

ACCESSORY KIT INSTALLATION MANUAL

ELECTRIC HEATER ACCESSORY (6HK SERIES)

FOR USE WITH MODELS: AHR / AHE / AHV / RFCX*E / RFCX*P

GENERAL INFORMATION

WARNING

ELECTRICAL SHOCK HAZARD

Installation or repairs made by unqualified persons can result in hazards to you and others. Installation must conform with local building codes or, in the absence of local codes, with National Electrical Code ANSI/NFPA 70-1996 or current edition.

The information contained in this manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.

Shut OFF electric power at unit disconnect and/or service panel before beginning the following procedures.

Failure to carefully read and follow all instructions in this manual can result in malfunction, property damage, personal injury, and/or death.

Verify edges of foil faced insulation are not in contact with any exposed electrical connections.

These instructions cover the installation of the following electric heater models with AHR, AHE, and AHV single piece air handlers. The 6HK series of electric heat kits use a single polarized plug to easily connect the air handler power and controls.

These electric heat accessories are used for applications of cooling with electric heat and heat pump with electric heat. Each of the air handler unit models are approved for use with specific electric heat accessories. The air handler unit installation instructions or name plate list the possible combinations and other important electrical data and limitations. Refer to unit instructions for further electrical specifications.

CLEARANCE

All installations of the 6HK electric heater kits are approved for zero-clearance to combustibles when the minimum speed tap on the blower motor is set per the air handler installation instruction or nameplate. See air handler installation instructions for more information on changing motor speed taps.

MODELS

TABLE 1: Models Covered

Heater kW @ 240V	1 Phase Heat Kit ^{1,2}	3 Phase Heat Kits
2.4	6HK(0,1)6500206	—
4.8	6HK(0,1)6500506	—
7.7	6HK(0,1)6500806	—
9.6	6HK(0,1)6501006	6HK06501025
12.5	6HK(1,2)6501306	—
14.4	6HK(1,2)6501506	6HK06501525
17.3	6HK(1,2)6501806	6HK06501825
19.2	6HK(1,2)6502006	6HK16502025
24.0	6HK(1,2)6502506	6HK16502525

1. (0,1) - 0 = no circuit breaker OR 1 = with circuit breaker.

2. (1,2) - 1 = with circuit breaker, no breaker jumper bar OR 2 = with circuit breaker & breaker jumper bar.

NOMENCLATURE - ELECTRICAL

6	Product Category	6 = Electric heat for AHR/AHE/AHV/RFCX*E/RFCX*P residential air handlers
HK	Family Identifier	HK = Electric Heater
1	Power Connection	0 = Terminal Block
		1 = Circuit Breaker
		2 = Circuit Breaker & Single Point wiring kit
65	Class Identifier	65 = Electric Heater
002	Electric Heat, Nom. kW	002=2.5kW; 005=5kW; 008=8kW; 010=10kW; 013=13kW; 013=13kW; 015=15kW; 018=18kW; 020=20kW; 025=25kW
25	Voltage Code	06 = 208/230-1-60 25 = 208/230-3-60
B	Style Letter	B = Indicates Sequential Change of Component Style

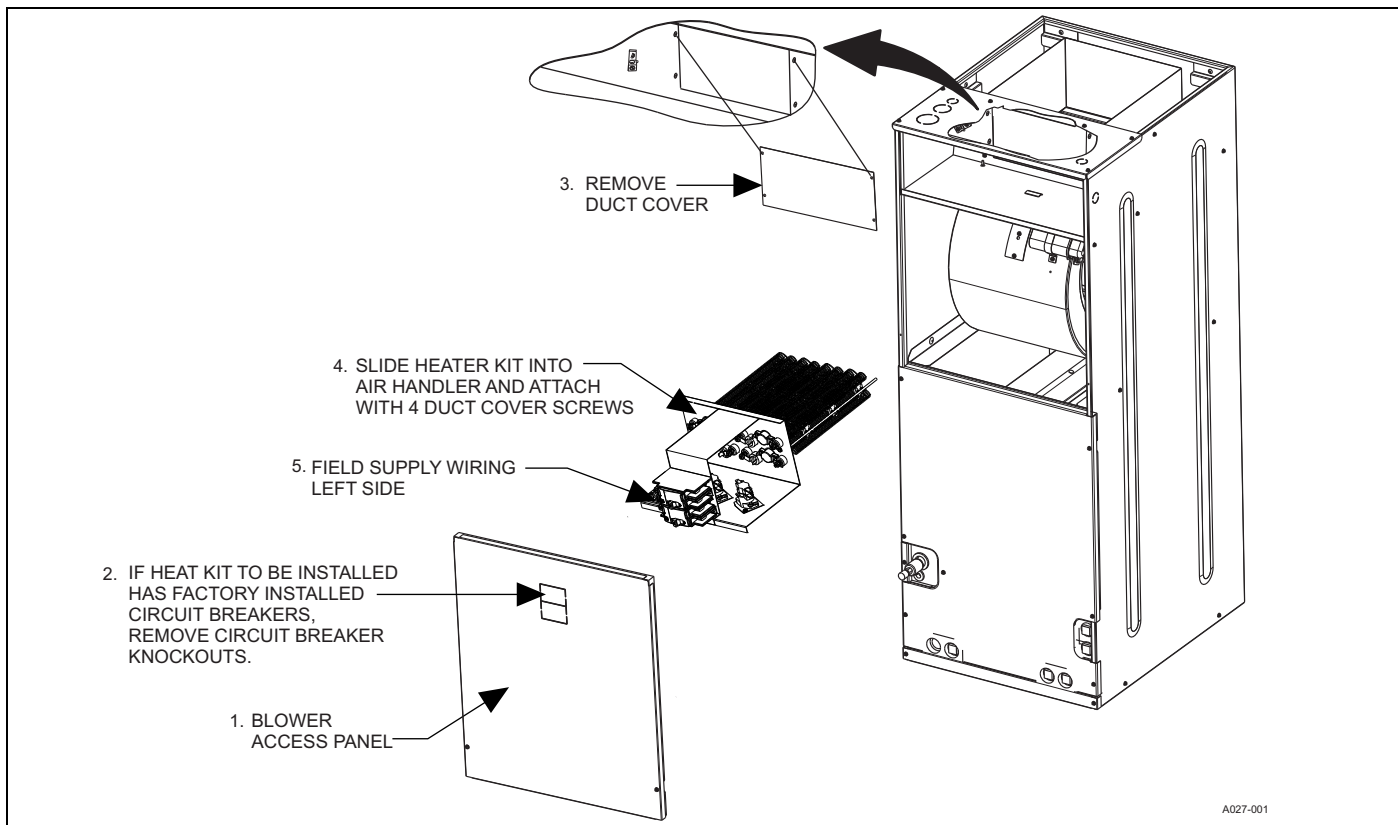


FIGURE 1: Heater Installation

INSTALLATION

Installation is the same for all Rev B model air handler operating positions: upflow, downflow, and horizontal right or left. Only the Rev B model air handler will work on the downflow position. Installation of the Heater Kit should be done prior to unit installation in accordance with Table 2. Refer to figure 1 for depiction of components.

1. Remove air handler blower access panel.
2. If Heat Kit has circuit breakers (if heat kit does not contain circuit breakers, skip to step 3):
 - a. Examine the heat kit and take note of the number of circuit breakers it has. Remove the appropriate number of circuit breaker knockouts from front of air handler unit.
 - b. Cut blower access panel insulation behind the circuit breaker plate and remove to open the area for the circuit breakers to protrude through the front access panel and to provide clearance for circuit breakers and single point wiring entry kit.
 - c. Replacement non-foil faced insulation for the exposed front panel may then need to be added. Add rubber gasket to inside of door for sealing.
3. Remove and recycle the duct cover from back panel of air handler control and wiring compartment.
4. Install electric heat accessory.
 - a. Position and insert heat kit into opening in air handler.

- b. Align mount holes and fasten the Heat Kit to the air handler unit with 4 duct cover screws.

CAUTION

To prevent damage, carefully pass the accessory heating element through the rectangular opening in the discharge duct. Element mounting plate must be secured with 4 screws.

5. Remove and discard the air handler power connection wiring that is for use without electric heat (the connector containing only the red and black wires) from the 6 pin connector.
6. Connect the heat kit's 6 pin socket connector to the control/power 6 pin connector in the air handler. The end terminals are "D" shaped to ensure polarization of the connector.
7. Mark an X in the appropriate box on the indoor unit rating plate for the particular heater installed.
8. Refer to the unit rating plate for the minimum blower speed required for the model heat kit installed.

WARNING

Verify edges of foil faced insulation are not in contact with any exposed electrical connections.

TABLE 2: Heat Kit and Air Handler Compatibility

	Heat Kit Model and Revision	Heat Kit Description	Air Handler Compatibility		
			Rev A Air Handler Upflow / Horizontal	Rev B Air Handler Upflow / Horizontal	Rev B Air Handler Downflow
1 PH	6HK06500206	Heat kits with terminal blocks or 1 circuit breaker	YES	YES	YES
	6HK06500506				
	6HK06500806				
	6HK06501006				
	6HK16500206				
	6HK16500506				
	6HK16500806				
	6HK16501006				
	6HK16501306	Early version heat kits with 2 or 3 circuit breakers	YES	YES	NO
	6HK16501506				
	6HK16501806				
	6HK16502006				
	6HK16502506				
	6HK26501306				
	6HK26501506				
	6HK26501806				
	6HK26502006	Revision B heat kits with 2 or 3 circuit breakers	YES	YES	YES
	6HK26502506				
	6HK16501306B				
	6HK16501506B				
	6HK16501806B				
	6HK16502006B				
	6HK16502506B				
	6HK26501306B				
3 PH	6HK06501025	Heat kits with terminal blocks	YES	YES	YES
	6HK06501525				
	6HK06501825				
	6HK16502025	Early version heat kits with 2 breakers	YES	YES	NO
	6HK16502525				
	6HK16502025B	Revision B heat kits with 2 breakers	YES	YES	YES
	6HK16502525B				

NOTICE

All wiring must comply with local and National Electrical Code requirements. Read and heed all unit caution labels.

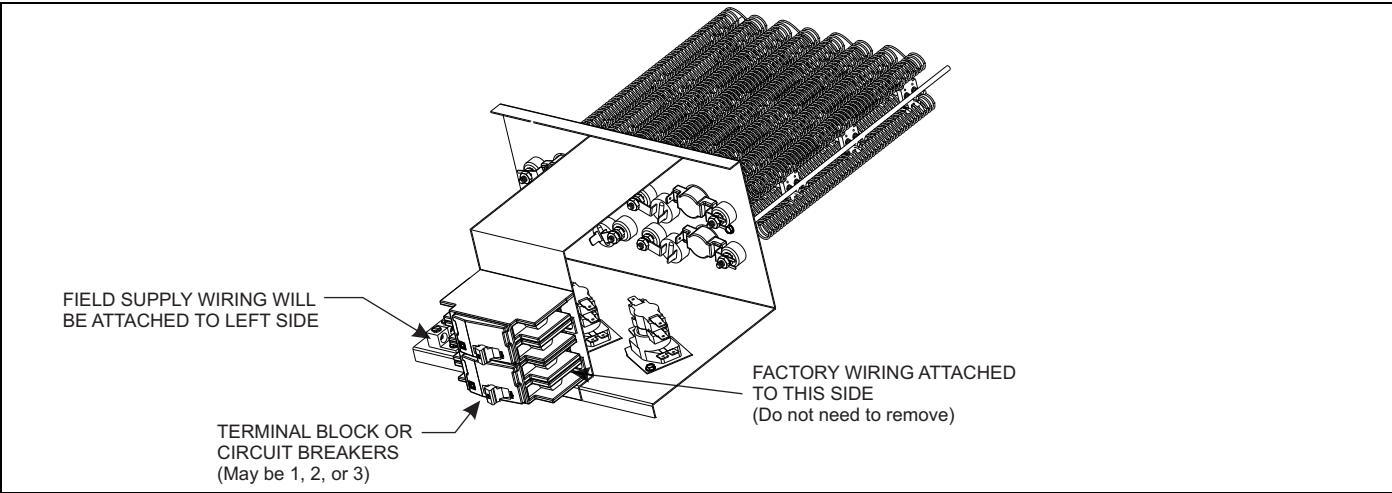


FIGURE 2: Heat Kit Connection

LINE POWER CONNECTIONS

Power may be brought into the unit through the outlet air end of the unit (top left when unit is vertical) or the left side panel. To minimize air leakage, seal the field wiring entry point.

Field wiring connects to heat kits with circuit breaker or terminal block depending on the heat kit model. The multiple circuit, single phase heater kits have options for a single power supply. For the 3 phase 20kW and 25kW kits with multiple circuits, a single point power accessory kit may be ordered separately. A ground lug is also provided on the kits. Refer to unit instructions for electrical specifications.

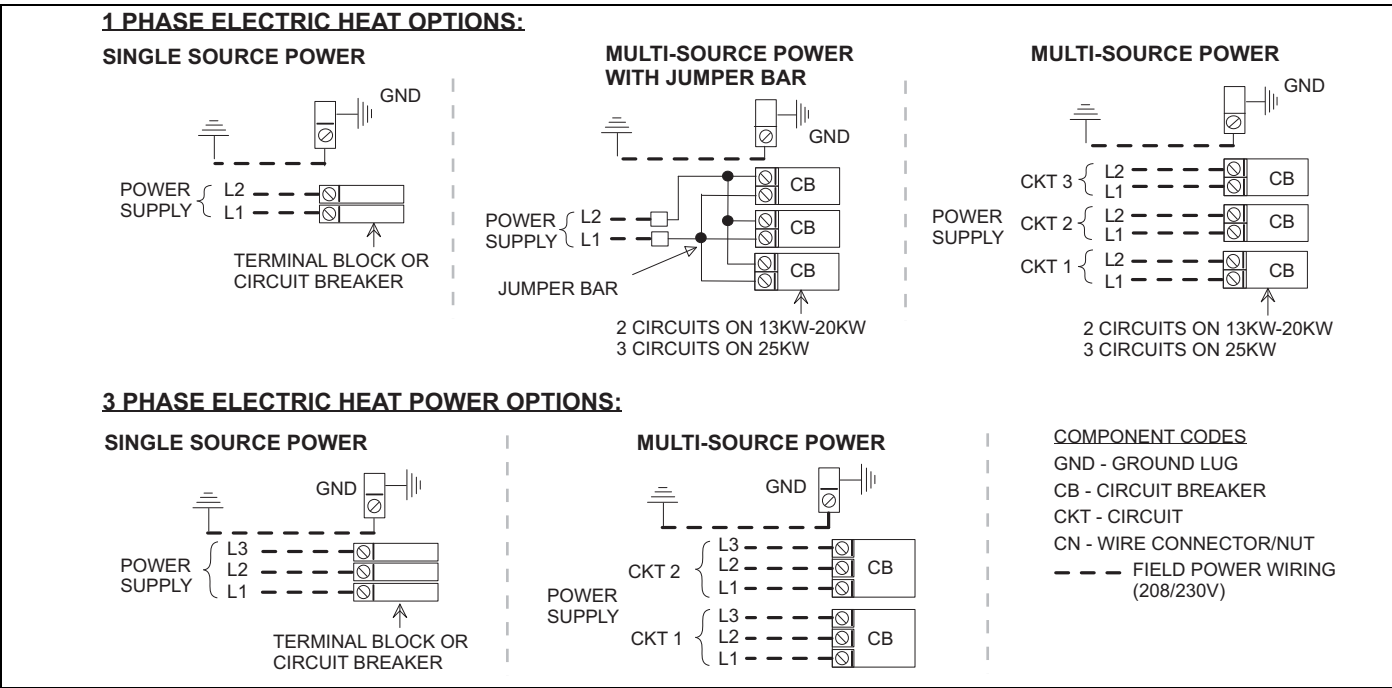


FIGURE 3: Supply Power Connection

ELECTRIC HEATERS & OPERATING CONTROLS

NOTICE

For blower speed connections, electrical information and wiring diagrams, see indoor unit installation instructions.

NOTICE

The electric heaters have both auto resettable and one shot thermal limit controls.

If failure occurs, this one shot thermal limit control must be replaced with a direct replacement.

LOW VOLTAGE CONTROL CONNECTIONS

The low voltage transformer and the fan control are standard on all models.

NOTICE

All wiring must comply with local and national electrical code requirements. Read and heed all unit caution labels.

The 24 volt power supply is provided by an internally wired low voltage transformer which is standard on all air handler models. Field supplied low voltage wiring can exit the unit on the top right hand corner or the right hand side panel. Refer to Figure 1. Remove desired knockout and pierce foil faced insulation to allow wiring to pass through. Use as smallest hole possible to minimize air leakage. Install a 7/8" plastic bushing in the selected hole and keep low voltage wiring as short as possible inside the control box. To further minimize air leakage, seal the wiring entry point at the outside of the unit. The field wiring is to be connected at the screw terminals of the control board.

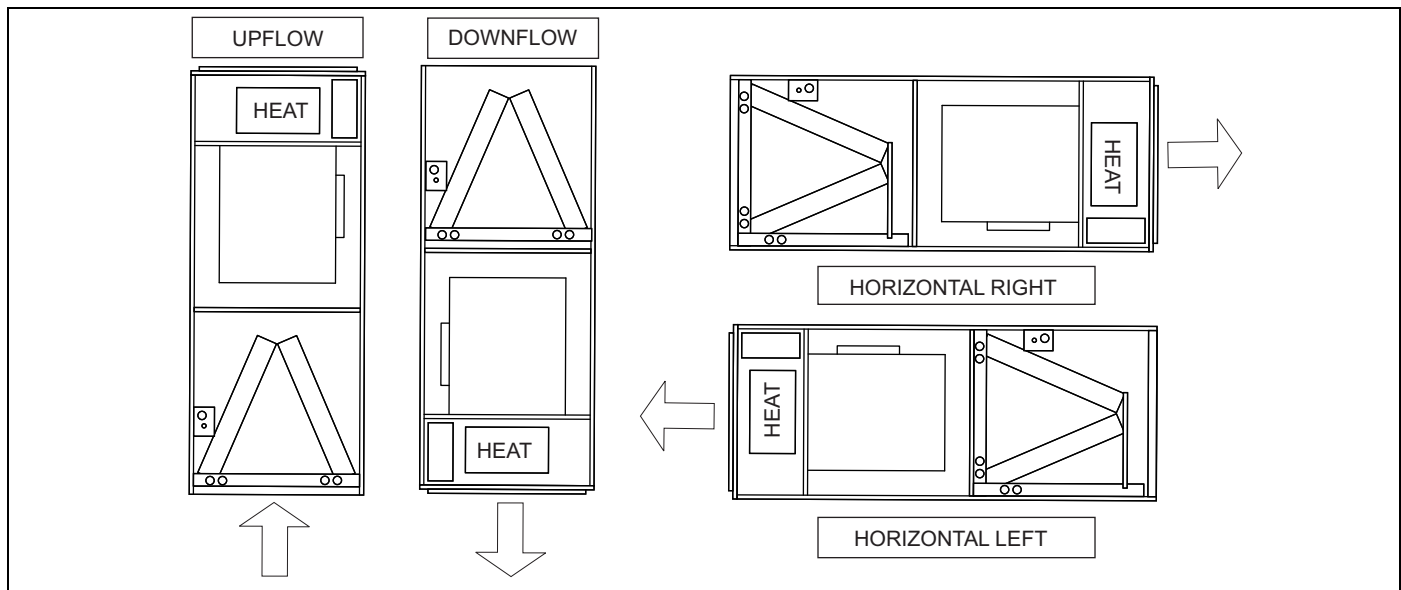


FIGURE 4: Typical Installed Application

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