

ACCESSORY KIT INSTALLATION INSTRUCTIONS

Retrofit kits 2HR04700401, 402, 403 and 404

For Retrofit of Generation 1 Electric Heat Kits on Generation 2 Split-System R-410A Air Handling Units

GENERAL

This instruction covers the retrofit of Gen.1 Electric Heater Kits for use on Gen. 2 Air handling units. Refer to Table 1 for correct kit required.

INSTALLATION

1 23/32" Holes located near the outer edge of Generation 1 heater cabinet control box will not align with knockouts in outer edge of Generation 2 air handler roof. Additional holes, (1 on 7 ½ and 10 ton, 2 on 20 ton and none required on 15 Ton), will have to be made in the heater cabinet to align with knockouts in air handler roof.

FOR SPLIT SYSTEM AIR CONDITIONERS AND SPLIT-SYSTEM HEAT PUMPS 7-1/2, 10, 15 & 20 TONS

1. Remove knockouts from air handler roof.
2. Place electric heat cabinet on roof of air handling unit. Align mounting holes in heater cabinet flanges with dimples in air handler roof.
3. With the front panel of the air handler removed, insert a marker up through the knockout, or knockouts, in the air handler roof and mark the location on the bottom of the heater cabinet (See Figure 1).
4. Remove the heater cabinet from air handler roof and add a 1 23/32" hole at marked location on heater cabinet base.
5. Install 3/4" strain relief fitting in the center hole of the heater cabinet (See Figure 2).
6. Install foam gasket provided in kit to bottom flange of heater cabinet (See Figure 2).
7. Set heater cabinet on top of air handling unit as in Step 2.
8. Position the heater over the blower opening so that:
 - a. The ¾" strain relief on the bottom of the heater control box fits into the 1 23/32" knockout in the center of the roof panel.
 - b. The holes in the electric heater flanges align with the dimples on the top of the air handling unit.
9. Using the 17" long, 1 1/4" dia. conduit assembly (15 and 20 Ton use 21" conduit assembly), insert threaded end of 90° ell conduit fitting through 1 23/32" knockout in roof panel and 1 23/32" opening in control box of the heater. Thread nut on fitting loosely to retain fitting in place until heater assembly can be fastened to air handler roof.
10. Secure the heater to the unit at the holes aligned in the previous step using 12 drill screws provided with the accessory.
11. Tighten locknut on 90° ell conduit fitting.
12. Insert the other 90° conduit fitting into side of air handler control box. Secure fitting in control box by tightening the locknut.
13. Connect wires from conduit attached at heater control box to fuse or breaker per heater wiring diagram.
14. Install terminal block TB1, relay EHR1 and if required relay EHR2 in the air handling unit control box at locations noted in Figure 3.
15. Install current sensing relay board as shown in Figure 4.
16. Connect wires from conduit attached at the air handler control box to terminal block TB1 per heater wiring diagram. All red wires must be routed through the current sensing loop at the relay as shown in Figure 4.
17. Connect line voltage wires (from field installed disconnect) to terminals L1, L2 and L3 of terminal block TB1 per heater wiring diagram.
18. Route the control voltage wires of the heater accessory through the ¾" strain relief in bottom of the electric heater to and through the ¾" strain relief on the left side of the air handler control box. Connect control wires provided in the kit to air handler and electric heat control boxes as indicated on the electric heater wiring diagram. Secure wires to conduit with tie warps provided in kit.
19. Replace the control box access panels removed from the heater cabinet.
20. Affix correct Electric Heat wiring diagram from kit over old existing wiring diagram of the electric heater.
21. Replace control box access panel removed from air handling unit.
22. Install properly sized duct work.

▲ CAUTION

Fan motor will run for a few seconds when disconnect is first closed, due to an inrush of current being sensed by the relay.



FIGURE 1 - HOLE LOCATION

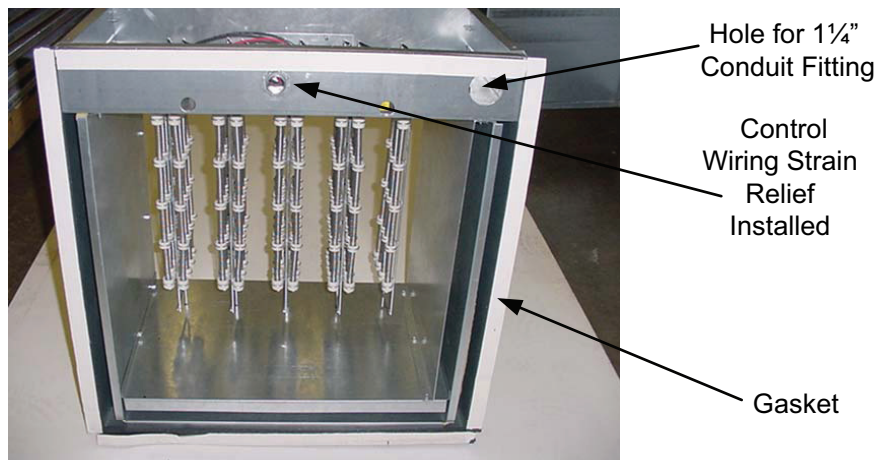


FIGURE 2 - BOTTOM OF HEATER CABINET

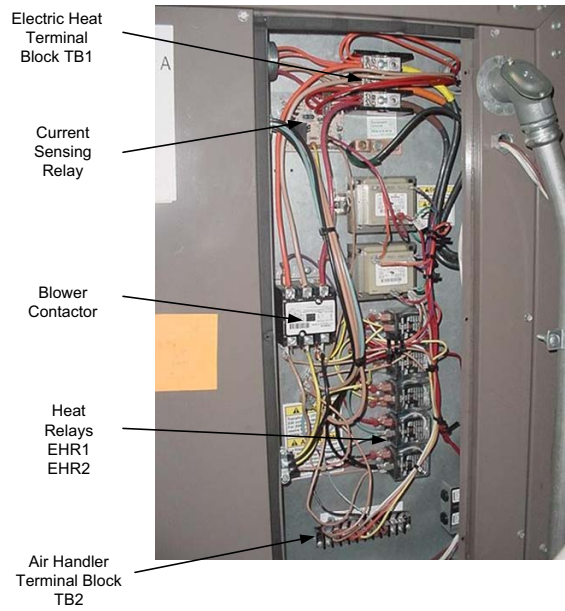


FIGURE 3 - AIR HANDLER CONTROL BOX

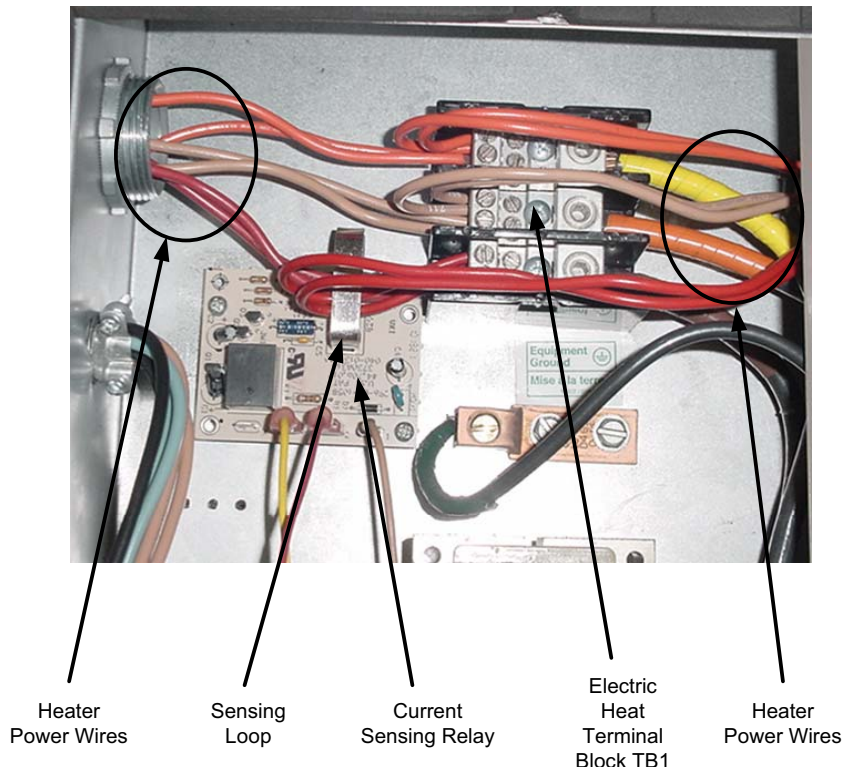


FIGURE 4 - CURRENT SENSING RELAY

Table 1: ELECTRIC HEATER CROSS REFERENCE

AIR HANDLER PRODUCT IDENTIFIER	VOLTAGE	DESCRIPTION	SECOND GENERATION ELECTRIC HEAT KIT MODELS	FIRST GENERATION ELECTRIC HEAT KIT MODELS	KIT REQUIRED TO APPLY GEN 1 HEATER ON A GEN 2 AHU
Generation 2 NC090 NH-07 J07NC	230	10KW Electric Heat Kit	2HJ04601025	2HJ04501025	2HR04700401
		16KW Electric Heat Kit	2HJ04601625	2HJ04501625	
		26KW Electric Heat Kit	2HJ04602625	2HJ04502625	
		36KW Electric Heat Kit	2HJ04603625	2HJ04503625	
	460	10KW Electric Heat Kit	2HJ04601046	2HJ04501046	
		16KW Electric Heat Kit	2HJ04601646	2HJ04501646	
		26KW Electric Heat Kit	2HJ04602646	2HJ04502646	
		36KW Electric Heat Kit	2HJ04603646	2HJ04503646	
Generation 2 NC/ND120 NH/NJ-10 J10NC/ND	230	10KW Electric Heat Kit	2HJ04601025	2HJ04501025	2HR04700401
		16KW Electric Heat Kit	2HJ04601625	2HJ04501625	
		26KW Electric Heat Kit	2HJ04602625	2HJ04502625	
		36KW Electric Heat Kit	2HJ04603625	2HJ04503625	
	460	10KW Electric Heat Kit	2HJ04601046	2HJ04501046	
		16KW Electric Heat Kit	2HJ04601646	2HJ04501646	
		26KW Electric Heat Kit	2HJ04602646	2HJ04502646	
		36KW Electric Heat Kit	2HJ04603646	2HJ04503646	
Generation 2 NC/ND180 NH/NJ-15 J15NC/ND	230	10KW Electric Heat Kit	2HN04501025	2HH04501025	2HR04700402
		16KW Electric Heat Kit	2HN04501625	2HH04501625	
		26KW Electric Heat Kit	2HN04502625	2HH04502625	
		36KW Electric Heat Kit	2HN04503625	2HH04503625	
		50 KW Electric Heat Kit	2HN04505025	2HH04505025	
	460	10KW Electric Heat Kit	2HN04501046	2HH04501046	
		16KW Electric Heat Kit	2HN04501646	2HH04501646	
		26KW Electric Heat Kit	2HN04502646	2HH04502646	
		36 KW Electric Heat Kit	2HN04503646	2HH04503646	
		50KW Electric Heat Kit	2HN04505046	2HH04505046	
Generation 2 NC/ND240 NH/HJ-20 J20NC/ND	230	20KW Electric Heat Kit	2HN04502025	2HH04502025	2HR04700403
		32KW Electric Heat Kit	2HN04503225	2HH04503225	2HR04700404
		52KW Electric Heat Kit	2HN04505225	2HH04505225	
	460	20KW Electric Heat Kit	2HN04502046	2HH04502046	2HR04700403
		32KW Electric Heat Kit	2HN04503246	2HH04503246	
		52KW Electric Heat Kit	2HN04505246	2HH04505246	2HR04700404

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Supersedes: Nothing