

Hyperion - Field Reference Data - TAM8

Air Handler-Convertible

Models: Series 8 Air Handlers 2-5 Ton

*AM8A0A24V21CA, *AM8A0B30V21CA

*AM8A0C36V31CA, *AM8A0C42V31CA

*AM8A0C48V41CA, *AM8A0C60V51CA

* May be "A" or "T"

For use with BAYEV or BAYW series heaters ONLY

WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER BEFORE SERVICING

IMPORTANT --- This document contains a wiring diagram and service information. This is customer property and is to remain with this unit. Please return to service information pack upon completion of work.

WARNING

SAFETY HAZARD! This information is intended for use by individuals possessing adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacture or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

LIVE ELECTRICAL COMPONENTS! During installation, testing, servicing, and troubleshooting of this product, it may be necessary to work with live electrical components. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

NOTE: This unit as shipped is **ONLY** compatible with Trane and American Standard communicating thermostats and outdoor units. (24VAC thermostats cannot be used) With the addition of a BAYCC24VK01 accessory, this unit can be compatible with a 24VAC single or multistage heat pump or air conditioner.

WARNING

PRESSURIZED REFRIGERANT! SYSTEM CONTAINS OIL AND REFRIGERANT UNDER HIGH PRESSURE. RECOVER REFRIGERANT TO RELIEVE PRESSURE BEFORE OPENING THE SYSTEM.

DO NOT USE NON-APPROVED REFRIGERANTS OR REFRIGERANT SUBSTITUTES OR REFRIGERANT ADDITIVES.

Note: This unit is certified to UL 1995.

The interior cabinet wall meets the following:

- UL94-5VA Flame Class Listed
- UL723 Steiner Tunnel Listed for 25/50 Flame/Smoke
- UL746C Listed for Exposure to Ultraviolet Light, Water Exposure and Immersion

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NOTICE: Since the manufacturer has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.

PRODUCT SPECIFICATIONS

MODEL	*AM8A0A24V21CA	*AM8A0B30V21CA	*AM8A0C36V31CA
RATED VOLTS/PH/HZ.	200-230/1/60	200-230/1/60	200-230/1/60
RATINGS ①	See O.D. Specifications	See O.D. Specifications	See O.D. Specifications
INDOOR COIL — Type	Plate Fin	Plate Fin	Plate Fin
Rows — F.P.I.	3 - 14	3 - 14	3 - 14
Face Area (sq. ft.)	3.67	5.04	5.50
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EEV	EEV	EEV
Drain Conn. Size (in.) ②	3/4 NPT	3/4 NPT	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing	See Outline Drawing	See Outline Drawing
INDOOR FAN — Type	Centrifugal	Centrifugal	Centrifugal
Diameter-Width (In.)	11 X 8	11 X 10	11 X 10
No. Used	1	1	1
Drive - No. Speeds	Direct - Variable	Direct - Variable	Direct - Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
No. Motors — H.P.	1 - 1/2	1 - 1/2	1 - 1/2
Motor Speed RPM	Variable ECM	Variable ECM	Variable ECM
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps	3.0	3.0	3.0
FILTER			
Filter Furnished?	No	No	No
Type Recommended	Throwaway	Throwaway	Throwaway
No.-Size-Thickness	1 - 16 X 20 - 1 in.	1 - 20 X 20 - 1 in.	1 - 22 X 20 - 1 in.
REFRIGERANT	R-410A	R-410A	R-410A
Ref. Line Connections	Brazed	Brazed	Brazed
Coupling or Conn. Size — in. Gas	3/4	3/4	7/8
Coupling or Conn. Size — in. Liq.	3/8	3/8	3/8
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	51 x 20 x 24.5	56.8 x 23.5 x 24.5	58 x 25.5 x 24.5
Uncrated	49.9 x 17.5 x 21.8	55.7 x 21.3 x 21.8	56.9 x 23.5 x 21.8
WEIGHT			
Shipping (Lbs.)/Net (Lbs.)	126/116	150/138	157/146

PRODUCT SPECIFICATIONS

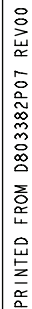
MODEL	*AM8A0C42V31CA	*AM8A0C48V41CA	*AM8A0C60V51CA
RATED VOLTS/PH/HZ.	200-230/1/60	200-230/1/60	200-230/1/60
RATINGS ①	See O.D. Specifications	See O.D. Specifications	See O.D. Specifications
INDOOR COIL — Type	Plate Fin	Plate Fin	Plate Fin
Rows — F.P.I.	4 - 14	4 - 14	4 - 14
Face Area (sq. ft.)	5.04	5.96	5.96
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EEV	EEV	EEV
Drain Conn. Size (in.) ②	3/4 NPT	3/4 NPT	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing	See Outline Drawing	See Outline Drawing
INDOOR FAN — Type	Centrifugal	Centrifugal	Centrifugal
Diameter-Width (In.)	11 X 10	11 X 10	11 X 10
No. Used	1	1	1
Drive - No. Speeds	Direct - Variable	Direct - Variable	Direct - Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
No. Motors — H.P.	1 - 1/2	1 - 3/4	1 - 1
Motor Speed RPM	Variable ECM	Variable ECM	Variable ECM
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60
F.L. Amps	3.0	4.2	5.5
FILTER			
Filter Furnished?	No	No	No
Type Recommended	Throwaway	Throwaway	Throwaway
No.-Size-Thickness	1 - 22 X 20 - 1 in.	1 - 22 X 20 - 1 in.	1 - 22 X 20 - 1 in.
REFRIGERANT	R-410A	R-410A	R-410A
Ref. Line Connections	Brazed	Brazed	Brazed
Coupling or Conn. Size — in. Gas	7/8	7/8	7/8
Coupling or Conn. Size — in. Liq.	3/8	3/8	3/8
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	58 x 25.5 x 24.5	62.8 x 25.5 x 24.5	62.8 x 25.5 x 24.5
Uncrated	56.9 x 23.5 x 21.8	61.7 x 23.5 x 21.8	61.7 x 23.5 x 21.8
WEIGHT			
Shipping (Lbs.)/Net (Lbs.)	162/150	174/162	175/163

* May be "A" or "T"

① These Air Handlers are AHRI certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240).

② 3/4" Male Plastic Pipe (Ref.: ASTM 1785-76)

TAM8-3



SEQUENCE OF OPERATION FOR *AM8

AM8 Sequence of Operation

Abbreviations

- AFC = Airflow Control
- EVC = Expansion Valve Control
- EEV = Electronic Expansion Valve
- EHC = Electric Heat Control
- HHC= Hydronic Heat Control

This unit as shipped is ONLY compatible with Trane and American Standard communicating thermostats and OD units. (24VAC thermostats cannot be used)

With the addition of a BAYCC24VK01 accessory, this unit can be compatible with a 24VAC single or multistage heat pump or air conditioner.

The installing and servicing technician should have an understanding of the sequence of operation to be able to properly setup and diagnose functions of the air handler.

See unit, auxiliary heat, and field wiring diagrams for additional information.

Continuous Fan

IMPORTANT: *If the indoor air exceeds 60% relative humidity or simply feels uncomfortably humid, it is recommended that the indoor fan only be used in the AUTO mode.*

1. When a fan request is received from the thermostat, the AFC sends a command to the serial communicating blower motor to run. Airflow can be adjusted through the thermostat
2. Humidity Control – When enabled in the thermostat, this feature will disable any blower off delays and disable continuous fan mode when the humidity is above the dehumidification setpoint. This will help prevent coil condensation from being evaporated back into the air stream.

Cooling mode

1. When a request for 1st stage cooling is received, the AFC sends a command to the serial communicating blower motor to run at 1st stage cooling airflow. (Delay profiles from the thermostat may change blower motor timing and actual airflow demand)

2. The EVC will receive input from the two temperature sensors and start to control 1st stage superheat.
3. When a request for 2nd stage cooling is received, the AFC sends a command to the serial communicating blower motor to run at 100 % cooling airflow.
4. The EVC will now control superheat for 2nd stage.
5. When a request for cooling is removed, the AFC will turn off the blower motor after any user selected fan-off delays have expired.

NOTE: *Delay profiles from the thermostat may change blower motor timing and actual airflow demand*

Heatpump (compressor only)

1. When a request for 1st stage heat is received, the AFC sends a command to the serial communicating blower motor to run at 1st stage heating airflow.
2. Humidifier contacts close
3. The EVC will drive the EEV to the heating position and refrigerant will flow in the reverse cycle.
4. When a request for 2nd stage mechanical heat is received, the AFC sends a command to the serial communicating blower motor to run at 100 % heating airflow.
5. When a request for heatpump is removed, the humidifier contacts open and the AFC will turn off the blower motor after any user selected fan-off delays have expired.

NOTE: *Delay profiles from the thermostat may change blower motor timing and actual airflow demand*

Electric Heat

1. When a request for electric heat is received, the AFC communicates to the EHC how much demand for auxiliary heat is being requested
2. The EHC determines the number of elements that will be used for this request and sends a message to the AFC for proper airflow. (The EHC determines the amount of heat available per stage by either factory programming or by the kw jumper position)
3. The AFC sends a command to the serial communicating blower motor to run proper airflow and close the blower interlock relay on the EHC.
4. Humidifier contacts close.
5. As demand from the thermostat increases, the EHC will communicate to the AFC the required airflow when energizing additional relays.

NOTE: The EHC has “lead-lag or rotating” logic built in that energizes the electric heat relays based upon cycle counts. To verify operation of all heating elements, switch thermostat to Emergency Heat and raise the setpoint of the thermostat at least 5 degrees above the actual room temperature.

Hydronic Heat

1. When the request for hydronic heat is received, the AFC communicates to the HHC how much auxiliary heat is being requested
2. The HHC will close the K1 relay contacts that enable the boiler or circulating pump to start.
3. The HHC sends a signal to the AFC when the inlet water temperature reaches 100 degrees for a maximum of 60 seconds, and then determines the amount of airflow needed for the heat demand.
4. The AFC sends a command to the serial communicating blower motor to run at the requested CFM.
5. Humidifier contacts close.
6. As demand from the thermostat increases, the HHC will communicate to the AFC matching airflow requirements.

Defrost

1. The OD unit will initiate defrost and send a message to the AFC.
2. The AFC will communicate to the EVC that the OD is in defrost and the EVC will start to control the correct superheat.
3. Electric or hydronic heat will be energized to help temper the air. (Auxiliary heat options for defrost can be adjusted through the Display Assembly Configuration Menu)

Optional Condensate Switch

1. An optional OEM Condensate Switch can be installed within the unit. This switch is only available through the National Distribution Center or Global Parts.
2. OEM Condensate Switch contacts are Normally Open and will close when water level inside the unit rises. A closed switch will de-energize the OD unit.
3. The OEM Condensate Switch is only operational during the cooling mode and is not operational during heating or defrost modes.

Note: Standard aftermarket condensate switches (Normally Closed) can be wired in series with the “External Switch” contacts on the AFC.

Important: The switch action must be selected in the Configuration Menu section of the Display Assembly to either “Disable Cool” or “Disable All”.

Freeze Protection

1. The EVC control has the ability to sense when the indoor coil is beginning to ice. If this event should occur, the AFC will send a message to de-energize the OD unit.
2. The indoor blower motor will continue running to aid in defrosting the coil.
3. After 5 minutes, the OD will be turned back on. (*CONT900 and the 1st release of the *ZONE950 will disable the indoor blower motor and OD unit for 30 minutes)

Unit Test Mode

Unit Test Mode will exit if any demand is given to the unit.

To enter Unit Test Mode:

1. Set System Switch on comfort control to Off
2. Scroll to the Control Menu on the Display Assembly
3. Scroll down to the Unit Test selection and push the “Enter” key

Sequence of Unit Test Mode (OD unit is not energized during the Unit Test Mode)

1. EVC drives the EEV motor to the 1st stage position for 5 seconds
2. EVC drives the EEV motor to the 2nd stage position for 5 seconds
3. AFC energizes the blower at 50% and then continues to ramp until it reaches 100% cooling airflow.
4. Humidifier contacts close when the blower starts
5. EHC energizes the circuit relay(s) for 5 seconds each in 5 second intervals.
6. All relays de-energize and the blower shuts off five seconds after the last bank of heat is energized.
7. HHC energizes its K1 relay that interfaces with the boiler system or circulating pump. The blower continues to run for 30 seconds and then K1 relay contacts open and the blower shuts off.

If an error occurs during the Unit Test Mode, the Fault LED will flash a code and continue the test.

Fault Reporting

Control boards in this unit store active and historical faults. Each control board will report active faults continuously and will report the last four faults stored after a power cycle of the unit. See Fault Table section for list of fault codes

The active and historical faults can also be accessed through the Alert Menu in the Display Assembly.

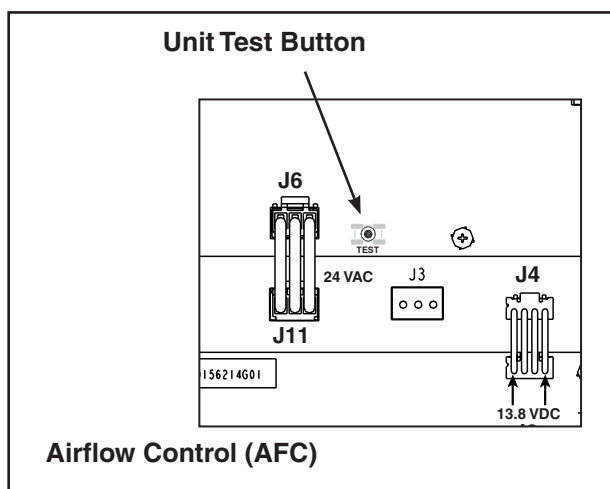
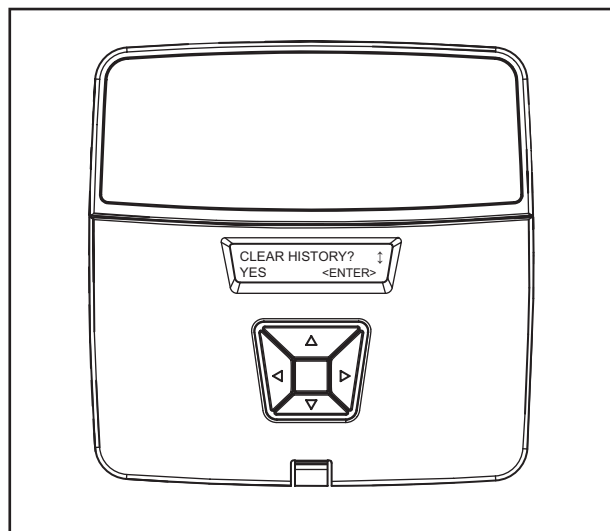
Clearing Fault History

Option 1:

- Scroll to the Alert Menu in the Display Assembly
- Scroll to the Alert History section.
- Scroll to the Clear History selection and push the Enter key. At the "Are You Sure" question, push the Enter again.

Option 2:

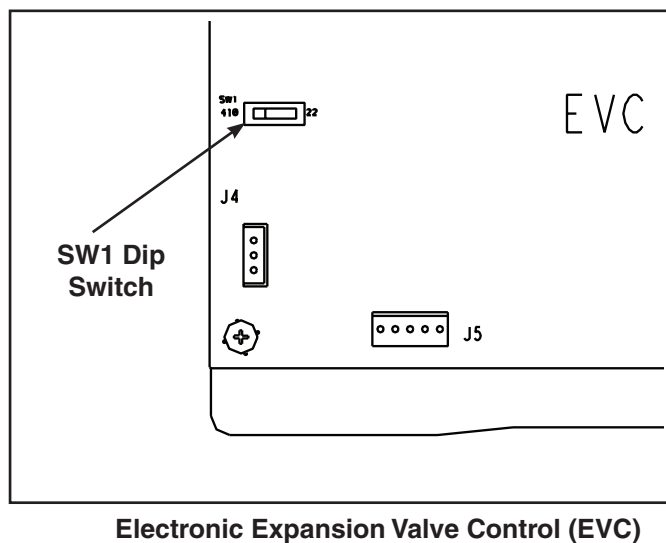
- Press and hold the Unit Test Button for 10-12 seconds.
- Release the Unit Test button and "wait" 5 seconds.
- Cycle 230VAC power to the unit. (the blower panel can be removed to achieve this)



Control Layout - Refrigerant Dip Switch

Refrigerant Switch SW1

- Set the system refrigerant to either R-410A or R-22 using the Refrigerant Switch located on the Expansion Valve Control board (EVC) in the Control Pocket.
- Factory default is R-410A.
- Note: The power must be shut off and then re-applied in order for the EVC to recognize the change.



*AM8A0A24 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE												
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)			HEATING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9	0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM Watts	419 / 554 22 / 40	431 / 412 50 / 48	408 / NA 77 / NA	339 / NA 102 / NA	279 / NA 133 / NA	290 CFM/ton	416 22	400 49	329 101	291 134
	350 CFM/ton	CFM Watts	534 / 638 37 / 56	555 / 541 70 / 67	548 / 373 102 / 73	514 / NA 131 / NA	439 / NA 154 / NA	350 CFM/ton	532 37	542 101	507 129	434 152
	400 CFM/ton	CFM Watts	617 / 705 52 / 71	639 / 626 88 / 85	636 / 513 123 / 96	612 / 325 155 / 101	559 / NA 181 / NA	430 CFM/ton	660 62	679 136	658 169	614 197
	450 CFM/ton	CFM Watts	692 / 770 69 / 89	714 / 703 108 / 105	714 / 613 146 / 119	694 / 494 181 / 128	653 / NA 209 / NA	450 CFM/ton	690 69	709 145	690 180	650 208
	290 CFM/ton	CFM Watts	595 / 688 48 / 67	617 / 605 83 / 80	614 / 481 117 / 90	588 / 241 149 / 95	531 / NA 174 / NA	290 CFM/ton	593 48	608 116	582 147	527 172
2 tons †	350 CFM/ton	CFM Watts	716 / 792 75 / 96	737 / 727 115 / 112	738 / 643 154 / 127	720 / 534 190 / 137	681 / 383 219 / 145	350 CFM/ton	714 75	734 115	716 189	679 218
	400 † CFM/ton	CFM Watts	809 / 877 103 / 125	829 / 821 147 / 144	832 / 751 190 / 161	818 / 666 228 / 174	787 / 561 261 / 183	430 † CFM/ton	862 122	884 213	874 254	849 290
	450 CFM/ton	CFM Watts	900 / 964 136 / 161	920 / 913 185 / 182	924 / 852 231 / 200	913 / 777 274 / 214	888 / 689 310 / 225	450 CFM/ton	899 136	921 231	912 273	889 310
	290 CFM/ton	CFM Watts	740 / 829 81 / 108	761 / 769 123 / 125	762 / 692 163 / 141	745 / 596 199 / 153	709 / 473 229 / 162	290 CFM/ton	738 81	757 162	742 198	707 229
	350 CFM/ton	CFM Watts	878 / 957 127 / 158	897 / 907 175 / 178	901 / 845 220 / 196	890 / 770 262 / 211	863 / 680 297 / 221	350 CFM/ton	876 127	898 220	888 261	864 297
2.5 tons	400 CFM/ton	CFM Watts	993 / 1070 178 / 215	1012 / 1023 231 / 236	1017 / 967 281 / 255	1009 / 901 327 / 270	989 / 821 367 / 280	430 CFM/ton	1064 215	1083 326	1084 375	1066 418
	450 CFM/ton	CFM Watts	1115 / 1193 244 / 290	1133 / 1148 304 / 312	1139 / 1095 359 / 330	1132 / 1034 409 / 345	1113 / 961 451 / 354	450 CFM/ton	1115 244	1139 360	1133 410	1116 453
	290 CFM/ton	CFM Watts	873 / 953 125 / 156	893 / 902 173 / 176	896 / 840 218 / 194	885 / 764 259 / 209	858 / 674 295 / 219	290 CFM/ton	871 125	890 217	883 259	859 295
	350 CFM/ton	CFM Watts	1041 / 1118 202 / 242	1059 / 1072 257 / 264	1065 / 1018 310 / 282	1058 / 953 358 / 297	1039 / 877 399 / 307	350 CFM/ton	1040 202	1064 310	1059 358	1041 401
	400 CFM/ton	CFM Watts	1194 / 1271 295 / 347	1210 / 1227 358 / 368	1214 / 1175 415 / 386	1205 / 1115 465 / 399	1154 / 1046 485 / 408	430 CFM/ton	1291 368	1302 432	1220 478	1138 470
3 tons	450 CFM/ton	CFM Watts	1355 / 1421 422 / 476	1360 / 1373 483 / 491	1284 / 1284 476 / 476	1203 / 1203 469 / 469	1120 / 1120 464 / 464	450 CFM/ton	1355 422	1286 476	1208 468	1128 462

NOTES:

- * Models start with "A" or "T"
- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

AM8A0A24 Minimum Heating Airflow Settings

MINIMUM HEATER AIRFLOW CFM - HEATER MATRIX					
MODEL NO.	BAYEVAC05BK1AA	BAYEVAC08BK1AA	BAYEVAC10BK1AA	BAYEVAC15LG3AA	BAYEVBC20BK1AA
*AM8A0A24V21SAA	638/713	675/900	675/900	600/713	--
WITHOUT HEAT PUMP / WITH HP SEE AIR HANDLER NAMEPLATE					

NOTE: Minimum auxiliary heating airflow is automatically configured by the air handler model and the auxiliary heater model number. This is not field adjustable.

*AM8A0B30 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE												
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE			
			0.1	0.3	0.5	0.7	0.9		0.1	0.3	0.5	0.7
1.5 tons	290 CFM/ton	CFM Watts	490 / 587 21 / 30	438 / 406 44 / 42	388 / NA 69 / NA	338 / NA 97 / NA	279 / NA 130 / NA	290 CFM/ton	CFM Watts	485 21	437 44	393 69
	350 CFM/ton	CFM Watts	578 / 672 29 / 39	546 / 523 56 / 54	515 / 270 85 / 60	484 / NA 115 / NA	449 / NA 146 / NA	350 CFM/ton	CFM Watts	574 29	545 56	517 85
	400 CFM/ton	CFM Watts	646 / 738 37 / 48	626 / 607 67 / 65	605 / 413 99 / 72	582 / NA 132 / NA	554 / NA 164 / NA	430 CFM/ton	CFM Watts	683 42	669 75	653 108
	450 CFM/ton	CFM Watts	712 / 803 45 / 59	700 / 683 80 / 77	686 / 520 115 / 86	669 / 231 151 / 91	647 / NA 186 / NA	450 CFM/ton	CFM Watts	709 45	698 80	685 115
2 tons †	290 CFM/ton	CFM Watts	628 / 721 35 / 46	605 / 585 64 / 62	582 / 380 95 / 69	557 / NA 127 / NA	528 / NA 159 / NA	290 CFM/ton	CFM Watts	625 35	604 64	582 95
	350 CFM/ton	CFM Watts	734 / 824 49 / 62	724 / 708 84 / 81	712 / 552 121 / 91	696 / 299 157 / 94	676 / NA 193 / NA	350 CFM/ton	CFM Watts	731 49	722 84	710 120
	400 † CFM/ton	CFM Watts	819 / 908 63 / 79	818 / 803 103 / 100	812 / 668 145 / 112	803 / 463 186 / 115	788 / NA 226 / NA	430 † CFM/ton	CFM Watts	868 73	871 116	864 161
	450 CFM/ton	CFM Watts	904 / 993 80 / 99	910 / 896 126 / 122	911 / 775 173 / 136	907 / 621 219 / 141	895 / 394 264 / 138	450 CFM/ton	CFM Watts	902 80	908 126	905 172
2.5 tons	290 CFM/ton	CFM Watts	755 / 870 52 / 71	748 / 760 89 / 91	737 / 617 126 / 102	723 / 409 164 / 105	704 / NA 201 / NA	290 CFM/ton	CFM Watts	753 52	746 88	736 126
	350 CFM/ton	CFM Watts	883 / 996 75 / 100	887 / 899 120 / 123	886 / 778 165 / 137	881 / 625 211 / 142	869 / 401 254 / 139	350 CFM/ton	CFM Watts	881 75	884 120	884 165
	400 CFM/ton	CFM Watts	991 / 1107 101 / 131	1004 / 1016 153 / 156	1010 / 908 206 / 173	1010 / 777 258 / 180	1001 / 609 307 / 177	430 CFM/ton	CFM Watts	1057 119	1074 176	1084 234
	450 CFM/ton	CFM Watts	1106 / 1226 133 / 172	1126 / 1141 194 / 199	1139 / 1041 256 / 218	1141 / 925 314 / 227	1128 / 784 366 / 226	450 CFM/ton	CFM Watts	1104 133	1125 194	1136 255
3 tons	290 CFM/ton	CFM Watts	879 / 992 74 / 99	882 / 894 119 / 121	881 / 773 164 / 136	875 / 619 209 / 140	863 / 391 252 / 138	290 CFM/ton	CFM Watts	877 74	880 118	879 164
	350 CFM/ton	CFM Watts	1036 / 1153 113 / 146	1052 / 1065 168 / 172	1061 / 960 224 / 189	1063 / 836 279 / 197	1053 / 681 330 / 195	350 CFM/ton	CFM Watts	1034 112	1049 168	1058 224
	400 CFM/ton	CFM Watts	1179 / 1304 158 / 203	1202 / 1221 224 / 231	1217 / 1126 291 / 251	1217 / 1016 352 / 261	1196 / 886 403 / 261	430 CFM/ton	CFM Watts	1271 193	1298 267	1309 337
	450 CFM/ton	CFM Watts	1338 / 1471 222 / 282	1365 / 1391 300 / 311	1369 / 1302 370 / 333	1350 / 1201 427 / 345	1311 / 1086 471 / 347	450 CFM/ton	CFM Watts	1338 221	1363 299	1368 369

NOTES:

- * Models start with "A" or "T"
- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

AM8A0B30 Minimum Heating Airflow Settings

MINIMUM HEATER AIRFLOW CFM - HEATER MATRIX					
MODEL NO.	BAYEVAC05BK1AA	BAYEVAC08BK1AA	BAYEVAC10BK1AA	BAYEVAC15BK1AA	BAYEVBC20BK1AA
*AM8A0B30V2ISAA	723/808	765/1020	860/808	850/1105	-
WITHOUT HEAT PUMP / WITH HP SEE AIR HANDLER NAMEPLATE					

NOTE: Minimum auxiliary heating airflow is automatically configured by the air handler model and the auxiliary heater model number. This is not field adjustable.

*AM8A0C36 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE												
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE			
			0.1	0.3	0.5	0.7	0.9		0.1	0.3	0.5	0.7
2 tons	290 CFM/ton	CFM Watts	610 / 758 30 / 47	573 / 573 57 / 58	556 / 321 86 / 62	553 / NA 119 / NA	556 / NA 153 / NA	290 CFM/ton	CFM Watts	607 31	574 58	557 87
	370 CFM/ton	CFM Watts	759 / 858 47 / 63	744 / 706 81 / 77	739 / 530 118 / 85	740 / 297 156 / 90	741 / NA 195 / NA	350 CFM/ton	CFM Watts	721 44	705 77	697 111
	400 CFM/ton	CFM Watts	812 / 974 54 / 85	803 / 846 92 / 103	802 / 707 132 / 115	803 / 554 172 / 122	805 / 374 213 / 128	420 CFM/ton	CFM Watts	847 62	843 102	844 144
	450 CFM/ton	CFM Watts	900 / 1024 69 / 96	899 / 903 112 / 116	902 / 774 156 / 129	906 / 636 201 / 137	909 / 485 245 / 142	450 CFM/ton	CFM Watts	900 72	900 115	903 159
	290 CFM/ton	CFM Watts	746 / 903 45 / 71	729 / 761 79 / 86	723 / 602 115 / 96	723 / 413 153 / 101	725 / 30 191 / 156	290 CFM/ton	CFM Watts	744 47	730 81	724 117
2.5 tons	370 CFM/ton	CFM Watts	922 / 1026 73 / 97	923 / 905 117 / 116	927 / 776 163 / 130	931 / 639 209 / 138	935 / 488 254 / 143	350 CFM/ton	CFM Watts	878 68	876 110	878 153
	400 CFM/ton	CFM Watts	988 / 1175 86 / 137	944 / 1070 134 / 160	1001 / 961 184 / 177	1008 / 848 234 / 189	1011 / 731 282 / 196	420 CFM/ton	CFM Watts	1033 101	1046 152	1052 205
	450 CFM/ton	CFM Watts	1100 / 1243 112 / 159	1114 / 1143 168 / 183	1127 / 1040 225 / 202	1136 / 933 281 / 215	1138 / 823 334 / 222	450 CFM/ton	CFM Watts	1102 119	1116 175	1128 232
	290 CFM/ton	CFM Watts	874 / 1022 64 / 96	871 / 900 105 / 115	872 / 771 148 / 128	876 / 632 192 / 136	879 / 480 235 / 141	290 CFM/ton	CFM Watts	873 67	871 108	873 151
	370 † CFM/ton	CFM Watts	1087 / 1175 109 / 137	1099 / 1070 163 / 160	1112 / 961 220 / 177	1120 / 848 275 / 189	1123 / 731 328 / 196	350 CFM/ton	CFM Watts	1033 101	1043 152	1052 205
3 tons †	400 CFM/ton	CFM Watts	1170 / 1373 132 / 207	1188 / 1280 192 / 233	1202 / 1185 253 / 254	1212 / 1086 313 / 269	1213 / 984 369 / 278	420 † CFM/ton	CFM Watts	1231 158	1253 224	1270 289
	450 CFM/ton	CFM Watts	1322 / 1465 181 / 247	1344 / 1377 251 / 275	1360 / 1284 321 / 296	1364 / 1189 386 / 312	1352 / 1091 441 / 321	450 CFM/ton	CFM Watts	1324 192	1349 264	1365 334
	290 CFM/ton	CFM Watts	1006 / 1144 90 / 128	1009 / 1037 138 / 150	1016 / 925 193 / 167	1024 / 808 244 / 178	1028 / 687 293 / 184	290 CFM/ton	CFM Watts	1002 93	1005 141	1017 197
	370 CFM/ton	CFM Watts	1266 / 1338 170 / 193	1290 / 1244 238 / 219	1306 / 1146 306 / 239	1311 / 1046 369 / 254	1301 / 942 422 / 262	350 CFM/ton	CFM Watts	1199 148	1215 209	1230 272
	400 CFM/ton	CFM Watts	1378 / 1591 213 / 310	1404 / 1505 289 / 338	1416 / 1416 360 / 361	1410 / 1324 422 / 377	1386 / 1228 471 / 386	420 CFM/ton	CFM Watts	1452 246	1480 327	1484 395
3.5 tons	450 CFM/ton	CFM Watts	1575 / 1691 307 / 367	1585 / 1607 385 / 396	1572 / 1519 451 / 419	1499 / 1429 477 / 434	1379 / 1334 470 / 443	450 CFM/ton	CFM Watts	1573 306	1584 385	1573 451

NOTES:

- * Models start with "A" or "T"
- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

AM8A0C36 Minimum Heating Airflow Settings

MINIMUM HEATER AIRFLOW CFM - HEATER MATRIX									
MODEL NO.	BAYEVAC05BK1AA	BAYEVAC08BK1AA	BAYEVAC08LG1AA	BAYEVAC10BK1AA	BAYEVAC10LG3AA	BAYEVAC15BK1AA	BAYEVAC15LG3AA	BAYEVBC20BK1AA	BAYEVBC20BK1AA
*AM8A0C36V31SAA	876/979	876/1236	927/1236	927/1236	927/1236	927/1236	927/1236	1030/1339	1236/1442
WITHOUT HEAT PUMP / WITH HP SEE AIR HANDLER NAMEPLATE									

NOTE: Minimum auxiliary heating airflow is automatically configured by the air handler model and the auxiliary heater model number. This is not field adjustable.

*AM8A0C42 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE												
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE			
			0.1	0.3	0.5	0.7	0.9		0.1	0.3	0.5	0.7
2.5 tons	290 CFM/ton	CFM Watts	747 / 905 48 / 77	743 / 764 87 / 94	742 / 591 127 / 102	741 / 342 168 / 106	739 / NA 207 / NA	CFM Watts	744 51	741 90	740 130	738 170
	370 CFM/ton	CFM Watts	937 / 1072 80 / 118	942 / 956 129 / 139	946 / 823 179 / 151	947 / 655 227 / 155	944 / 458 273 / 155	CFM Watts	889 76	892 123	894 169	894 215
	400 CFM/ton	CFM Watts	1006 / 1136 95 / 138	1014 / 1027 148 / 159	1020 / 903 201 / 173	1022 / 760 253 / 178	1019 / 586 302 / 177	CFM Watts	1006 103	1016 156	1018 209	1019 160
	450 CFM/ton	CFM Watts	1122 / 1247 125 / 176	1135 / 1146 185 / 200	1143 / 1035 245 / 216	1146 / 911 303 / 224	1142 / 768 357 / 223	CFM Watts	1124 136	1135 196	1142 256	1144 313
3 tons	290 CFM/ton	CFM Watts	885 / 1026 70 / 106	889 / 904 116 / 125	891 / 763 163 / 136	892 / 590 209 / 139	889 / 341 254 / 143	CFM Watts	884 75	887 121	889 168	889 214
	370 CFM/ton	CFM Watts	1108 / 1233 121 / 171	1120 / 1132 181 / 195	1128 / 1019 240 / 210	1131 / 893 297 / 218	1128 / 747 350 / 217	CFM Watts	1053 115	1062 171	1067 227	1069 280
	400 CFM/ton	CFM Watts	1194 / 1316 147 / 204	1208 / 1220 212 / 229	1218 / 1115 276 / 246	1221 / 999 337 / 255	1215 / 868 393 / 256	CFM Watts	1196 160	1209 225	1218 289	1219 349
	450 CFM/ton	CFM Watts	1343 / 1463 200 / 272	1361 / 1374 275 / 300	1371 / 1279 348 / 320	1368 / 1175 413 / 331	1352 / 1061 469 / 334	CFM Watts	1347 220	1363 295	1371 367	1366 430
3.5 tons †	290 CFM/ton	CFM Watts	1020 / 1149 99 / 142	1028 / 1041 152 / 164	1034 / 919 206 / 178	1037 / 779 259 / 183	1034 / 609 308 / 182	CFM Watts	1020 107	1028 160	1033 214	1173 327
	370 † CFM/ton	CFM Watts	1287 / 1408 179 / 245	1304 / 1317 250 / 272	1314 / 1218 320 / 291	1315 / 1110 384 / 301	1304 / 981 441 / 303	CFM Watts	1220 169	1234 236	1243 301	1244 362
	400 CFM/ton	CFM Watts	1395 / 1514 221 / 299	1413 / 1427 300 / 328	1421 / 1334 374 / 348	1415 / 1233 440 / 361	1369 / 1124 480 / 364	CFM Watts	1440 244	1416 322	1421 395	1411 458
	450 CFM/ton	CFM Watts	1584 / 1687 313 / 405	1593 / 1605 399 / 435	1576 / 1518 467 / 458	1474 / 1425 477 / 472	1350 / 1326 468 / 477	CFM Watts	1589 347	1592 428	1545 474	1434 473
4 tons	290 CFM/ton	CFM Watts	1156 / 1302 135 / 197	1169 / 1205 197 / 222	1178 / 1098 259 / 239	1181 / 981 319 / 248	1174 / 848 383 / 249	CFM Watts	1157 147	1169 209	1177 271	1179 330
	370 CFM/ton	CFM Watts	1487 / 1618 288 / 359	1500 / 1534 369 / 389	1496 / 1445 441 / 411	1445 / 1350 481 / 425	1319 / 1248 470 / 429	CFM Watts	1400 244	1416 322	1421 395	1411 458
	400 CFM/ton	CFM Watts	1616 / 1728 363 / 433	1614 / 1646 443 / 464	1543 / 1543 475 / 475	1423 / 1423 472 / 472	1301 / 1301 463 / 463	CFM Watts	1615 363	1615 444	1545 474	1431 471
	450 CFM/ton	CFM Watts	1711 / 1711 432 / 432	1621 / 1621 456 / 456	1514 / 1514 465 / 465	1393 / 1393 460 / 460	1273 / 1273 453 / 453	CFM Watts	1716 430	1629 453	1528 462	1411 458
NOTES:									4. Torque mode will reduce airflow when static is above approximately 0.35" water column.			
1. * Models start with "A" or "T"									5. All heating modes default to Constant CFM.			
2. † Factory Setting									6. Cooling airflow values are with wet coil, no filter			
3. Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.												

AM8A0C42 Minimum Heating Airflow Settings

MINIMUM HEATER AIRFLOW CFM - HEATER MATRIX									
MODEL NO.	BAYEVAC05BK1AA	BAYEVAC08BK1AA	BAYEVAC10BK1AA	BAYEVAC10LG3AA	BAYEVAC10LG3AA	BAYEVAC10LG3AA	BAYEVAC15LG3AA	BAYEVAC20BK1AA	
*AM8A0C42V31SAA	978/1093	978/1380	1035/1380	920/1093	1035/1380	1035/1438	1150/1495	1380/1610	
WITHOUT HEAT PUMP / WITH HP SEE AIR HANDLER NAMEPLATE									

NOTE: Minimum auxiliary heating airflow is automatically configured by the air handler model and the auxiliary heater model number. This is not field adjustable.

*AM8A0C48 AIRFLOW PERFORMANCE												
CONSTANT CFM MODE / CONSTANT TORQUE MODE												
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE			
			0.1	0.3	0.5	0.7	0.9		0.1	0.3	0.5	0.7
3 tons	290 CFM/ton	CFM Watts	894 / 1018 69 / 91	900 / 897 114 / 114	896 / 767 157 / 130	886 / 622 195 / 137	871 / 445 229 /	290 CFM/ton	CFM Watts	900 118	893 159	883 197
	350 CFM/ton	CFM Watts	1067 / 1180 106 / 132	1073 / 1078 158 / 160	1072 / 972 208 / 180	1065 / 859 252 / 192	1053 / 738 292 / 194	350 CFM/ton	CFM Watts	1073 164	1070 213	1062 257
	400 CFM/ton	CFM Watts	1205 / 1314 145 / 176	1212 / 1222 203 / 206	1213 / 1128 259 / 229	1208 / 1029 309 / 244	1199 / 926 354 / 249	400 CFM/ton	CFM Watts	1212 212	1212 266	1206 315
	450 CFM/ton	CFM Watts	1343 / 1451 193 / 232	1352 / 1367 259 / 264	1355 / 1280 320 / 289	1353 / 1190 377 / 305	1346 / 1098 427 / 313	450 CFM/ton	CFM Watts	1344 206	1354 331	1352 387
3.5 tons	290 CFM/ton	CFM Watts	1034 / 1149 98 / 123	1041 / 1044 149 / 150	1038 / 934 197 / 170	1031 / 817 240 / 181	1018 / 690 279 / 182	290 CFM/ton	CFM Watts	1040 154	1037 202	1028 244
	350 CFM/ton	CFM Watts	1228 / 1336 152 / 185	1235 / 1246 212 / 215	1236 / 1153 268 / 238	1232 / 1056 319 / 253	1224 / 955 365 / 259	350 CFM/ton	CFM Watts	1235 221	1236 276	1230 326
	400 CFM/ton	CFM Watts	1389 / 1498 212 / 253	1399 / 1415 280 / 286	1403 / 1331 343 / 311	1401 / 1244 402 / 328	1395 / 1154 455 / 336	400 CFM/ton	CFM Watts	1400 293	1403 356	1400 413
	450 CFM/ton	CFM Watts	1558 / 1669 290 / 343	1570 / 1592 367 / 377	1575 / 1514 439 / 404	1575 / 1434 505 / 422	1568 / 1351 563 / 432	450 CFM/ton	CFM Watts	1572 386	1576 457	1574 521
4 tons †	290 CFM/ton	CFM Watts	1168 / 1298 133 / 170	1175 / 1205 191 / 200	1175 / 1109 244 / 223	1170 / 1010 293 / 237	1160 / 905 336 / 242	290 CFM/ton	CFM Watts	1176 198	1174 251	1168 299
	350 † CFM/ton	CFM Watts	1389 / 1517 212 / 262	1399 / 1436 280 / 295	1403 / 1352 343 / 321	1401 / 1266 402 / 338	1395 / 1177 455 / 346	350 CFM/ton	CFM Watts	1400 293	1403 356	1400 413
	400 CFM/ton	CFM Watts	1583 / 1714 303 / 370	1595 / 1639 382 / 546	1601 / 1562 455 / 431	1600 / 1483 521 / 450	1593 / 1401 580 / 459	400 † CFM/ton	CFM Watts	1597 402	1601 474	1599 538
	450 CFM/ton	CFM Watts	1790 / 1918 429 / 511	1800 / 1848 515 / 546	1808 / 1775 594 / 573	1793 / 1701 663 / 592	1698 / 1625 660 / 601	450 CFM/ton	CFM Watts	1801 544	1800 620	1766 665
4.5 tons**	290 CFM/ton	CFM Watts	1301 / 1429 177 / 222	1310 / 1344 241 / 253	1312 / 1256 300 / 278	1309 / 1165 355 / 294	1302 / 1071 404 / 302	290 CFM/ton	CFM Watts	1310 252	1311 310	1309 355
	350 CFM/ton	CFM Watts	1558 / 1688 290 / 354	1570 / 1613 367 / 389	1575 / 1535 439 / 415	1575 / 1455 505 / 434	1568 / 1373 563 / 444	350 CFM/ton	CFM Watts	1570 367	1575 439	1575 505
	400 CFM/ton	CFM Watts	1790 / 1918 429 / 511	1800 / 1848 515 / 546	1801 / 1775 594 / 573	1793 / 1701 663 / 592	1698 / 1625 660 / 601	400 CFM/ton	CFM Watts	1799 515	1801 594	1794 663
	450 CFM/ton	CFM Watts	2018 / 2018 605 / 605	1973 / 1973 656 / 656	1857 / 1857 645 / 645	1749 / 1749 637 / 637	1651 / 1651 631 / 631	450 CFM/ton	CFM Watts	1975 656	1863 643	1757 634

- * Models start with "A" or "T"
- † Factory Setting
- ** Not an actual OD size
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.4" water column.
- If the air handler is applied in downflow or horizontal configurations, the airflow should not exceed 2000 CFM. Airflow above 2000 CFM could result in water blow-off.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

AM8A0C48 Minimum Heating Airflow Settings

MINIMUM HEATER AIRFLOW CFM - HEATER MATRIX							
MODEL NO.	BAYEVAC08BK1AA	BAYEVAC08BK1AA	BAYEVAC08BK1AA	BAYEVAC10LG3AA	BAYEVAC10LG3AA	BAYEVAC15LG3AA	BAYEVAC20BK1AA
*AM8A0C48V1SAA	1063/1188	1063/1188	1125/1500	1000/1188	1125/1563	1250/1625	1500/1750
	WITHOUT HEAT PUMP / WITH UP SEE AIR HANDLER NAMEPLATE						
							BAYEVAC20BK1AA 1625/1813

NOTE: Minimum auxiliary heating airflow is automatically configured by the air handler model and the auxiliary heater model number. This is not field adjustable.

*AM8A0C60 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE													
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)				HEATING AIRFLOW SETTING	Airflow Power	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9		0.1	0.3	0.5	0.7	
3.5 tons	290 CFM/ton	CFM Watts	1040 / 1151 94 / 119	1068 / 1056 151 / 148	1075 / 941 203 / 168	1066 / 799 247 / 175	1046 / 607 283 / 165	CFM Watts	1039 95	1065 151	1071 203	1063 247	1045 283
	370 CFM/ton	CFM Watts	1312 / 1343 171 / 178	1332 / 1264 236 / 210	1336 / 1174 296 / 235	1329 / 1068 349 / 250	1314 / 945 392 / 251	CFM Watts	1247 150	1266 213	1270 270	1263 321	1248 363
	400 CFM/ton	CFM Watts	1408 / 1496 206 / 238	1425 / 1426 274 / 273	1429 / 1346 337 / 301	1423 / 1256 393 / 319	1410 / 1154 440 / 325	CFM Watts	1407 206	1423 274	1426 337	1421 392	1409 439
	450 CFM/ton	CFM Watts	1565 / 1650 274 / 312	1579 / 1585 348 / 348	1584 / 1512 416 / 378	1580 / 1432 477 / 398	1569 / 1343 529 / 407	CFM Watts	1564 274	1578 348	1582 416	1578 476	1569 529
	290 CFM/ton	CFM Watts	1186 / 1304 131 / 164	1208 / 1223 192 / 196	1213 / 1128 248 / 220	1206 / 1018 297 / 234	1189 / 887 337 / 233	CFM Watts	1185 131	1206 192	1210 248	1203 297	1187 337
4 tons	370 CFM/ton	CFM Watts	1480 / 1514 235 / 245	1495 / 1444 306 / 280	1499 / 1365 372 / 308	1495 / 1277 430 / 327	1482 / 1177 479 / 334	CFM Watts	1407 206	1423 274	1426 337	1421 392	1409 439
	400 CFM/ton	CFM Watts	1587 / 1689 285 / 332	1602 / 1625 360 / 369	1606 / 1554 429 / 399	1602 / 1475 490 / 420	1592 / 1399 543 / 430	CFM Watts	1587 285	1600 360	1604 428	1601 490	1592 543
	450 CFM/ton	CFM Watts	1770 / 1873 386 / 443	1784 / 1813 468 / 481	1789 / 1747 543 / 512	1788 / 1675 612 / 534	1782 / 1597 671 / 546	CFM Watts	1770 385	1783 467	1788 543	1788 611	1782 671
	290 CFM/ton	CFM Watts	1322 / 1431 174 / 211	1340 / 1358 240 / 245	1345 / 1274 300 / 271	1338 / 1179 353 / 288	1323 / 1069 397 / 292	CFM Watts	1321 174	1338 240	1342 300	1336 352	1322 396
	370 † CFM/ton	CFM Watts	1646 / 1667 315 / 320	1660 / 1602 392 / 357	1665 / 1530 463 / 386	1662 / 1451 527 / 407	1653 / 1363 582 / 417	CFM Watts	1564 274	1578 348	1582 416	1578 476	1569 529
4.5 tons **†	400 CFM/ton	CFM Watts	1770 / 1873 386 / 443	1784 / 1813 468 / 481	1789 / 1747 543 / 512	1788 / 1675 612 / 534	1781 / 1597 671 / 546	CFM † Watts	1770 385	1783 467	1788 543	1788 611	1782 671
	450 CFM/ton	CFM Watts	1989 / 2099 535 / 612	2004 / 2042 627 / 650	2012 / 1980 712 / 681	2013 / 1913 788 / 703	2009 / 1842 855 / 716	CFM Watts	1989 534	2003 626	2011 711	2014 788	2011 856
	290 CFM/ton	CFM Watts	1452 / 1557 224 / 265	1469 / 1489 294 / 301	1473 / 1413 358 / 329	1468 / 1327 415 / 348	1455 / 1231 463 / 356	CFM Watts	1452 224	1467 294	1471 358	1466 415	1454 463
	370 CFM/ton	CFM Watts	1817 / 1826 415 / 451	1831 / 1765 499 / 451	1837 / 1698 576 / 481	1837 / 1624 647 / 503	1831 / 1544 708 / 515	CFM Watts	1723 357	1736 437	1741 511	1740 578	1734 636
	400 CFM/ton	CFM Watts	1964 / 2073 516 / 590	1978 / 2015 607 / 629	1986 / 1953 690 / 660	1987 / 1886 766 / 682	1983 / 1814 832 / 695	CFM Watts	1964 515	1978 606	1985 690	1988 766	1985 833
5 tons	450 CFM/ton	CFM Watts	2231 / 2347 741 / 842	2245 / 2292 842 / 879	2252 / 2233 934 / 908	2252 / 2171 1015 / 930	2185 / 2104 1024 / 941	CFM Watts	2232 741	2245 842	2252 934	2252 1016	2186 1023
	1. * Models start with "A" or "T" 2. † Factory Setting 3. ** Not an actual OD size 4. Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower. 5. Torque mode will reduce airflow when static is above approximately 0.4" water column.							6. If the air handler is applied in downflow or horizontal configurations, the airflow should not exceed 2000 CFM. Airflow above 2000 CFM could result in water blow-off. 7. All heating modes default to Constant CFM. 8. Cooling airflow values are with wet coil, no filter					

AM8A0C60 Minimum Heating Airflow Settings

MINIMUM HEATER AIRFLOW CFM - HEATER MATRIX									
MODEL NO.	BAYEVAC08BK1AA	BAYEVAC08BK1AA	BAYEVAC10BK1AA	BAYEVAC10LG3AA	BAYEVAC10LG3AA	BAYEVAC15LG3AA	BAYEVAC20BK1AA	BAYEVAC25BK1AA	
*AM8A0C60V51SAA	1063/1188	1063/1500	1125/1500	1000/1188	1125/1563	1250/1625	1500/1750	1625/1813	
WITHOUT HEAT PUMP / WITH HP SEE AIR HANDLER NAMEPLATE									

NOTE: Minimum auxiliary heating airflow is automatically configured by the air handler model and the auxiliary heater model number. This is not field adjustable.

AM8 HEATER ATTRIBUTE DATA

Heater Attribute Data											
*AM8A0A24V21SA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.0**	4	15	-	-	3.0**	4	15
BAYEVAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYEVAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYEVAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYEVAC10LG3	1-3 PH	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
Note: * May be "A" or "T"											
Note: ** Motor Amps											

Heater Attribute Data											
*AM8A0B30V21SA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.0**	4	15	-	-	3.0**	4	15
BAYEVAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYEVAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYEVAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYEVAC10LG3	1-3 PH	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
BAYEVBC15LG3	1-3 PH	14.40	42000	34.6	47	50	10.80	36900	30.0	41	45
BAYEVBC15BK1 - Circuit 1 ① BAYEVBC15BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Note: * May be "A" or "T"											
Note: ** Motor Amps											
① MCA and MOP for circuit 1 contains the motor amps											

Heater Attribute Data											
*AM8A0C36V31SA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.0**	4	15	-	-	3.0**	4	15
BAYEVAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYEVAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYEVAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYEVAC10LG3	1-3 PH	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
BAYEVBC15LG3	1-3 PH	14.40	42000	34.6	47	50	10.80	36900	30.0	41	45
BAYEVBC15BK1 - Circuit 1 ① BAYEVBC15BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEVBC20BK1 - Circuit 1 ① BAYEVBC20BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
Note: * May be "A" or "T"											
Note: ** Motor Amps											
① MCA and MOP for circuit 1 contains the motor amps											

AM8 HEATER ATTRIBUTE DATA

Heater Attribute Data											
*AM8A0C42V31SA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.0**	4	15	-	-	3.0**	4	15
BAYEVAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	25	25
BAYEVAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	38	40
BAYEVAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
BAYEVAC10LG3	1-3 PH	9.60	32800	23.1	32	35	7.20	24600	20.0	28	30
BAYEVC15LG3	1-3 PH	14.40	42000	34.6	47	50	10.80	36900	30.0	41	45
BAYEVC15BK1 - Circuit 1 ① BAYEVC15BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEVC20BK1 - Circuit 1 ① BAYEVC20BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	47	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45

Note: * May be "A" or "T"
Note: ** Motor Amps
① MCA and MOP for circuit 1 contains the motor amps

Heater Attribute Data											
*AM8A0C48V41SA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	4.2**	5	15	-	-	4.2**	5	15
BAYEVAC05++1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYEVAC08++1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	40	40
BAYEVAC10++1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
BAYEVAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	30	30
BAYEVC15LG3	1-3 PH	14.40	42000	34.6	48	50	10.80	36900	30.0	42	45
BAYEVC15BK1 - Circuit 1 ① BAYEVC15BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEVC20BK1 - Circuit 1 ① BAYEVC20BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEVCC25BK1 - Circuit 1 ① BAYEVCC25BK1 - Circuit 2 BAYEVCC25BK1 - Circuit 3	3	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

Note: * May be "A" or "T"
Note: ** Motor Amps
① MCA and MOP for circuit 1 contains the motor amps

Heater Attribute Data											
*AM8A0C60V51SA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	5.5**	7	15	-	-	5.5**	7	15
BAYEVAC05++1	1	4.80	16400	20.0	30	30	3.60	12300	17.3	27	30
BAYEVAC08++1	1	7.68	26200	32.0	45	45	5.76	19700	27.7	40	40
BAYEVAC10++1	1	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
BAYEVAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	30	30
BAYEVCB15LG3	1-3 PH	14.40	42000	34.6	48	50	10.80	36900	30.0	42	45
BAYEVCB15BK1 - Circuit 1 ① BAYEVCB15BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEVCB20BK1 - Circuit 1 ① BAYEVCB20BK1 - Circuit 2	2	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEVCC25BK1 - Circuit 1 ① BAYEVCC25BK1 - Circuit 2 BAYEVCC25BK1 - Circuit 3	3	9.60	32800	40.0	55	60	7.20	24600	34.6	49	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Note: * May be "A" or "T"											
Note: ** Motor Amps											
① MCA and MOP for circuit 1 contains the motor amps											

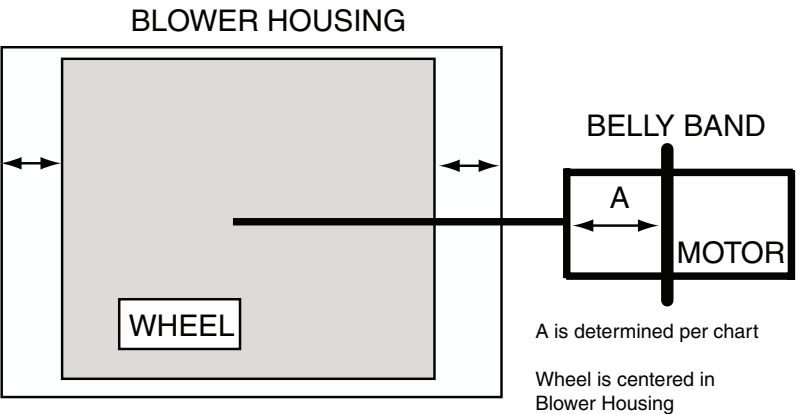
Notes:

1. See Product Data or Air Handler nameplate for approved combinations of Air Handlers and Heaters
2. Heater model numbers may have additional suffix digits.

SUBCOOLING ADJUSTMENT

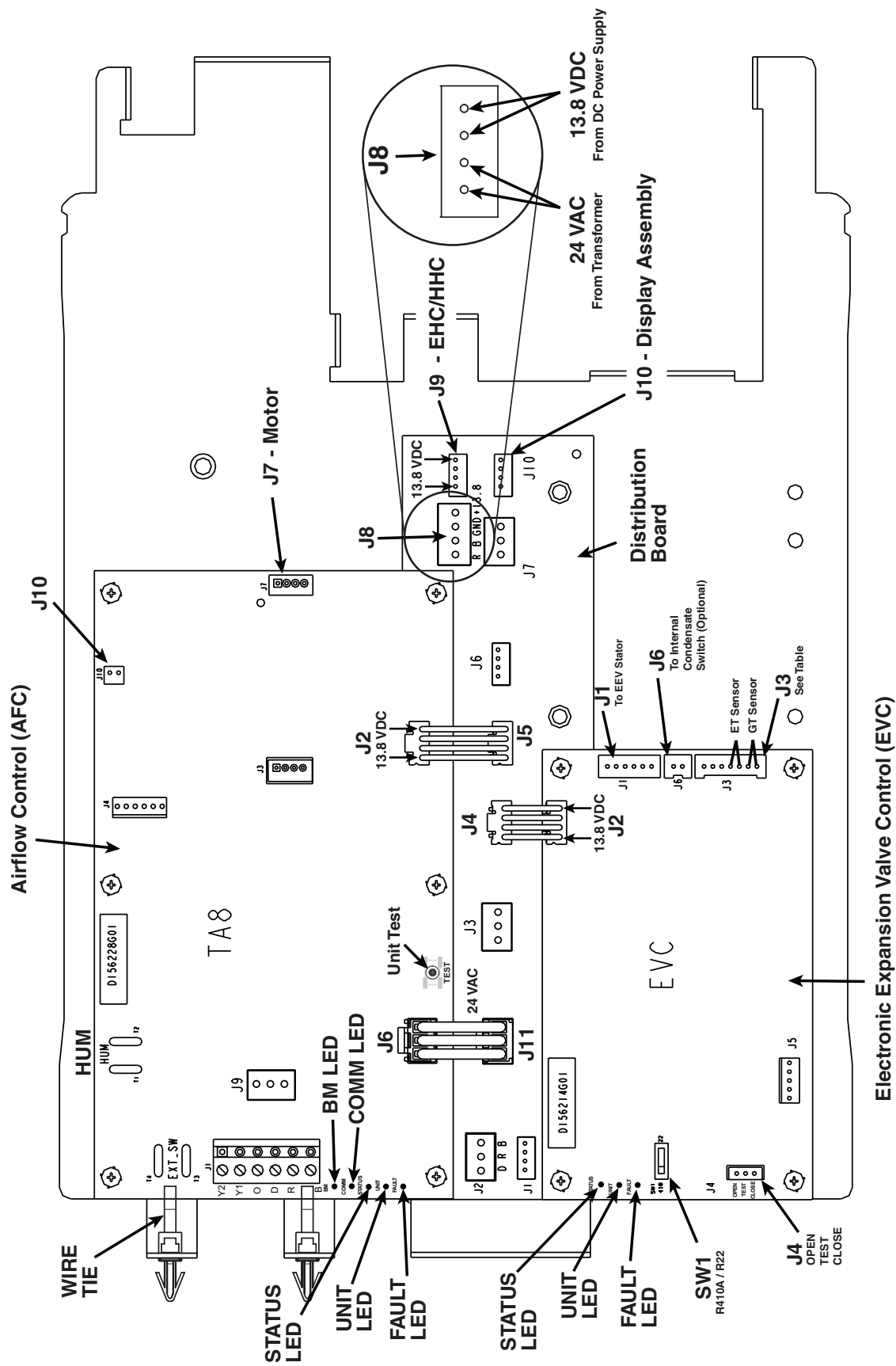
Indoor Unit Model No.	Outdoor Unit Model No.	Subcooling
*AM8A0B30V21CA	4A6H6024E, 4TWX6024E	9°
*AM8A0C36V31CA	4A6H6036E, 4TWX6036E	10°
*AM8A0C48V41CA	4A6H6048E, 4TWX6048E	8°
*AM8A0B30V21CA	4A7A6024E, 4TTX6024E	8°
*AM8A0C36V31CA	4A7A6036E, 4TTX6036E	8°
*AM8A0C48V41CA	4A7A6048E, 4TTX6048E	8°
*AM8A0B30V21CA	4TWZ0024A, 4A6Z0024A	9°
*AM8A0C36V31CA	4TWZ0036A, 4A6Z0036A	10°
*AM8A0C48V41CA	4TWZ0048A, 4A6Z0048A	12°
*AM8A0B30V21CA	4TTZ0024A, 4A7Z0024A	9°
*AM8A0C36V31CA	4TTZ0036A, 4A7Z0036A	11°
*AM8A0C48V41CA	4TTZ0048A, 4A7Z0048A	13°
* May be "A" or "T" All other matches must be charged per the nameplate charging instructions.		

DISTANCE FROM BELLY BAND TO SHAFT FACE OF MOTOR FOR MINIMUM VIBRATION



MODEL	DIM "A"
*AM8A0A24V21CA	2-3/8
*AM8A0B30V21CA	2-3/8
*AM8A0C36V31CA	2-3/8
*AM8A0C42V31CA	2-3/8
*AM8A0C48V41CA	2-3/8
*AM8A0C60V51CA	2-3/8
* May be "A" or "T"	

Air Handler Control Panel - LEDs



AFC BM (Bit Master) LED (GREEN LED)

AFC BM LED	Description
Solid ON	Normal operation

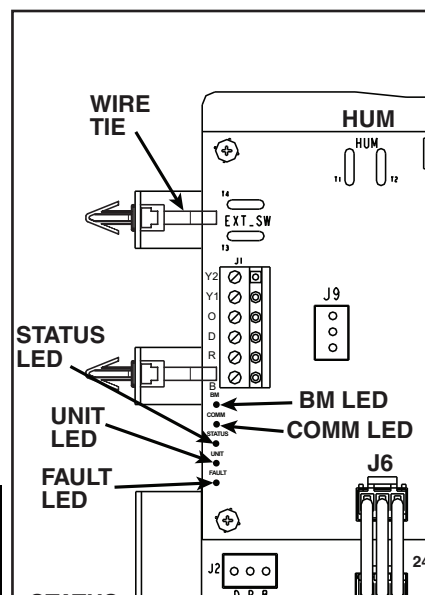
AFC COMM LED (AMBER LED)

AFC COMM LED	Description
Device count	Number of communicating devices*

* Examples: communicating thermostat, communicating air cleaner, etc.

AFC STATUS CODES (GREEN LED)

AFC STATUS LED	Description
ON SOLID	Power up and during last 4 fault history sequence
1 Flash (per second)	Stand-by or idle
Multiple Flash	CFM demand - 1 flash per 100 cfm



AFC UNIT LED (BLUE LED)

Unit LED	Description
1 Flash	Normal (1 flash every 4 seconds)
Rapid	Communication Busy Error (2 flashes per second)
SOLID ON	Communications cannot be established with the AFC
Off	No Power

AFC FAULT CODES (RED LED)

AFC Fault LED	Description
OFF	No Fault
Solid On	Internal control failure
1	24VAC fuse blown
2	PM Data Corrupt or Missing / Motor Mismatch
3	Communication error ③
4	Blower communication error (Status LED will be ON solid)
5	Internal communication error (refer to Unit LED on EVC, EHC, HHC) (1)(2)
6	Indoor coil air sensor error
8	Twinning error
11	EVC has detected a fault condition (refer to Fault LED on EVC)
12	EHC / HHC has detected a fault condition (refer to Fault LED on EHC / HHC)
NOTES:	1) If Unit LED on AFC is flashing 2 times/second, AFC is causing the error. 2) Unit LED on suspect control will flash 2 times/second on the suspect control. 3) Error is associated with the ComfortLink™II or AccuLink™ communicating bus. All LED's will be off if power is not applied.

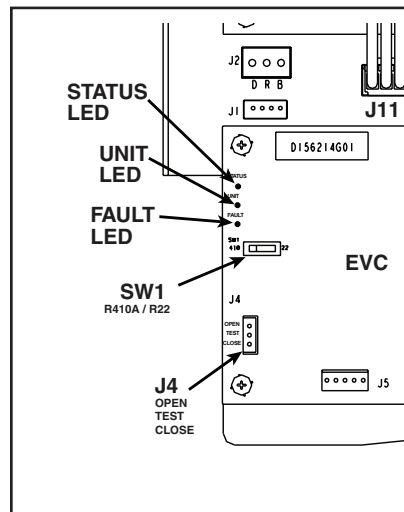
EVC STATUS CODES (GREEN LED)

EVC STATUS LED (Non Heat Pump Systems)

Flash	
1	Cool mode selected / No active call
2	Active call for 1st stage cooling
3	Active call for 2nd stage cooling (1)
NOTE:	
(1) Single stage OD systems will report 2nd stage flash codes	

EVC STATUS LED (Heat Pump Systems)

Flash	
1	Cool mode selected / No active call
2	Active call for 1st stage cooling or defrost
3	Active call for 2nd stage cooling or defrost (1)
4	Heat mode selected or Thermostat system switch off
5	Active call for 1st stage heating
6	Active call for 2nd stage heating (1)
NOTE:	
(1) Single stage OD systems will report 2nd stage flash codes	



EVC UNIT LED (BLUE LED)

Unit LED	Description
1 Flash	Normal (1 flash every 4 seconds)
Rapid	Communication Busy Error (2 flashes per second)
SOLID ON	Communications cannot be established with the AFC
Off	No Power

EVC FAULT CODES (RED LED)

EVC Fault LED	Description
OFF	Standby
1	Stepper Motor or wiring harness has an open circuit or intermittent short
2	Control has detected an internal failure (Verify EEV motor resistance and harness wiring)
3	Saturated Gas Sensor input out of range (Verify resistance, 5VDC output from control) (1)
4	Evaporator Gas Sensor input out of range (Verify resistance, 5VDC output from control) (1)
5	Stepper Motor Coil is shorted (2)
6	Valve is not responding to a change in position. (Possible stuck valve)
7	High superheat (Low charge or restriction)
10	Low superheat (Check airflow, possible stuck valve) (3)
11	Condensate drain switch activated for 100 seconds (Check condensate switch and drain) (2)
13	Indoor frost protection activated (Check refrigerant charge and airflow) (2)
14	Internal communication fault (All operation is terminated) (Cycle power & check wire terminations)
15	Configuration fault (All operation is terminated) (Cycle power & check if PM error is present)
16	Outdoor status fault (All operation is terminated)
NOTES:	
1) EEV will try to go to a safe position, cooling attempt allowed	
2) K1 relay opens on EVC, Yo disabled	
3) Cooling attempt allowed, 5 consecutive Y calls with same condition disables Yo	

EHC UNIT LED (BLUE LED)

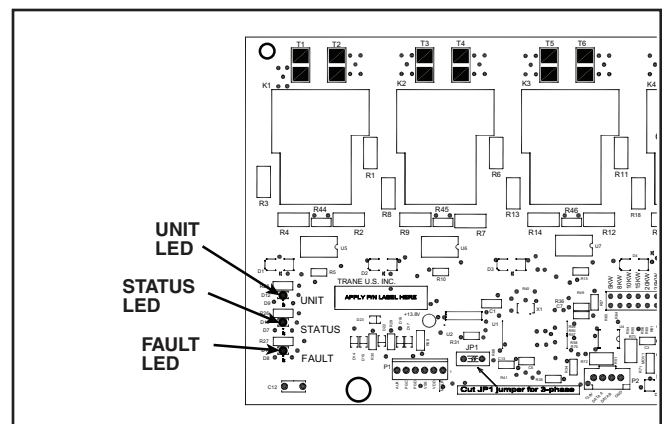
Unit LED	Description
1 Flash	Normal (1 flash every 4 seconds)
Rapid	Communication Busy Error (2 flashes per second)
SOLID ON	Communications cannot be established with the AFC
Off	No Power

EHC STATUS CODES (GREEN LED)

EHC STATUS LED	Description
1	1 heater relay energized or stand by (see note)
2	2 heater relays energized
3	3 heater relays energized
4	4 heater relays energized
5	5 heater relays energized
NOTES	
	Standby mode STATUS LED will flash 1 time per second
	On a call for heat, STATUS LED will flash per the table above every 4 seconds

EHC FAULT CODES (RED LED)

EHC Fault LED	Description
OFF	No fault
1	Internal communication error
2	Heat relay stuck open
3	Heat relay stuck closed
4	Non-cycling limit (NTCO) or element open
5	Cycling limit (CTCO)open
6	Configuration error (1)
8	Blower interlock relay stuck open or stuck closed
NOTES:	
	1) Confirm heater model and kw jumper match



HHC FAULT CODES (RED LED)

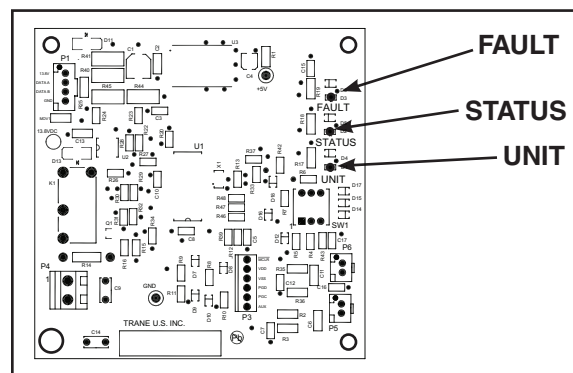
HHC Fault LED	Description
OFF	No fault
1	Internal communication error
2	Water temp is at 38F or lower
3	Water temp sensor is shorted
4	Water temp sensor is open
5	Configuration error (1)
6	Heat demand error
NOTES:	1) Confirm heater model and dip switch configuration

HHC STATUS CODES (GREEN LED)

HHC STATUS LED	Description
1 per second	Standby or idle (see note)
2 per second	Heating demand is present

HHC UNIT LED (BLUE LED)

Unit LED	Description
1 Flash	Normal (1 flash every 4 seconds)
Rapid	Communication Busy Error (2 flashes per second)
SOLID ON	Communications cannot be established with the AFC
Off	No Power



LED Codes - The three LED lights below appear on the CCM control board. (BAYCC24VK01A)

CCM COM LED (AMBER LED)

CCM COMM LED	Description
Device count	Number of communicating devices*

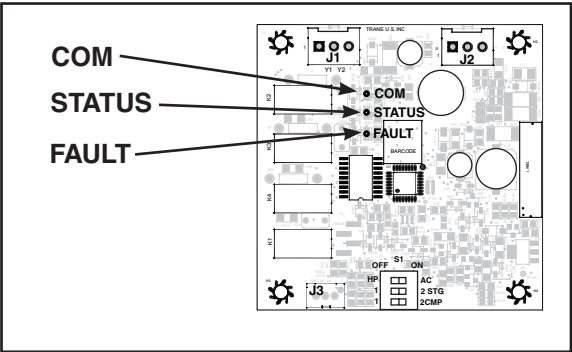
* Examples: communicating thermostat, communicating air cleaner, etc.

CCM STATUS LED (GREEN LED)

CCM STATUS LED	Description
1 Flash per second	Idle / Standby
1 Flash per 4 seconds	1st Stage
2 Flash per 4 seconds	2nd Stage

CCM FAULT LED (RED LED)

CCM FAULT LED	Description
3 Flash	Communication Error



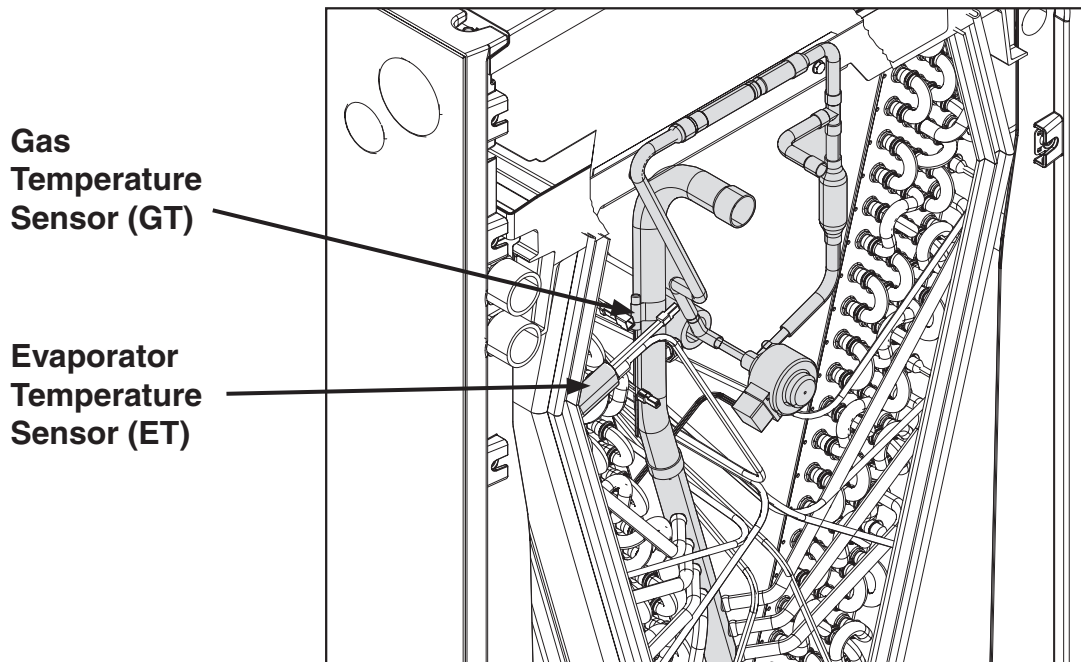
ALERT CODES FOR *AM8

Alert Code	Alert Group	Display Assembly Text	A/TCONT900	A/TZONE 950	Notification Level	AFC Fault Code	EVC Fault Code	EHC Fault Code	HHC Fault Code	Alert Description	Possible Cause
18	Control failure	CNTRL FLT	ERR18	ERR 18.0	Critical	ON				Internal Control Error	Control fault, replace AFC
19	Twinning fault	TWIN ERR	ERR19	ERR 19.0	Information	8				Air handler twinning error	More than one ID unit connected on the communicating bus is not allowed
52	Indoor air sensor error	ICAS OPEN	N/A	N/A	Information	6				Indoor air sensor is open	Sensor open, unplugged, wiring harness
52	Indoor air sensor error	ICAS SHORT	N/A	N/A	Information	6				Indoor air sensor is shorted	Sensor shorted, wiring harness
90	Communication busy fault	SYS COM CRC	N/A	N/A	Information	3				Excessive communication errors	R & B to thermostat reversed polarity
91	Communication inactive fault	SYS COMM ERR	ERR91	ERR 91.02	Critical	3				Loss of Heat/Cool demand message	Open / Shorted data line / CCM communication error
91	Communication inactive fault	NO SYS CLK	ERR91	ERR 91.03	Critical	3				Loss of Bit Master	Control fault, replace AFC
92	Fuse failure	CHECK FUSE	N/A	N/A	Critical	1*				24V fuse open error	24VAC circuit short
104	Heater relay fault	EH RLY OPEN#	ERR104	ERR 104.0	User Display	12		2		Heater relay stuck open error	Heater relay failure
104	Heater relay fault	ALL RLY OPEN	ERR104	ERR 104.02	Critical	12		2		All heater relay stuck open error	Heater relay failure
104	Heater relay fault	EK RLY WELD#	ERR104	ERR 104.01	Critical	12		3		Heater Relay Stuck Closed Error	Heater relay failure, open element, open non cycling limit switch
105	Heater interlock relay fault	BL INTLK OP	ERR105	ERR 105.0	User Display	12		8		Interlock Relay Stuck Open Error	Blower interlock relay failure
105	Heater interlock relay fault	BL INTLK CL	ERR105	ERR 105.01	User Display	12		8		Interlock Relay Stuck Closed Error	Blower interlock relay failure
106	External shutdown fault	EXT SW OPEN	ERR106	ERR 106.0	User Display	1				External shutdown input open error	External float switch, other device open
114	PM bad or missing fault	PM DATA ERR	N/A	N/A	Information	2				PM data corrupt (Operation allowed)	PM error
114	ID motor error	ID MTR ERR	ERR114	ERR 114.02	User Display	2				Motor HP is < than PM value (Operation not allowed)	Incorrect VS motor or PM installed
114	PM bad or missing fault	PM MISSING	ERR114	ERR 114.03	Critical	2				PM missing with good local copy (Operation allowed)	PM error
114	PM bad or missing fault	PM UNIT ERR	N/A	N/A	Information	2				Bad data in PM with good local copy (Operation allowed)	PM error
114	PM bad or missing fault	PM MEM ERR	ERR114	ERR 114.05	Critical	2				Bad data in PM with no local copy (Operation allowed)	PM error
114	PM bad or missing fault	PM MISSING	ERR114	ERR 114.06	Critical	2				PM missing with no local copy (Operation not allowed)	PM error
114	ID motor error	MTR PWR HI	ERR114	ERR 114.07	User Display	2				Motor HP is > than PM value (Operation allowed)	Incorrect VS motor or PM installed
123	Demand configuration fault	EH CONFIG	ERR123	ERR 123.0	User Display	12		6		Electric heat configuration error	KW jumper position on PARK (replacement control only)
152	Heater element fault	EH ELMNT OP#	ERR152	ERR 152.0	User Display	12		4		Heater element open	Low airflow, dirty coil/filter
153	Thermal limit switch fault	EH CTCO TRIP	ERR153	ERR 153.0	User Display	12		5		Cycling thermal cut-out trip has occurred	Low airflow, dirty coil/filter
154	EH airflow limit fault	EH OFF/NO AF	ERR154	ERR 154.0	Critical	12		7		Electric heat control locked out because of insufficient airflow	EHC locked out
154	EH airflow limit fault	EH LIM/NO AF	ERR154	ERR 154.1	User Display	12		7		Electric heat control is under restricted operation because of insufficient airflow	Heater-Air handler mismatch
155	Indoor electronic expansion valve motor fault	EEV MTR ERR	ERR155	ERR 155.0	User Display	11	5			EEV motor fault has been detected for 8 consecutive times and valve is locked out	Faulty EEV motor / wiring harness
155	Indoor electronic expansion valve motor fault	EEV MTR ERR	ERR155	ERR 155.01	User Display	11	1			EEV electric motor current indicates open or short	Faulty EEV motor / wiring harness
156	System low on charge fault	SYSTEM1 ERR	ERR156	ERR 156.0	User Display	11	7			System 1 - High superheat	System low on charge, liquid line restriction, ET/GT sensor calibration
157	Condensate fault	CONDENSAT FLT	ERR157	ERR 157.0	Critical	11	11			Condensate overflow condition detected	Condensate line clogged
158	Coil freeze fault	ID COIL FRST	ERR158	ERR 158.0	User Display	11	13			Indoor coil freeze condition detected	Low / incorrect airflow, low refrigerant charge, ET sensor calibration
159	Unit Bus fault	AFC COMM ERR	ERR159	ERR 159.0	Critical	5	14	1	1	AFC communication error	Wire harness between AFC and distribution board
159	Unit Bus fault	EHC COMM ERR	ERR159	ERR 159.01	User Display	5	1			EHC communication error	Wire harness between EHC and distribution board
159	Unit Bus fault	HHC COMM ERR	ERR159	ERR 159.02	User Display	5			1	HHC communication error	Wire harness between HHC and distribution board
159	Unit Bus fault	EVC COMM ERR	ERR159	ERR 159.03	User Display	5	14			EVC communication error	Wire harness between EVC and distribution board
159	Unit Bus fault	CDA COMM ERR	ERR159	ERR 159.04	Information	5				Display Assembly communication error	Wire harness between Display Assembly and distribution board
160	Indoor EEV control configuration error	CONFIG FLT	ERR160	ERR 160.0	User Display	11	15			Configuration group index or evap temperature sensor type are not configured	PM programming or internal communication error
161	Evaporator temperature sensor fault	ET SEN ERR	ERR161	ERR 161.0	User Display	11	3			Indoor coil temperature sensor reading is out of range, indicates open or short	Sensor open / shorted, unplugged, wiring harness problem
161	Gas temperature sensor fault	GT SEN ERR	ERR161	ERR 161.01	User Display	11	4			Indoor coil temperature sensor reading is out of range, indicates open or short	Sensor open / shorted, unplugged, wiring harness problem
163	Indoor EEV control fault	EEV CNTL FLT	ERR163	ERR 163.0	User Display	11	2			EEV electric motor drive or feedback or 12 V failure detected	EEV motor drive or motor feedback or 12v failure
164	Indoor EEV fault	EEV CLSE ERR	ERR164	ERR 164.0	User Display	11	6			EEV migrated to 'Close' position but superheat is not at the desired set point, valve is not responding to a change in position	Possible stuck valve, ET/GT sensor calibration
164	Indoor electronic expansion Valve fault	EEV OPEN ERR	ERR164	ERR 164.01	User Display	11	6			EEV migrated to 'Open' position but superheat is not at the desired set point, valve is not responding to a change in position	Possible stuck valve, ET/GT sensor calibration
166	Superheat is flooding fault	SYSTEM4 ERR	ERR166	ERR 166.0	User Display	11	10			System 4 - Low superheat	Stuck valve, ET/GT sensor calibration, restricted distributor line that ET is connected to
167	Indoor electronic expansion valve control is not controlling because outdoor status is unknown	OD DATA MISS	ERR167	ERR 167.0	User Display	11	16			OD status unknown to EVC	If Comm LED on OD unit is flashing the correct device count, replace AFC
168	Indoor heat demand is not available to hydronic heat control	HH FAULT	ERR168	ERR 168.0	User Display	12		6		Hydronic Heat is not controlling because Indoor heat demand is not received	If Unit LED on HHC is flashing once every four seconds, replace HHC
169	Hydronic heat control configuration fault	HH CONFIG	ERR169	ERR 169.0	User Display	12		5		Hydronic heat capacity is unknown to hydronic heat control	Dip switch on HHC not set (replacement control only)
170	Hydronic heat control freeze condition detected	HH FRZ DET	ERR170	ERR 170.0	User Display	12		2		Hydronic heat coil freeze detected	Hydronic coil freeze inlet temperature sensor reading is less than 38°F
171	Communication inactive fault	BLW COMM ERR	ERR171	ERR 171.0	Critical	4*				Blower Communication is not detected	Faulty wiring harness, VS motor
172	Display Assembly stuck key	KEY FAULT	ERR172	ERR 172.0	User Display					Display Assembly has a stuck key	Faulty Display Assembly
173	Open coil freeze sensor (hydronic heat only)	HH FRZ OPEN	ERR173	ERR 173.01	User Display	12		4		Hydronic coil freeze inlet temperature sensor open condition detected	Sensor open, unplugged, wiring harness open
173	Shorted coil freeze sensor (hydronic heat only)	HH FRZ SHORT	ERR173	ERR 173.0	User Display	12		3		Hydronic coil freeze inlet temperature sensor short condition detected	Sensor short, wiring harness shorted

Notes:

- * AFC STATUS LED will be solid ON during this fault
- COMM LED (amber) will flash the number of communicating devices connected
- BM LED should be ON Solid when power is applied
- STATUS LED will flash once per second in Idle mode.
- Once a thermostat demand is received, it will flash 1 time/100 CFM requested
- UNIT LED (blue) will flash once every four seconds when communications are normal

EEV TEST PROCEDURES



Electronic Expansion Valve Test Option 1

Access the Unit Test option through Display Assembly under the Control Menu.

Electronic Expansion Valve Test Option 2

Note: *Close Valve and Open Valve Tests are active in any mode of operation*

Test Pins: OPEN, CLOSE, TEST (See J4 on EVC Board)

Close Valve Test - Touch CLOSE pin to TEST pin.

EEV drives closed (5 seconds max) and stays closed for 1.5 minutes (90 seconds).

- 1) Status LED will be flashing.
- 2) Gauges should indicate suction pressure dropping.
 - Valve is working.
 - LPCO may trip.

Note: The *Close Valve Test* will exit after 1.5 minutes (90 seconds) and will not reinitiate (requires a break and make to initialize). To clear faults stored in memory, apply a jumper between Close and Test pins for 10 seconds.

Open Valve Test - Touch OPEN pin to TEST pin.

EEV drives open (5 sec max) and stays open for 30 seconds.

- 1) Status LED will be flashing.
- 2) Temperature probe should indicate superheat falling.
 - Valve is working.

Note: If jumper is left on pins, the OPEN VALVE TEST will be cleared after 30 seconds and will not reinitiate (requires a break and make to reinitialize).

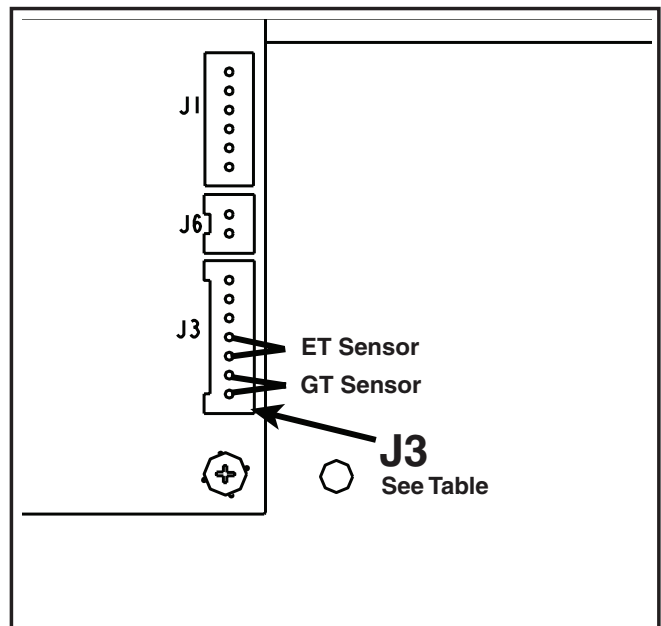
Exit Test Mode - The Open Valve Test or Closed Valve Test can be cancelled by momentarily jumping to the opposite mode Test pin. The system will return to normal super heat control.

EVC THERMAL RESISTANCE AND VOLTAGE TABLE

TEMP F	TEMP C	THERMISTOR RESISTANCE (OHMS)	Volts DC at plug J3 EVAP TEMP (ET) - Orange to Orange GAS TEMP (GT) - Black to Black
20	-6.7	45076	3.20
21	-6.1	43764	3.17
22	-5.6	42494	3.14
23	-5.0	41266	3.10
24	-4.4	40077	3.07
25	-3.9	38927	3.04
26	-3.3	37813	3.00
27	-2.8	36736	2.97
28	-2.2	35692	2.93
29	-1.7	34681	2.90
30	-1.1	33703	2.86
31	-0.6	32755	2.83
32	0.0	31838	2.80
33	0.6	30949	2.76
34	1.1	30087	2.73
35	1.7	29253	2.69
36	2.2	28445	2.66
37	2.8	27661	2.62
38	3.3	26902	2.59
39	3.9	26166	2.56
40	4.4	25452	2.52
41	5.0	24761	2.49
42	5.6	24090	2.45
43	6.1	23440	2.42
44	6.7	22810	2.39
45	7.2	22198	2.35
46	7.8	21605	2.32
47	8.3	21030	2.29
48	8.9	20472	2.25
49	9.4	19931	2.22
50	10.0	19405	2.19
51	10.6	18896	2.16
52	11.1	18401	2.12
53	11.7	17921	2.09
54	12.2	17455	2.06
55	12.8	17002	2.03
56	13.3	16563	2.00
57	13.9	16137	1.97
58	14.4	15723	1.94
59	15.0	15320	1.91
60	15.6	14930	1.88
61	16.1	14550	1.85
62	16.7	14182	1.82
63	17.2	13824	1.79
64	17.8	13476	1.76
65	18.3	13138	1.73
66	18.9	12810	1.70
67	19.4	12491	1.67
68	20.0	12181	1.65
69	20.6	11879	1.62
70	21.1	11586	1.59

TEMP F	TEMP C	THERMISTOR RESISTANCE (OHMS)	Volts DC at plug J3 EVAP TEMP (ET) - Orange to Orange GAS TEMP (GT) - Black to Black
72	22.2	11024	1.54
74	23.3	10492	1.49
76	24.4	9990	1.44
78	25.6	9515	1.39
80	26.7	9065	1.34
82	27.8	8639	1.29
84	28.9	8236	1.25
86	30.0	7855	1.20
88	31.1	7493	1.16
90	32.2	7150	1.12
92	33.3	6825	1.08
94	34.4	6516	1.04
96	35.6	6224	1.01
98	36.7	5946	0.97
100	37.8	5682	0.93
102	38.9	5432	0.90
104	40.0	5194	0.87
106	41.1	4968	0.84
108	42.2	4753	0.81
110	43.3	4548	0.78
112	44.4	4354	0.75
114	45.6	4169	0.72
116	46.7	3992	0.70
118	47.8	3825	0.67
120	48.9	3665	0.65
122	50.0	3513	0.62
124	51.1	3368	0.60
126	52.2	3230	0.58
128	53.3	3098	0.56
130	54.4	2972	0.54
132	55.6	2853	0.52
134	56.7	2738	0.50
136	57.8	2629	0.48
138	58.9	2525	0.46
140	60.0	2425	0.45
142	61.1	2330	0.43
144	62.2	2239	0.42
146	63.3	2153	0.40
148	64.4	2070	0.39
150	65.6	1990	0.37

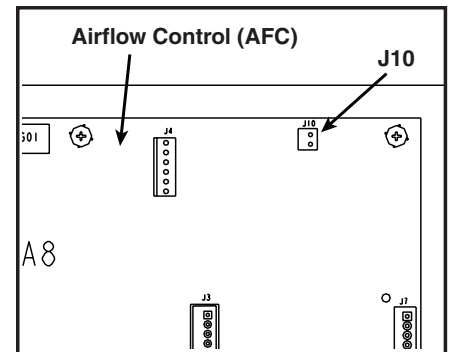
Note: ET sensor wiring may be brown



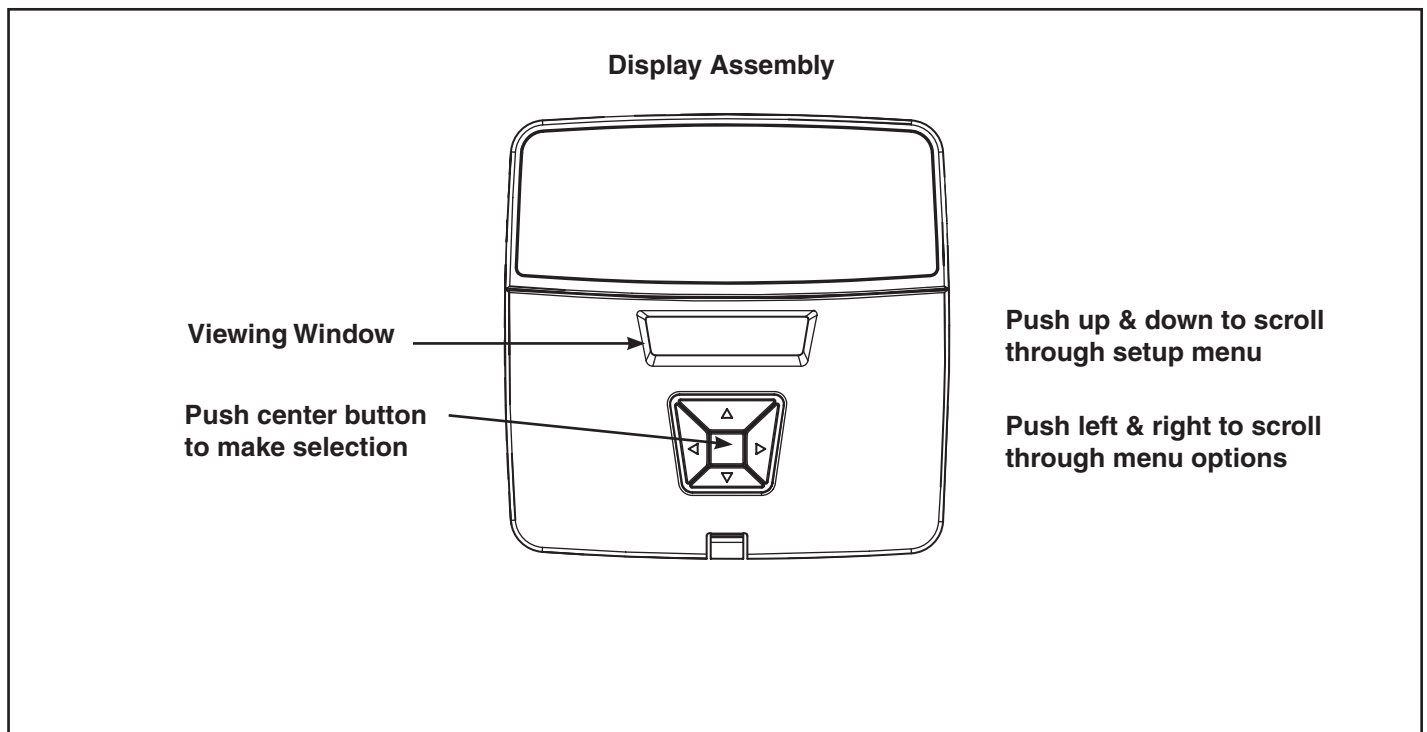
AFC SUPPLY AIR TEMPERATURE SENSOR TABLE

Temp. °F	Temp. °C	Thermistor Resistance Ohms	Volts DC @ plug J10
0	-17.8	83247	2.946
1	-17.2	80645	2.936
2	-16.7	78133	2.926
3	-16.1	75709	2.915
4	-15.6	73368	2.904
5	-15.0	71108	2.893
6	-14.4	68926	2.882
7	-13.9	66818	2.870
8	-13.3	64783	2.859
9	-12.8	62816	2.847
10	-12.2	60916	2.835
11	-11.7	59081	2.822
12	-11.1	57307	2.810
13	-10.6	55593	2.797
14	-10.0	53936	2.784
15	-9.4	52333	2.771
16	-8.9	50783	2.757
17	-8.3	49284	2.743
18	-7.8	47834	2.729
19	-7.2	46432	2.715
20	-6.7	45076	2.701
21	-6.1	43764	2.686
22	-5.6	42494	2.671
23	-5.0	41266	2.656
24	-4.4	40077	2.641
25	-3.9	38927	2.626
26	-3.3	37813	2.610
27	-2.8	36736	2.594
28	-2.2	35692	2.578
29	-1.7	34681	2.561
30	-1.1	33703	2.545
31	-0.6	32755	2.528
32	0.0	31838	2.511
33	0.6	30949	2.494
34	1.1	30087	2.477
35	1.7	29253	2.459
36	2.2	28445	2.442
37	2.8	27661	2.424
38	3.3	26902	2.406
39	3.9	26166	2.388
40	4.4	25452	2.369
41	5.0	24761	2.351
42	5.6	24090	2.332
43	6.1	23440	2.313
44	6.7	22810	2.294
45	7.2	22198	2.275
46	7.8	21605	2.256
47	8.3	21030	2.237
48	8.9	20472	2.217
49	9.4	19931	2.197
50	10.0	19405	2.178
51	10.6	18896	2.158
52	11.1	18401	2.138
53	11.7	17921	2.118
54	12.2	17455	2.098
55	12.8	17002	2.078
56	13.3	16563	2.058
57	13.9	16137	2.037
58	14.4	15723	2.017
59	15.0	15320	1.997
60	15.6	14930	1.976
61	16.1	14550	1.956
62	16.7	14182	1.935
63	17.2	13824	1.915
64	17.8	13476	1.894
65	18.3	13138	1.874
66	18.9	12810	1.853
67	19.4	12491	1.833
68	20.0	12181	1.812
69	20.6	11879	1.792
70	21.1	11586	1.771
71	21.7	11301	1.751
72	22.2	11024	1.730
73	22.8	10754	1.710
74	23.3	10492	1.690
75	23.9	10238	1.669

Temp. °F	Temp. °C	Thermistor Resistance Ohms	Volts DC @ plug J10
76	24.4	9990	1.649
77	25.0	9749	1.629
78	25.6	9515	1.609
79	26.1	9287	1.589
80	26.7	9065	1.569
81	27.2	8849	1.549
82	27.8	8639	1.530
83	28.3	8435	1.510
84	28.9	8236	1.490
85	29.4	8043	1.471
86	30.0	7855	1.452
87	30.6	7671	1.433
88	31.1	7493	1.414
89	31.7	7319	1.395
90	32.2	7150	1.376
91	32.8	6985	1.357
92	33.3	6825	1.339
93	33.9	6669	1.320
94	34.4	6516	1.302
95	35.0	6368	1.284
96	35.6	6224	1.266
97	36.1	6083	1.248
98	36.7	5946	1.231
99	37.2	5812	1.213
100	37.8	5682	1.196
101	38.3	5555	1.179
102	38.9	5432	1.162
103	39.4	5311	1.145
104	40.0	5194	1.128
105	40.6	5079	1.112
106	41.1	4968	1.095
107	41.7	4859	1.079
108	42.2	4753	1.063
109	42.8	4649	1.047
110	43.3	4548	1.032
111	43.9	4450	1.016
112	44.4	4354	1.001
113	45.0	4260	0.986
114	45.6	4169	0.971
115	46.1	4079	0.956
116	46.7	3992	0.942
117	47.2	3908	0.927
118	47.8	3825	0.913
119	48.3	3744	0.899
120	48.9	3665	0.885
121	49.4	3588	0.871
122	50.0	3513	0.858
123	50.6	3440	0.845
124	51.1	3368	0.831
125	51.7	3298	0.818
126	52.2	3230	0.806
127	52.8	3163	0.793
128	53.3	3098	0.781
129	53.9	3034	0.768
130	54.4	2972	0.756
131	55.0	2912	0.744
132	55.6	2853	0.732
133	56.1	2795	0.721
134	56.7	2738	0.709
135	57.2	2683	0.698
136	57.8	2629	0.687
137	58.3	2576	0.676
138	58.9	2525	0.665
139	59.4	2474	0.655
140	60.0	2425	0.644
141	60.6	2377	0.634
142	61.1	2330	0.624
143	61.7	2284	0.614
144	62.2	2239	0.604
145	62.8	2195	0.594
146	63.3	2153	0.585
147	63.9	2111	0.575
148	64.4	2070	0.566
149	65.0	2030	0.557
150	65.6	1990	0.548



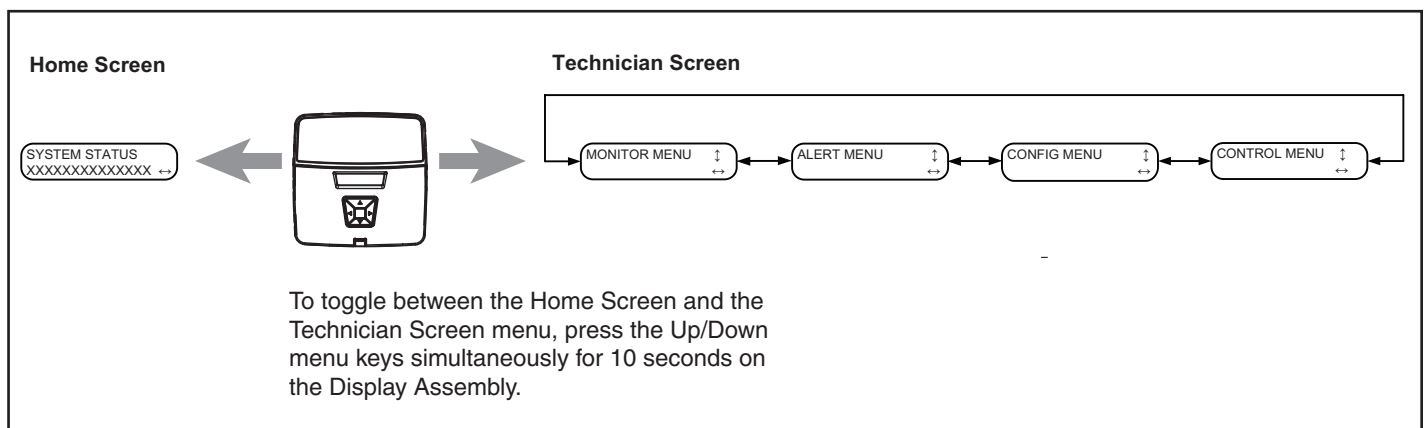
Display Assembly



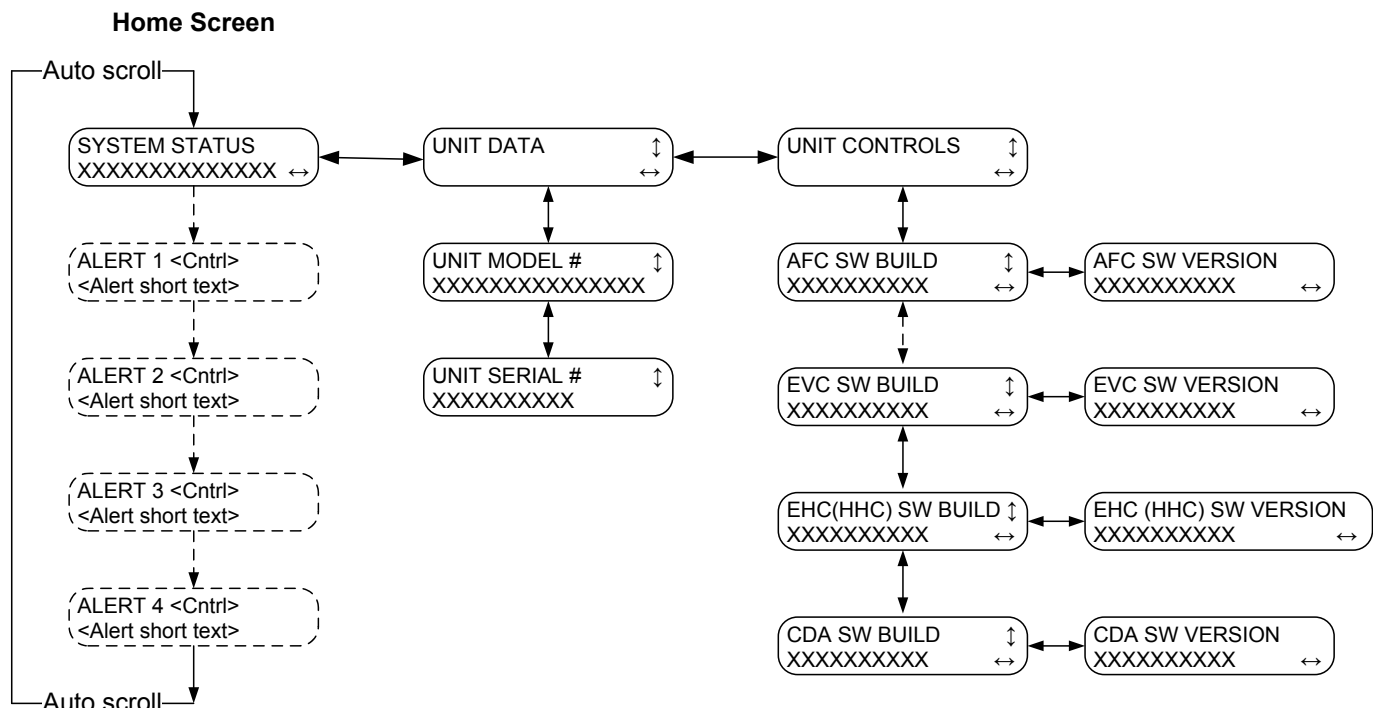
Display Assembly General Notes

Display Assembly General Notes

- Home Screen
 - o The System Status is shown continuously on the Home Screen. The System Status will alternate with fault information if there is an active fault. Low level faults do not appear on the Home Screen.
- Technician Screens
 - o To Enter the technician menu section, press the Up/Down menu keys simultaneously for 10 seconds.
 - o To Exit the technician menu section, press the Up/Down menu keys simultaneously for 10 seconds.
 - o To move to the top of any menu tree, press the Left/Right menu keys simultaneously for 1-2 seconds. Press the Left/Right menu keys a second time for 1-2 seconds to return to the Home Screen.
 - o While in a technician menu, after 5 minutes of inactivity, the Home Screen will be displayed. This time can be increased to 20 minutes by pressing the Enter menu key for 2-3 seconds.



Display Assembly Home Menu



• UNIT CONTROLS

- o AFC = Airflow Control
- o EVC = Expansion Valve Control
- o EHC = Electric Heat Control
- o HHC = Hydronic Heat Control
- o DA = Display Assembly

<Cntrl> = Control declaring fault

<Alert Short Text> = Short Text for Alarm (located in Alert Code Addendum)

Note 1: System Status will rotate automatically with active alerts. Only alerts with a notification level of User or Critical are shown (same as the thermostat); up to four (4) alerts will be shown, most recent first.

Note 2: Alerts shown will be only AFC faults for initial release. Specific control alerts are in Alert menu section.

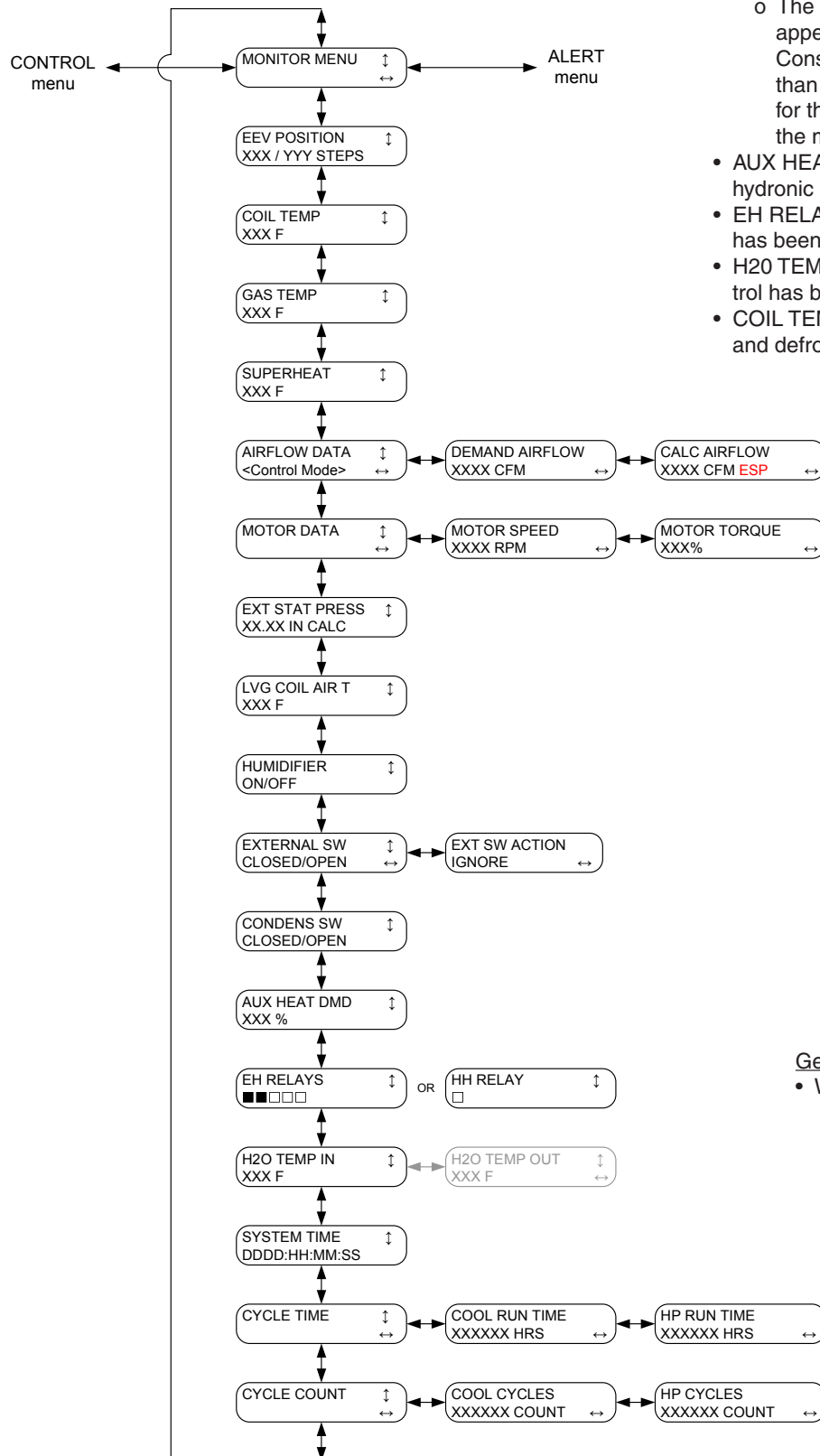
• SYSTEM STATUS Messages

- o STANDBY = Idle, no demand is present
- o FAN = Continuous fan call
- o ON CLG# = Compressor cooling, 1st or 2nd stage
- o ON HP# = Heatpump heating, 1st or 2nd stage
- o HP# + EH ■■■■ = Heatpump heating + electric heating
- o ON HPD# = Heatpump heating in defrost, 1st or 2nd stage
- o HPD# + EH ■■■■ = Heatpump heating in defrost + electric heating
- o EH □□□□□□ = Electric heat, elements detected but not active
- o EH ■■■■□□ = Electric heat, elements active
- o EH ■■□□□□ = Electric heat, element faulty
- o HH = Hydronic heating
- o ON HP# + HH = Heatpump heating + hydronic heating
- o ON HPD# + HH = Heatpump heating in defrost + hydronic heating

• When EHC is detected, boxes represent:

- = element configured but not energized
- = element configured and energized
- ▣ = element faulty, may or may not be energized

Monitor Menu



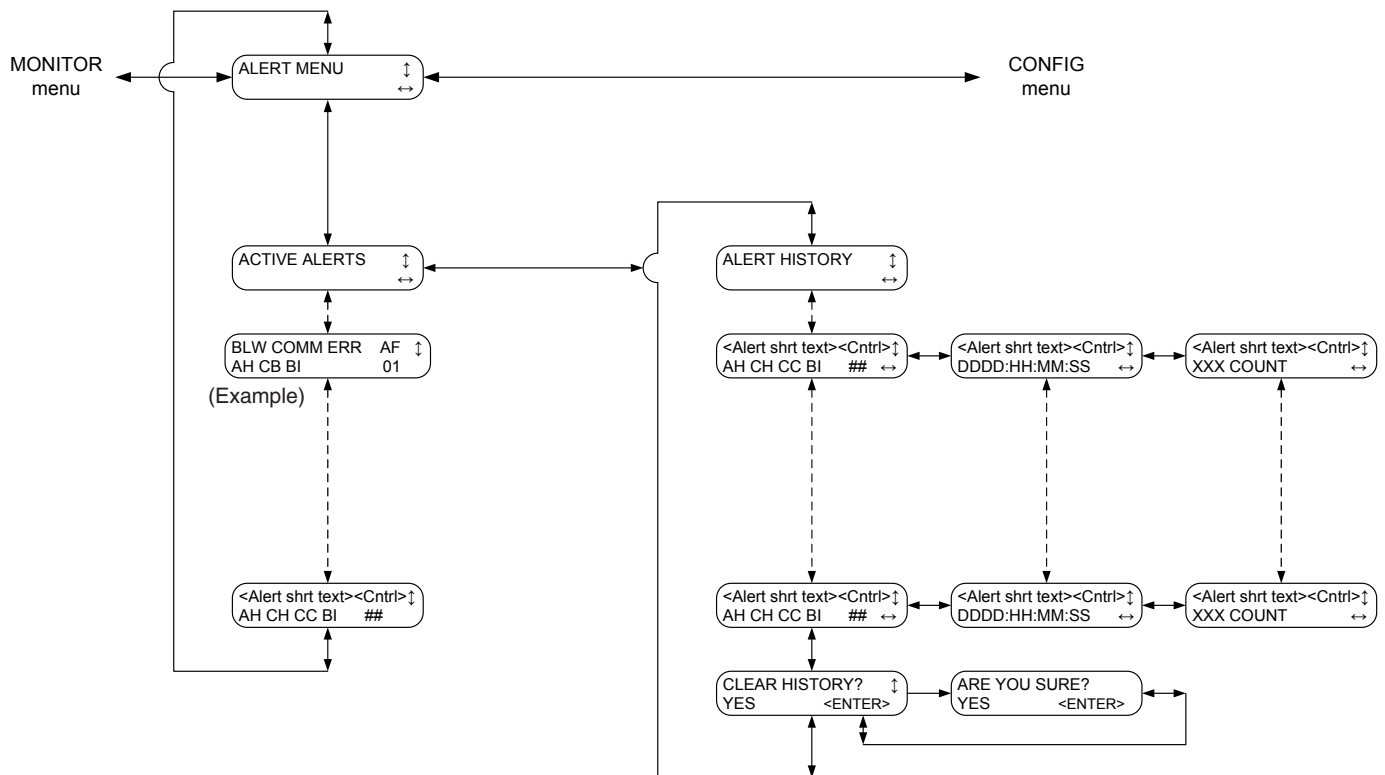
Technician Monitor Menu

- The Monitor menu allows the technician to monitor the different aspects of the system while the air handler is running. No changes can be made in the Monitor Menu.
- Superheat is only shown in cooling and defrost modes
- Airflow Data
 - o The letters ESP (External Static Pressure) will appear when the control mode of the motor is Constant Torque; and the calculated CFM is greater than 50 CFM from the demand. (Allow 90 seconds for the motor ramping process to end to verify that the motor cannot achieve the demand airflow)
- AUX HEAT DMD is only shown when an electric heat or hydronic heat control has been detected.,
- EH RELAYS is only shown when an electric heat control has been detected.
- H2O TEMP IN is only shown when a hydronic heat control has been detected.
- COIL TEMP is calculated (CALC) during the cooling and defrost modes.

General Notes:

- When EHC is detected, boxes represent:
 - = element configured but not energized
 - = element configured and energized
 - ▣ = element faulty, may or may not be energized

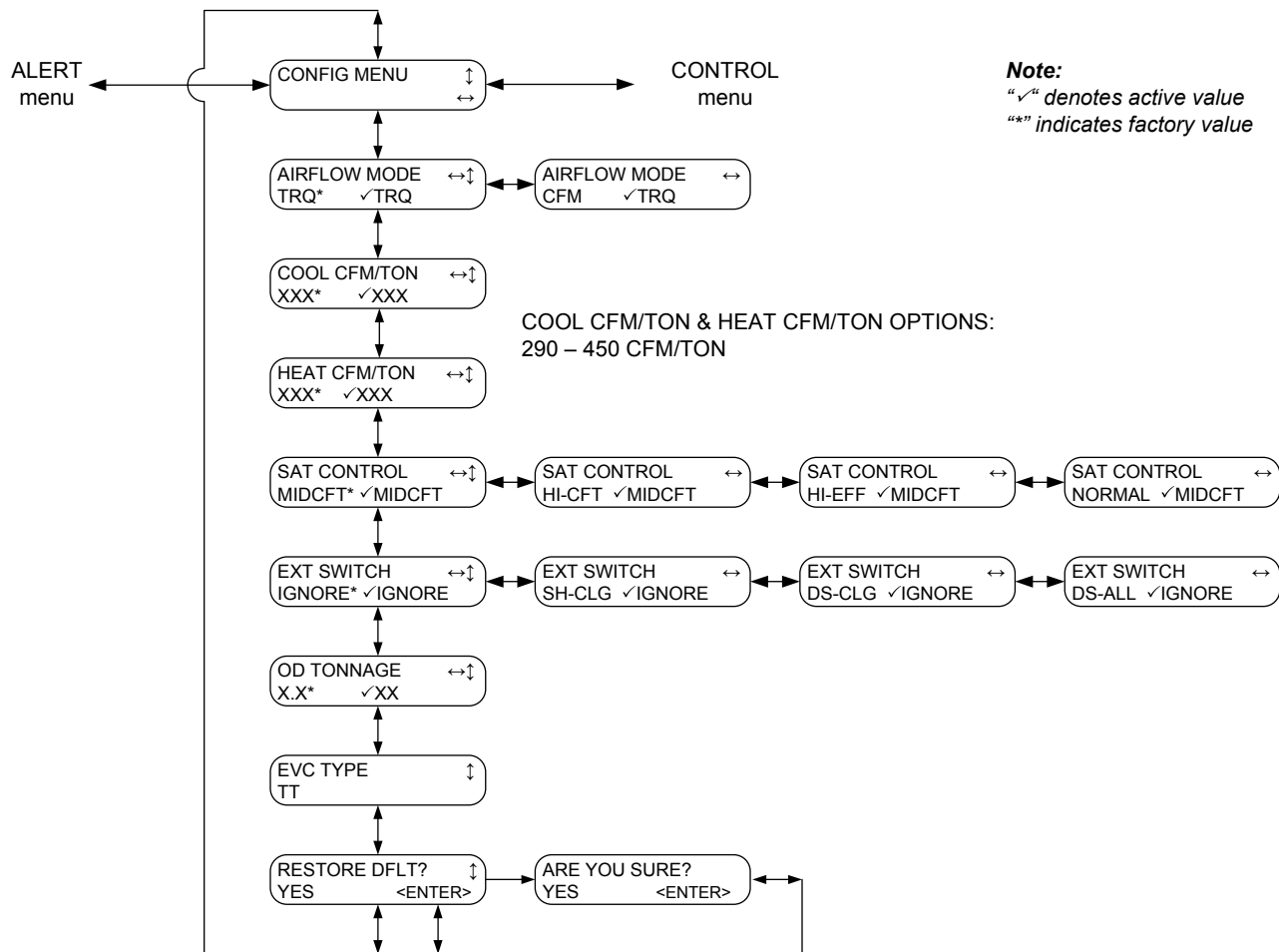
Alert Menu



- The Alert menu allows the technician to view active and historical faults that have occurred. Alerts are grouped by the control declaring the fault.
 - AFC
 - EVC
 - EHC or HHC
 - DA
- The first line of text contains the description of the fault and the component that reported it. The abbreviations for the components are:
 - AF = Air Flow control
 - EV = Expansion Valve control
 - EH = Electric Heat control
 - HH = Hydronic Heat control
 - DA = Display Assembly
- The second line of text contains any action that may take place because of the fault and the order that the faults occurred. Some faults will shut-down all or part of the system. See the System Actions below.
 - AH = Auxiliary Heat is prohibited (electric or hydronic)
 - CH = Compressor Heat is prohibited
 - CC = Compressor Cooling is prohibited
 - CB = Compressor Heat and Cooling is prohibited
 - BI = Blower operation is prohibited*
- * Applies only to states that are prohibited
- Timestamp (DDDD:HH:MM:SS)
 - The elapsed time the fault occurred from when the unit was installed.
- COUNT
 - The number of times the fault has occurred.

Note: When the fault history is cleared, the COUNT will also be cleared.

Config Menu



- The Config Menu allows the technician to set blower mode, airflow, supply air temperature control during defrost, and the external switch actions.
 - Checkmark is the active setting
 - Asterisk is the factory default setting
 - Torque mode is optional and is recommended for high static applications. High static conditions dramatically increase energy consumption with variable speed motors. Evaluate the blower performance table in relationship to the duct system to determine the benefit of each installation.
 - HEAT CFM/TON is only shown when a communicating heatpump is discovered and electric heat is present.
 - SAT control is only shown when a communicating heatpump is discovered
 - OD TONNAGE is only adjustable when a communicating OD unit is not discovered.
- External Switch Options (See External Switch wiring section)
 - IGNORE* = Ignore
When this option is selected, no action is taken.
 - SH-CLG = Load Shed Cooling
When this option is selected, compressor cooling is disabled.
 - DS-CLG = Disable Cooling
When this option is selected, compressor cooling is disabled. Used for external float switch.
 - DS-ALL = Disable all
When this option is selected, all modes of operation are disabled.

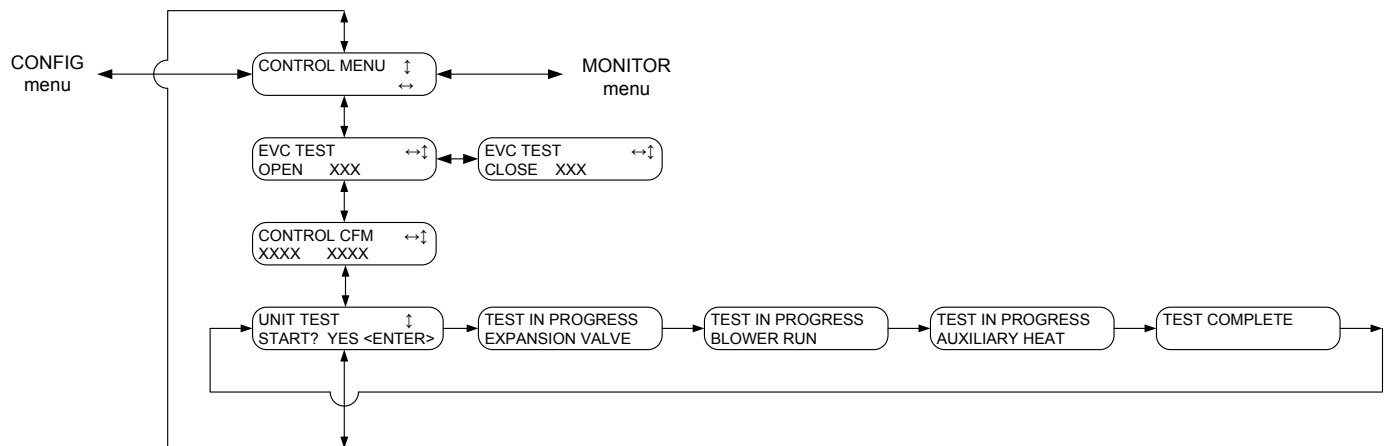
Note: Wiring to the External Switch inputs must be a normally closed circuit with no power applied.

Note: Disable cool (DS-CLG) and disable all (DS-ALL) will generate an error on the thermostat.

- Supply Air Temperature Defrost Options
 - MIDCFT* = Mid Comfort
When this option is selected, electric heat will be turned on to maintain approximately 70 degree supply air temperature, if enough electric heat capacity is available.
 - NORMAL = Normal (standard)
When this option is selected, the thermostat takes control of the amount of auxiliary heat that is energized. The Supply Air Temperature sensor is not used in this mode.
 - HI-EFF = High Efficiency
When this option is selected, no auxiliary heat is energized. Thermostat heating demand is ignored.
 - HI-CFT = High Comfort
When this option is selected, electric heat will be turned on to maintain approximately 90 degree supply air temperature, if enough electric heat capacity is available.

Note: When hydronic heat is applied, all selections but the High Efficiency will default to Normal, allowing the thermostat to control the auxiliary heat.

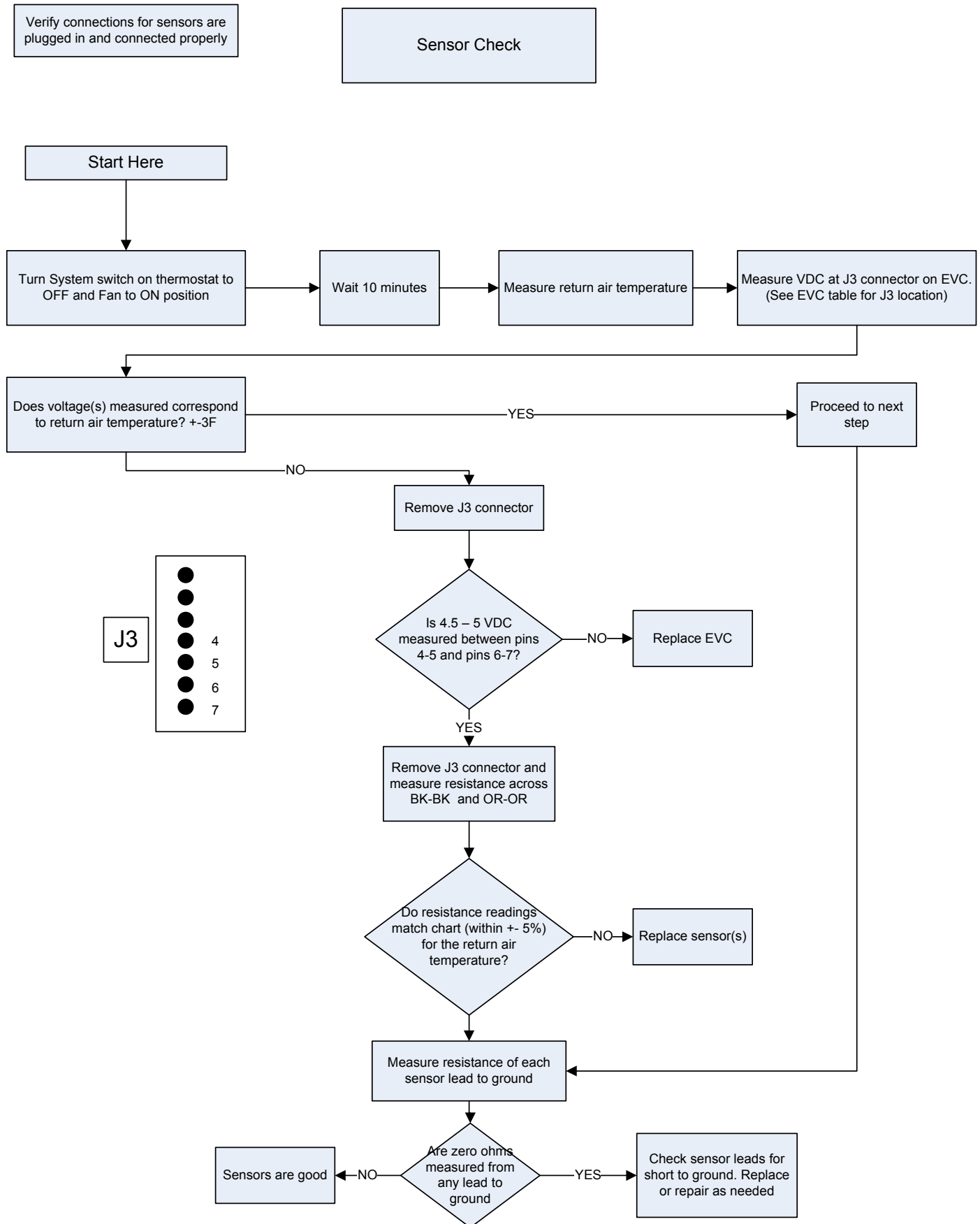
Control Menu



- EVC TEST: Scroll to desired test and push the <Enter> key.
 - o OPEN - When selected, the EEV will drive to the full open position (OPEN 500).
 - o CLOSE - When selected, the EEV will drive to the closed position (CLOSE 056).
- CONTROL CFM: Press <Enter> key to initiate control. (Unit must be in Standby or Idle mode)
 - o First value is current selection, Second value is actual airflow.
 - o Use left or right menu keys to decrease or increase airflow in 100 CFM increments.
 - o Press ENTER to initiate new CFM demand. Actual airflow is updated every six seconds.
- UNIT TEST: Press <Enter> key to initiate test. (Unit must be in Standby or Idle mode)
 - o Once test is started, the screen update automatically and navigation is not allowed.
 - o UNIT TEST may only be interrupted by a thermostat demand or turning off the power.

NOTE: EVC TEST and/or AUX HEAT TEST will be skipped if the associated control(s) is/are not discovered.

Troubleshooting



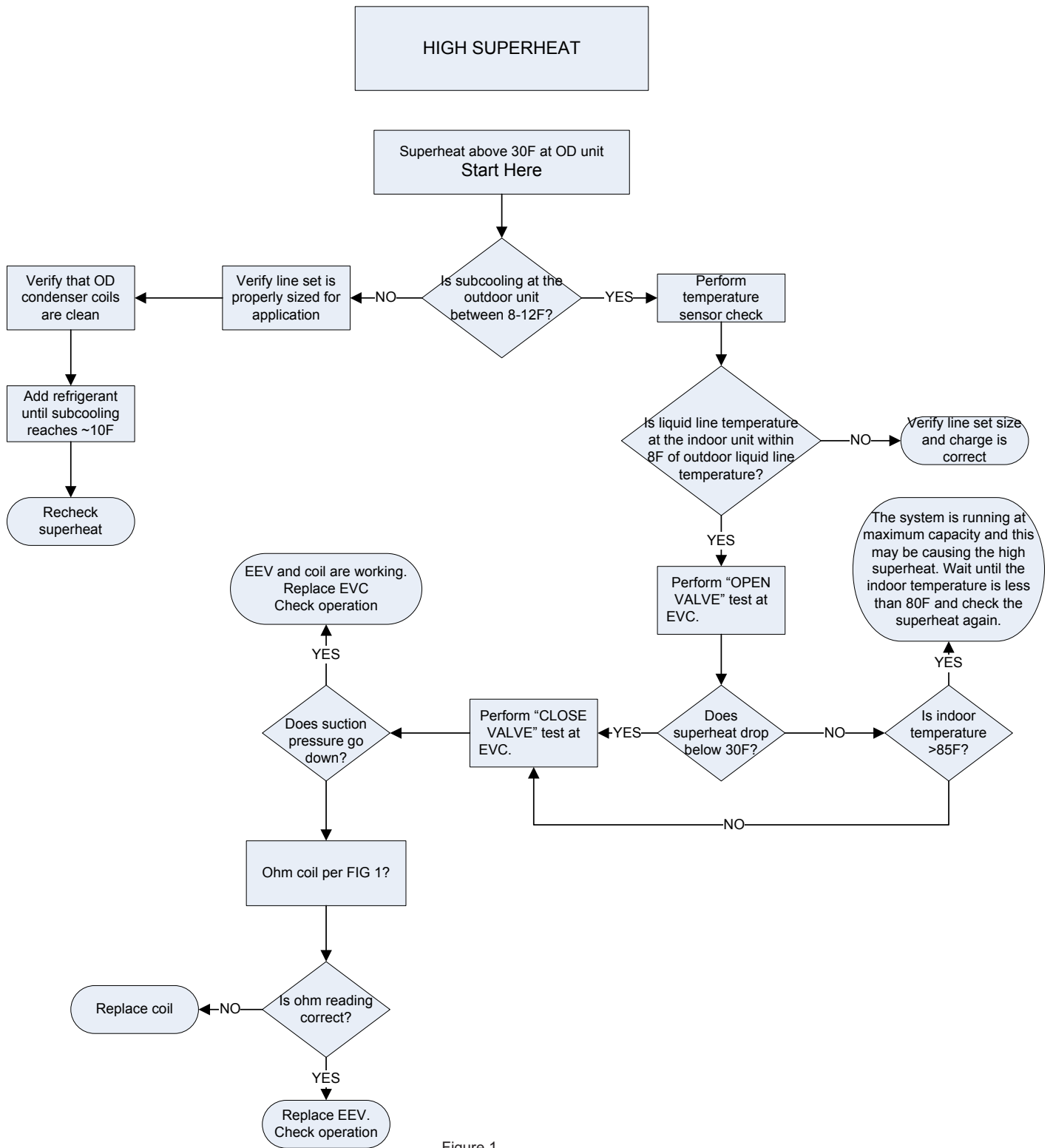
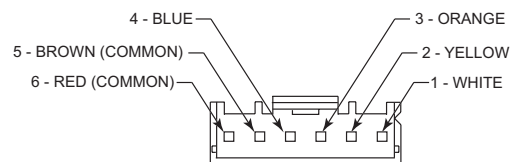


Figure 1
4 - Phase Coil Control



- Brown (common) to Blue or Yellow should measure 46 ohms
- Red (common) to Orange or White should measure 46 ohms

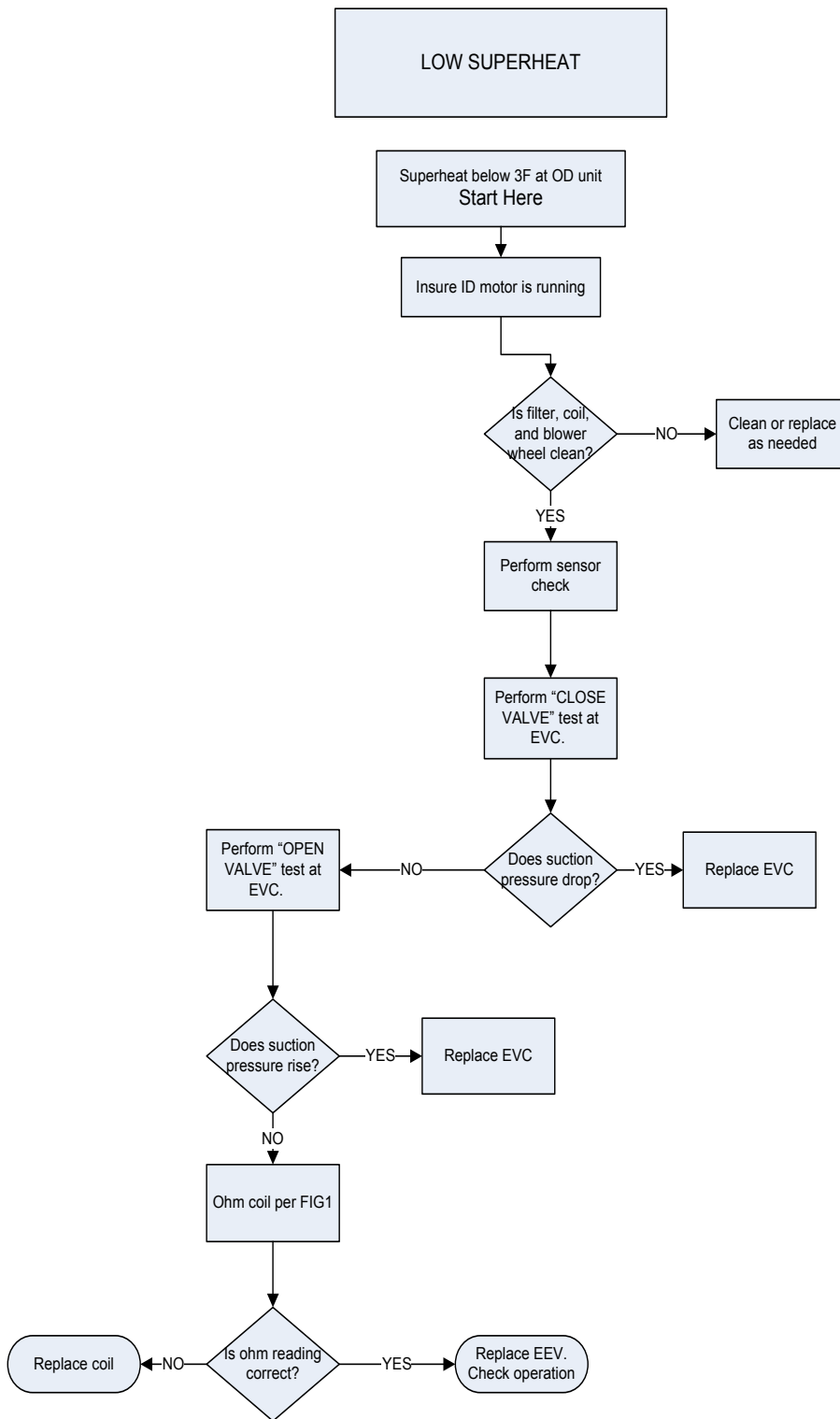
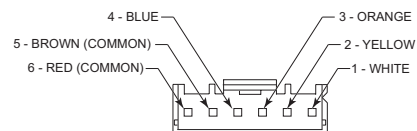


Figure 1
4 - Phase Coil Control



- Brown (common) to Blue or Yellow should measure 46 ohms
- Red (common) to Orange or White should measure 46 ohms

Trane
6200 Troup Highway
Tyler, TX 75707
www.trane.com

*For more information contact
your local dealer (distributor)*

05/11

The manufacturer has a policy of continuous product and product data improvement, and it reserves the right to change design and specifications without notice.