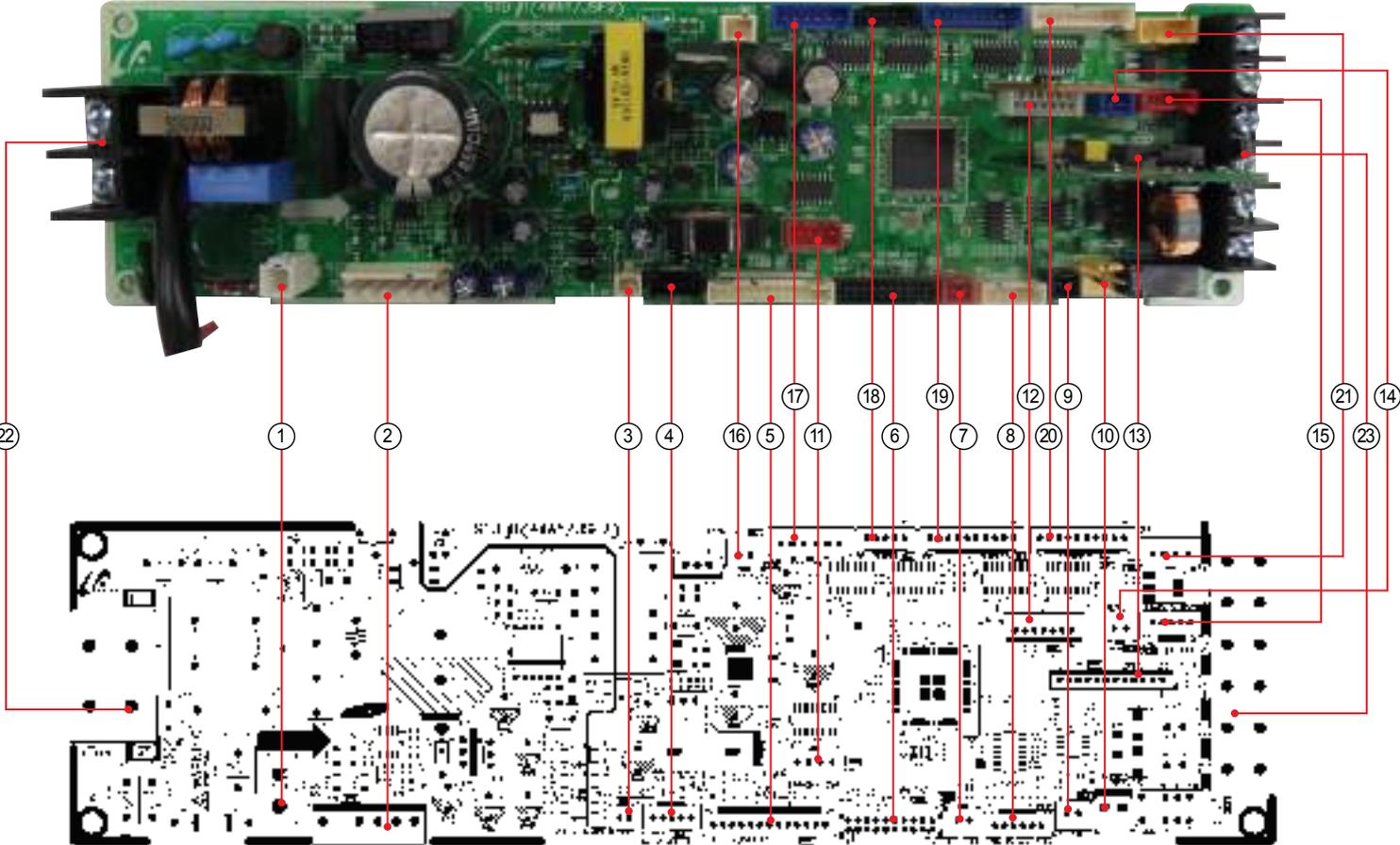
#### 5-1-1 Slim 1 way cassette type



## Slim 1 way cassette type

|  |   |   |   |
|--|---|---|---|
| ① <b>CN101-GND</b><br>#1: GND  | ② <b>CN701-FAN MOTOR</b><br>#1: POWER(N)<br>#3 : SSR MOTOR POWER(L)<br>#5 : POWER(N)                                | ③ <b>CN140-FUSE CHECK</b><br>#1: FUSE CHECK SIGNAL<br>#2: GND   | ④ <b>CN412-ROOM THERMISTOR</b><br>#1 : ROOM THERMISTOR<br>#2 : GND  |
| ⑤ <b>CN501-DISPLAY</b><br>#1: DC12V<br>#2: LED_0<br>#3: LED_1<br>#4: LED_2<br>#5: LED_3<br>#6: LED_4<br>#8: REMOCON_OUTPUT_SIGNAL<br>#9: AUTO SWITCH<br>#10: REMOCON_INPUT_SIGNAL<br>#11: GND<br>#12: DC5V<br>#13: GND | ⑥ <b>CN301-DOWNLOAD</b><br>#1: DC12V<br>#2: GND   | ⑦ <b>CN83-EXT CTRL</b><br>#1: GND<br>#2: EXT-CTRL SIGNAL  | ⑧ <b>CN413:THERMISTOR</b><br>#1 : EVA-IN THERMISTOR<br>#2 : GND<br>#3 : EVA-OUT THERMISTOR<br>#4 : GND<br>#5 : DISCHARGE THERMISTOR<br>#6 : GND |
| ⑨ <b>CN411-FLOAT SWITCH</b><br>#1: F/S SIGNAL<br>#2: GND   | ⑩ <b>CN103-DRAIN PUMP</b><br>#1: D/ P POWER(DC12V)<br>#2: GND   | ⑪ <b>CN81-ERROR/COMP CHECK</b><br>#1: DC12V<br>#2: ERROR SIGNAL OUTPUT(GND)<br>#3: DC12V<br>#4: COMP/OPER. SIGNAL OUTPUT(GND) | ⑫ <b>CN201-EEPROM</b><br>#1: GND<br>#3: DC5V<br>#4: EEPROM_SELECT<br>#5: EEPROM_SO<br>#6: EEPROM_SI<br>#7: EEPROM_CLK                           |
| ⑬ <b>CN311-2WIRED REMOCON</b>  | ⑭ <b>CN804-VENTILATOR</b><br>#1: DC12V<br>#2: VENT SIGNAL OUTPUT(GND)   | ⑮ <b>CN401-HUMAN SENSING</b><br>#1: DC12V<br>#2: HUMAN SENSOR COMM(TXD)<br>#3: HUMAN SENSOR COMM(RXD)<br>#4: GND              | ⑯ <b>CN801-SPI</b><br>#1: GND<br>#2: GND<br>#3: SPI POWER OUTPUT(DC12V)   |
| ⑰ <b>CN702-HALL IC</b><br>#1 : DC5V<br>#2 : GND<br>#3 : MOTOR FEEDBACK   | ⑱ <b>CN806-SLIDE 2/3</b><br>#1 : DC12V<br>#2~#5: LOUVER SIGNAL OUTPUT<br>#6 : DC12V<br>#7~#10: LOUVER SIGNAL OUTPUT | ⑲ <b>CN2-SLIDE 1</b><br>#1 : DC12V<br>#2~#5: LOUVER SIGNAL OUTPUT   | ⑳ <b>CN805-LOUVER</b><br>#1 : DC12V<br>#2~#5: LOUVER SIGNAL OUTPUT  |
| ㉑ <b>CN808-EEV</b><br>#1~#4: EEV SIGNAL OUTPUT<br>#5 : DC12V<br>#6 : DC12V   | ㉒ <b>TB101-AC POWER</b><br>#1: POWER(L)<br>#2: POWER(N)   | ㉓ <b>TE04-COMMUNICATION</b><br>#1: COM1(F1)<br>#2: COM1(F2)<br>#3: V1(DC12V)<br>#4: V2(GND)<br>#5: COM2(F3)<br>#6: COM2(F4)   |   |

5-1-2 4way cassette , mini 4way cassette type

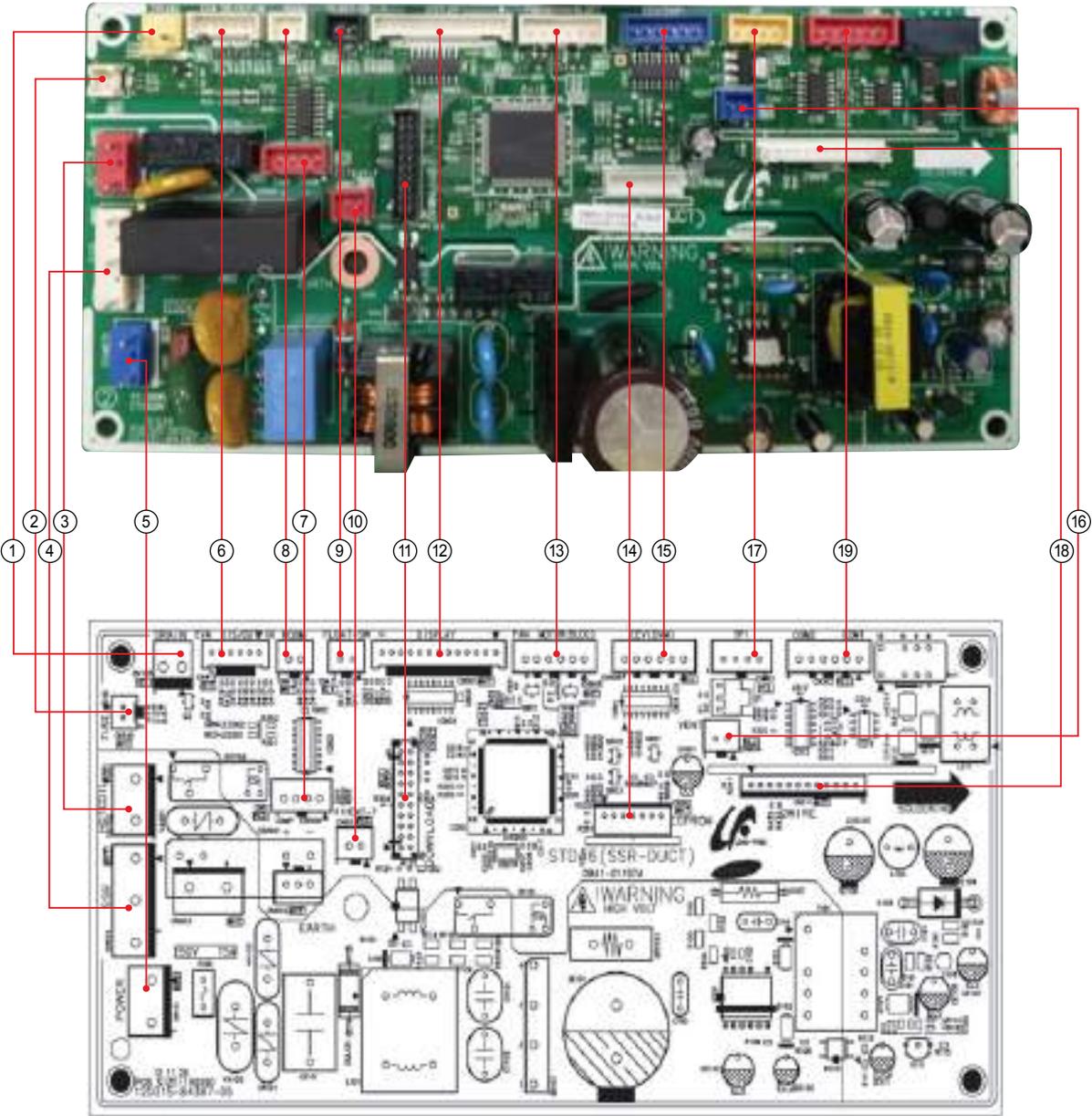


**4way cassette , mini 4way cassette type**

|  |  |   |   |
|--|--|---|---|
| ① <b>CN101-GND</b><br>#1: GND  | ② <b>CN701-BLDC MOTOR</b><br>#1: DC310V<br>#3 : GND<br>#4 : DC15V<br>#5 : FAN RPM<br>#6 : RPM FEEDBACK | ③ <b>CN140-FUSE CHECK</b><br>#1: FUSE CHECK SIGNAL<br>#2: GND   | ④ <b>CN809-AUTO GRILL</b><br>#1 : DC12V<br>#4 : REMOCON SIGNAL<br>#5 : GND  |
| ⑤ <b>CN501-DISPLAY</b><br>#1: DC12V<br>#2: LED_0<br>#3: LED_1<br>#4: LED_2<br>#5: LED_3<br>#6: LED_4<br>#7: LED_5<br>#8: REMOCON_OUTPUT_SIGNAL<br>#9 : AUTO SWITCH<br>#10: REMOCON_INPUT_SIGNAL<br>#11: GND<br>#12: DC5V<br>#13: GND | ⑥ <b>CN301-DOWNLOAD</b>  | ⑦ <b>CN83-EXT CTRL</b><br>#1: GND<br>#2: EXT-CTRL SIGNAL  | ⑧ <b>CN413:THERMISTOR</b><br>#1 : EVA-IN THERMISTOR<br>#2 : GND<br>#3 : EVA-OUT THERMISTOR<br>#4 : GND<br>#5 : DISCHARGE THERMISTOR<br>#6 : GND |
| ⑨ <b>CN411-FLOAT SWITCH</b><br>#1: F/S SIGNAL<br>#2: GND   | ⑩ <b>CN103-DRAIN PUMP</b><br>#1: D/ P POWER(DC12V)<br>#2: GND  | ⑪ <b>CN81-ERROR/COMP CHECK</b><br>#1: DC12V<br>#2: ERROR SIGNAL OUTPUT(GND)<br>#3: DC12V<br>#4: COMP/OPER. SIGNAL OUTPUT(GND) | ⑫ <b>CN201-EEPROM</b><br>#1: GND<br>#3: DC5V<br>#4: EEPROM_SELECT<br>#5: EEPROM_SO<br>#6: EEPROM_SI<br>#7: EEPROM_CLK                           |
| ⑬ <b>CN311-2WIRED REMOCON</b>  | ⑭ <b>CN804-VENTILATOR</b><br>#1: DC12V<br>#2: VENT SIGNAL OUTPUT(GND)                                  | ⑮ <b>CN401-HUMAN SENSING</b><br>#1: DC12V<br>#2: HUMAN SENSOR COMM(TXD)<br>#3: HUMAN SENSOR COMM(RXD)<br>#4: GND              | ⑯ <b>CN412-ROOM THERMISTOR</b><br>#1 : ROOM THERMISTOR<br>#2 : GND  |
| ⑰ <b>CN808-EEV</b><br>#1~#4: EEV SIGNAL OUTPUT<br>#5 : DC12V<br>#6 : DC12V   | ⑱ <b>CN807-LOUVER5</b><br>#1 : DC12V<br>#2~#5: LOUVER SIGNAL OUTPUT                                    | ⑲ <b>CN806-LOUVER3/4</b><br>#1 : DC12V<br>#2~#5: LOUVER SIGNAL OUTPUT<br>#6 : DC12V<br>#7~#10: LOUVER SIGNAL OUTPUT           | ⑳ <b>CN805-LOUVER1/2</b><br>#1 : DC12V<br>#2~#5: LOUVER SIGNAL OUTPUT   |
| ㉑ <b>CN801-SPI</b><br>#1: GND<br>#2: GND<br>#3: SPI POWER OUTPUT(DC12V)  | ㉒ <b>TB101-AC POWER</b><br>#1: POWER(L)<br>#2: POWER(N)  | ㉓ <b>TE04-COMMUNICATION</b><br>#1: COM1(F1)<br>#2: COM1(F2)<br>#3: V1(DC12V)<br>#4: V2(GND)<br>#5: COM2(F3)<br>#6: COM2(F4)   |   |

### 5-1-3 Duct type (SLIM Duct 1,2)

■ MAIN PCB



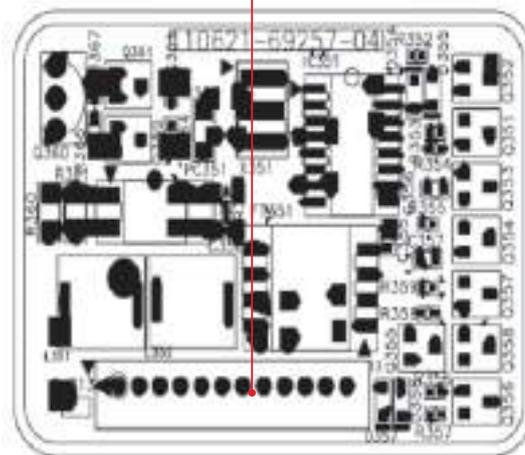
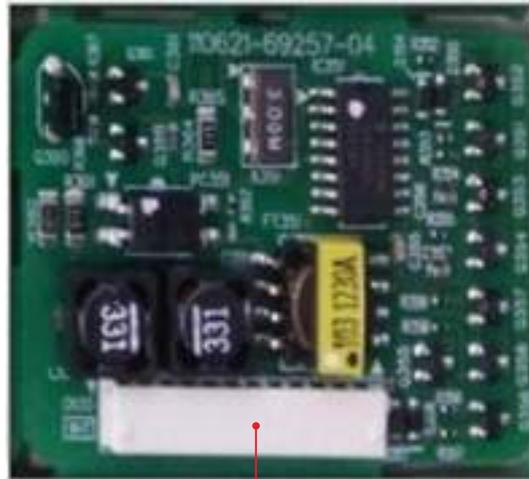
## Duct type (SLIM Duct 1,2) (cont.)

## ■ MAIN PCB

|   |  |  |  |
|---|--|--|--|
| ① <b>CN103-DRAIN</b><br>#1:POWER<br>#2:GND  | ② <b>CN140-FUSE CHK</b><br>#1:POWER<br>#2:GND  | ③ <b>CN702-HOTCOIL</b><br>#1:N<br>#3:L   | ④ <b>CN904-SSR</b><br>#1,#5:N<br>#3:L<br>#2,#4:NO USED   |
| ⑤ <b>CN101-POWER</b><br>#1:L<br>#3:N  | ⑥ <b>CN413-EVA DIS/OUT/IN</b><br>#1:EVA-IN<br>#3:EVA-OUT<br>#5:DISCHARGE<br>#2,#4,#6:GND   | ⑦ <b>CN81-COMP ERROR</b><br>#1,#3:12V<br>#2:ERROR_CHK_OUT<br>#4:COMP_CHK_OUT                         | ⑧ <b>CN412-ROOM</b><br>#1:ROOM<br>#2:GND   |
| ⑨ <b>CN411-FLOAT SW</b><br>#1:FLOAT SW<br>#2:GND  | ⑩ <b>CN83-EXT T</b><br>#1:GND<br>#2:EXT_CTRL   | ⑪ <b>CN301-DOWNLOAD</b><br>- For Developer only,Not available in Actual Site<br>- 20 Pin Down Loader | ⑫ <b>CN501-DISPLAY</b><br>12.CN501-DISPLAY<br>#1:12V<br>#2~#6:DISPLAY LED CONTROL<br>#7:BZ_1<br>#8:REMOCON SIGNAL OUT<br>#9:AUTO_SW<br>#10:REMOCON_INT<br>#11:GND<br>#12:VCC<br>#13:BZ_2 |
| ⑬ <b>CN905-FAN MOTOR</b><br>#1:12V<br>#2:GND<br>#3:VCC<br>#4:MOTOR SIGNAL PWM1 OUT<br>#5:R903 CONTROL SIGNAL<br>#6:INRUSH OUT | ⑭ <b>CN201-EEPROM</b><br>#1:GND<br>#2:NO USED<br>#3:VCC<br>#4:EEPROM_SELECT<br>#5:EEPROM_SO<br>#6:EEPROM_SI<br>#7:EEPROM_CLK   | ⑮ <b>CN808-EEV(DVM)</b><br>#1~4:CONTROL SIGNAL<br>#5~6:12V   | ⑯ <b>CN804-VENT</b><br>#1:12V<br>#2:VENT_OUT   |
| ⑰ <b>CN801-SPI</b><br>#1:GND<br>#2:GND<br>#3:CONTROL SIGNAL<br>#4:NOT USED  | ⑱ <b>CN311-2WIRE</b><br>#1:12V<br>#2:COM2_PCTRL_MICOM<br>#3:COM2_VCHECK_A<br>#4:COM2_VCHECK_B<br>#5:COM2_MICOM_AD<br>#6:VCC<br>#7:COM2_ENABLE<br>#8:COM2_C<br>#9:COM2_D<br>#10:COM2_Tx<br>#11:COM2_Rx<br>#12:GND | ⑲ <b>CN302-COM1 COM2</b><br>#1~2:COM1<br>#3:12V<br>#4:GND<br>#5~6:COM2                               |  |

**Duct type** (SLIM Duct 1,2) (cont.)

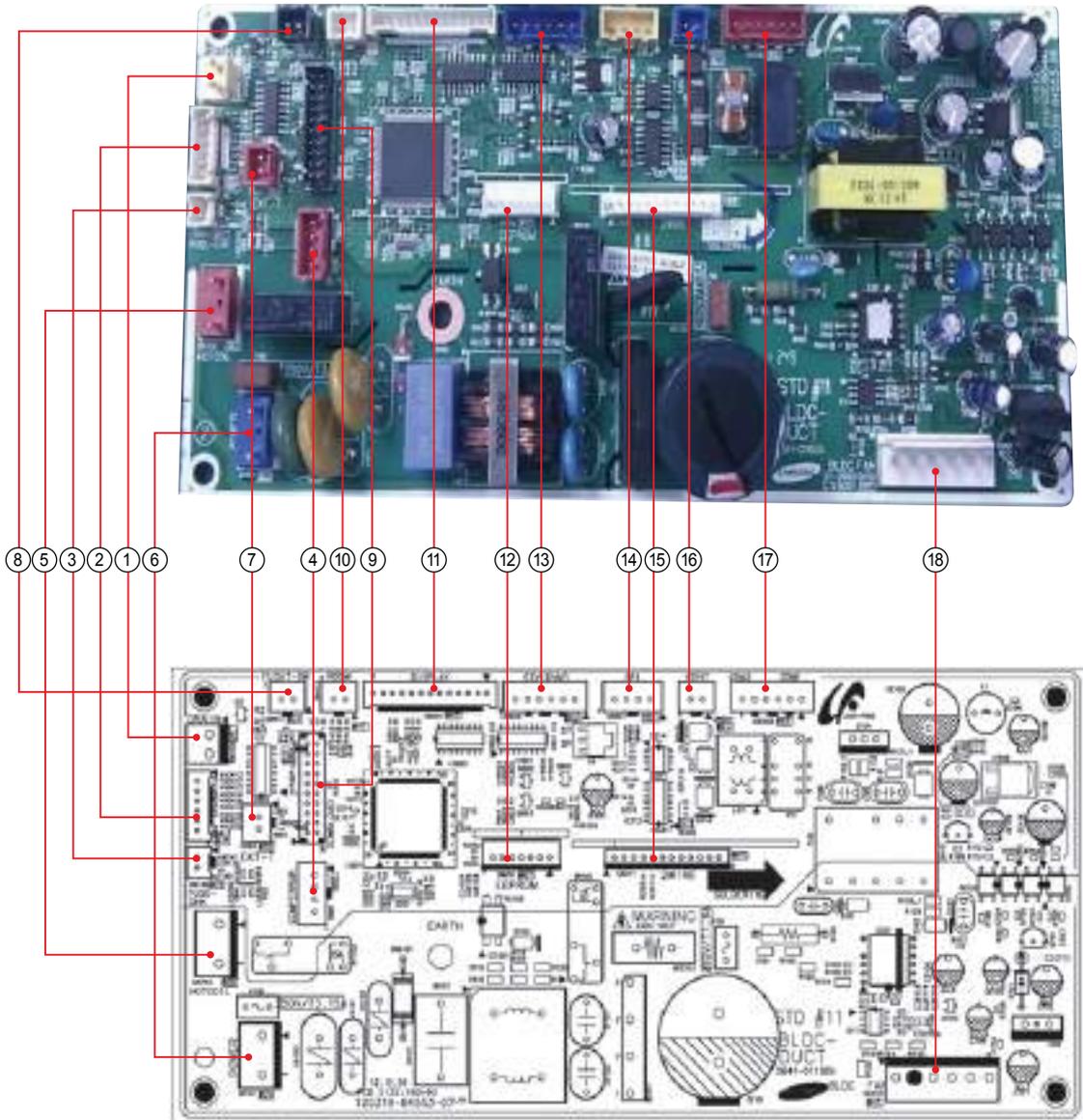
## ■ Sub PCB

① **CN313-2WIRES COMM.**

- #1:12V
- #2:COM2\_PCTRL\_MICOM
- #3:COM2\_VCHECK\_A
- #4:COM2\_VCHECK\_B
- #5:COM2\_MICOM\_AD
- #6:VCC
- #7:NO UESD
- #8:COM2\_C
- #9:COM2\_D
- #10:COM2\_TXD
- #11:COM2\_RXD
- #12:GND

### 5-1-4 Duct type (Slim Duct 3, MA-1(Drain Pump Built-in))

#### ■ MAIN PCB



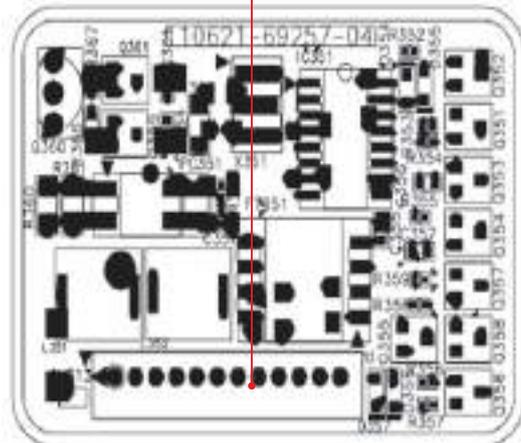
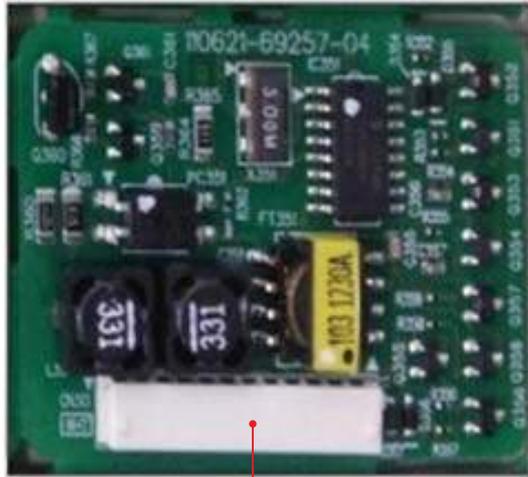
**Duct type** (Slim Duct 3, MA-1(Drain Pump Built-in)) (cont.)

## ■ MAIN PCB

|  |   |  |  |
|--|---|--|--|
| ① <b>CN103-DRAIN</b><br>#1:POWER<br>#2:GND   | ② <b>CN413-EVA DIS/OUT/IN</b><br>#1:EVA-IN<br>#3:EVA-OUT<br>#5:DISCHARGE<br>#2,#4,#6:GND                      | ③ <b>CN140-FUSE CHK</b><br>#1:POWER<br>#2:GND  | ④ <b>CN81-COMP ERROR</b><br>#1,#3:12V<br>#2:ERROR_CHK_OUT<br>#4:COMP_CHK_OUT   |
| ⑤ <b>CN702-HOTCOIL</b><br>#1:N<br>#3:L   | ⑥ <b>CN101-POWER</b><br>#1:L<br>#3:N  | ⑦ <b>CN83-EXT T</b><br>#1:GND<br>#2:EXT_CTRL   | ⑧ <b>CN411-FLOAT SW</b><br>#1:FLOAT SW<br>#2:GND   |
| ⑨ <b>CN301-DOWNLOAD</b><br>→For Developer only,Not available in Actual Site<br>→20 Pin Down Loader | ⑩ <b>CN412-ROOM</b><br>#1:ROOM<br>#2:GND  | ⑪ <b>CN501-DISPLAY</b><br>#1:12V<br>#2~#6:DISPLAY LED CONTROL<br>#7:BZ_1<br>#8:REMOCON SIGNAL OUT<br>#9:AUTO_SW<br>#10:REMOCON_INT<br>#11:GND<br>#12:VCC<br>#13:BZ_2   | ⑫ <b>CN201-EEPROM</b><br>#1:GND<br>#2:NO USED<br>#3:VCC<br>#4:EEPROM_SELECT<br>#5:EEPROM_SO<br>#6:EEPROM_SI<br>#7:EEPROM_CLK |
| ⑬ <b>CN808-EEV(DVM)</b><br>#1~4:CONTROL SIGNAL<br>#5~6:12V   | ⑭ <b>CN801-SPI</b><br>#1:GND<br>#2:GND<br>#3:CONTROL SIGNAL<br>#4:NOT USED                                    | ⑮ <b>CN311-2WIRE</b><br>#1:12V<br>#2:COM2_PCTRL_MICOM<br>#3:COM2_VCHECK_A<br>#4:COM2_VCHECK_B<br>#5:COM2_MICOM_AD<br>#6:VCC<br>#7:COM2_ENABLE<br>#8:COM2_C<br>#9:COM2_D<br>#10:COM2_Tx<br>#11:COM2_Rx<br>#12:GND | ⑯ <b>CN804-VENT</b><br>#1:12V<br>#2:VENT_OUT   |
| ⑰ <b>CN302-COM1 COM2</b><br>#1~2:COM1<br>#3:12V<br>#4:GND<br>#5~6:COM2                             | ⑱ <b>CN703-BLDC FAN</b><br>#1:DC310V<br>#2:NOT USED<br>#3:AGND<br>#4:DC15V<br>#5:PC04 OUTPUT<br>#6:RPM OUTPUT |  |  |

## Duct type (Slim Duct 3, MA-1(Drain Pump Built-in))

### ■ Sub PCB

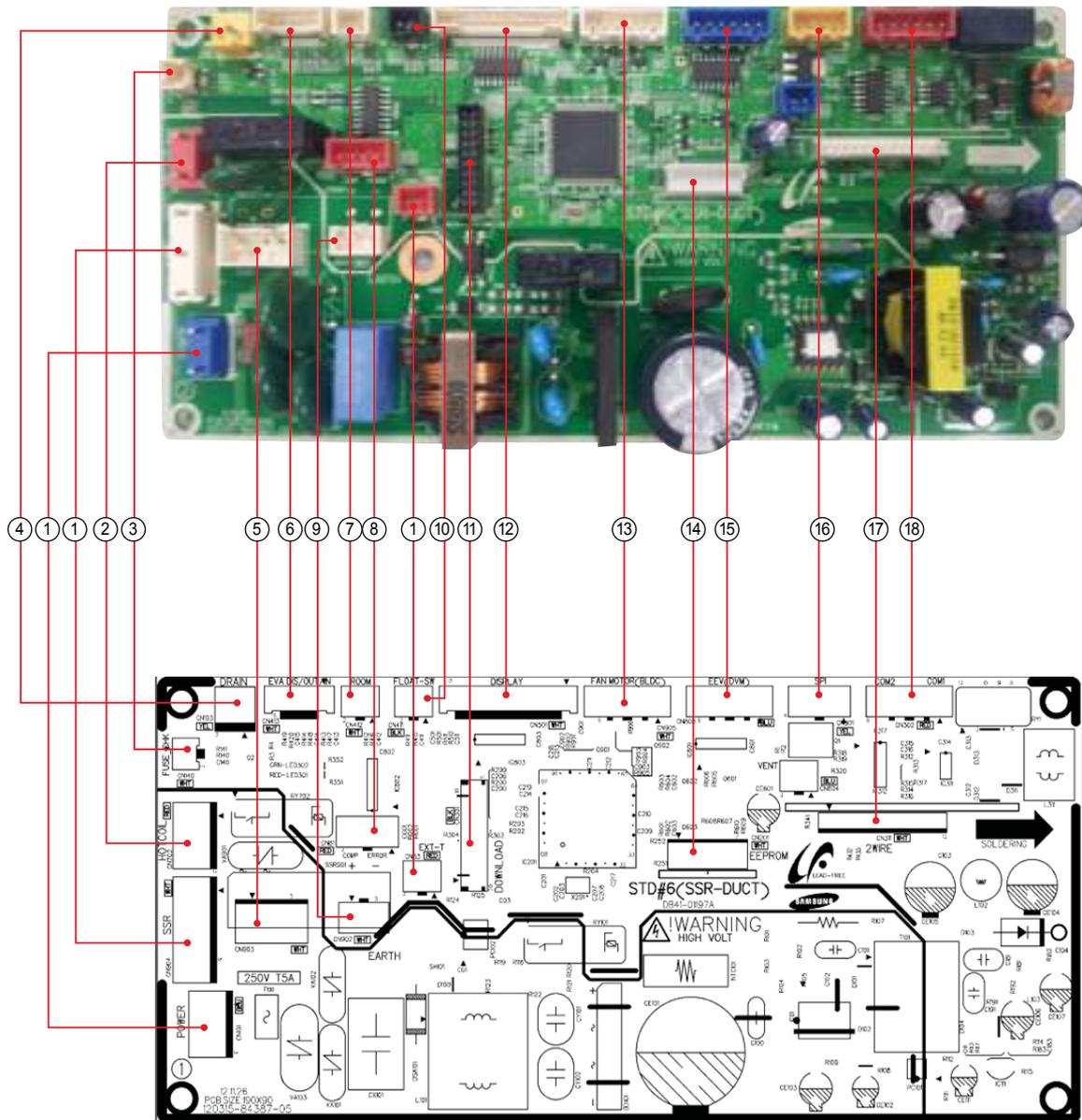


① **CN313-2WIRES COMM.**

- #1:12V
- #2:COM2\_PCTRL\_MICOM
- #3:COM2\_VCHECK\_A
- #4:COM2\_VCHECK\_B
- #5:COM2\_MICOM\_AD
- #6:VCC
- #7:NO UESD
- #8:COM2\_C
- #9:COM2\_D
- #10:COM2\_TXD
- #11:COM2\_RXD
- #12:GND

### 5-1-5 Duct type (MSP, HSP Small, BIG Duct, MA-2(Drain Pump Built-in))

#### ■ MAIN PCB

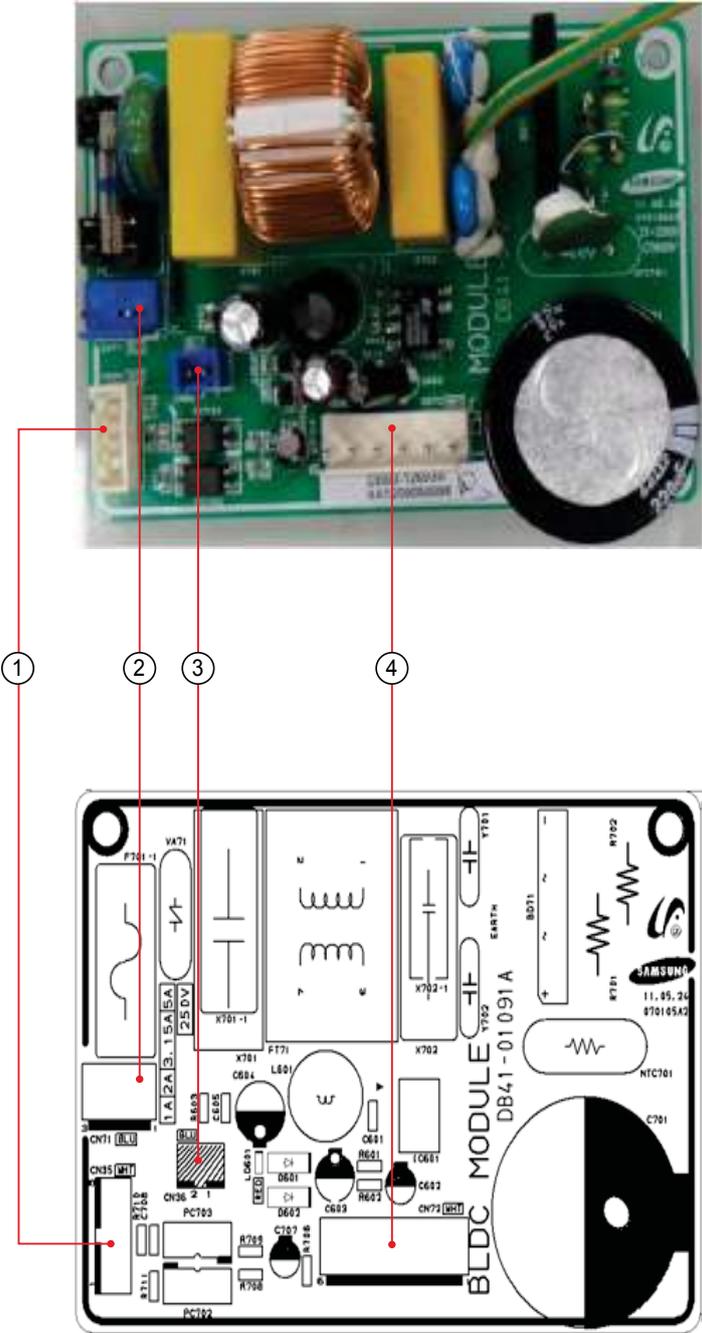


**Duct type (MSP, HSP Small, BIG Duct, MA-2(Drain Pump Built-in)) (cont.)****■ MAIN PCB**

|   |  |  |   |
|---|--|--|---|
| ① <b>CN904-SSR MOTOR</b><br>#1: N<br>#2: L<br>#3: N   | ② <b>CN702-HOT COIL</b><br>#1: L<br>#2: N  | ③ <b>CN140-FUSE CHECK</b><br>#1:FUSE CHECK<br>#2:GND                             | ④ <b>CN103-DRAIN PUMP</b><br>#1: 12V<br>#2 : GND  |
| ⑤ <b>CN903-SSR AC Control</b><br>#1: L Input<br>#2: L Output  | ⑥ <b>CN413 - Temperature sensor</b><br>#1 : EVA IN TEMP<br>#2,4,6: GND<br>#3 : EVA OUT TEMP<br>#5 : DISCHARGE TEMP   | ⑦ <b>CN412-ROOM Temperature type</b><br>#1: Temperature type<br>#2: GND          | ⑧ <b>CN81-EXTERNAL CONTROL OUT</b><br>#1,3: 12V<br>#2: ERROR CHECK OUT<br>#4: COM CHK OUT   |
| ⑨ <b>CN902- SSR DC Output</b><br>#1: 12V<br>#2: MOTOR SSR OUT   | ⑩ <b>CN83-EXTERNAL CONTROL</b><br>#1: GND<br>#2: EXT CTRL  | ⑪ <b>CN301-MICOM DOWNLOAD</b>  | ⑫ <b>CN501-DISPLAY</b><br>#1:12V<br>#2~6:LED Control<br>#7: BZ1<br>#8: Remote control signal output<br>#9: AUTO SW<br>#10: REMOCON INT<br>#11:GND<br>#12:VCC<br>#13:BZ2 |
| ⑬ <b>CN905-BLDC MOTOR</b><br>#1:12V<br>#2: GND<br>#3: VCC<br>#4: MOTOR SIGNAL PWM<br>#5: MOTOR FEEDBACK<br>#6:INRUSH OUT<br>#12:VCC | ⑭ <b>CN201-E2P Module</b>  | ⑮ <b>CN808-Control jeondongbyeon</b><br>#1~4: Control jeondongbyeon<br>#5,6: 12V | ⑯ <b>CN801-SPI</b><br>#1,2:GND<br>#3:SPI Control  |
| ⑰ <b>CN311-2 Communication</b>  | ⑱ <b>CN302-Indoor and Outdoor Telecommunications and cable</b><br>#1,2: Indoor and Outdoor machine communication<br>#3:12V<br>#4:GND<br>#5: Wired remote control communication | ⑲ <b>CN101-AC INPUT</b><br>#1: L<br>#2: N  |   |

**Duct type (HSP Small , MA-2(Drain Pump Built-in)) (cont.)**

■ **BLDC PCB**



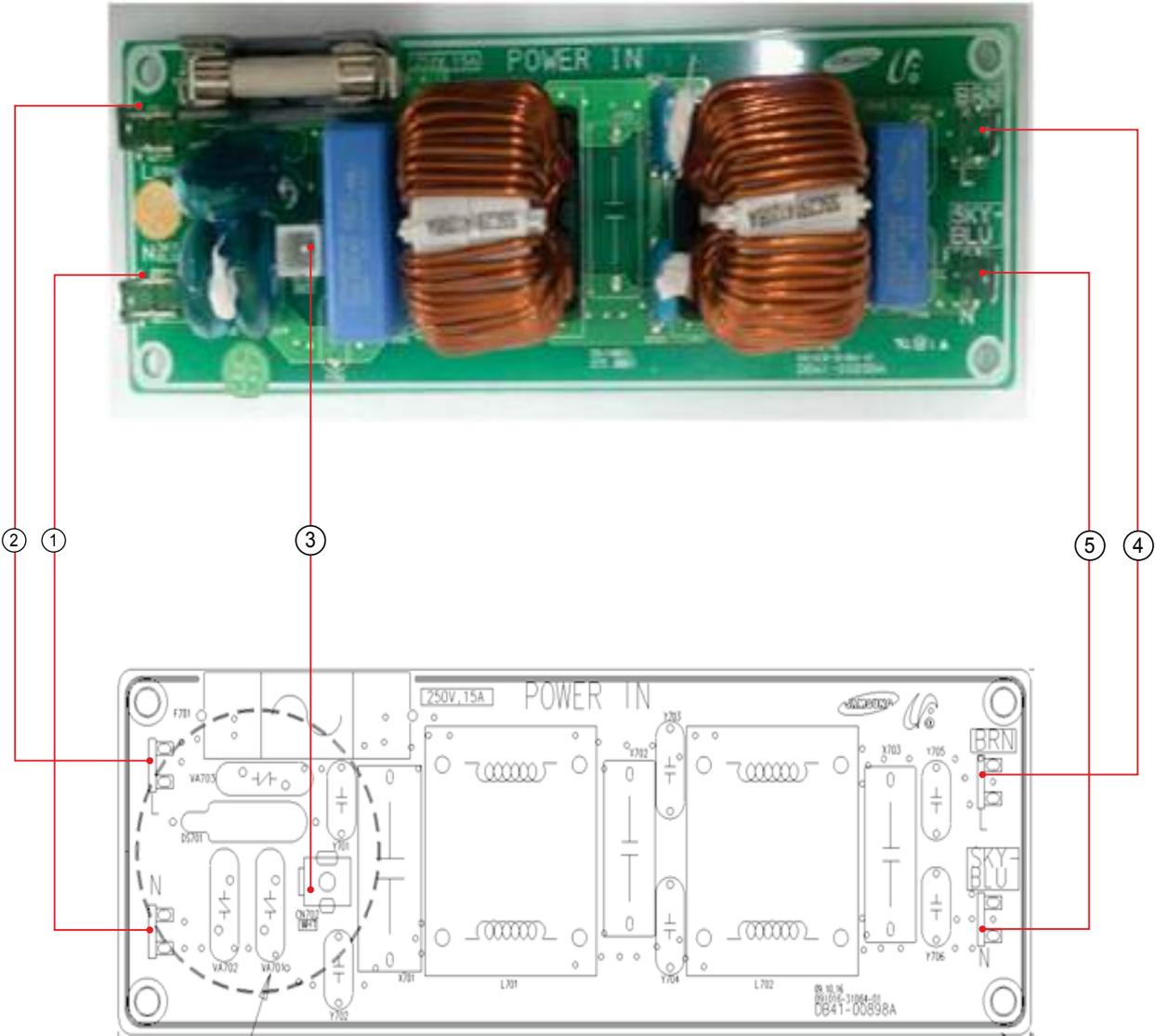
**Duct type** (HSP Small , MA-2(Drain Pump Built-in)) (cont.)

■ **BLDC PCB**

|   |   |   |   |
|---|---|---|---|
| <p>① <b>CN35-Main PCB Connection</b><br/>                 #1: DC12V<br/>                 #2: Fan Signal<br/>                 #3: DC5V<br/>                 #4: Fan feedback signal<br/>                 #5: GND</p> | <p>② <b>CN71-AC Power</b><br/>                 #1: AC power L<br/>                 #2: AC power N</p> | <p>③ <b>CN36-BLDC PCB Connection</b><br/>                 #1: DC12V<br/>                 #2: Fan signal</p> | <p>④ <b>CN12-Motor Connector</b><br/>                 #1: DC310V<br/>                 #3: GND<br/>                 #4: DC15V<br/>                 #5: Fan signal<br/>                 #6: Fan feedback signal</p> |
|---|---|---|---|

Duct type (BIG Duct) (cont.)

■ EMI PCB

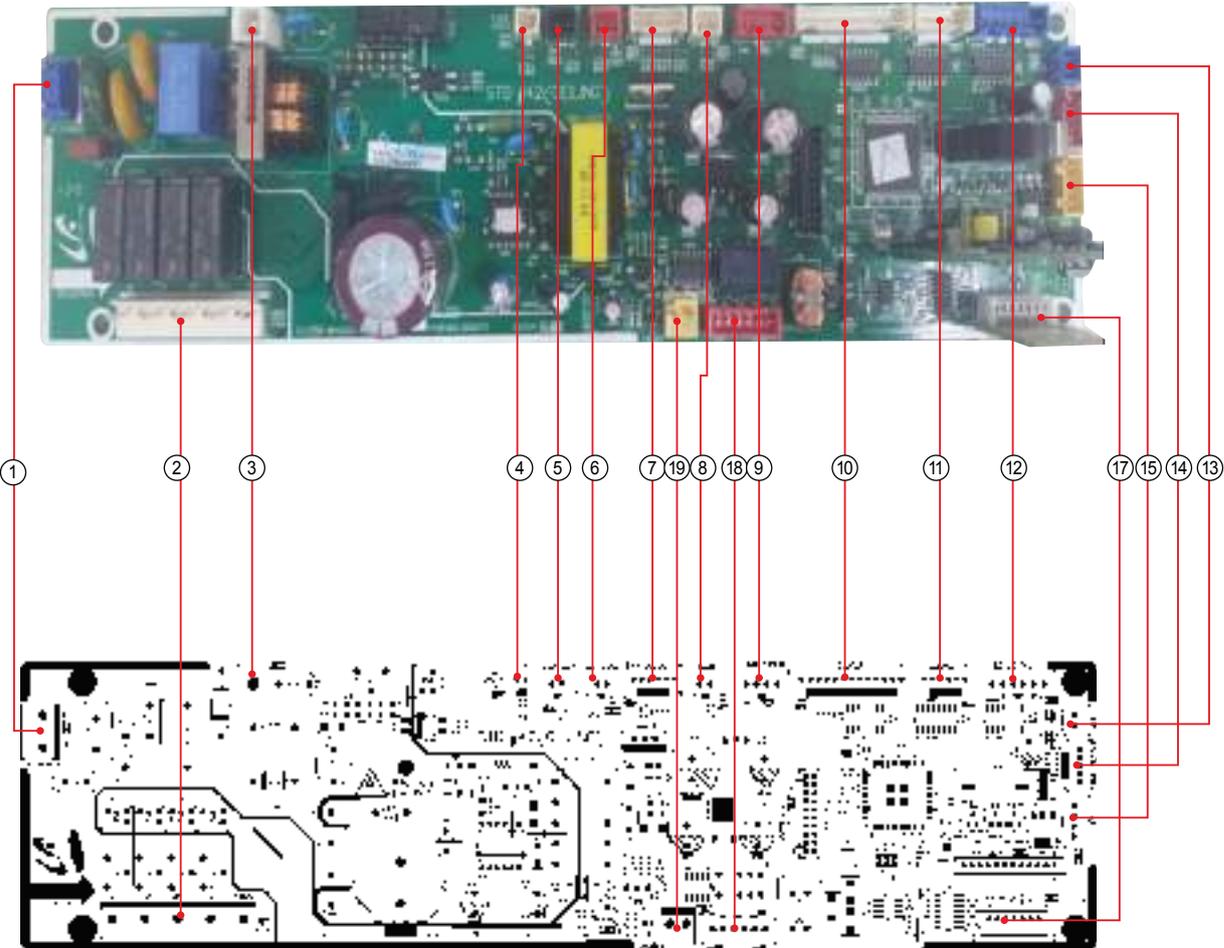


## Duct type (BIG Duct)

### ■ EMI PCB

|                  |                 |         |                  |
|------------------|-----------------|---------|------------------|
| ① Power Input L  | ② Power Input N | ③ Earth | ④ Power Output L |
| ⑤ Power Output N |                 |         |                  |

5-1-6 Ceiling type

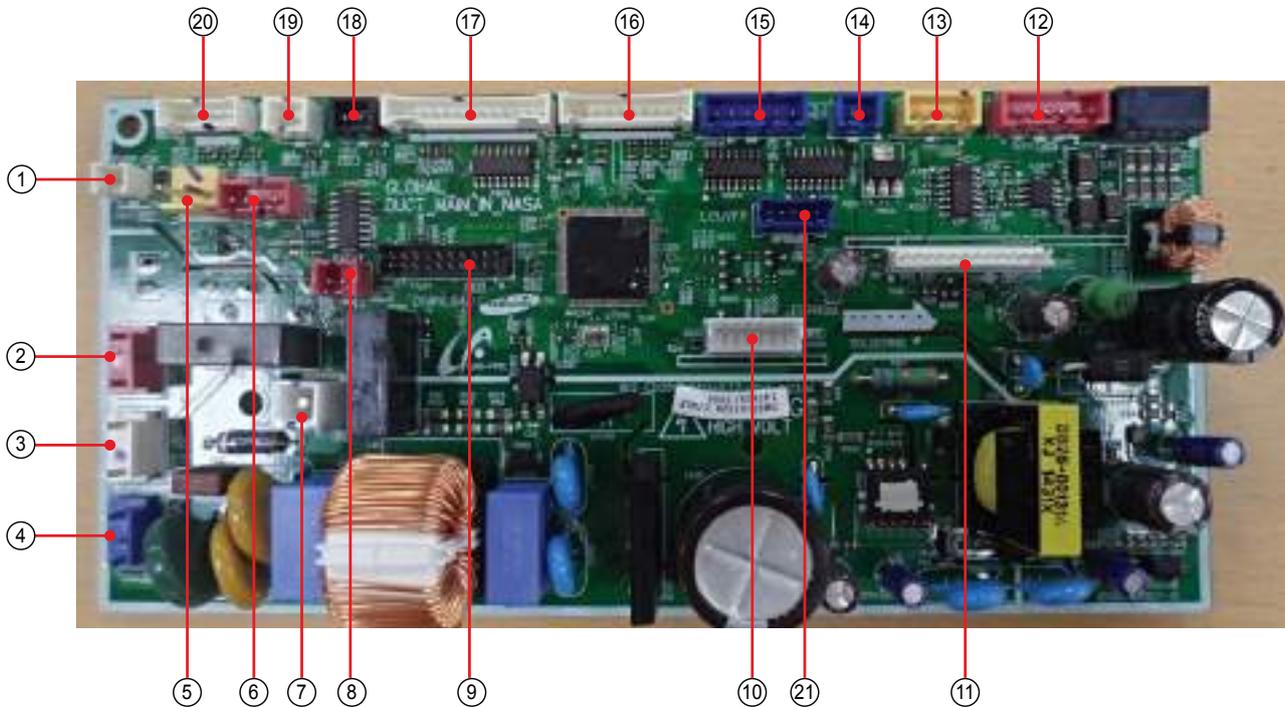


## Celiling type

|   |   |   |   |
|---|---|---|---|
| <b>① CN100-VENTILATOR</b><br>#1: L<br>#3: N   | <b>② CN703-FAN MOTOR</b><br>#1: N<br>#3: RY701 OUTPUT<br>#5: RY702 OUTPUT<br>#7: RY703 OUTPUT<br>#9: RY704 OUTPUT   | <b>③ CN101-GND</b><br>#1: GND   | <b>④ CN140-FUSE CHECK</b><br>#1: FUSE CHECK<br>#2: GND  |
| <b>⑤ CN411-FLOAT S/W</b><br>#1: FLOAT_SW<br>#2: GND   | <b>⑥ CN83-EXT CTRL</b><br>#1: GND<br>#2: EXT_CTRL   | <b>⑦ CN413-EVA-DIS/OUT/IN</b><br>#1: VEA_IN_MID_TEMP<br>#2: GND<br>#3: EVA_OUT_TEMP<br>#4: GND<br>#5: EVA_DIS_TEMP<br>#6: GND | <b>⑧ CN412-ROOM</b><br>#1: ROOM_TEMP<br>#2: GND   |
| <b>⑨ CN81-COMP/ERROR</b><br>#1: DC 12V<br>#2: ERROR_CHK_OUT<br>#3: DC 12V<br>#4: COMP_CHK_OUT | <b>⑩ CN501-DISPLAY</b><br>#1: DC 12V<br>#2~#7: LED SIGNAL<br>#8: REMOCON_SIGN_OUT<br>#9: AUTO_SW<br>#10: REMOCON_INT<br>#11: GND<br>#12: DC 5V<br>#13: NOT USED | <b>⑪ CN805-LOUVER</b><br>#1: DC 12V<br>#2: DC 12V<br>#3~#6: LVR SIGNAL  | <b>⑫ CN808-EEV(DVM)</b><br>#1~#4: EEV SIGNAL<br>#5: DC 12V<br>#6: DC 12V  |
| <b>⑬ CN804-VENT</b><br>#1: DC 12V<br>#2: VENT_OUT   | <b>⑭ CN401-HUMAN_SENSOR</b><br>#1: DC 12V<br>#2: COM4_TXD<br>#3: COM4_RXD<br>#4: NOT USED<br>#5: GND  | <b>⑮ CN801-SPI</b><br>#1: GND<br>#2: GND<br>#3: Q1_OUT<br>#4: NOT USED  | <b>⑯ CN311-2WIRE OPTION</b><br>#1:DC12V<br>#2~#5:COMM. SIGNAL<br>#6:VCC(DC5V)<br>#7~#11:COMM. SIGNAL<br>#12:GND |
| <b>⑰ CN201-EEPROM</b><br>#1:GND<br>#2:NOT USED<br>#3:VCC(DC5V)<br>#4~#7:EEPROM SIGNAL         | <b>⑱ CN31-HUMAN_SENSOR</b><br>#1~#2: COM1 SIGNAL<br>#3: DC12V<br>#4: GND<br>#5~#6: COM2 SIGNAL  | <b>⑲ CN103-DRAIN</b><br>#1: DRAIN SIGNAL<br>#2: GND   |   |

## 5-1-7 Big Ceiling

### ■ MAIN PBA (AM036/048JNCDCH/AA)



| No | part code   | location No. | Function           | Description    |
|----|-------------|--------------|--------------------|----------------|
| 1  | 3711-003942 | CN140        | Fuse Check         | SMW200-02P WHT |
| 2  | 3711-000203 | CN906        | BLDC POWER         | YW396-03AV WHT |
| 3  | 3711-003407 | CN702        | Comp Signal        | YW396-03AV RED |
| 4  | 3711-003404 | CN101        | MAIN POWER         | YW396-03AV BLU |
| 5  | 3711-000179 | CN701        | DRAIN              | YW396-02V YEL  |
| 6  | 3711-000939 | CN81         | COMP ERROR         | SMW250-04 RED  |
| 7  | 3711-000744 | CN1          | EARTH              | YDW236-01WHT   |
| 8  | 3711-000796 | CN83         | EXT-T              | SMW250-02 RED  |
| 9  | 3711-002001 | CN301        | DOWNLOAD           | YDW200-20      |
| 10 | 3711-007817 | CN201        | EPPROM             | B7P-MQ WHT     |
| 11 | 3711-004773 | CN311        | 2 WIRE             | BMW200-12 WHT  |
| 12 | 3711-001037 | CN302        | COMM               | SMW250-06 RED  |
| 13 | 3711-000941 | CN801        | SPI                | SMW250-04 YEL  |
| 14 | 3711-000795 | CN804        | VEN                | SMW250-02 BLU  |
| 15 | 3711-001036 | CN808        | EEV                | SMW250-06 BLU  |
| 16 | 3711-004182 | CN905        | FAN MOTOR COMM     | SMW200-10P WHT |
| 17 | 3711-003895 | CN501        | DISPLAY            | SMW200-13P WHT |
| 18 | 3711-000794 | CN411        | FLOAT-SW           | SMW250-02 BLK  |
| 19 | 3711-000015 | CN412        | ROOM SENSOR        | SMW250-02 WHT  |
| 20 | 3711-004236 | CN413        | EVA DIS/OUT SENSOR | SMW200-06P WHT |
| 21 | 3711-005097 | CN601        | LOUVER             | SMW200-5P BLU  |

## Big Ceiling (cont.)

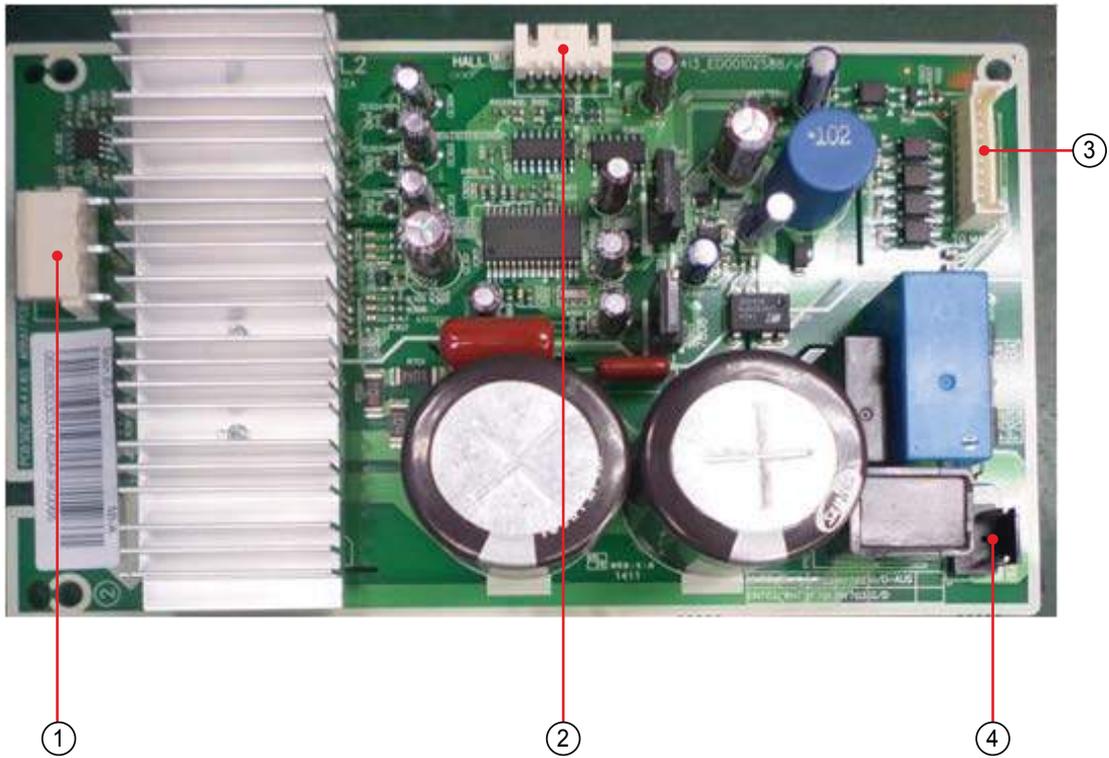
### ■ SUB PCB DIAGRAM (AM048JNCDCH/AA)



| No | Part Code   | Local | Function       | Description  |
|----|-------------|-------|----------------|--|
| 1  | 3711-003381 | CN301 | FAN MOTOR      | 1WALL,5P,1R,3.96mm,ANGLE,SN,WHT<br>#1 - U, #2 - V, #3- W   |
| 2  | 3711-000992 | CN101 | HALL           | BOX,5P,1R,2.5MM,ANGLE,SN,WHT<br>#1 - 5V, #2~4 - HALL, #5 - GND   |
| 3  | 3711-004531 | CN501 | FAN MOTOR COMM | BOX,10P,1R,2mm,STRAIGHT,SN,WHT<br>#1 - 12V, #2 - GND<br>#3 - 5V, #4 - BLDC POWER RELAY<br>#5 - OVER TEMP #6 - RST<br>#7 - REV OUT, #8 - FAN FEEDBACK<br>#9 - INRUSH RELAY, #10 - FAN PWM |
| 4  | 3711-003380 | CN701 | POWER          | 1WALL,2P,1R,7.92mm,STRAIGHT,SN,BLK<br>#1 - N, #2- L  |

## Big Ceiling

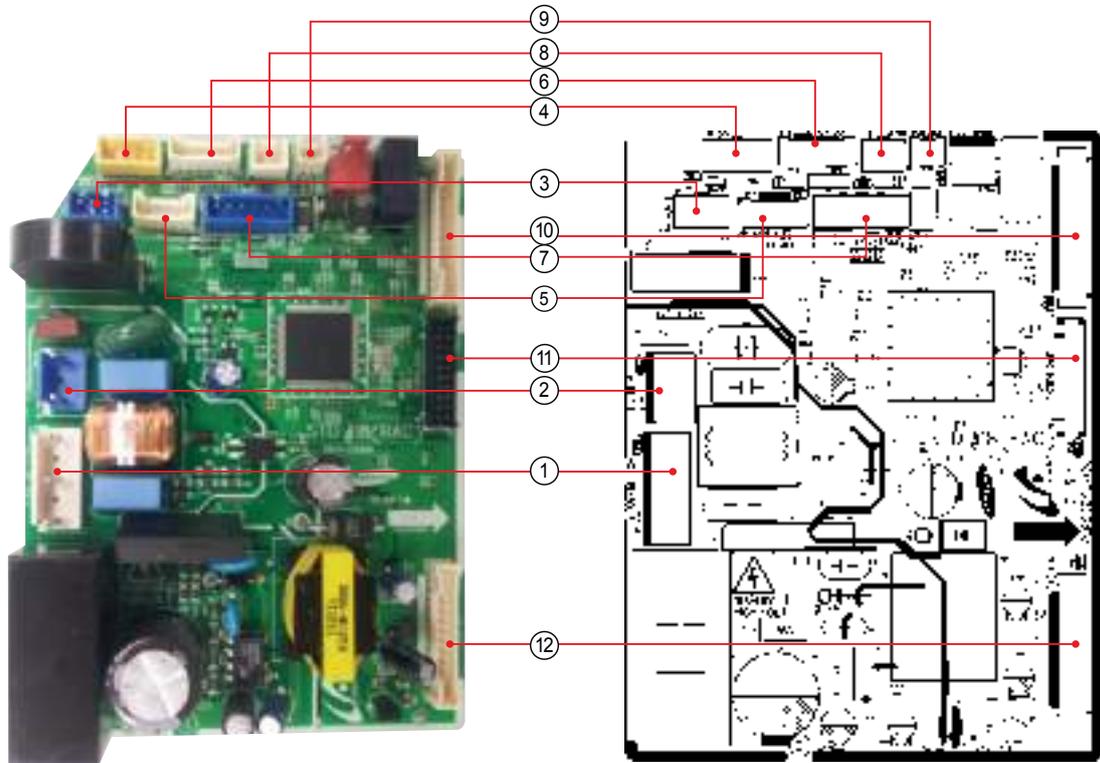
### ■ SUB PCB DIAGRAM (AM036JNCDCH/AA)



| No | Part Code   | Local | Function       | Description  |
|----|-------------|-------|----------------|--|
| 1  | 3711-003381 | CN301 | FAN MOTOR      | 1WALL,5P,1R,3.96mm,ANGLE,SN,WHT<br>#1 - U, #2 - V, #3- W   |
| 2  | 3711-000992 | CN101 | HALL           | BOX,5P,1R,2.5MM,ANGLE,SN,WHT<br>#1 - 5V, #2~4 - HALL, #5 - GND   |
| 3  | 3711-004182 | CN501 | FAN MOTOR COMM | BOX,10P,1R,2mm,STRAIGHT,SN,WHT<br>#1 - 12V, #2 - GND<br>#3 - 5V, #4 - BLDC POWER RELAY<br>#5 - OVER TEMP #6 - RST<br>#7 - REV OUT, #8 - FAN FEEDBACK<br>#9 - INRUSH RELAY, #10 - FAN PWM |
| 4  | 3711-003405 | CN701 | POWER          | 1WALL,2P,1R,7.92mm,STRAIGHT,SN,BLK<br>#1 - N, #2- L  |

### 5-1-8 Wall-Mounted type (Neo Forte)

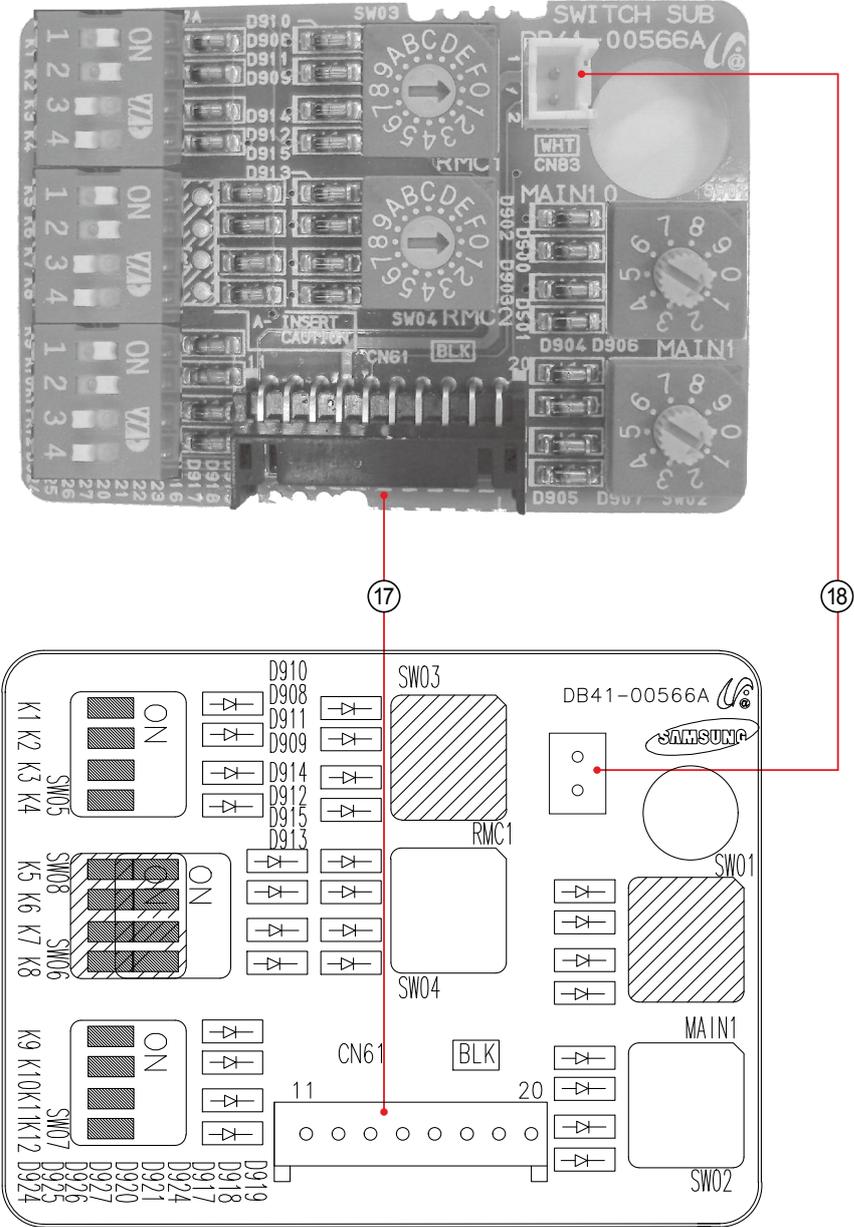
■ MAIN



|   |  |   |   |
|---|--|---|---|
| <p>① <b>CN701-SSR MOTOR</b><br/>#1: 12V<br/>#2: MOTOR SSR OUT</p> | <p>② <b>CN101-AC INPUT</b><br/>#1: L<br/>#2: N</p>   | <p>③ <b>CN702-HALL IC 입력</b><br/>#1: VCC<br/>#2: GND<br/>#3: Hall Sensor 값 입력</p> | <p>④ <b>CN805-SPI</b><br/>#1~2: GND<br/>#3: SPI 제어</p>  |
| <p>⑤ <b>CN803- 상하 블레이드</b><br/>#1: VCC<br/>#2~5: 블레이드 제어</p>      | <p>⑥ <b>CN402-온도 센서</b><br/>#1 : EVA IN TEMP<br/>#2,4,6: GND<br/>#3 : EVA OUT TEMP<br/>#5 : DISCHARGE TEMP</p> | <p>⑦ <b>CN804- 전동변</b><br/>#1~4: 전동변 제어<br/>#5,6: 12V</p>                         | <p>⑧ <b>CN401-ROOM 온도센서</b><br/>#1: 온도 입력<br/>#2: GND</p>   |
| <p>⑨ <b>CN140 - FUSE Check</b><br/>#1:FUSE CHECK<br/>#2:GND</p>   | <p>⑩ <b>CN313-2 선통신</b></p>  | <p>⑪ <b>CN301-MICOM DOWNLOAD</b></p>  | <p>⑫ <b>CN501-DISPLAY</b><br/>#1:12V<br/>#2~7:LED 제어<br/>#8: 리모컨 신호 출력<br/>#9: AUTO SW<br/>#10: REMOCON INT<br/>#11:GND<br/>#12:VCC</p> |

Wall-Mounted type (Neo Forte)

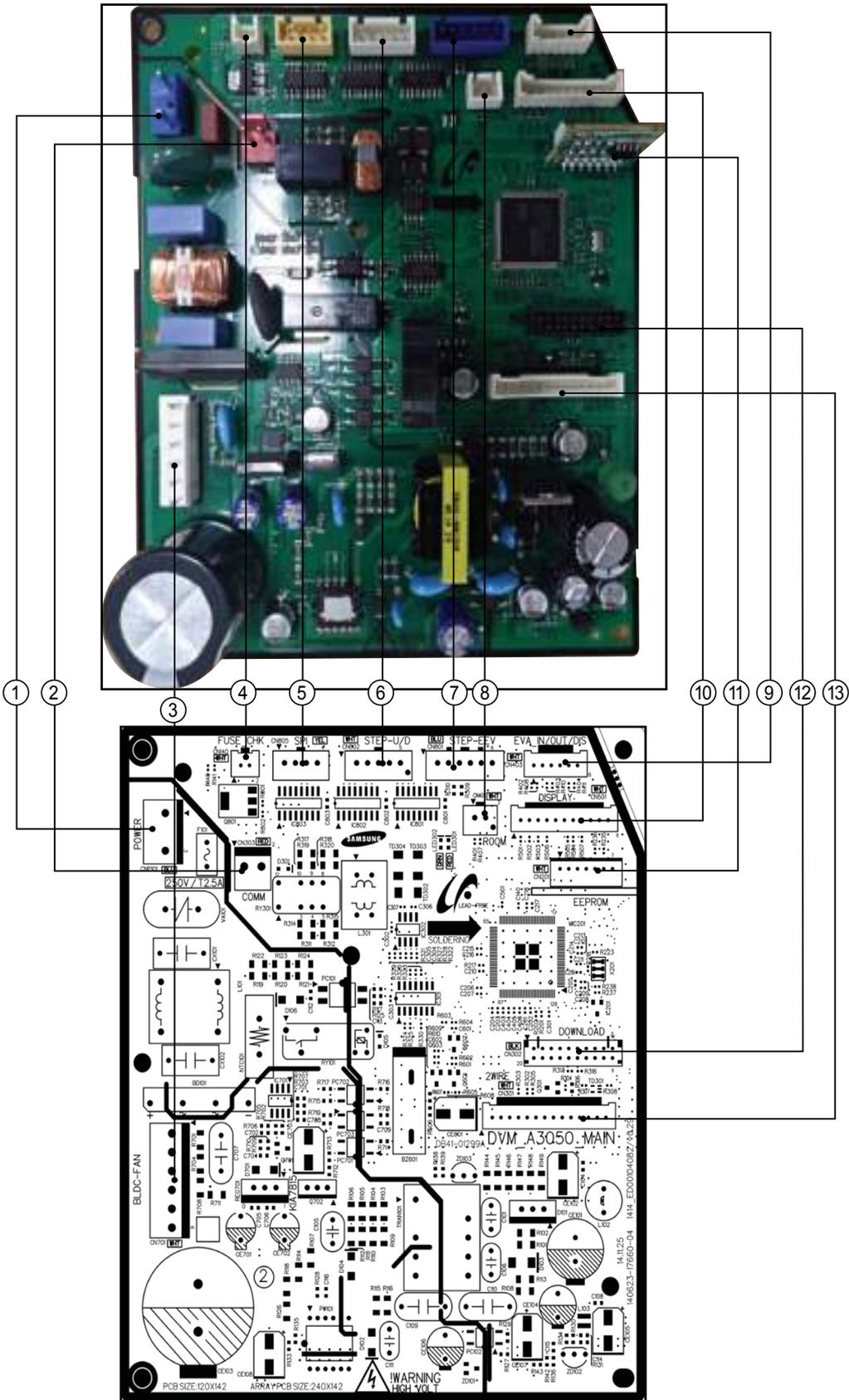
■ SUB SWITCH



| No. | CN # | COLOR | FUNCTION                 |
|-----|------|-------|--------------------------|
| ⑰   | CN61 | Black | Main-Sub PCB Connector   |
| ⑱   | CN83 | White | External Contact Control |

### 5-1-9 Wall Mounted type(A3050, MAX)

■ Main PBA



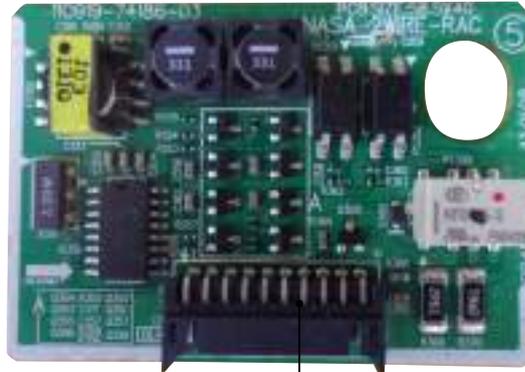
## Wall Mounted type(A3050, MAX)(Cont.)

### ■ Main PBA (cont.)

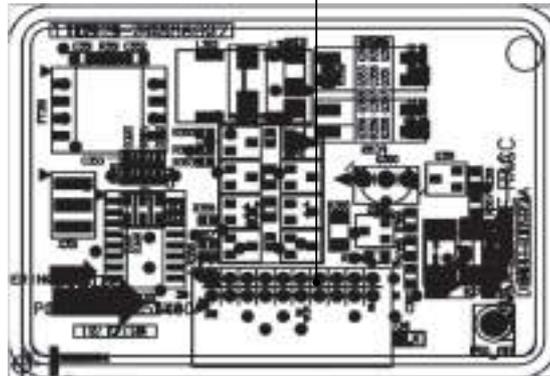
|   |   |   |  |
|---|---|---|--|
| <b>① CNP101-POWER</b><br>#1 : L<br>#2 : NOT USED<br>#3 : N  | <b>② CN303-COM1</b><br>#1~2 : COMMUNICATION SIGNAL  | <b>③ CN701-BLDC FAN</b><br>#1 : DC 310V<br>#2 : NOT USED<br>#3 : GND<br>#4 : PWM SIGNAL<br>#5 : FEEDBACK SIGNAL | <b>④ CN140-FUSE CHECK</b><br>#1 : THERMAL FUSE SIGNAL<br>#2 : GND  |
| <b>⑤ CN805-SPI</b><br>#1~2 : GND<br>#3 : SPI CONTROL SIGNAL<br>#4 : NOT USED  | <b>⑥ CN802-STEP UP/DOWN</b><br>#1 : DC 12V<br>#2~5 : LOUVER SIGNAL  | <b>⑦ CN801-EEV</b><br>#1~4 : EEV SIGNAL<br>#5~6 : DC 12V  | <b>⑧ CN401-ROOM</b><br>#1 : OOM TEMPERATURE SENSOR SIGNAL<br>#2 : GND  |
| <b>⑨ CN403-EVA IN/OUT/DIS</b><br>#1 : EVA IN TEMPERATURE SENSOR SIGNAL<br>#2 : GND<br>#3 : EVA OUT TEMPERATURE SENSOR SIGNAL<br>#4 : GND<br>#5 : DISCHARGE TEMPERATURE SENSOR SIGNAL<br>#6 : GND  | <b>⑩ CN501-DISPLAY</b><br>#1~3 : LED SIGNAL<br>#4 : REMOCON SIGNAL<br>#5 : GND<br>#6 : DC 5V<br>#7~8 : REMOCON SIGNAL<br>#9~11 : NOT USED | <b>⑪ CN201-EEPROM</b><br>#1 : GND<br>#2 : NOT USED<br>#3 : DC 5V<br>#4~7 : EEPROM SIGNAL                        | <b>⑫ CN302-DOWNLOAD</b><br>#1~8 : DOWNLOAD SIGNAL<br>#9 : GND<br>#10~11 : DC 5V<br>#12~16 : DOWNLOAD SIGNAL<br>#17 : GND<br>#18~20 : DOWNLOAD SIGNAL |
| <b>⑬ CN301-to 2WIRE SUB</b><br>#1~2 : COMMUNICATION SIGNAL<br>#3~4 : SUB PBA SIGNAL<br>#5 : EXTERNAL CONTROL SIGNAL<br>#6 : COMP CHECK SIGNAL<br>#7 : ERROR CHECK SIGNAL<br>#8 : DC 5V<br>#9 : GND<br>#10 : DC 12V<br>#11~14 : COMMUNICATION SIGNAL |   |   |  |

## Wall Mounted type(A3050, MAX)(Cont.)

### ■ Main PBA (cont.)



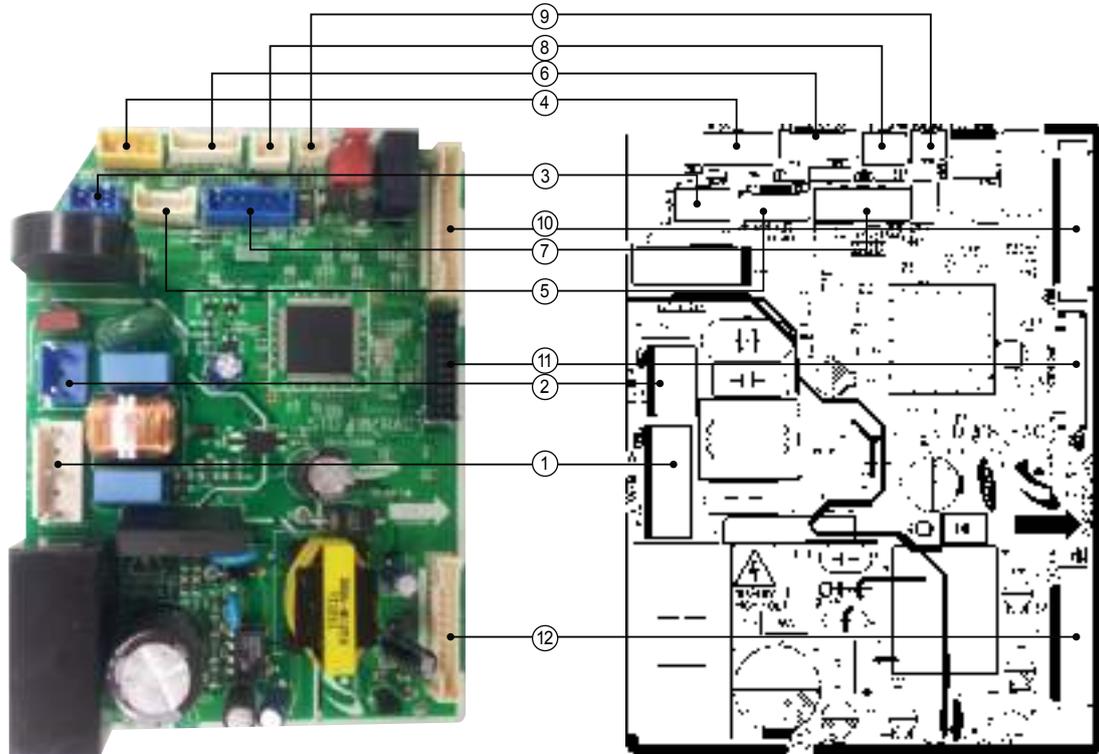
①



① CN1-2WIRES COMM.

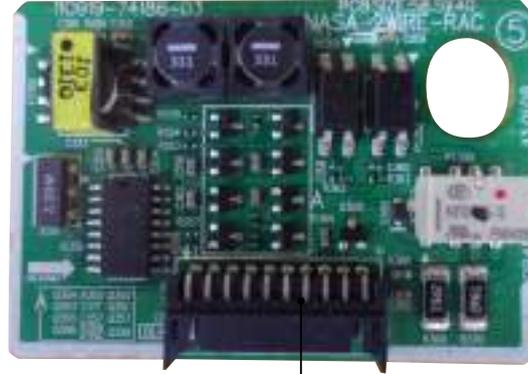
- #1,#2,#19,#20:COMM. SIGNAL
- #3,#18:EXTERNAL CONTROL
- #4,#17:COMP CHECK
- #5,#16:ERROR CHECK
- #6:VCC(DC5V)
- #7,#14:GND
- #8,#13,#15:DC12V
- #9~#12:COMM. SIGNAL

**5-1-10 Wall-Mounted type (Boracay)**

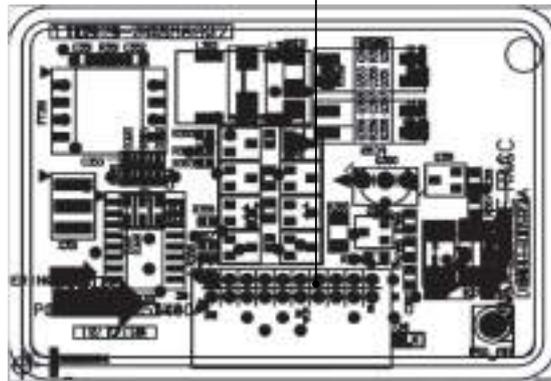


|   |   |  |   |
|---|---|--|---|
| <p><b>① CN701-SSR MOTOR</b><br/>                 #1: 12V<br/>                 #2: MOTOR SSR OUT</p>       | <p><b>② CN101-AC INPUT</b><br/>                 #1: L<br/>                 #2: N</p>  | <p><b>③ CN702-HALL IC INPUT</b><br/>                 #1: VCC<br/>                 #2: GND<br/>                 #3: INPUT HALL SENSOR VALUE</p> | <p><b>④ CN805-SPI</b><br/>                 #1~2: GND<br/>                 #3: SPI CONTROL</p>   |
| <p><b>⑤ CN803-UP/DOWN BLADE</b><br/>                 #1: VCC<br/>                 #2~5: BLADE CONTROL</p> | <p><b>⑥ CN402-TEMP SENSOR</b><br/>                 #1: EVA IN TEMP<br/>                 #2,4,6: GND<br/>                 #3: EVA OUT TEMP<br/>                 #5: DISCHARGE TEMP</p> | <p><b>⑦ CN804-EEV</b><br/>                 #1~4: EEV CONTROL<br/>                 #5,6: 12V</p>  | <p><b>⑧ CN401-ROOM TEMP SENSOR</b><br/>                 #1: INPUT TEMP<br/>                 #2: GND</p>   |
| <p><b>⑨ CN140 - FUSE CHECK</b><br/>                 #1:FUSE CHECK<br/>                 #2:GND</p>         | <p><b>⑩ CN313-2 WIRE COMM</b></p>   | <p><b>⑪ CN301-MICOM DOWNLOAD</b></p>   | <p><b>⑫ CN501-DISPLAY</b><br/>                 #1: 12V<br/>                 #2~7: LED CONTROL<br/>                 #8: OUTPUT SIGNAL REMOCON<br/>                 #9: AUTO SW<br/>                 #10: REMOCON INT<br/>                 #11:GND<br/>                 #12:VCC</p> |

**Wall-Mounted type (Boracay)(Cont.)**



①

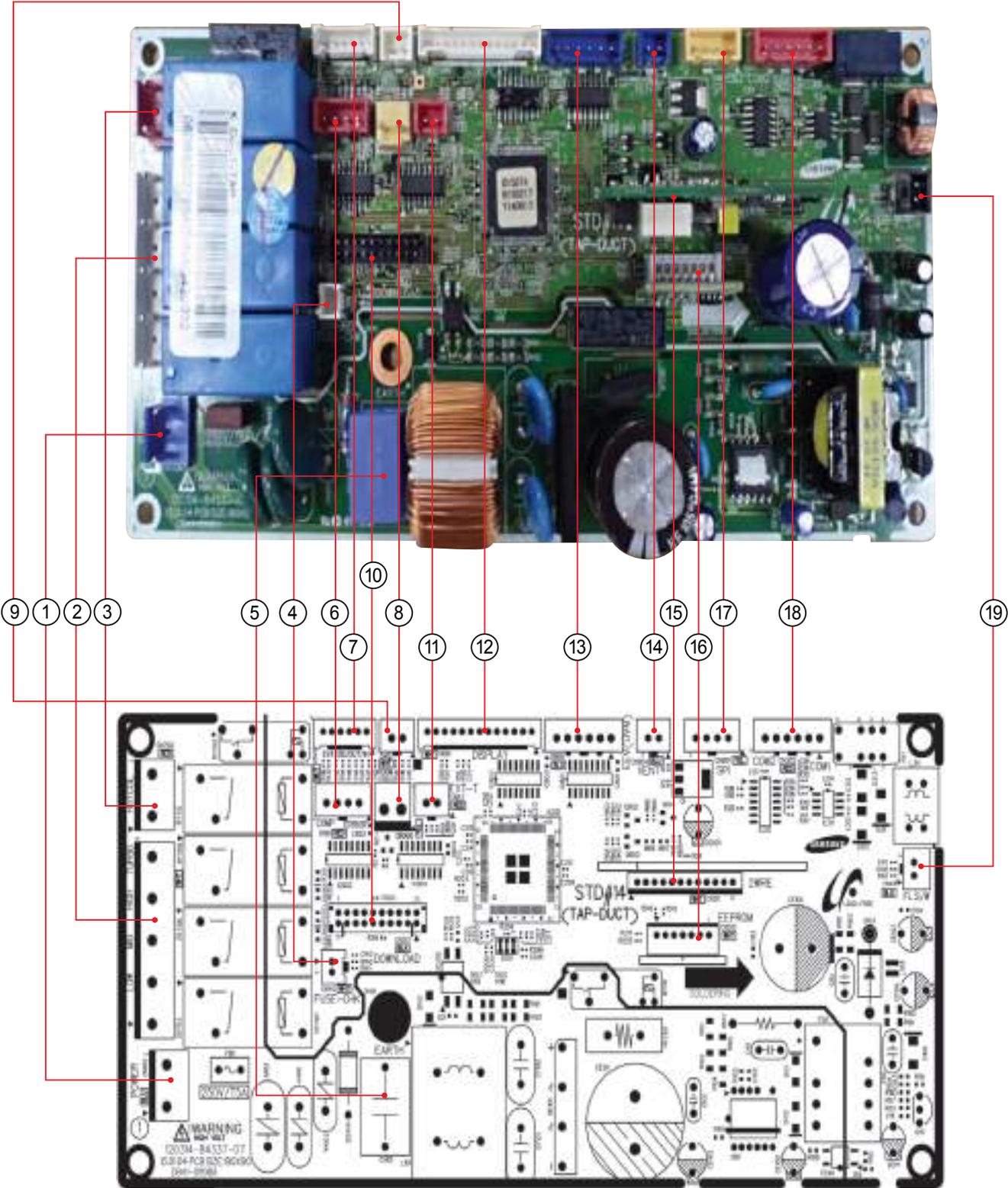


① **CN1-2WIRES COMM.**

- #1,#2,#19,#20:COMM. SIGNAL
- #3,#18:EXTERNAL CONTROL
- #4,#17:COMP CHECK
- #5,#16:ERROR CHECK
- #6:VCC(DC5V)
- #7,#14:GND
- #8,#13,#15:DC12V
- #9~#12:COMM. SIGNAL

### 5-1-11 Floor Stand Type

■ MAIN



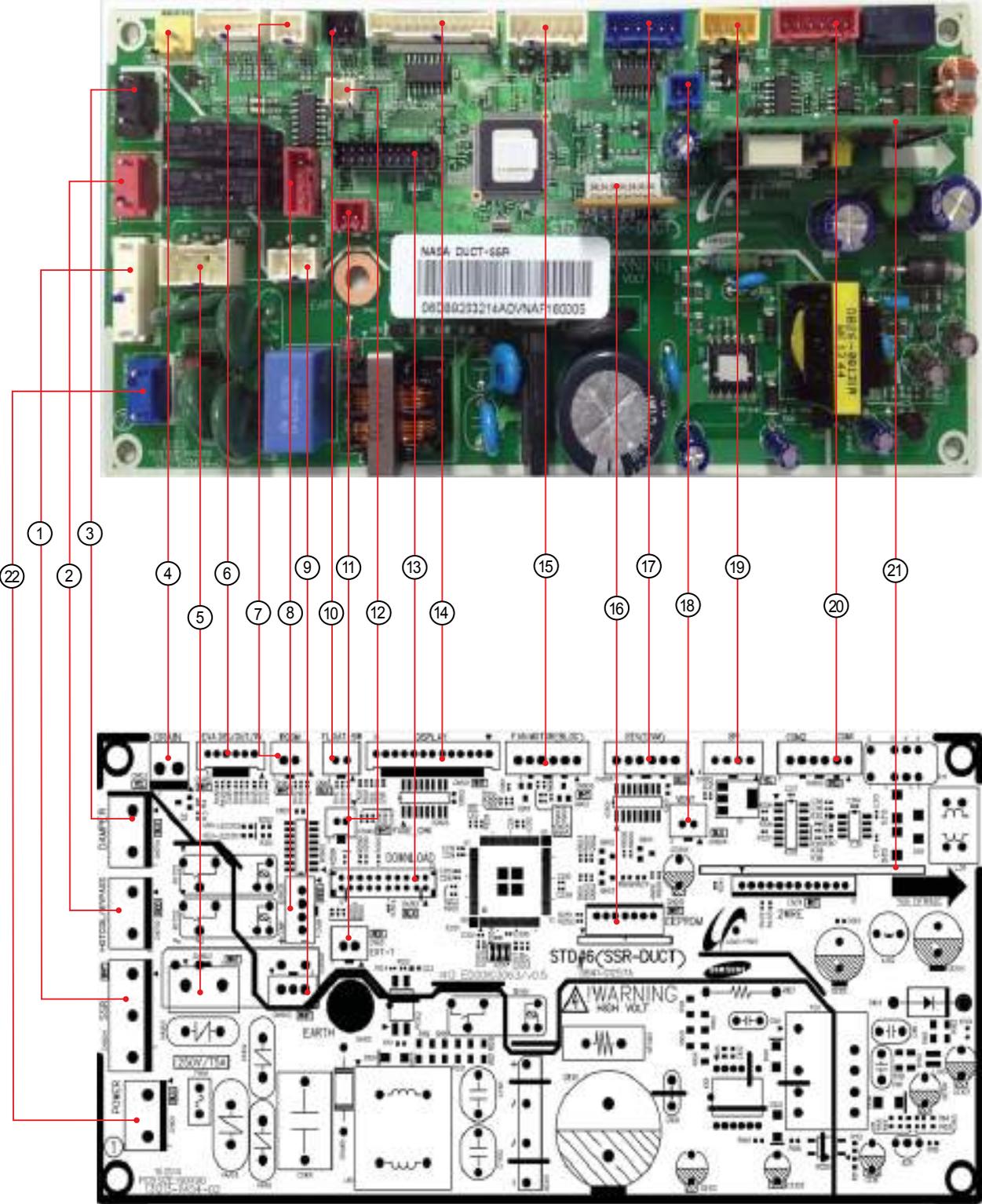
## Floor Stand Type

### ■ MAIN

|  |  |  |  |
|--|--|--|--|
| ① <b>CN100-AC POWER</b><br>#1 : L<br>#3 : N  | ② <b>CN703-MOTOR</b><br>#1 : N<br>#3,5,7,9 : FAN MOTOR CONTROL SIGNAL  | ③ <b>CN702-HOT COIL</b><br>#1 : N<br>#3 : HOT COIL CONTROL SIGNAL  | ④ <b>CN140-THERMAL FUSE</b><br>#1 : THERMAL FUSE SIGNAL<br>#2 : GND                          |
| ⑤ <b>SH01-EARTH</b><br>#1 : EARTH  | ⑥ <b>CN81-ERROR/COMP CHECK</b><br>#1 : DC 12V<br>#2 : ERROR CHECK SIGNAL<br>#3 : DC 12V<br>#4 : COMP CHECK SIGNAL                                    | ⑦ <b>CN413-EVA IN/OUT/DIS TEMP. SENSOR</b><br>#1 : EVI IN TEMP. SENSOR<br>#3 : EVI OUT TEMP. SENSOR<br>#5 : DISCHARGE TEMP. SENSOR<br>#2,4,6 : GND | ⑧ <b>CN103-DRAIN PUMP</b><br>#1 : DRAIN PUMP CONTROL SIGNAL<br>#2 : GND                      |
| ⑨ <b>CN412-ROOM TEMP. SENSOR</b><br>#1 : ROOM TEMP. SENSOR<br>#2 : GND             | ⑩ <b>CN301-DOWNLOAD</b><br>#1~8 : DOWNLOAD SIGNAL<br>#9 : GND<br>#10~11 : DC 5V<br>#12~16 : DOWNLOAD SIGNAL<br>#17 : GND<br>#18~20 : DOWNLOAD SIGNAL | ⑪ <b>CN83-EXTERNAL CONTROL</b><br>#1 : GND<br>#2 : EXTERNAL CONTROL SIGNAL   | ⑫ <b>CN501-DISPLAY</b><br>#1 : DC 12V<br>#3~10,13 : PANEL SIGNAL<br>#11 : GND<br>#12 : DC 5V |
| ⑬ <b>CN808-EEV(DVM)</b><br>#1~4 : EEV CONTROL SIGNAL<br>#5~6 : DC 12V              | ⑭ <b>CN804-VENTILATOR</b><br>#1 : DC 12V<br>#2 : VENTILATOR CONTROL SIGNAL   | ⑮ <b>CN311-2WIRE SUB</b><br>#1 : DC 12V<br>#2~5 : COMMUNICATION SIGNAL<br>#6 : DC 5V<br>#7~12 : COMMUNICATION SIGNAL                               | ⑯ <b>CN201-EEPROM</b><br>#1 : GND<br>#2 : NOT USED<br>#3 : DC 5V<br>#4~7 : EEPROM SIGNAL     |
| ⑰ <b>CN302-COM1 COM2</b><br>#1~2 : GND<br>#3 : SPI CONTROL SIGNAL<br>#4 : NOT USED | ⑱ <b>CN302-COMMUNICATION</b><br>#1~2 : COM1 COMMUNICATION SIGNAL<br>#3 : DC 12V<br>#4 : GND<br>#4~6 : COM2 COMMUNICATION SIGNAL                      | ⑲ <b>CN411-FLOAT SWITCH</b><br>#1 : FLOAT SWITCH SIGNAL<br>#2 : GND  |  |

### 5-1-12 OAP DUCT (AM\*\*\*JNESCH/AA)

■ MAIN PCB



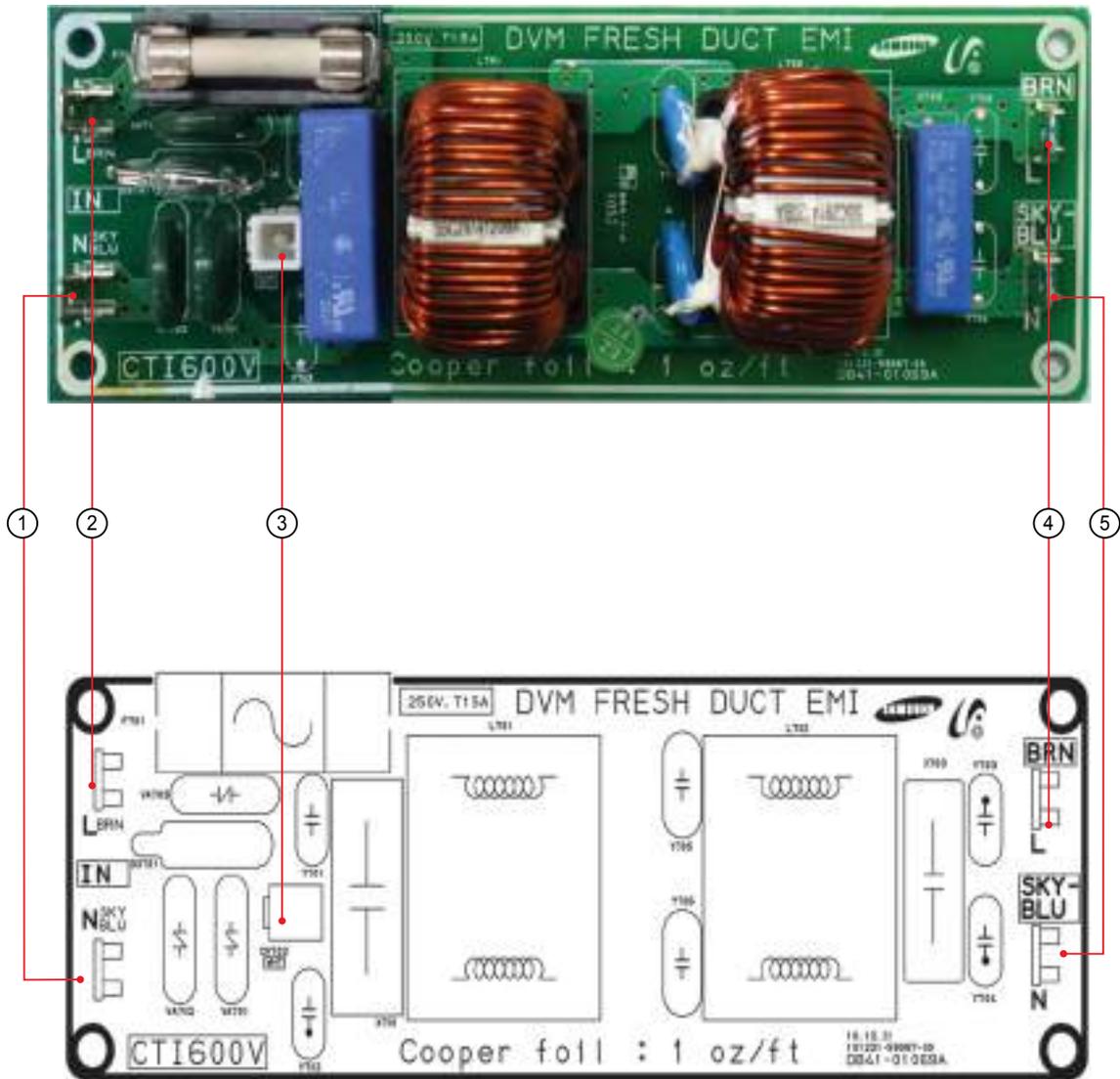
## OAP DUCT (AM\*JNESCH/AA) (cont.)

### ■ MAIN PCB

|   |   |  |   |
|---|---|--|---|
| ① <b>CN100-AC INPUT</b><br>#1: N<br>#2: L<br>#3: N            | ② <b>CN702-HOT COIL</b><br>#1: L<br>#2: N   | ③ <b>CN701-DAMPER</b><br>#1: L<br>#2: N  | ④ <b>CN103-DRAIN PUMP</b><br>#1: 12V<br>#2: GND   |
| ⑤ <b>CN903-SSR AC Control</b><br>#1: L Input<br>#2: L Output  | ⑥ <b>CN413-Temperature Sensor</b><br>#1 : EVA IN TEMP<br>#2,4,6: GND<br>#3 : EVA OUT TEMP<br>#5 : DISCHARGE TEMP  | ⑦ <b>CN412-ROOM Temperature Sensor</b><br>#1: Temperature Input<br>#2: GND   | ⑧ <b>CN81-EXTERNAL CONTROL OUT</b><br>#1,3: 12V<br>#2: ERROR CHECK OUT<br>#4: COM CHK OUT   |
| ⑨ <b>CN902- SSR DC Output</b><br>#1: 12V<br>#2: MOTOR SSR OUT | ⑩ <b>CN411-FLOAT S/W</b><br>#1: FLOAT SW Input<br>#2: GND   | ⑪ <b>CN83-EXTERNAL CONTROL</b><br>#1: GND<br>#2: EXTERNAL INPUT  | ⑫ <b>CN140-FUSE CHECK</b><br>#1:FUSE CHECK<br>#2:GND  |
| ⑬ <b>CN301-MICOM DOWNLOAD</b>                                 | ⑭ <b>CN501-DISPLAY</b><br>#1:12V<br>#2~6:LED Control<br>#7: BZ1<br>#8: Remote control signal output<br>#9: AUTO SW<br>#10: REMOCON INT<br>#11:GND<br>#12:VCC<br>#13:BZ2 | ⑮ <b>CN905-BLDC MOTOR</b><br>#1:12V<br>#2: GND<br>#3: VCC<br>#4: MOTOR SIGNAL PWM<br>#5: MOTOR FEEDBACK<br>#6:INRUSH OUT | ⑯ <b>CN201-E2P Modules</b>  |
| ⑰ <b>CN808- Electric sides</b><br>#1~4: EEV<br>#5,6: 12V      | ⑱ <b>CN804-VENTILATOR</b><br>#1: 12V<br>#2: VENT OUT  | ⑲ <b>CN801-SPI</b><br>#1,2:GND<br>#3:SPI Control   | ⑳ <b>CN302- Indoor/outdoor communication /wired remote communications</b><br>#1,2: Indoor and outdoor group communication<br>#3:12V<br>#4:GND<br>#5: Wired remote communication |
| ㉑ <b>CN311-2 Communication</b>                                | ㉒ <b>CN101-AC INPUT</b><br>#1: L<br>#2: N   |  |   |

**OAP DUCT (AM\*JNESCH/AA) (cont.)**

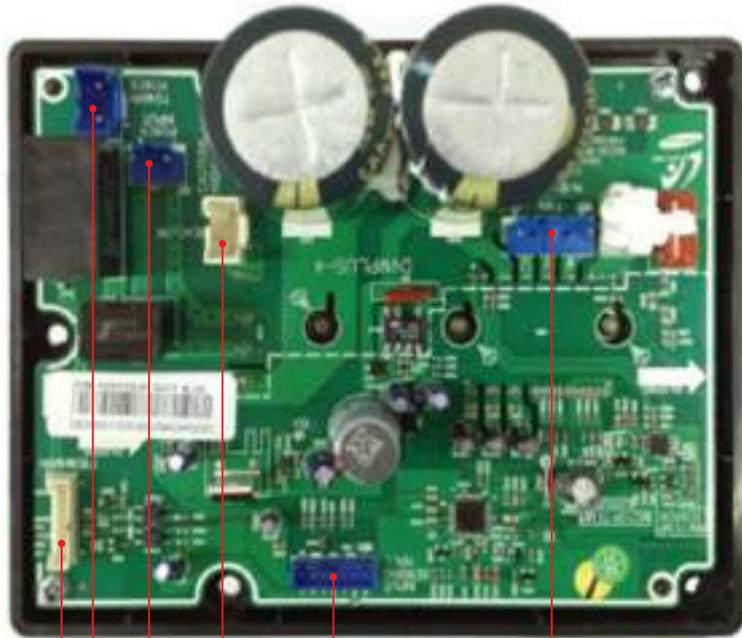
■ EMI PCB



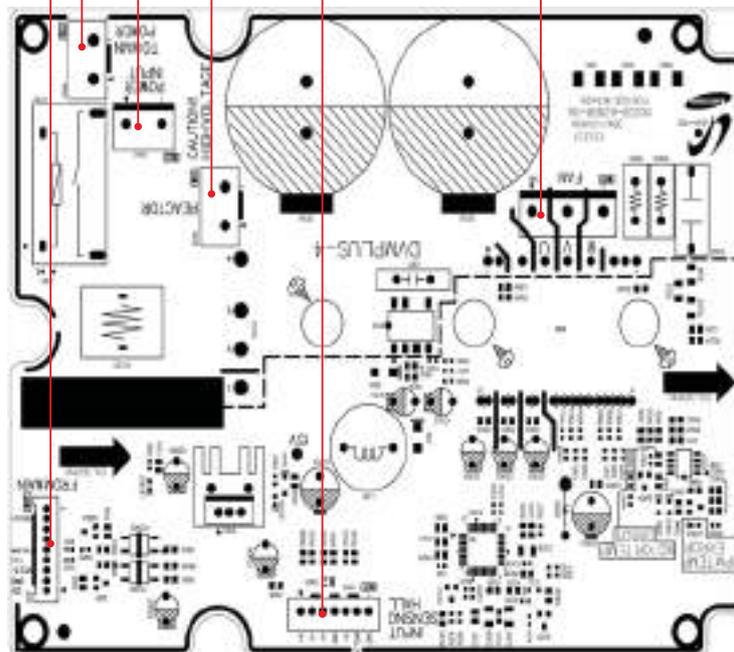
|           |           |               |           |
|-----------|-----------|---------------|-----------|
| ① N-N TOP | ② L-L TOP | ③ CN702-Earth | ④ L-L TOP |
| ⑤ N-N TOP |           |               |           |

## OAP DUCT (AM\*JNESCH/AA) (cont.)

### ■ BLDC Driver PCB



- ①
- ②
- ③
- ④
- ⑤
- ⑥

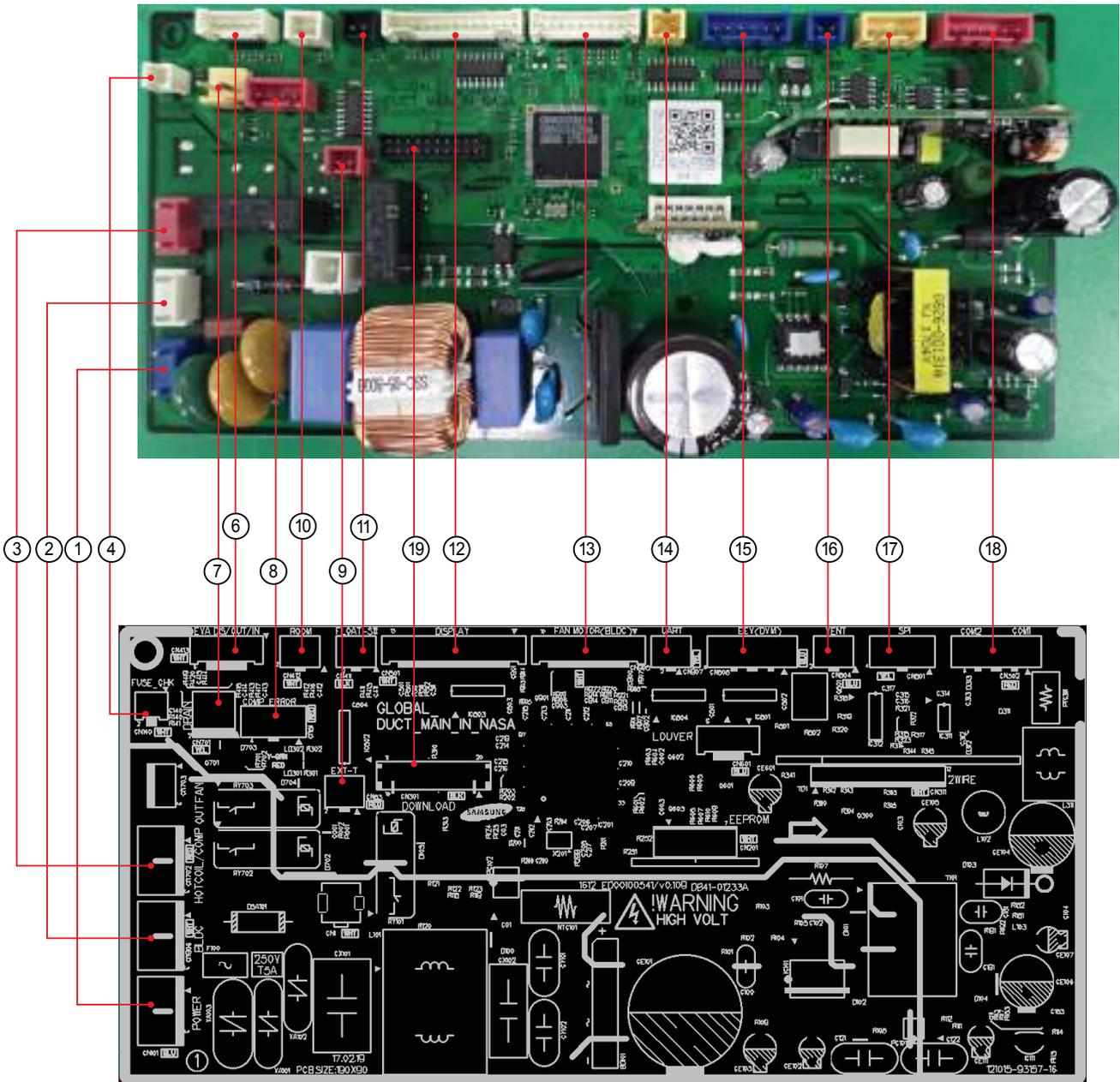


**OAP DUCT (AM\*JNESCH/AA)****■ BLDC Driver PCB**

|   |  |  |                       |
|---|--|--|-----------------------|
| <b>① CN11- Main-BLDC COMM</b><br>#1:12V<br>#2:GND<br>#3:VCC<br>#4: FAN RPM<br>#5: Fan Feedback<br>#8: INRUSH  | <b>② CN14-MAIN POWER</b><br>#1: L<br>#2: N     | <b>③ CN10-POWER INPUT</b><br>#1:N<br>#2: N | <b>④ CN15-REACTOR</b> |
| <b>⑤ CN12-BLDC-MOTOR COMM</b><br>#1: HU<br>#2: 5V<br>#3: HW<br>#4: GND<br>#5: HV<br>#6: MOTOR TEMP<br>#7: GND | <b>⑥ CN13-MOTOR</b><br>#1: U<br>#2 :V<br>#3: W |  |                       |

### 5-1-13 Global Duct -1,2 (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/018RNMDCH/AA)

#### ■ MAIN PCB



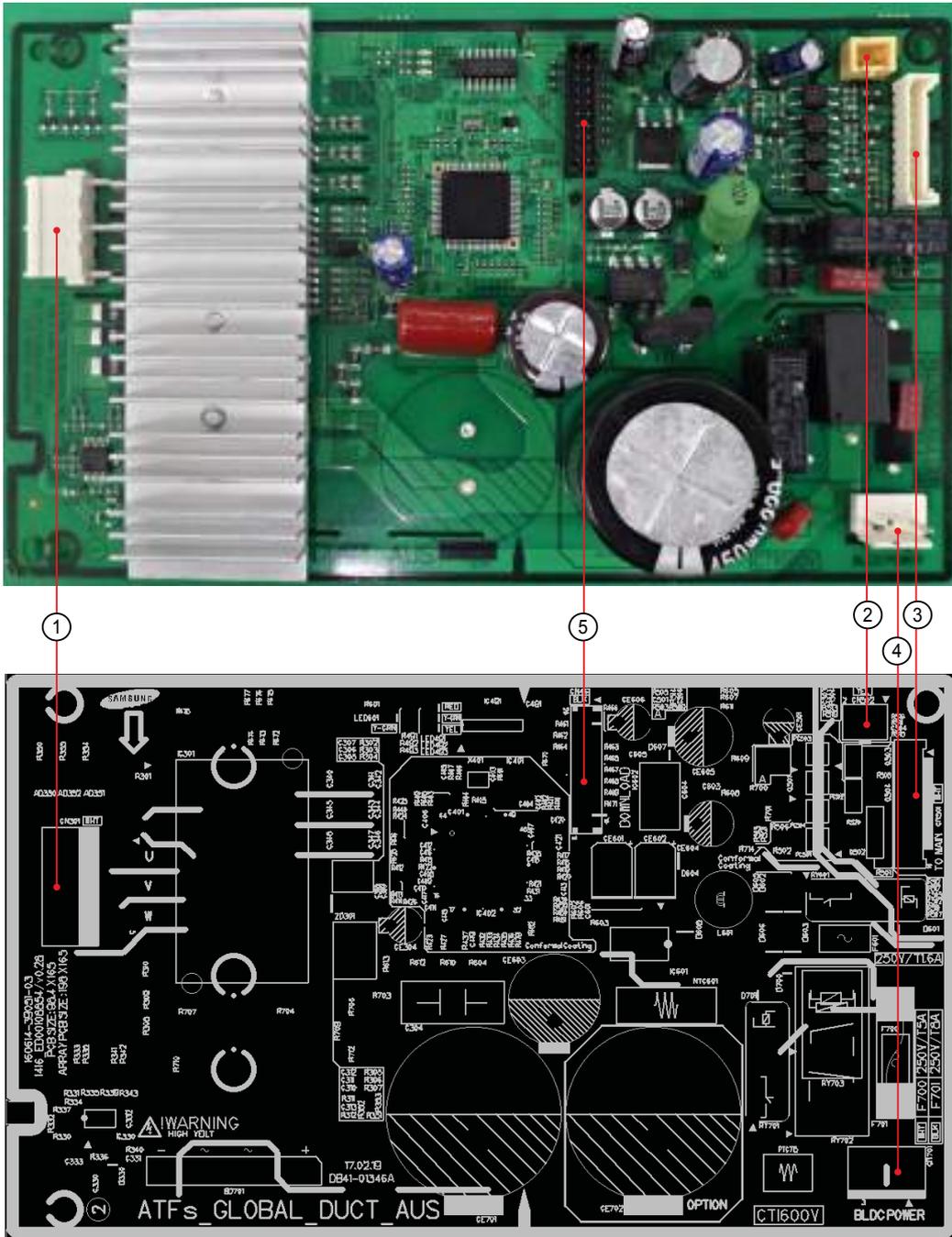
## Global Duct -1,2 (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/AM018RNMDCH/AA)

### ■ MAIN PCB

|   |  |   |  |
|---|--|---|--|
| <b>① CN101 - FAN DC LINK</b><br>#1: L (Main)<br>#2: -<br>#3: N (Main)   | <b>② CN906 - BLDC POWER</b><br>#1: N<br>#2: -<br>#3: L   | <b>③ CN702 - HOT COIL/COMP OUT</b><br>#1: N_OUT<br>#2: -<br>#3: L_OUT   | <b>④ CN140 - FUSE CHECK</b><br>#1: N_OUT<br>#2: -  |
| <b>⑤ CN1-GND</b><br>#1: GND   | <b>⑥ CN413 - EVA-IN, EVA-OUT, DISCHARGE SENSOR</b><br>#1: EVA-IN SENSOR<br>#2: GND<br>#3: EVA-OUT SENSOR<br>#4: GND<br>#5: DISCHARGE SENSOR<br>#6: GND | <b>⑦ CN701 - DRAN</b><br>#1: 12V<br>#2: GND   | <b>⑧ CN81 - COMP CHECK</b><br>#1: 12V<br>#2: ERROR CHECK<br>#3: 12V<br>#4: COMP CHECK  |
| <b>⑨ CN83 - EXT-CTL</b><br>#1: EXTERNAL CONTROL SIGNAL<br>#2: GND   | <b>⑩ CN412 - ROOM SENSOR</b><br>#1: ROOM-TEMP SENSOR<br>#2: GND  | <b>⑪ CN411 - FLOAT SWITCH</b><br>#1: FLOAT-SWITCH<br>#2: GND  | <b>⑫ CN501-DISPLAY</b><br>#1: 12V<br>#2: LED_0_OUT<br>#3: LED_1_OUT<br>#4: LED_2_OUT<br>#5: LED_3_OUT<br>#6: LED_4_OUT<br>#7: BUZZER 1<br>#8: REMOCON SIGN OUT<br>#9: AUTO S/W SIGNAL<br>#10: REMOCON_INT<br>#11: GND<br>#12: VCC<br>#13: BUZZER 2 |
| <b>⑬ CN905-BLDC FAN MOTOR</b><br>#1: 12V<br>#2: GND<br>#3: VCC<br>#4: BLDC POWER OUT<br>#5: OVER_TEMP<br>#6: IPM_FO<br>#7: REV_OUT<br>#8: FAN FEEDBACK<br>#9: INRUSH_OUT<br>#10: FAN_PWM1 | <b>⑭ CN907 - UART</b><br>#1: MAIN_RXD_INV_TXD<br>#2: MAIN_TXD_INV_RXD  | <b>⑮ CN808-EEV</b><br>#1: EEV_B_bar_OUT<br>#2: EEV_A_bar_OUT<br>#3: EEV_B_OUT<br>#4: EEV_A_OUT<br>#5: 12V<br>#6: 12V  | <b>⑯ CN804-VENTILATOR</b><br>#1: 12V<br>#2: VENT_OUT   |
| <b>⑰ CN801 - SPI</b><br>#1: GND<br>#2: GND<br>#3: 12V<br>#4: -  | <b>⑱ CN302 - COM1,COM2</b><br>#1: COM1_A<br>#2: COM1_B<br>#3: 12V<br>#4: GND<br>#5: COM2_C<br>#6: COM2_D   | <b>⑲ CN301 - DOWNLOAD</b><br>#1: COM1_RXD<br>#2: COM1_TXD<br>#3: nTRST<br>#4: TDO<br>#5: TCK<br>#6: TDI<br>#7: TMS<br>#8: TRACE_CLK<br>#9: GND<br>#10: VCC<br>#11: VCC<br>#12: MODE_0<br>#13: RESET<br>#14: TRACE_3<br>#15: LVR3_A_bar<br>#16: LVR3_B_bar<br>#17: GND<br>#18: TRACE_2<br>#19: TRACE_1<br>#20: TRACE_0 |  |

**Global Duct -1,2** (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/018RNMDCH/AA)

■ ATFs PCB



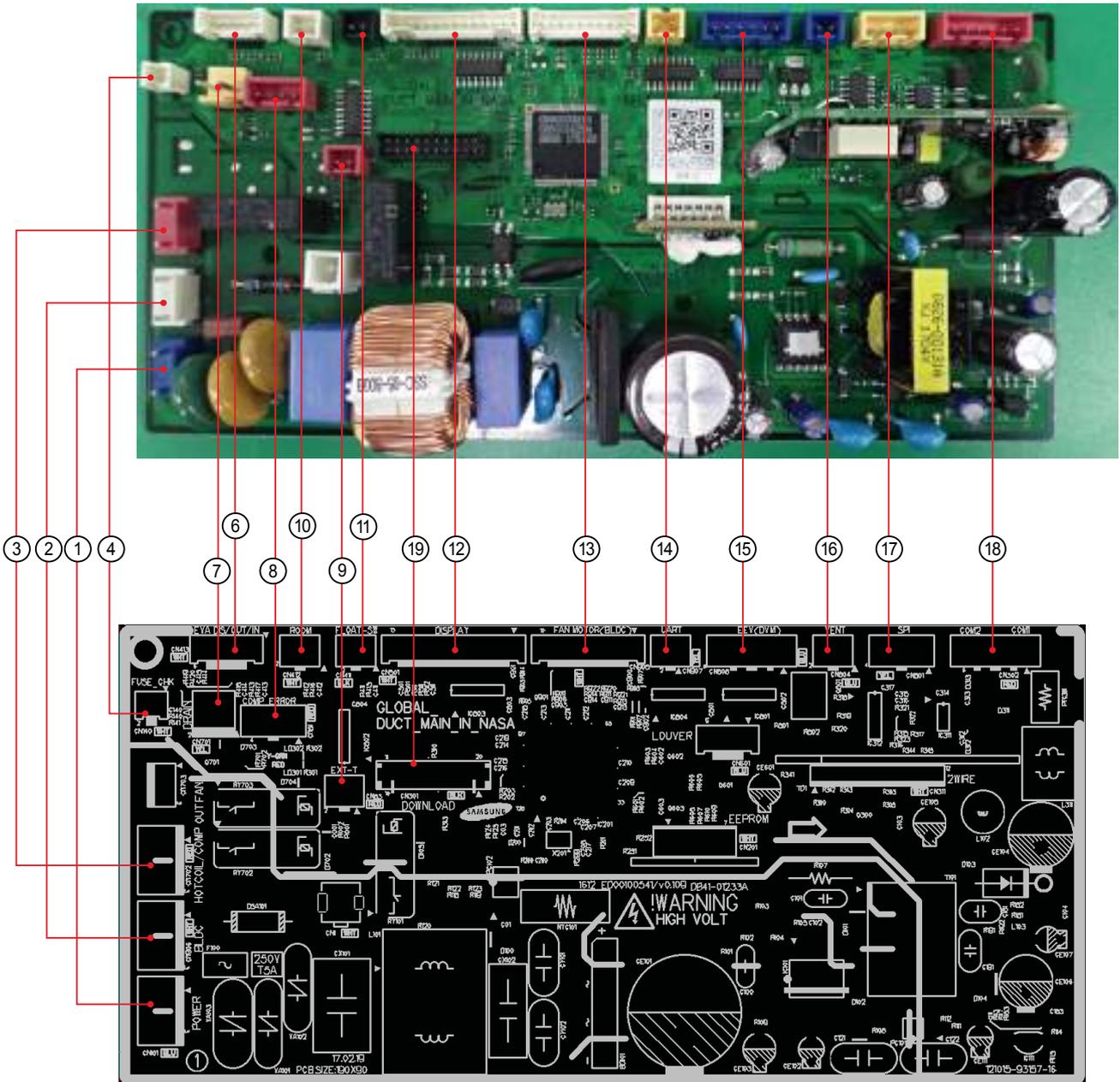
**Global Duct -1,2** (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/018RNMDCH/AA)

## ■ ATFs PCB

|   |   |   |  |
|---|---|---|--|
| <b>① CN301 – MOTOR</b><br>#1: U<br>#2: -<br>#3: V<br>#4: -<br>#5: W   | <b>② CN502-UART</b><br>#1: MAIN_RXD_INV_TXD<br>#2: MAIN_TXD_INV_RXD | <b>③ CN501- TO MAIN</b><br>#1: 12V<br>#2: GND<br>#3: 5V<br>#4: BLDC POWER OUT<br>#5:<br>#6:<br>#7: GND<br>#8: FAN RPM<br>#9:<br>#10: FAN_DUTY | <b>④ CN701 – BLDC POWER</b><br>#1: N<br>#2: -<br>#3: L |
| <b>⑤ CN301 – DOWNLOAD</b><br>#1: RXD_ATARO<br>#2: TXD_ATARO<br>#3: BOOT<br>#4: TDO<br>#5: TCK<br>#6: TDI<br>#7: TMS<br>#8: nTRST<br>#9: GND<br>#10: VCC<br>#11: VCC<br>#12:<br>#13:<br>#14: ENC_B/Y<br>#15:<br>#16:<br>#17: GND<br>#18: ENC_A/G<br>#19: ENC_Z/R<br>#20: SUB |   |   |  |

### 5-1-14 Global Duct -3 (AM036/048MNMDC/AA)

#### ■ MAIN PCB



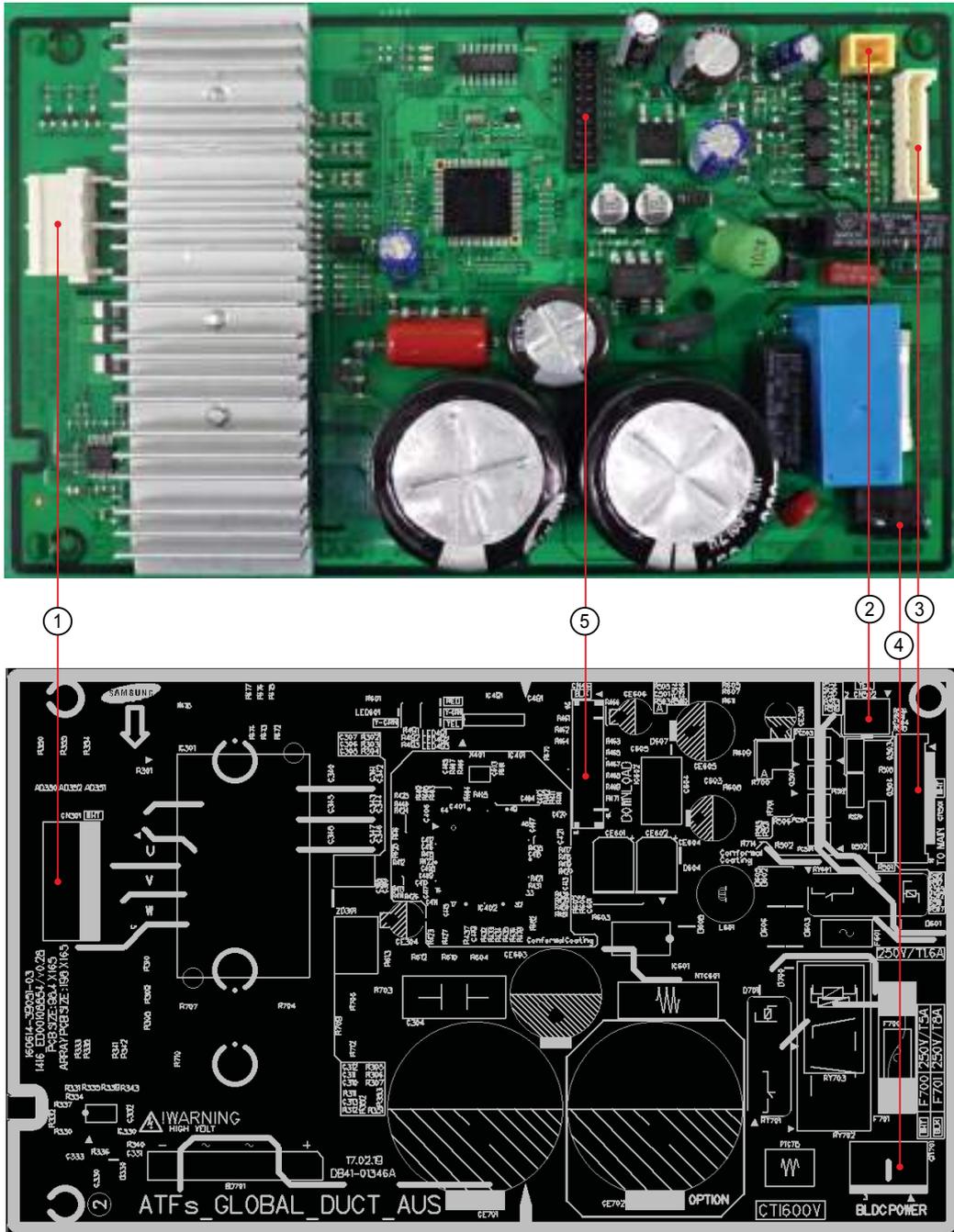
## Global Duct -1,2 (AM007/009/012/015/018/024/027/030MNMDC/AA)

### ■ MAIN PCB

|   |  |   |  |
|---|--|---|--|
| <b>① CN101 - FAN DC LINK</b><br>#1: L (Main)<br>#2: -<br>#3: N (Main)   | <b>② CN906 - BLDC POWER</b><br>#1: N<br>#2: -<br>#3: L   | <b>③ CN702 - HOT COIL/COMP OUT</b><br>#1: N_OUT<br>#2: -<br>#3: L_OUT   | <b>④ CN140 - FUSE CHECK</b><br>#1: N_OUT<br>#2: -  |
| <b>⑤ CN1-GND</b><br>#1: GND   | <b>⑥ CN413 - EVA-IN, EVA-OUT, DISCHARGE SENSOR</b><br>#1: EVA-IN SENSOR<br>#2: GND<br>#3: EVA-OUT SENSOR<br>#4: GND<br>#5: DISCHARGE SENSOR<br>#6: GND | <b>⑦ CN701 - DRAN</b><br>#1: 12V<br>#2: GND   | <b>⑧ CN81 - COMP CHECK</b><br>#1: 12V<br>#2: ERROR CHECK<br>#3: 12V<br>#4: COMP CHECK  |
| <b>⑨ CN83 - EXT-CTL</b><br>#1: EXTERNAL CONTROL SIGNAL<br>#2: GND   | <b>⑩ CN412 - ROOM SENSOR</b><br>#1: ROOM-TEMP SENSOR<br>#2: GND  | <b>⑪ CN411 - FLOAT SWITCH</b><br>#1: FLOAT-SWITCH<br>#2: GND  | <b>⑫ CN501-DISPLAY</b><br>#1: 12V<br>#2: LED_0_OUT<br>#3: LED_1_OUT<br>#4: LED_2_OUT<br>#5: LED_3_OUT<br>#6: LED_4_OUT<br>#7: BUZZER 1<br>#8: REMOCON SIGN OUT<br>#9: AUTO S/W SIGNAL<br>#10: REMOCON_INT<br>#11: GND<br>#12: VCC<br>#13: BUZZER 2 |
| <b>⑬ CN905-BLDC FAN MOTOR</b><br>#1: 12V<br>#2: GND<br>#3: VCC<br>#4: BLDC POWER OUT<br>#5: OVER_TEMP<br>#6: IPM_FO<br>#7: REV_OUT<br>#8: FAN FEEDBACK<br>#9: INRUSH_OUT<br>#10: FAN_PWM1 | <b>⑭ CN907 - UART</b><br>#1: MAIN_RXD_INV_TXD<br>#2: MAIN_TXD_INV_RXD  | <b>⑮ CN808-EEV</b><br>#1: EEV_B_bar_OUT<br>#2: EEV_A_bar_OUT<br>#3: EEV_B_OUT<br>#4: EEV_A_OUT<br>#5: 12V<br>#6: 12V  | <b>⑯ CN804-VENTILATOR</b><br>#1: 12V<br>#2: VENT_OUT   |
| <b>⑰ CN801 - SPI</b><br>#1: GND<br>#2: GND<br>#3: 12V<br>#4: -  | <b>⑱ CN302 - COM1,COM2</b><br>#1: COM1_A<br>#2: COM1_B<br>#3: 12V<br>#4: GND<br>#5: COM2_C<br>#6: COM2_D   | <b>⑲ CN301 - DOWNLOAD</b><br>#1: COM1_RXD<br>#2: COM1_TXD<br>#3: nTRST<br>#4: TDO<br>#5: TCK<br>#6: TDI<br>#7: TMS<br>#8: TRACE_CLK<br>#9: GND<br>#10: VCC<br>#11: VCC<br>#12: MODE_0<br>#13: RESET<br>#14: TRACE_3<br>#15: LVR3_A_bar<br>#16: LVR3_B_bar<br>#17: GND<br>#18: TRACE_2<br>#19: TRACE_1<br>#20: TRACE_0 |  |

### Global Duct -1,2 (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/018RNMDCH/AA)

#### ■ ATFs PCB



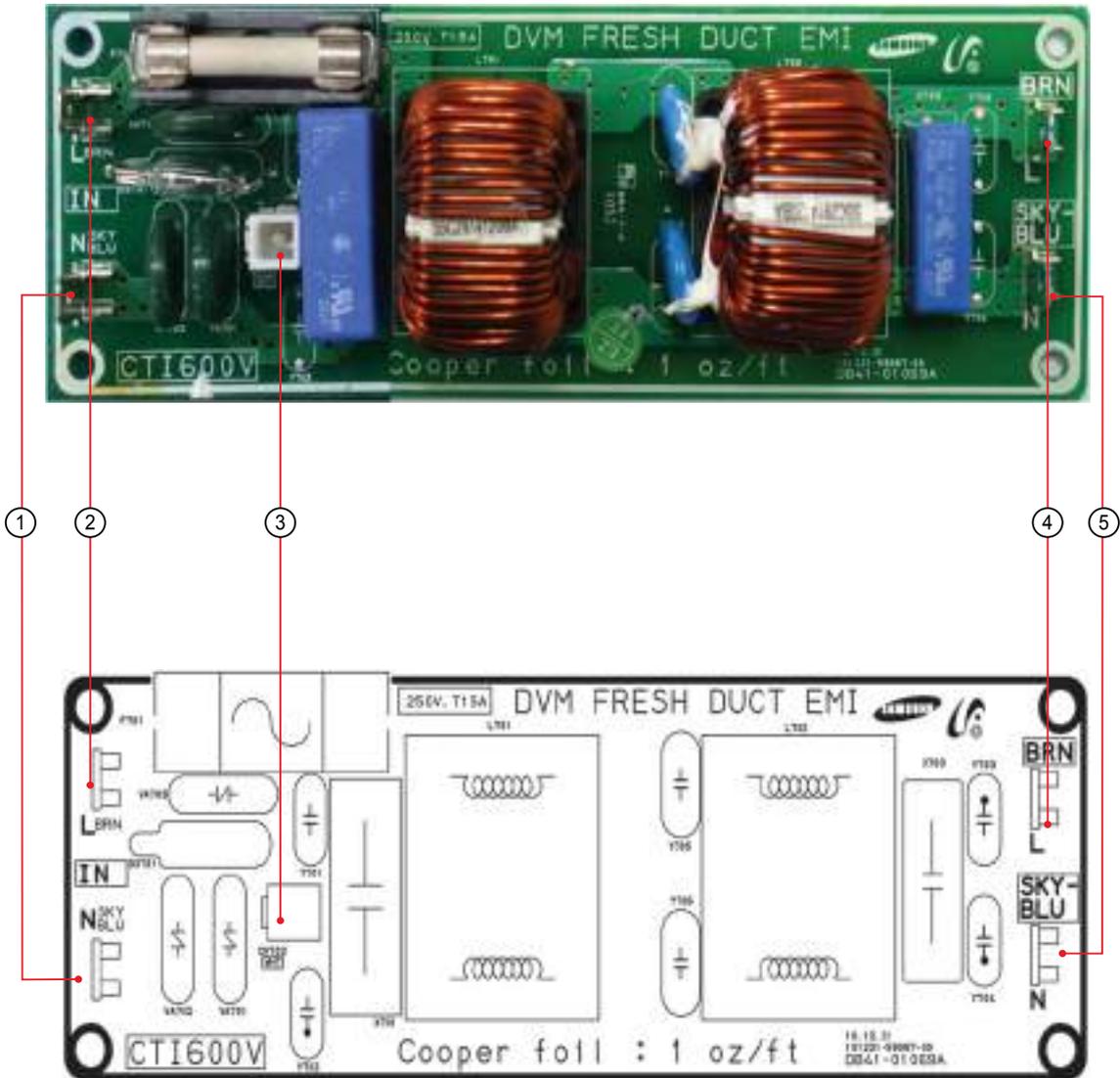
**Global Duct -1,2** (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/018RNMDCH/AA)

## ■ ATFs PCB

|   |   |   |  |
|---|---|---|--|
| <b>① CN301 – MOTOR</b><br>#1: U<br>#2: -<br>#3: V<br>#4: -<br>#5: W   | <b>② CN502-UART</b><br>#1: MAIN_RXD_INV_TXD<br>#2: MAIN_TXD_INV_RXD | <b>③ CN501- TO MAIN</b><br>#1: 12V<br>#2: GND<br>#3: 5V<br>#4: BLDC POWER OUT<br>#5:<br>#6:<br>#7: GND<br>#8: FAN RPM<br>#9:<br>#10: FAN_DUTY | <b>④ CN701 – BLDC POWER</b><br>#1: N<br>#2: -<br>#3: L |
| <b>⑤ CN301 – DOWNLOAD</b><br>#1: RXD_ATARO<br>#2: TXD_ATARO<br>#3: BOOT<br>#4: TDO<br>#5: TCK<br>#6: TDI<br>#7: TMS<br>#8: nTRST<br>#9: GND<br>#10: VCC<br>#11: VCC<br>#12:<br>#13:<br>#14: ENC_B/Y<br>#15:<br>#16:<br>#17: GND<br>#18: ENC_A/G<br>#19: ENC_Z/R<br>#20: SUB |   |   |  |

**Global Duct -1,2** (AM007/009/012/015/018/024/027/030MNMDCH/AA, AM006/018RNMDCH/AA)

■ EMI PCB

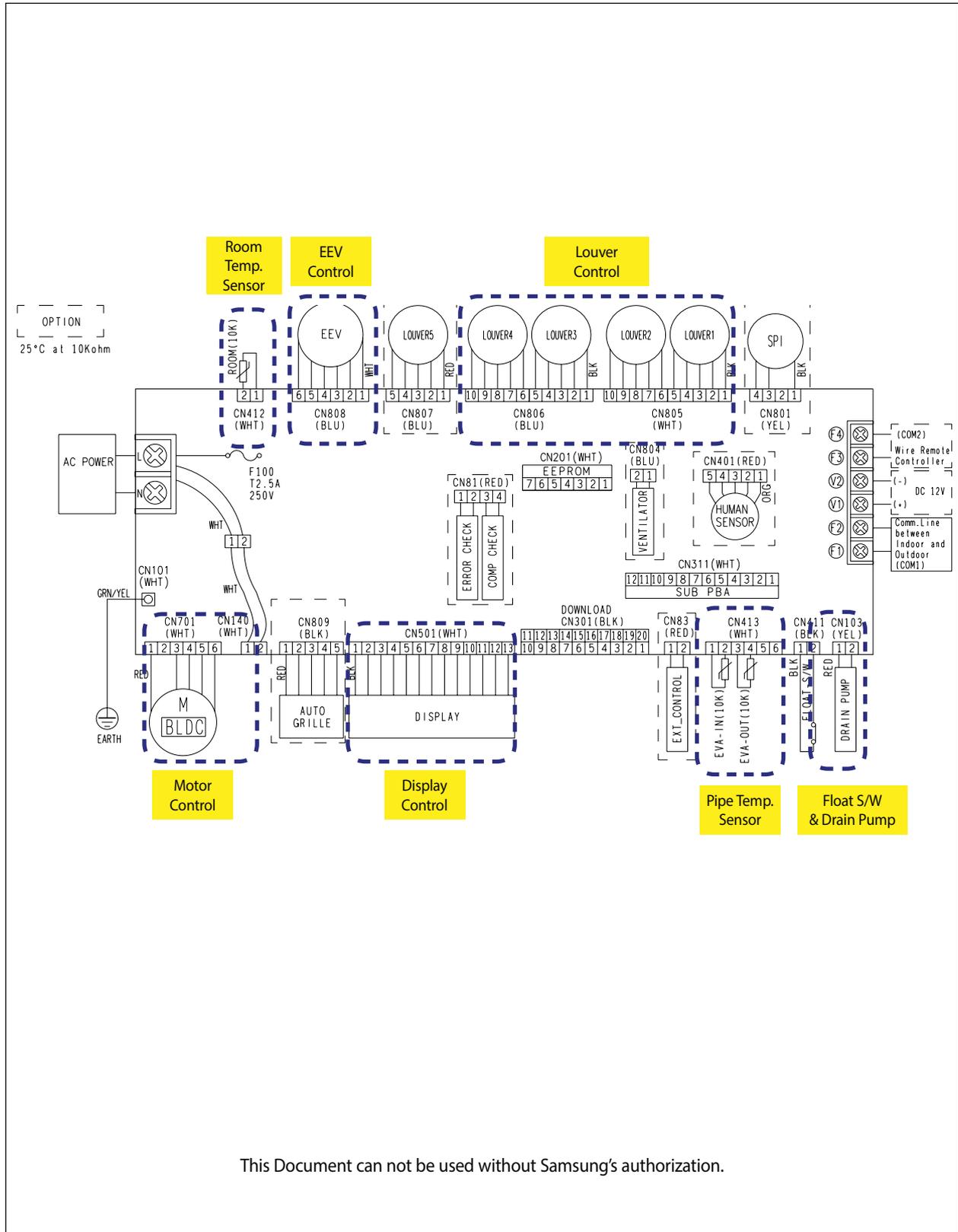


|           |           |               |           |
|-----------|-----------|---------------|-----------|
| ① N-N TOP | ② L-L TOP | ③ CN702-Earth | ④ L-L TOP |
| ⑤ N-N TOP |           |               |           |

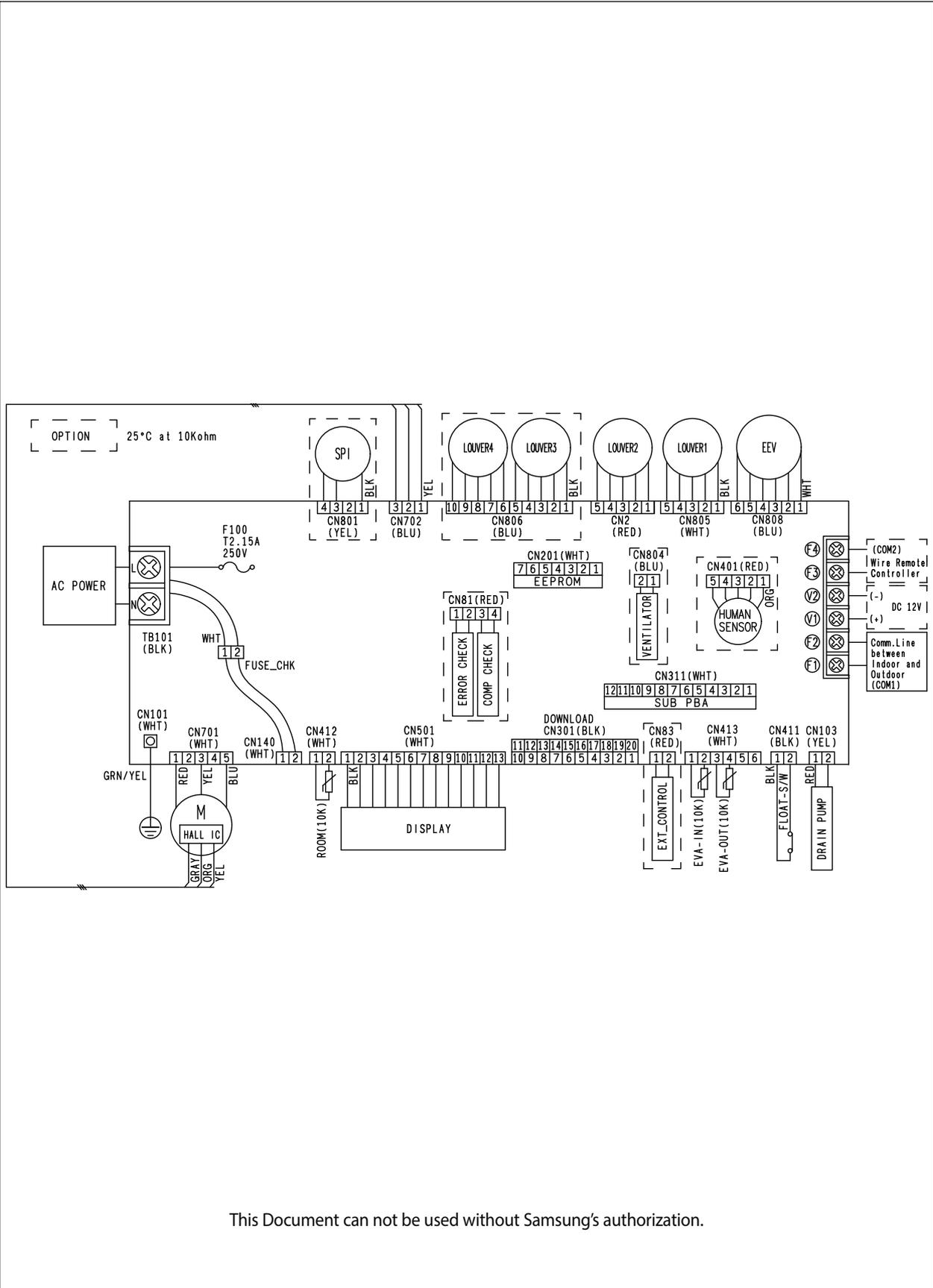
# 6. Wiring Diagram

## 6-1 Indoor

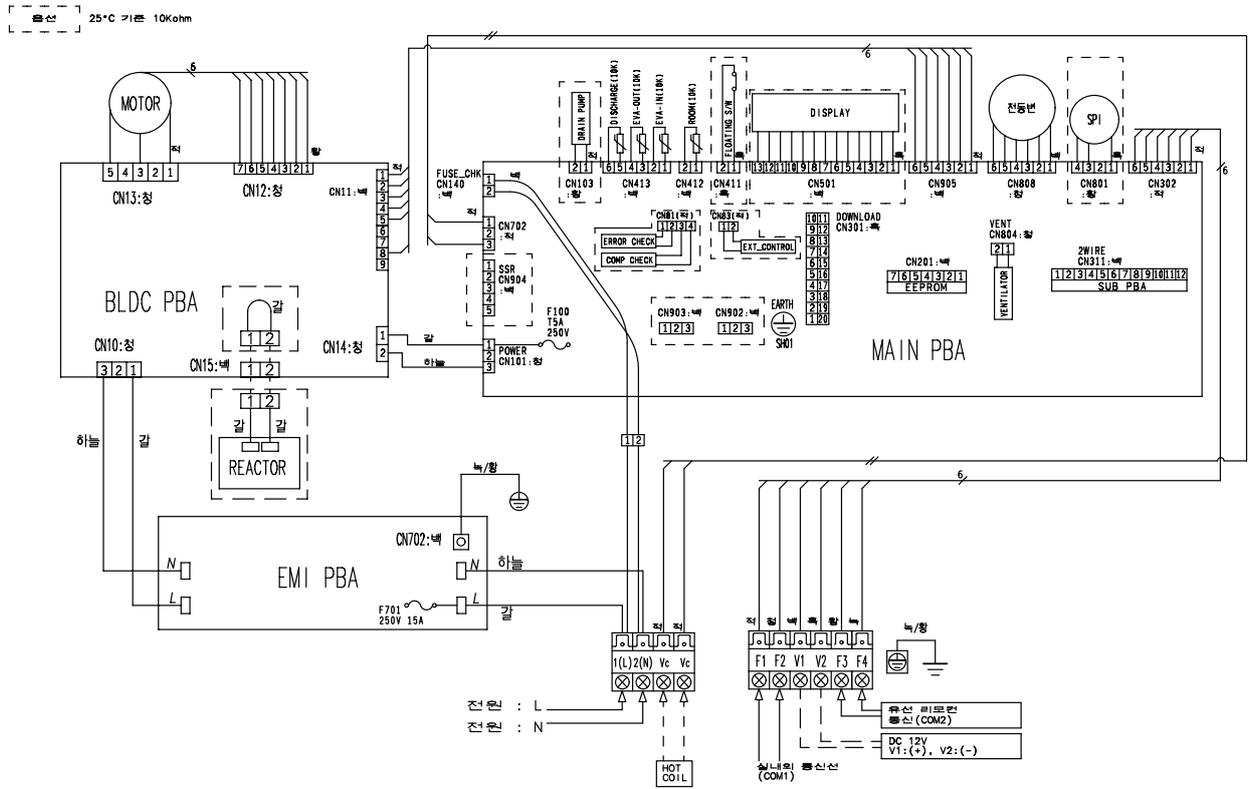
### 6-1-1 Global 4way(Global Mini-4way) cassteet type



### 6-1-2 Slim 1way cassette type

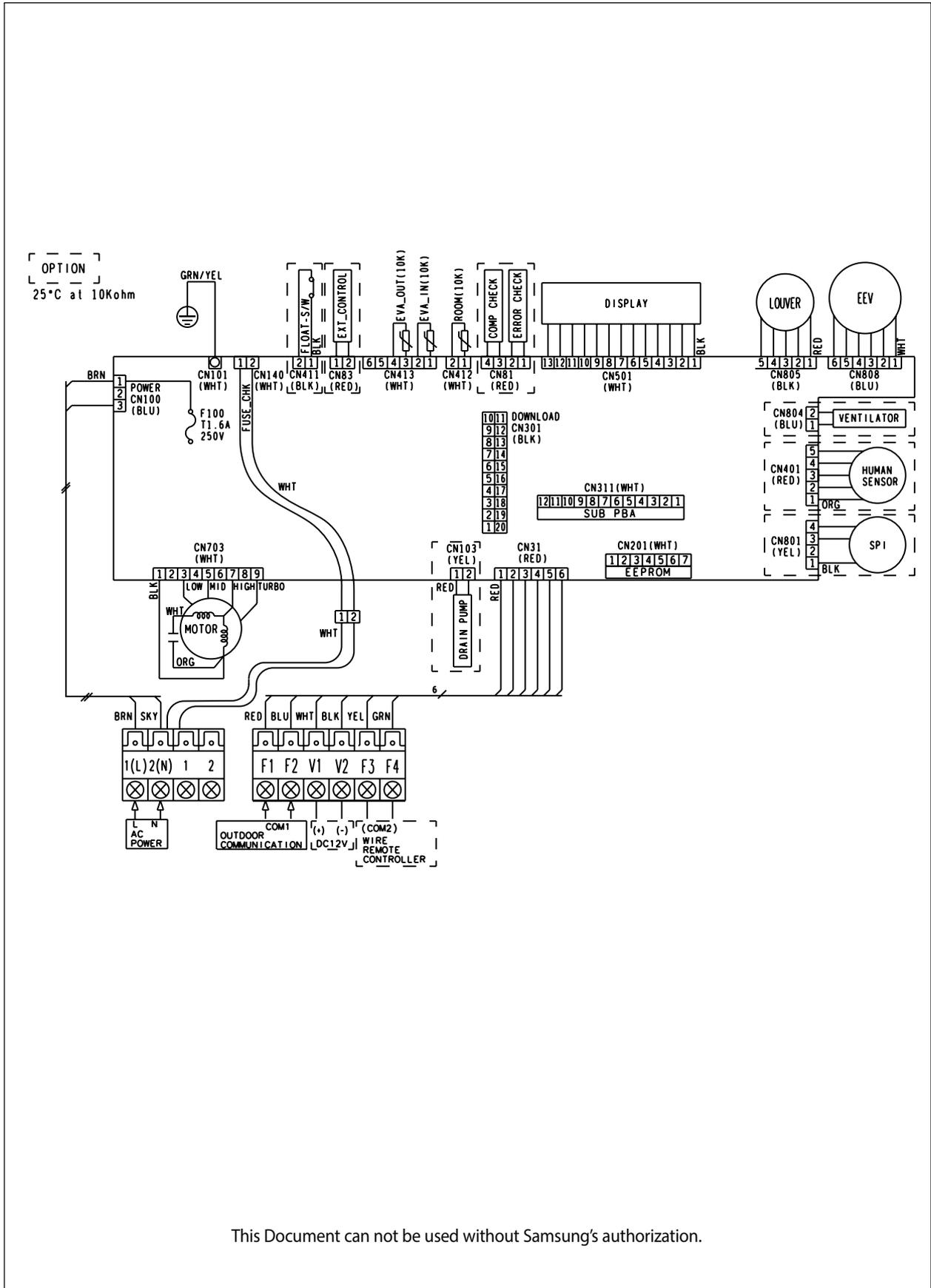


### 6-1-3 BIG Duct



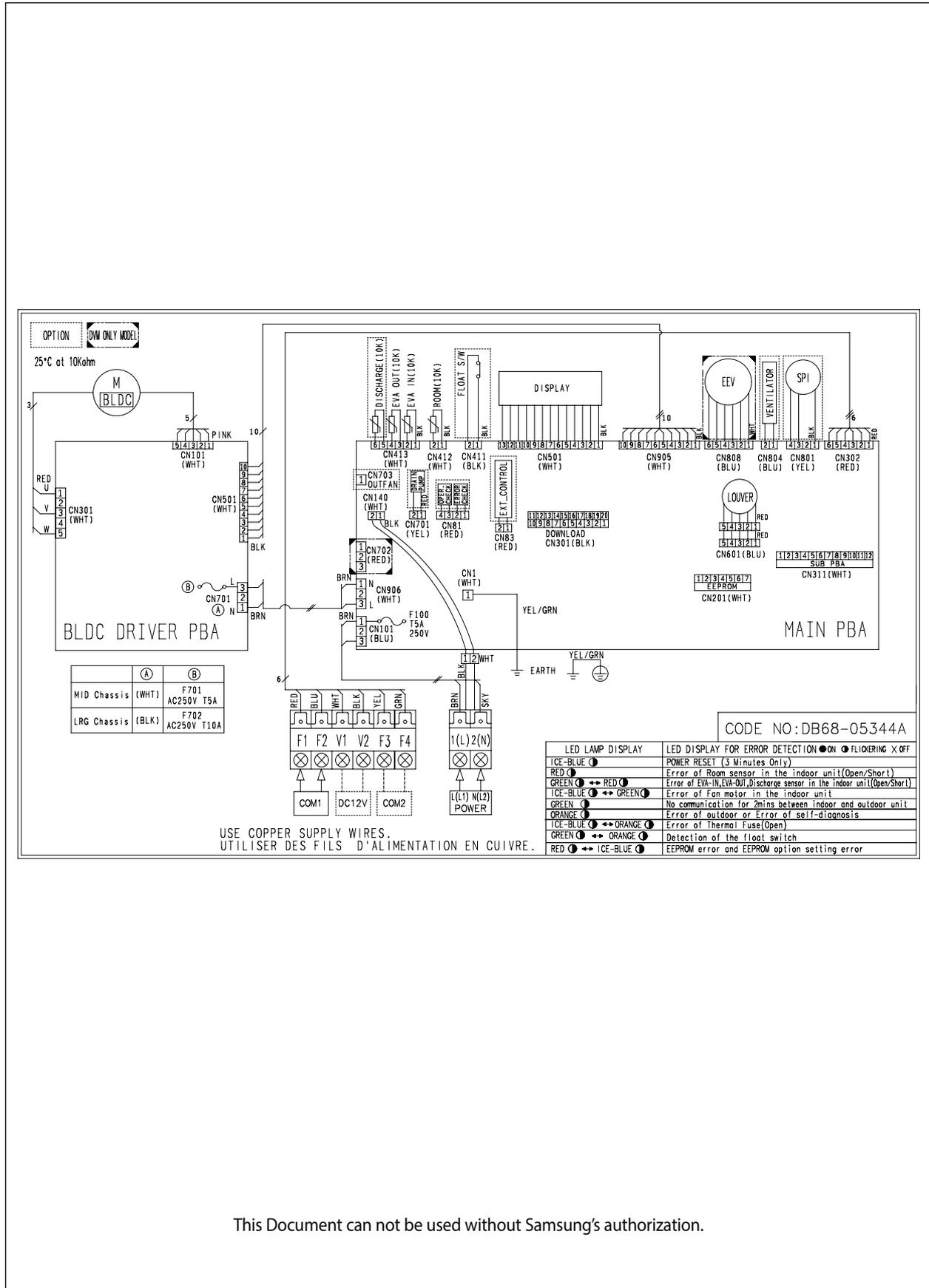
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### 6-1-4 Ceiling



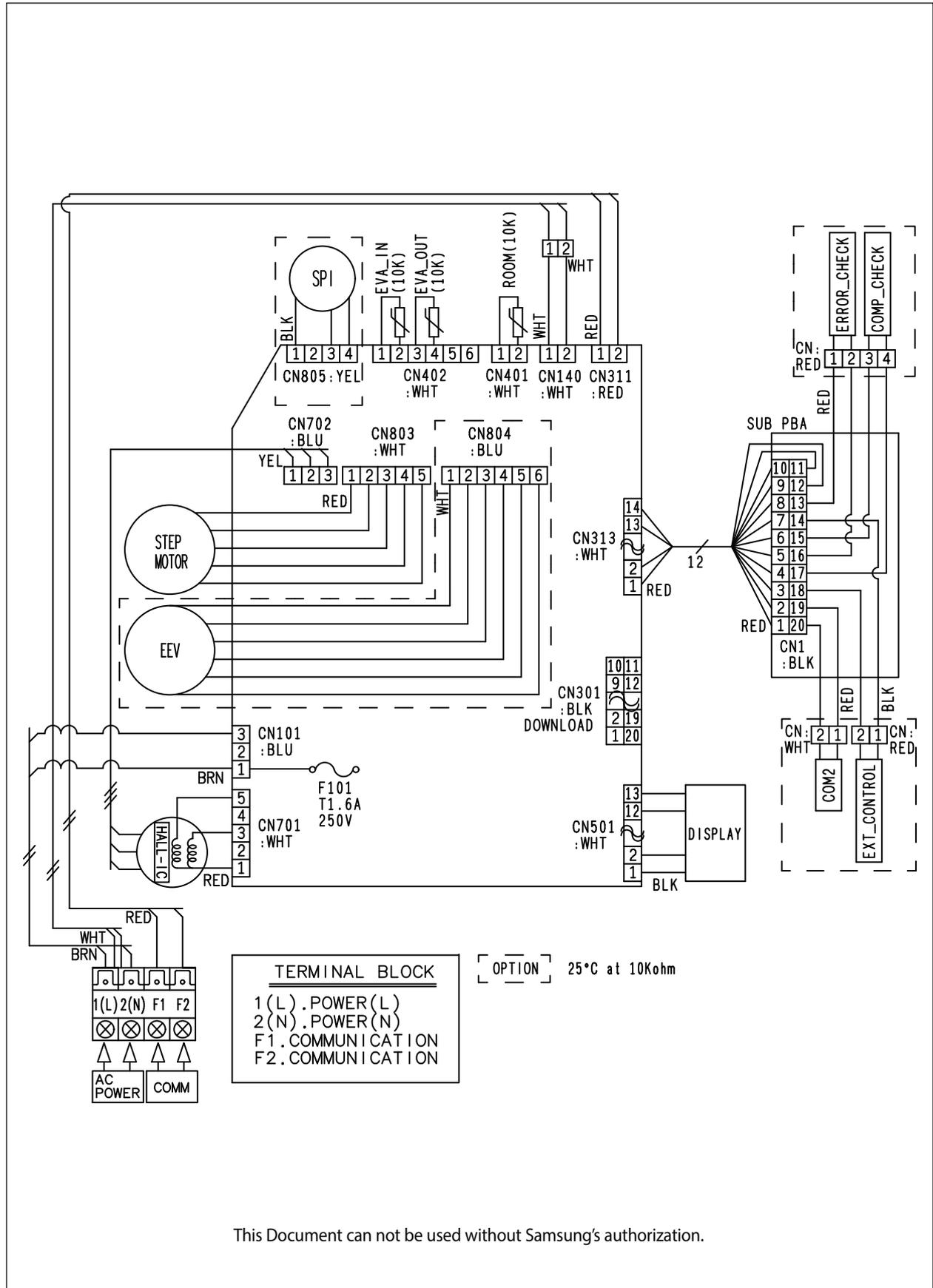
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### 6-1-5 Big Ceiling (AM036/048JNCDCH/AA)

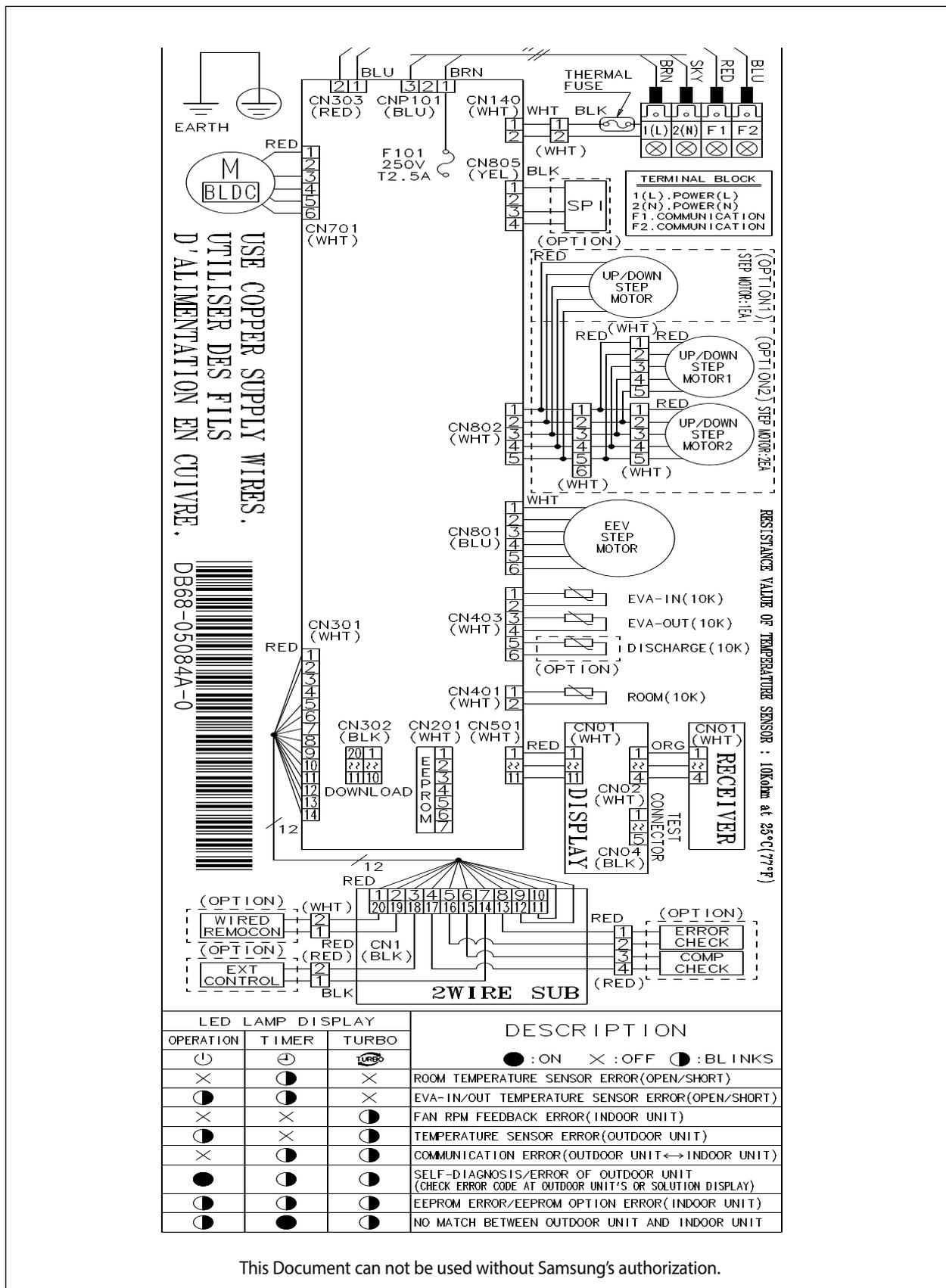


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### 6-1-6 RAC(Neo Forte)

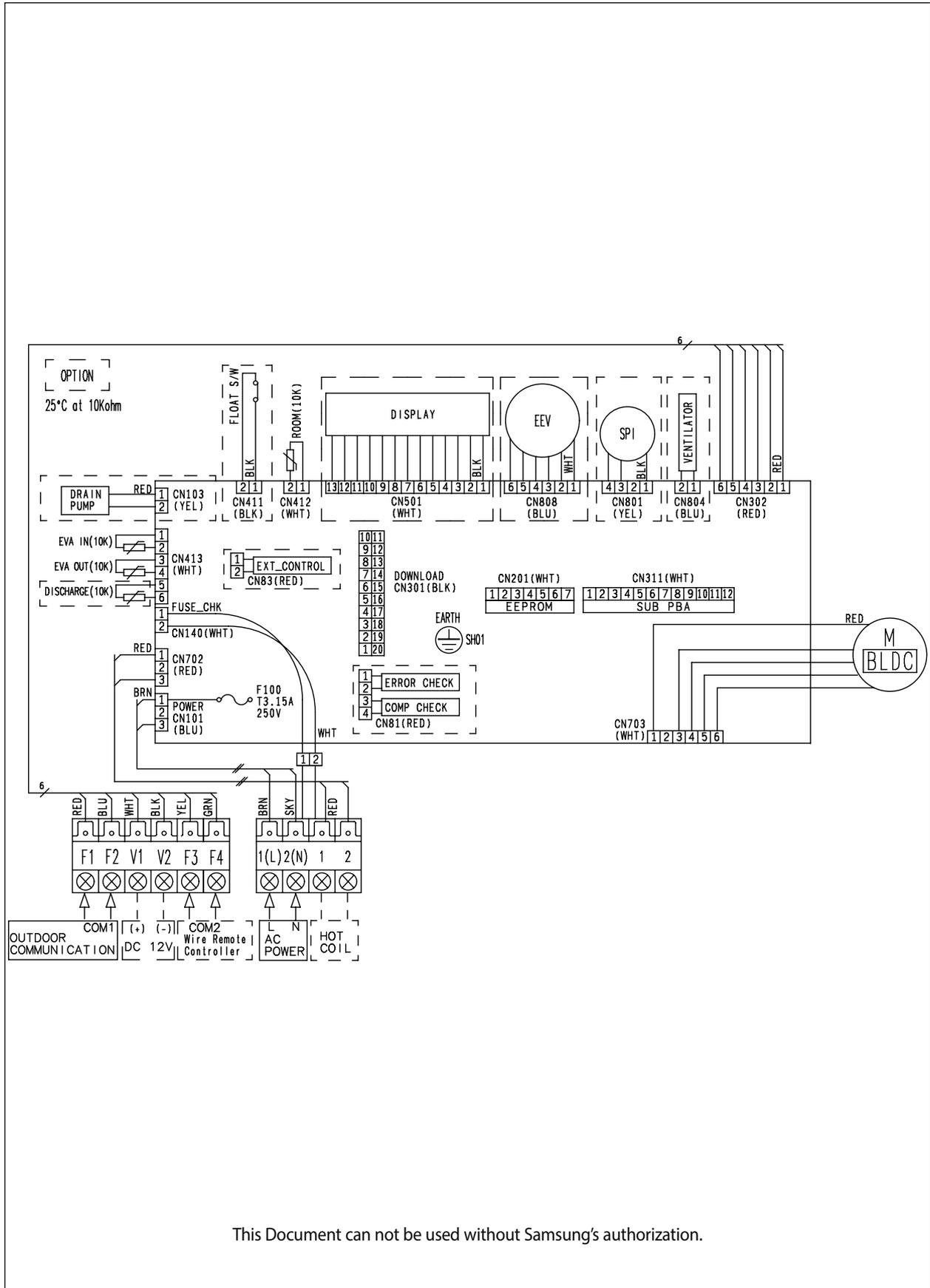


6-1-7 Wall Mounted type(A3050, MAX)



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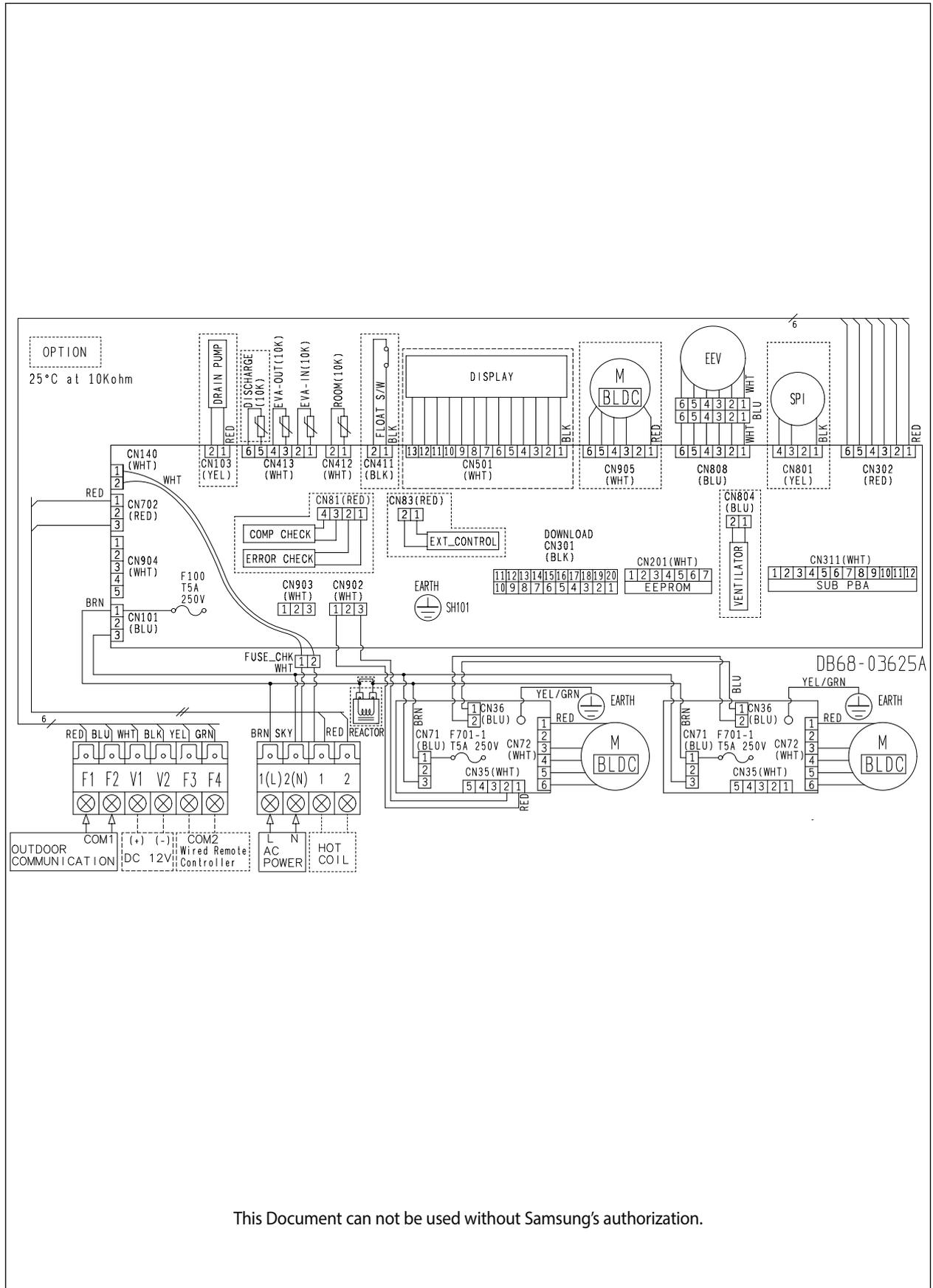
### 6-1-8 DUCT type (Slim Duct 3, MA-1(Drain Pump Built-in))



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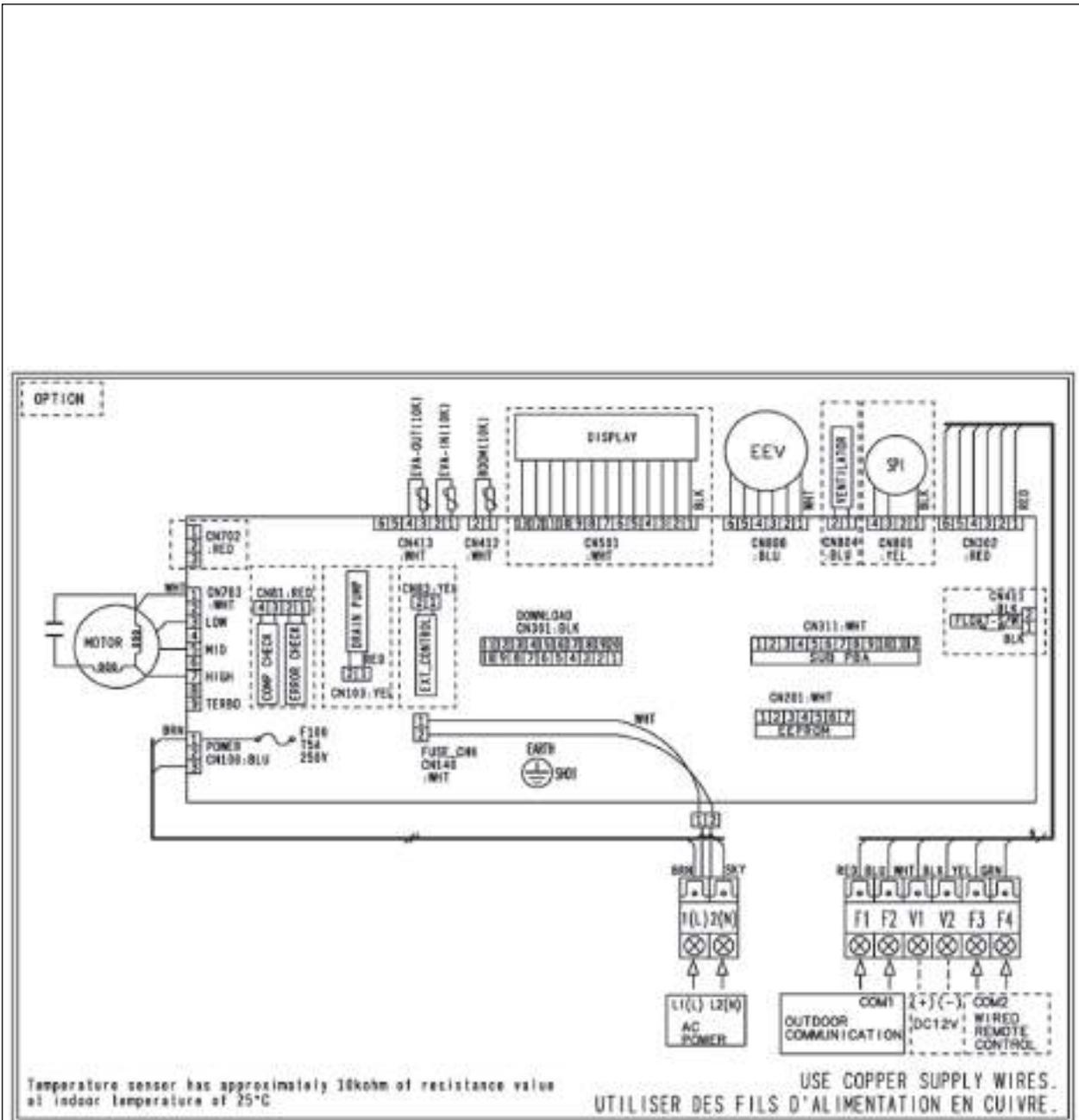


**6-1-10 DUCT type (HSP Small , MA-2(Drain Pump Built-in))**



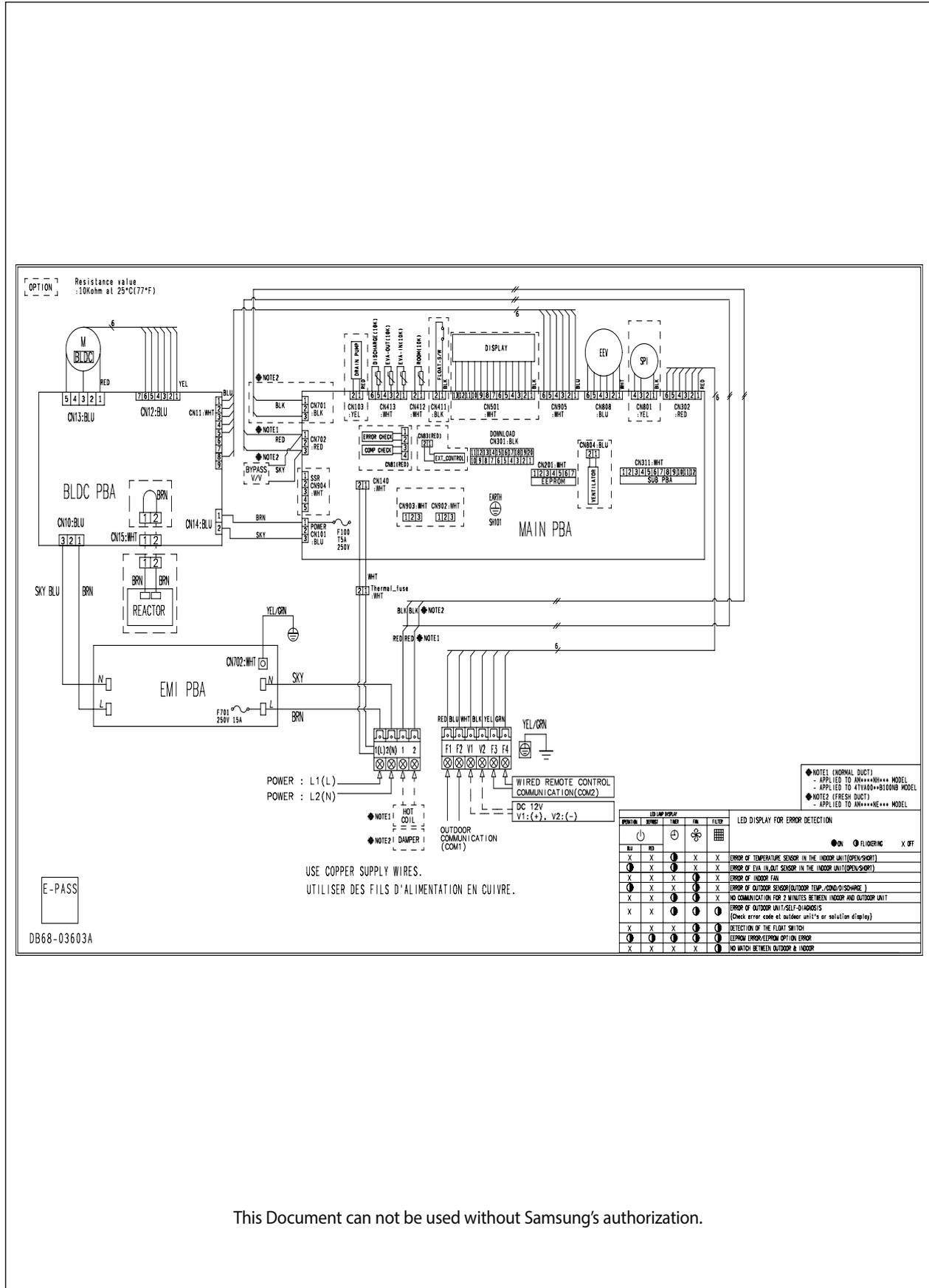
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### 6-1-11 Floor Stand Type



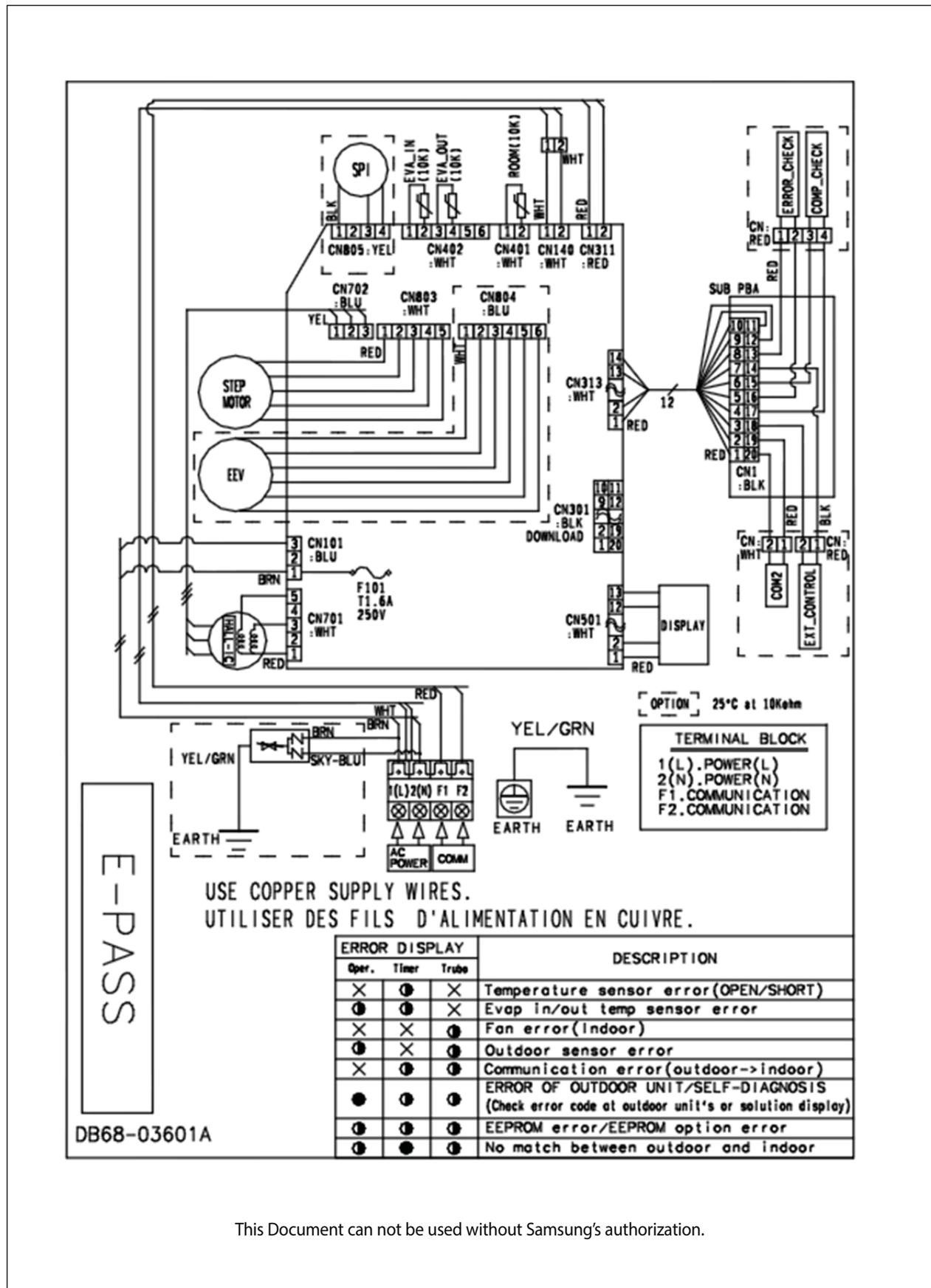
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### 6-1-12 OAP Duct type



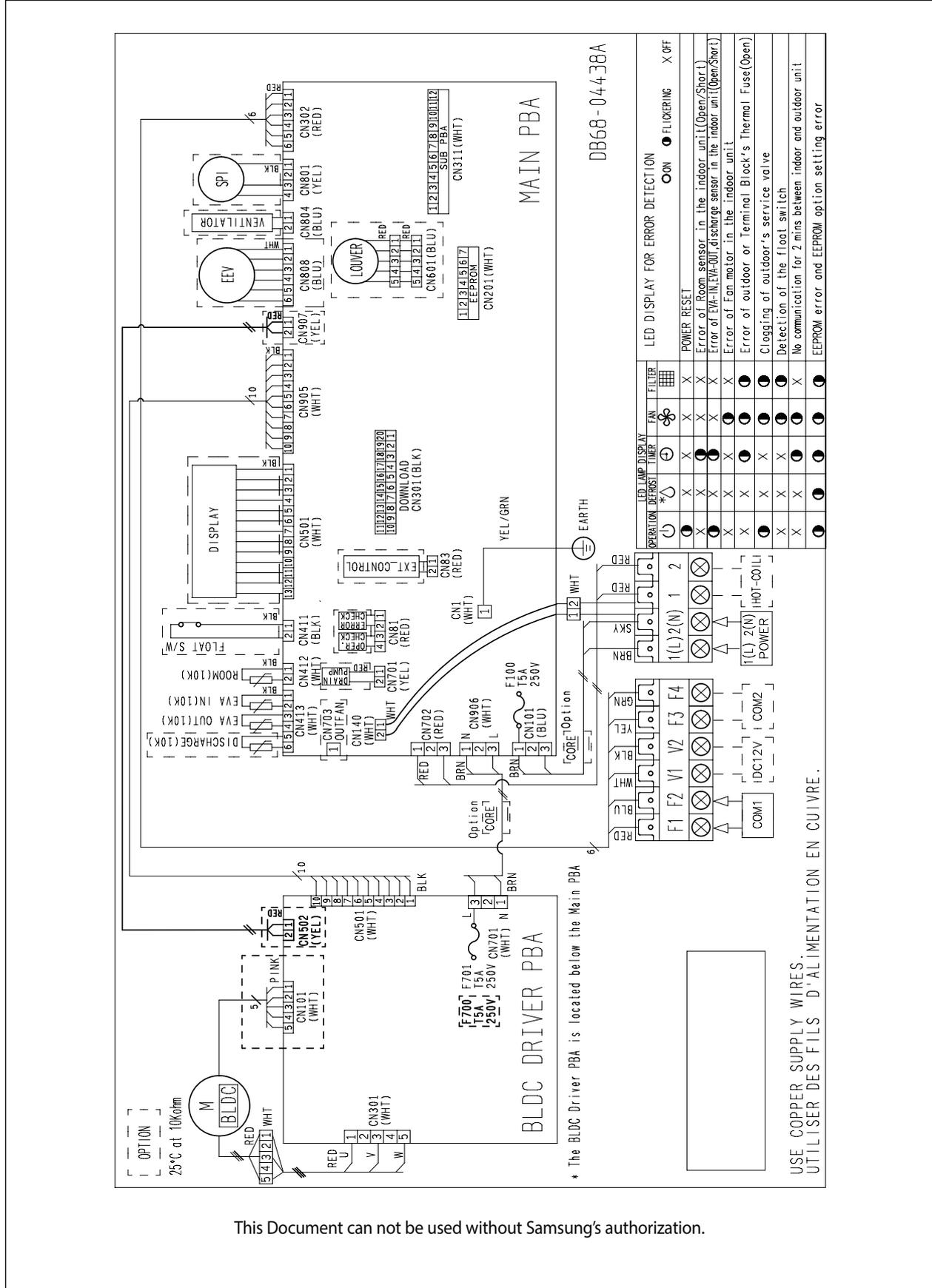
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6-1-13 Wall-Mounted type (Boracay)



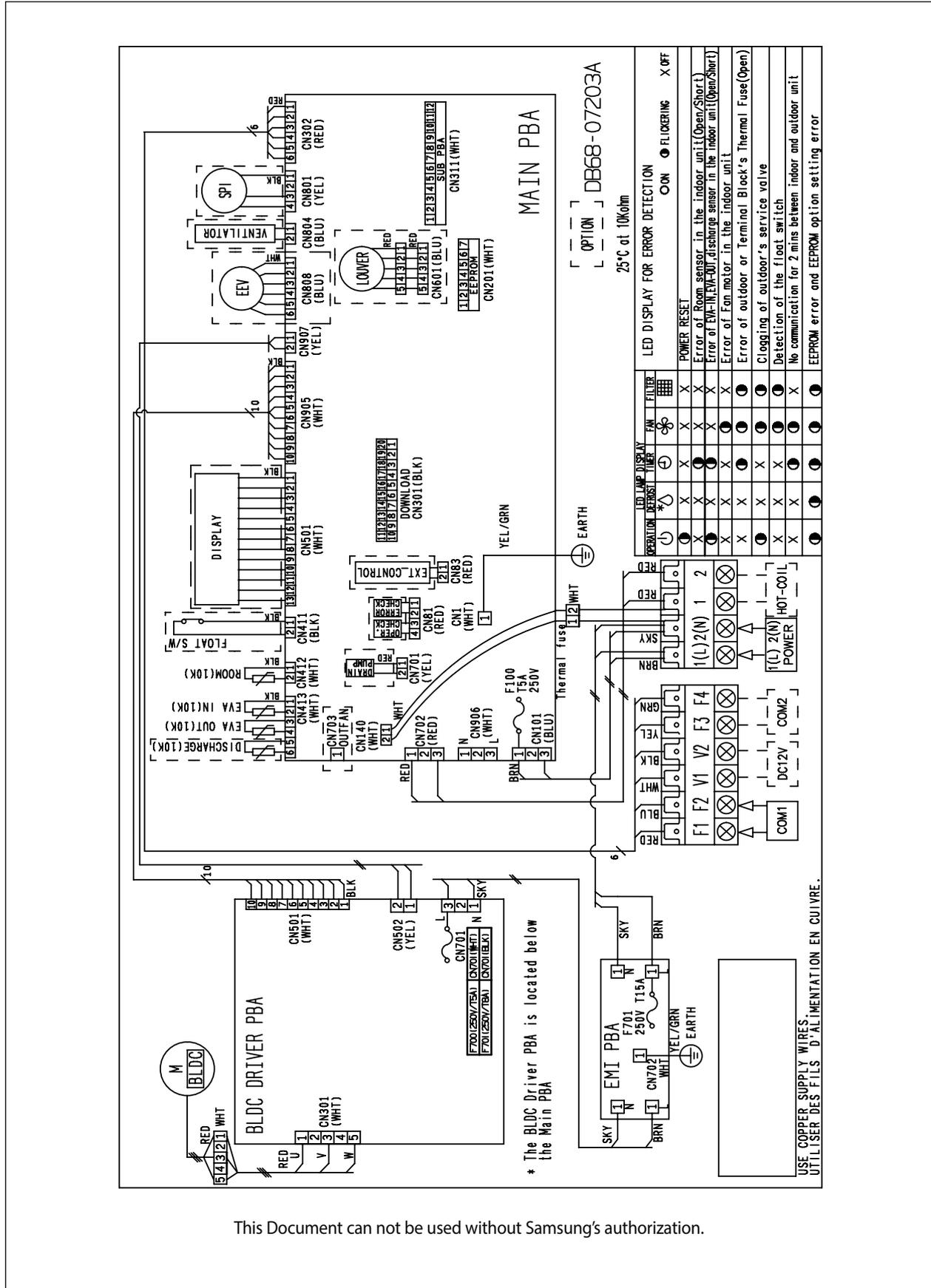
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**6-1-14 Global Duct (AM007/009/012/015/018/024/027/030MNMDC/AA,  
AM006/018RNMDCH/AA)**



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6-1-15 Global Duct (AM036/048MNMDCH/AA)

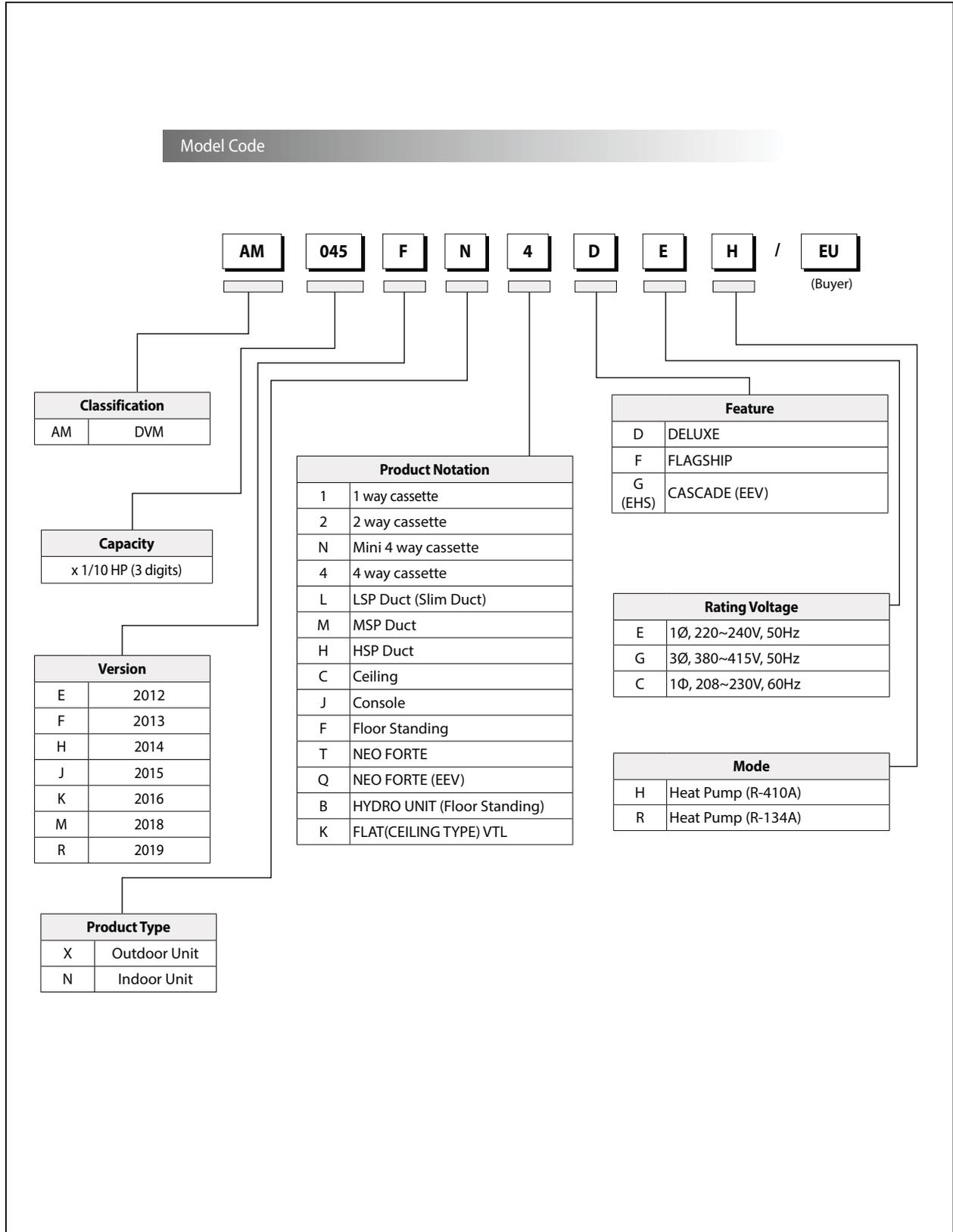


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# 7. Reference Sheet

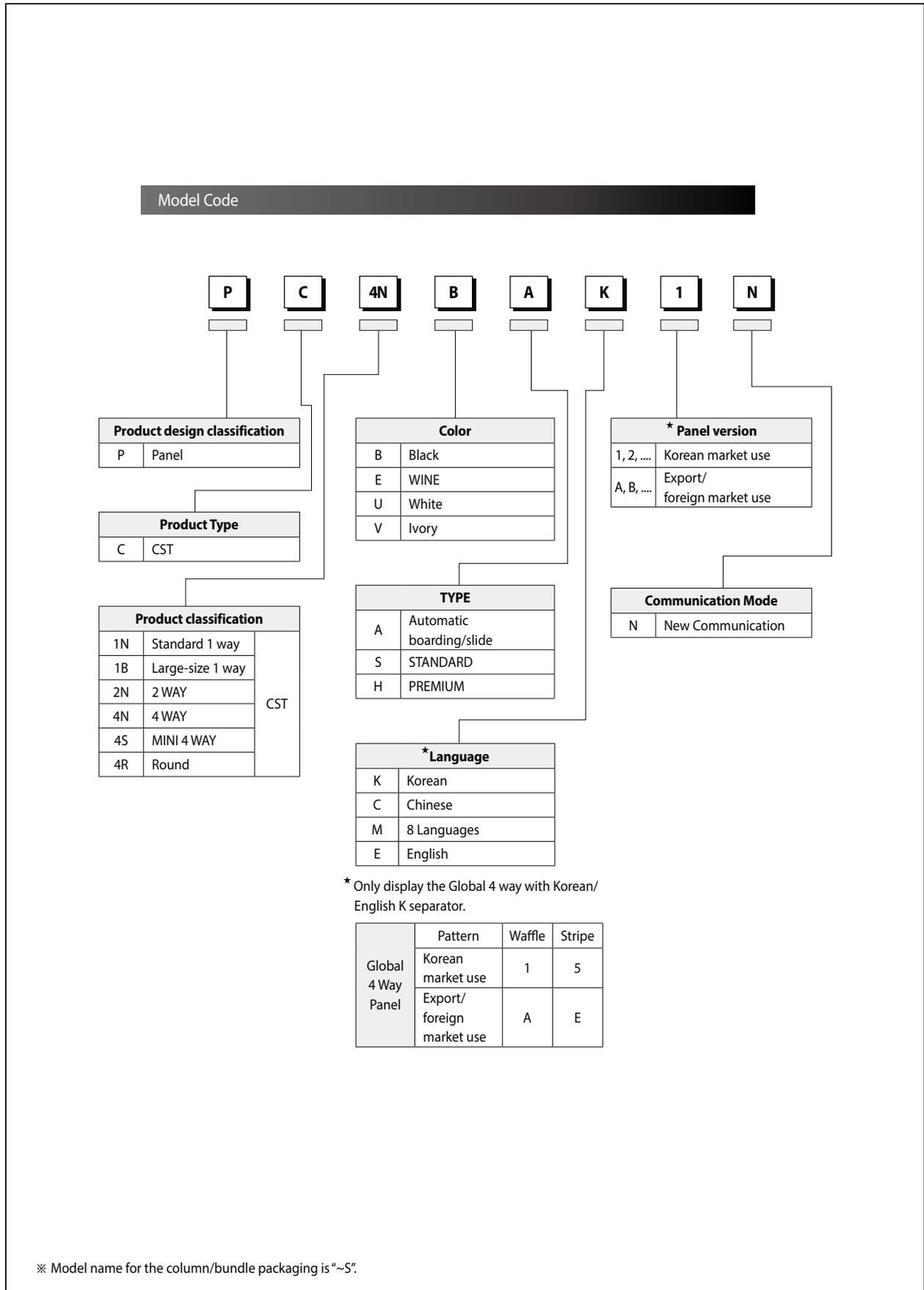
## 7-1 Index for Model Name

### 7-1-1 Indoor Unit



# Index for Model Name(cont.)

## 7-1-2 Panel



## 7-2 Pump-down Method

### 7-2-1 Precautions for Pump-down

1. If the pressure is kept low for a long time to completely replenish the refrigerant of the pipe during the pump-down, then the compressor may be damaged. Therefore, close the valve immediately if the pressure goes below 2kg/cm<sup>2</sup>.g.
2. If the length of the pipe is too long or the outside temperature is too high, then it may not be able to pump down all of the refrigerant. In this case, use an empty refrigerant container which can be used for recharge to place some of the system refrigerant inside the container. The pump down can be easily carried out if only the remaining refrigerant is pumped down.



Please use a rechargeable container for exclusive use when putting the refrigerant in the container.

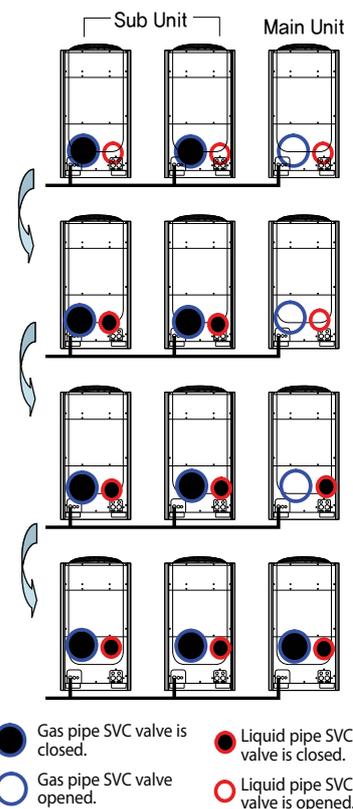
Accidents such as explosions can happen and result in damage if normal refrigerant containers are used after illegal modification.

### 7-2-2 For Single Installation of Outdoor Unit (Only One Outdoor Unit Installed)

1. Close the liquid pipe SVC valve.
2. Press the K2 Button on the PCB of the main outdoor unit. ("K7" mark displayed on the outdoor unit PCB LED.)
3. Observe for low pressure by using the K4 button's view mode once the compressor starts operating.  
(If the first number of the LED is "4," then the following three digits represent the low pressure, expressed up to the first decimal point.)  
Example: 41 22 → 4 means the value of the low pressure, and 122 means that the low pressure is 12.2kg/cm<sup>2</sup>.g.
4. If the low pressure goes below around 2kg/cm<sup>2</sup>.g, then immediately close the SVC valve for the gas and finish the pump-down operation.  
(Finish the pump-down operation, press K2 button two more times, or reset the operation by pressing the K3 button once more.)

### 7-2-3 When Two or More Outdoor Units are Installed

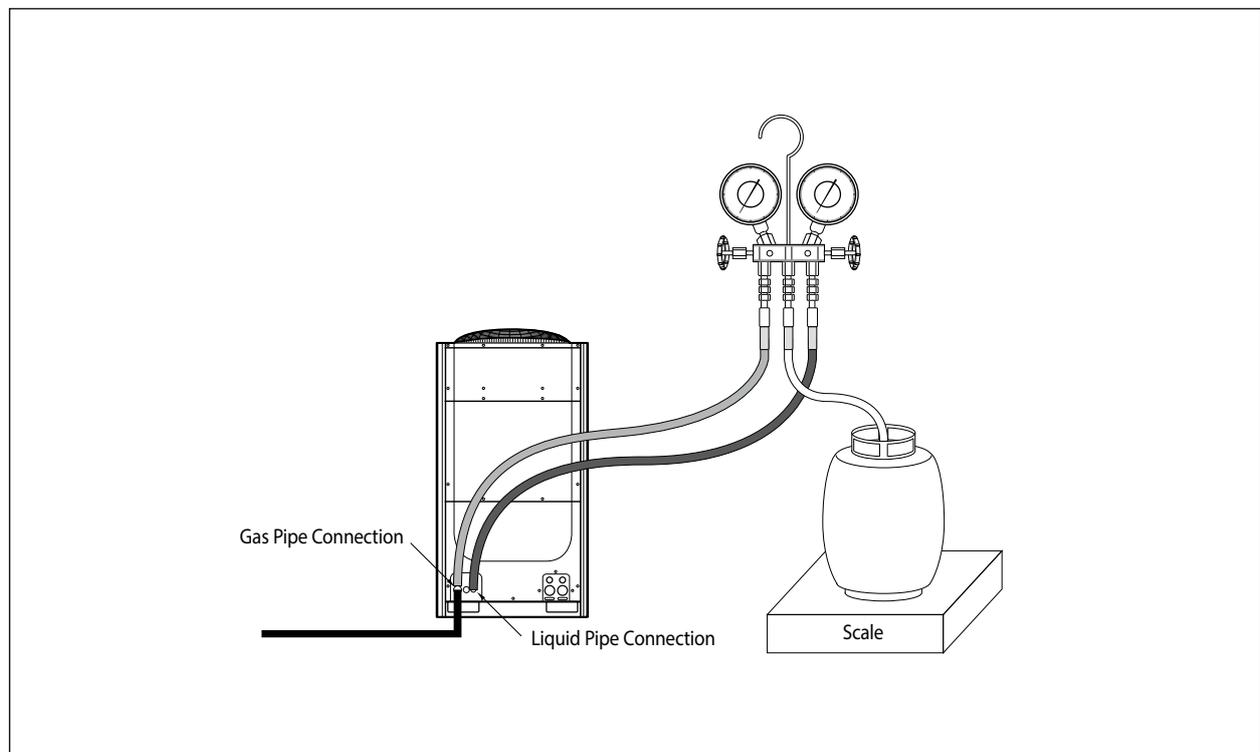
1. Close the gas valves of each sub unit.
2. Press the K2 button of the outdoor unit PCB three times. At this time, K7 will be displayed on the PCB LED. After pressing the button, wait for about 20~30 minutes once the main unit compressor starts operating.
3. Close the liquid pipe valves of each sub unit.
4. Close the liquid pipe valves of the main unit, and observe for low pressure as in the case of a single outdoor unit.
5. Close the gas valve of the main unit if the pressure drops down, and then finish the pump-down operation mode.



## 7-3 How to Put Refrigerant in Refrigerant Container

### 7-3-1 How to put refrigerant in container before pump-down

1. Prepare a rechargeable exclusive refrigerant container, a scale, and a Manifold gauge.
2. Check the amount of refrigerant remaining in the overall system at the time.
3. Connect the refrigerant container to the outdoor unit as shown in the following figure, and operate only about 50% of the total indoor units in air conditioning mode.
4. Check the high pressure from the Manifold gauge 10 minutes after the air conditioning begins operation.  
Reduce the number of indoor units in operation if the high pressure goes above  $30\text{kg}/\text{cm}^2\text{g}$ . to lower the high pressure below  $30\text{kg}/\text{cm}^2\text{g}$ .
5. Check that the high pressure goes below  $30\text{kg}/\text{cm}^2\text{g}$ , and open the Manifold gauge connected to the liquid pipe, as well as the refrigerant container valve, so that the refrigerant flows from the liquid pipe to the refrigerant container.
6. Check the changes in the weight of the container using the scale. Once the desired amount of refrigerant is filled up inside the container, close the valves, and then remove the Manifold gauge.
7. The amount of refrigerant that can be contained inside the container is about 50% of the amount of refrigerant inside the overall system.
8. Please take extra caution by precisely determining the amount of the refrigerant that can be put in each container so that too much refrigerant is not contained in the container.  
The weight must be measured by using a scale to avoid putting more refrigerant than the amount originally contained in the container.



# SAMSUNG

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