

ELECTRIC HEAT KITS

EHSB, EHSD, EHXB AND EHXD FOR 7.5 - 12.5 TON LIGHT COMMERCIAL ROOF TOP UNITS

MODELS: DBC, DBH AND DRC

INSTALLATION INSTRUCTIONS

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DAIKIN COMFORT TECHNOLOGIES MANUFACTURING, L.P.

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P/N: IOD-7117B Date: November 2024

Attention Installing Personnel

As a professional installer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

SAFETY CONSIDERATIONS

The following symbols and labels are used throughout this manual to indicate immediate or potential safety hazards. It is the owner's and installer's responsibility to read and comply with all safety information and instructions accompanying these symbols. Failure to heed safety information increases the risk of personal injury, property damage, and/or product damage.



WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT. THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER INSTALLATION, ADJUSTMENT, SERVICING OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

PROP 65 WARNING FOR CALIFORNIA CONSUMERS



WARNING

Cancer and Reproductive Harm -
www.P65Warnings.ca.gov

0140M00517-A

Description

These installation instructions supplement the electric heater kits for installation in the following models:

DBC090, DBC102, DBC120, DBC150
DBH090, DBH102, DBH120, DBH150
DRC090, DRC102, DRC120, DRC150,
DFC090, DFC102, DFC120, DFC150
DFH090, DFH102, DFH120, DFH150
DSC090, DSC102, DSC120, DSC150
DSH090, DSH102, DSH120, DSH150
DHC090, DHC102, DHC120, DHC150

These instructions should be used only as a supplement to unit's installation instruction manual. If the heater kit is installed on a unit with DDC controls, reference the DDC user manual for controller configuration instructions. The controller will not control the heater kit unless it is properly configured.



WARNING

HIGH VOLTAGE

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



INSTRUCTIONS

1. Disconnect all power to the unit, both indoor and outdoor.
2. Remove control box door.
3. Remove blower door.
4. Locate heater box. Remove screws holding the heater box cover in place (Figure 1).



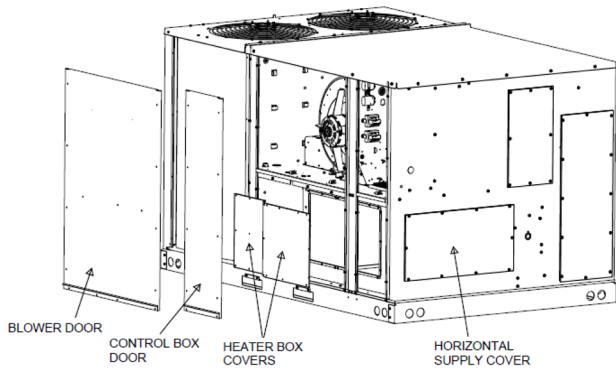


Figure 1

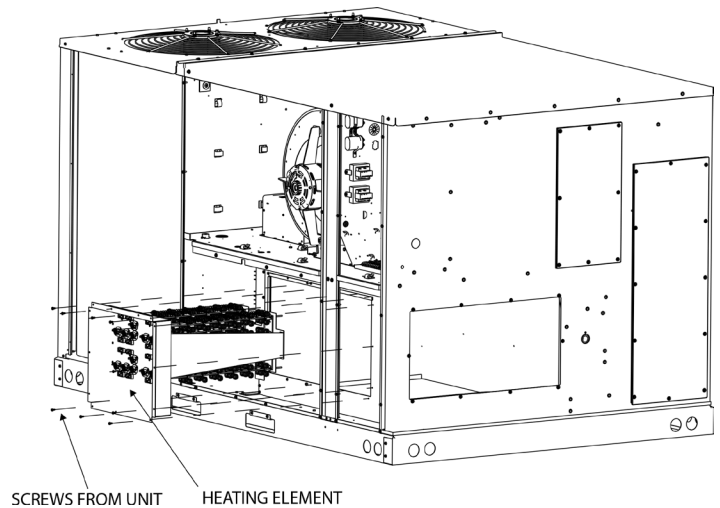


Figure 3

ELECTRIC HEATER KIT

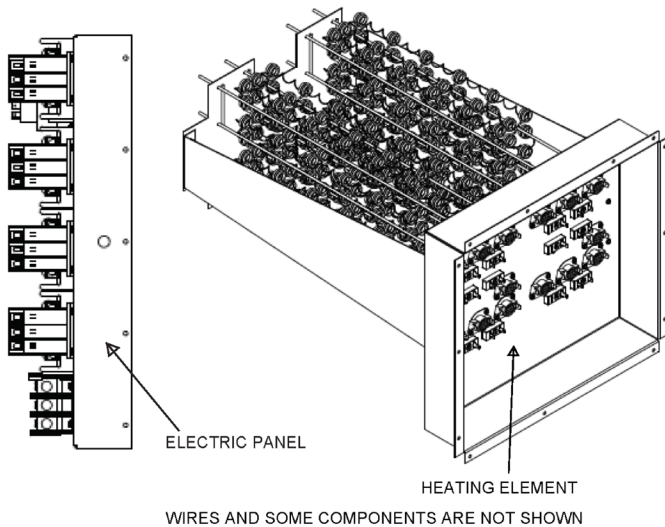


Figure 2

5. Insert heating element part of the heater kit (Figure 2) in the heater box and slide it all the way to the right (Figure 3). Ensure the elements are positioned in the retaining bracket as shown in Figure 4. Install the heater kit using the screws from heater box cover and re-install the left heater cover (small) as shown in Figure 6. It may be necessary to remove the horizontal supply cover to observe the bracket. The right heater box cover can be discarded.
6. Install electric panel (Figure 2) to the left side of the heater box by inserting through the rail (Figure 5) and using 4 screws supplied with the unit (Figure 6).

7. Connect power to kit.
 - Remove power cable from the box.
 - Connect wire leads to the line side of the power block on the heater kit's electrical panel. Connect one wire lead per pole.
 - Route all leads through the blower deck and into the control box as shown in Figure 6.
 - Connect wire leads to the **load side** of the power block in the unit's control box as shown in Figure 7. Connect one wire lead per pole.
 - For **EHSD-3M45, EHXD-3M45, EHSD-3M60** and **EHXD-3M60** kits only:
Connect wire leads to the **line side** of the power block in the unit's control box as shown in Figure 8. Connect one wire lead per pole.

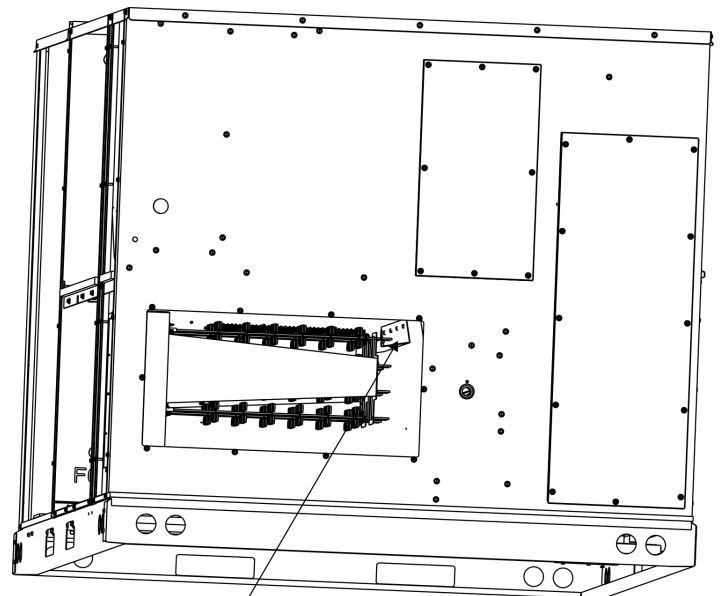


Figure 4

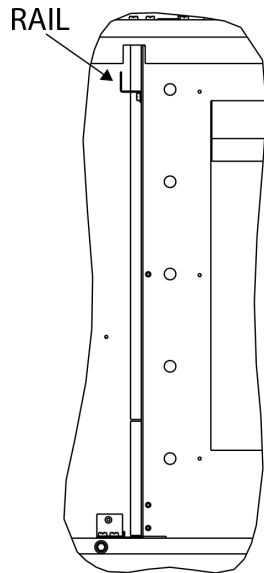


Figure 5

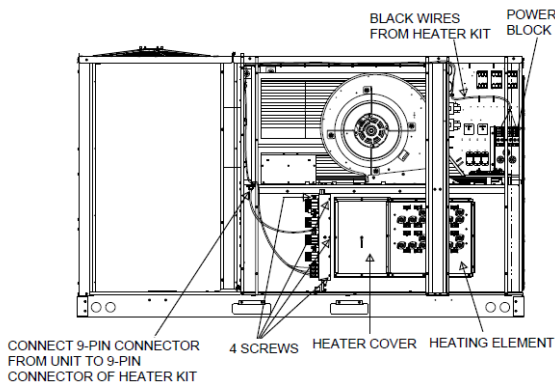


Figure 6

8. Locate 9-pin plug in unit on the left side of the blower deck.
9. Connect the plug to the mating 9-pin plug attached to heater kit (Figure 6).
10. For EHSB and EHSD models, verify that the SCR step controlboard DIP switch settings match the wiring diagram provided with the unit wiring diagram booklet.
11. Install blower door and horizontal supply cover if it was removed.
12. Set up a required airflow - CFM for your unit with electric heater by selecting a proper speed tap. For details see Air

Flow Adjustment chapter in the unit's instruction manual.

- Refer to Air Flow for Electric Heat table on the next page to identify minimum required CFM for your unit with specific heater model.
- Refer to Appendix A - Blower Performance Tables for speed tap selection in the unit's instruction manual.

13. Close control box door.

14. Reconnect power to the unit.

15. Test unit to ensure it is functioning properly.

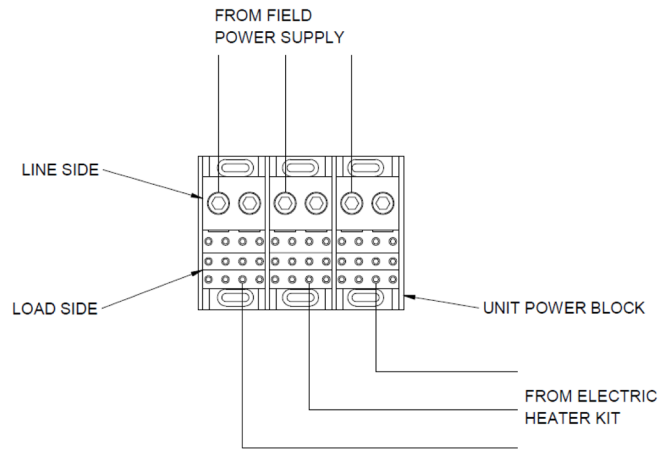


Figure 7

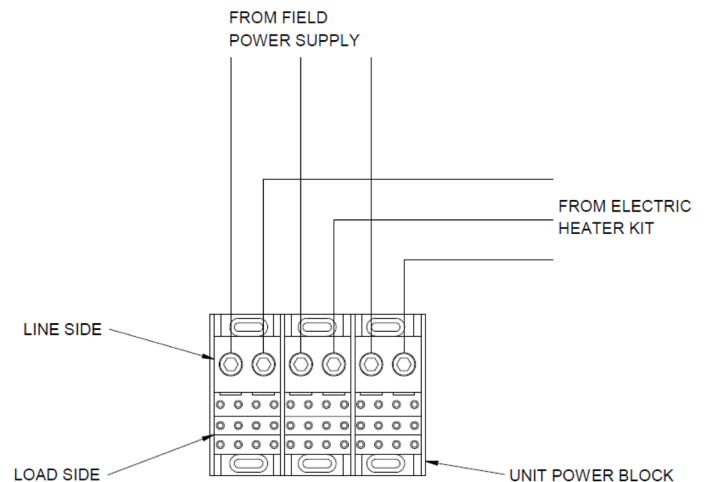


Figure 8

DBC, DBH, & DRC MODELS

AIR FLOW FOR ELECTRIC HEAT

UNITS	HEATER KIT MODEL NUMBER	kW	MINIMUM SCFM
DBC090 & DBH090	EH*B-*M15	15	2400
	EH*B-*M30	30	
	EH*B-*M45	45	
DBC102 & DBH102	EH*B-*M15	15	2750
	EH*B-*M30	30	
	EH*B-*M45	45	
DBC120 & DBH120	EH*B-*M16	15	3250
	EH*B-*M31	30	
	EH*B-*M46	45	
DBC150 & DBH150	EH*B-*M16	15	3750
	EH*B-*M31	30	
	EH*B-*M46	45	
DRC090	EH*D-*M10	10	2500
	EH*D-*M15	15	
	EH*D-*M20	20	
	EH*D-*M30	30	
	EH*D-*M45	45	
DRC102	EH*D-*M10	10	2850
	EH*D-*M15	15	
	EH*D-*M20	20	
	EH*D-*M30	30	
	EH*D-*M45	45	
DRC120	EH*D-*M10	10	3150
	EH*D-*M15	15	
	EH*D-*M20	20	
	EH*D-*M30	30	
	EH*D-*M45	45	
DRC150	EH*D-*M10	10	3750
	EH*D-*M15	15	
	EH*D-*M20	20	
	EH*D-*M30	30	
	EH*D-*M45	45	
	EH*D-*M60	60	

HEATER KIT MODEL NUMBER NOMENCLATURE

	EH	X	D	-	3	M	15
	1	2	3	-	4	5	6, 7
Electric Heater							
Heater Type							
X		Staged					
S		SCR (modulating)					
Drive System							
B		Belt Drive					
D		Direct Drive					
Voltage							
3		208-230/3/60			Three phase 60 Hz		
4		460/3/60			Three phase 60 Hz		
7		575/3/60			Three phase 60 Hz		
Chassis							
M		Medium					
Kilowatt							
10		10 KW					
15		15 KW					
16		15 KW					
20		20 KW					
30		30 KW					
31		30 KW					
45		45 KW					
46		45 KW					
60		60 KW					

DFC, DFH, DSC, & DSH MODELS

AIR FLOW FOR ELECTRIC HEAT

UNIT	HEATER KIT MODEL NUMBER	Kw	MINIMUM CFM	MAXIMUM CFM
7.5 ton	EH*D-*M15	15	2400	4225
	EH*D-*M30	30		
	EH*D-*M45	45		
8.5 ton	EH*D-*M15	15	2750	4425
	EH*D-*M30	30		
	EH*D-*M45	45		
10 ton	EH*D-*M15	15	3200	5275
	EH*D-*M30	30		
	EH*D-*M45	45		
12.5 ton	EH*D-*M15	15	3750	6025
	EH*D-*M30	30		
	EH*D-*M45	45		

HEATER KIT MODEL NUMBER NOMENCLATURE

	EH	X	D	-	3	M	15
	1	2	3	4	5	6, 7	
Electric							
Heater							
X Staged							
S SCR (modulating)							
Drive System							
B Belt Drive							
D Direct Drive							
Voltage							
1 208-230/1/60							Single phase 60 Hz
3 208-230/3/60							Three phase 60 Hz
4 460/3/60							Three phase 60 Hz
7 575/3/60							Three phase 60 Hz
Chassis							
S Small							
M Medium							
L Large							
Kilowatt							
10 10 KW							
15 15 KW							
20 20 KW							
30 30 KW							
45 45 KW							
60 60 KW							

NOTE: ELECTRIC HEAT KIT INSTALLATIONS WHERE LINE VOLTAGE IS GREATER THAN 106% OF NOMINAL MAY REQUIRE ADDITIONAL AIRFLOW TO AVOID NUISANCE TRIPPING OF THE PRIMARY THERMAL LIMITS

MODELS	COOLING MINIMUM SCFM	COOLING MAXIMUM SCFM
DSC/DSH090	2400	4225
DSC/DSH102	2750	4425
DSC/DSH120	3200	5275
DSC150	3750	6025

DHC MODELS

AIR FLOW FOR ELECTRIC HEAT

UNIT	HEATER KIT MODEL NUMBER	kW	MINIMUM CFM	MAXIMUM CFM
7.5 ton	EH*D-*M10	10	2500	3750
	EH*D-*M15	15		
	EH*D-*M20	20		
	EH*D-*M30	30		
	EH*D-*M45	45		
8.5 ton	EH*D-*M10	10	2850	4250
	EH*D-*M15	15		
	EH*D-*M20	20		
	EH*D-*M30	30		
	EH*D-*M45	45		
10 ton	EH*D-*M10	10	3150	5000
	EH*D-*M15	15		
	EH*D-*M20	20		
	EH*D-*M30	30		
	EH*D-*M45	45		
	EH*D-*M60	60		
12.5 ton	EH*D-*M15	15	3750	6250
	EH*D-*M20	20		
	EH*D-*M30	30		
	EH*D-*M45	45		
	EH*D-*M60	60		

HEATER KIT MODEL NUMBER NOMENCLATURE

	EH	X	D	-	3	M	15
	1	2	3	4	5	6, 7	
Electric							
Heater							
X							
S							
Drive System							
B							
D							
Voltage							
1							
3							
4							
7							
Chassis							
S							
M							
L							
Kilowatt							
10							
15							
20							
30							
45							
60							

*NOTE: Electric Heat Kit installations where line voltage is greater than 106% of nominal may require additional airflow to avoid nuisance tripping of the primary thermal limits

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CUSTOMER FEEDBACK

Daikin is very interested in all product comments.

Please fill out the feedback form on the following link:

<https://daikincomfort.com/contact-us>

You can also scan the QR code on the right to be directed to the feedback page.



NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . . **There's No Better Quality.**

Visit our website at www.daikincomfort.com for information on:

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