

# ACCESSORY KIT INSTALLATION INSTRUCTIONS

## GAS HEAT KIT FOR -60°F OPERATION KIT MODELS 2BC04700106, 2BC04700151 and 2BC04700154 FOR SINGLE PACKAGE AIR CONDITIONERS 6.5 THRU 12.5 TONS MODELS DM, DL, J\*\*DM, DF, DS, J\*\*DF, DH, DU, J\*\*DH, DJ, DW, J\*\*DJ, DR, DK, J\*\*DR, ZH, ZU, J\*\*ZH, ZR, ZK and J\*\*ZR

This kit is designed for installations which require gas heat units to perform in low ambient temperatures down to -60°F.

Kit # 2BC04700106		
Component	Part Number	Qty
Strip Heater	026-37446-000	1
Limit 37T21 L20-30F	025-37374-000	1
Limit 37T21 L40-10F	025-37373-000	1
Limit 37T22 F00-20F	025-37376-000	1
Fuse Holder	025-37371-000	2
Fuse	025-37372-000	2
Wire 12" Blue	AE012BLU1L1L006	1
Wire 96" Blue	AE096BLU1L1L007	1
Wire 12" Brown	AE012BRN1L1L008	1
Wire 96" Brown	AE096BRN1L1L009	1
Wire Tie	025-10138-000	20
Washer	021-01136-000	3
Screw	021-14765-000	7
Bracket	073-24057-000	1
Snap Ring	025-14284-000	1
Wiring Diagram	393334	1
Instruction	035-18216-000	1
Packaging	330-30223-000	1
Wire Nut	025-08946-000	6

Kit # 2BC04700151		
Component	Part Number	Qty
Strip Heater	026-37446-000	1
Limit 37T21 L20-30F	025-37374-000	1
Limit 37T21 L40-10F	025-37373-000	1
Limit 37T22 F00-20F	025-37376-000	1
Fuse Holder	025-37371-000	2
Fuse	025-37372-000	2
Wire 12" Blue	AE012BLU1L1L006	2
Wire 96" Blue	AE096BLU1L1L007	1
Wire 12" Brown	AE012BRN1L1L008	2
Wire 96" Brown	AE096BRN1L1L009	1
Wire Tie	025-10138-000	20
Washer	021-01136-000	3
Screw	021-14765-000	12
Bracket	073-24057-000	1
Snap Ring	025-14284-000	1
Wiring Diagram	393334	1
Instruction	035-18216-000	1
Transformer	025-37375-000	1
Packaging	330-30223-000	1
Wire Nut	025-08946-000	12

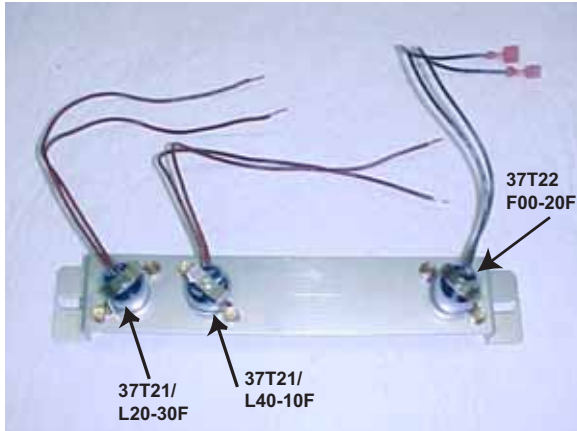
Kit # 2BC04700154		
Component	Part Number	Qty
Strip Heater	026-37446-000	1
Limit 37T21 L20-30F	025-37374-000	1
Limit 37T21 L40-10F	025-37373-000	1
Limit 37T22 F00-20F	025-37376-000	1
Fuse Holder	025-37371-000	2
Fuse	025-37372-000	2
Wire 12" Blue	AE012BLU1L1L006	2
Wire 96" Blue	AE096BLU1L1L007	1
Wire 12" Brown	AE012BRN1L1L008	2
Wire 96" Brown	AE096BRN1L1L009	1
Wire Tie	025-10138-000	20
Washer	021-01136-000	3
Screw	021-14765-000	12
Bracket	073-24057-000	1
Snap Ring	025-14284-000	1
Wiring Diagram	393334	1
Instruction	035-18216-000	1
Transformer	025-37375-000	1
Packaging	330-30223-000	1
Wire Nut	025-08946-000	12

### WARNING

Improper installation, adjustment, service or maintenance can cause injury or property damage. Therefore, only a qualified installer or qualified service personnel should perform this conversion.

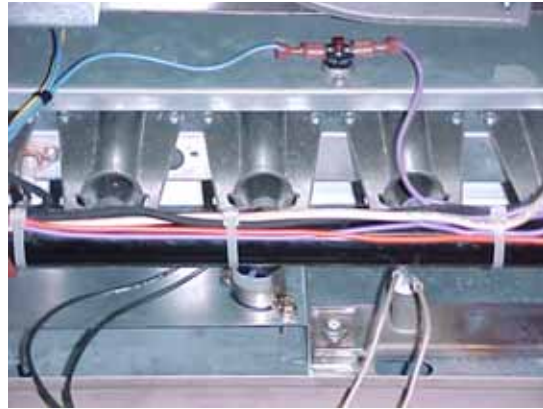


1. Disconnect all electrical power to the unit.
2. Open the doors to the gas heat, blower, compressor and control panel sections of the unit.
3. Assemble the 3 limits to the limit mounting bracket as shown. From left to right on the photo, the limits must be mounted in this order; 37T21 L20-30F, 37T21 L40-10F, and 37T22 F00-20F. These numbers can be found on the sides of the limits.

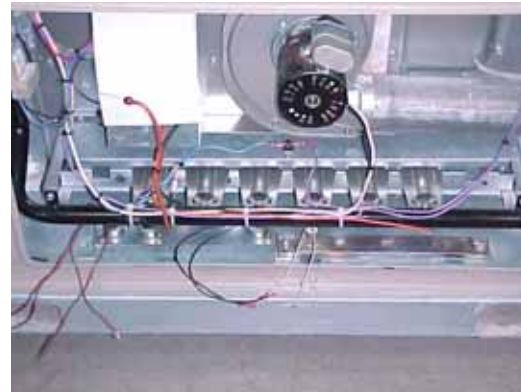


**FIGURE 1 - Limit Bracket Assembly**

4. Locate the three screws in the bottom of the gas heat section. Remove the screws and use the two rightmost screws to mount the strip heater and the two leftmost screws to mount the limit bracket. (The middle screw is used for mounting both). (See Fig. 2 "Bracket Heater Common Hole" on page 2) Orient the heater so that the lead wires are to the left end of the heater. Be sure to use the lock washers provided in the kit. The screws should not be drawn up overly tight because the strip heater must be free to expand.

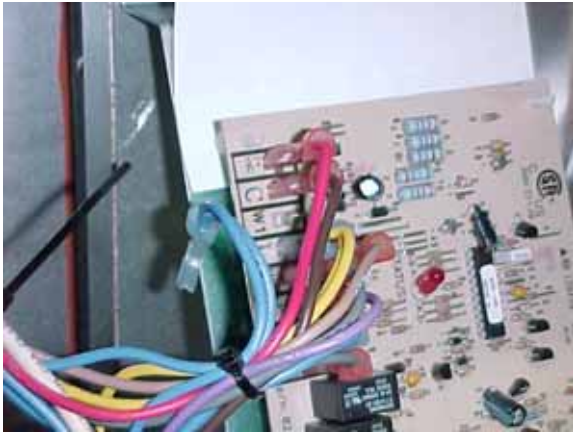


**FIGURE 2 - Bracket Heater Common Hole**



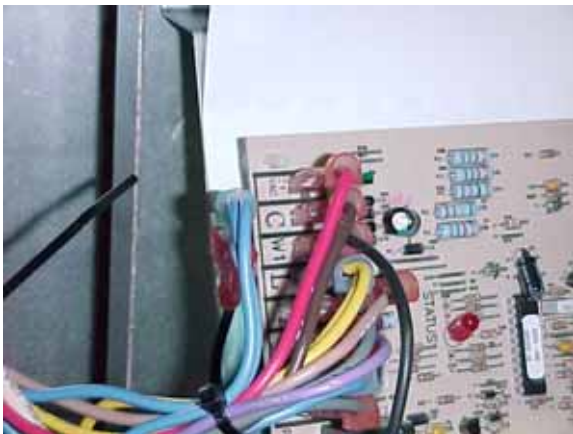
**FIGURE 3 - Heater & Bracket Installed**

5. Locate the ignition control board in the upper left area of the gas heat section, to the right of the gas valve. Find the pin labeled W1 and disconnect. Connect one side of the 37T22 limit to the blue wire that was disconnected from W1 and connect the other side of the 37T22 limit to the W1 pin. (See Fig. 4 "W-1 Pin Location" on page 3.



**FIGURE 4 - W-1 Pin Location**

**NOTE:** Refer to the Included Wiring Schematic throughout the remainder of the instructions.



**FIGURE 5 - W-1 Pin Reconnected**

6. Connect one lead from each of the two 37T21 limits to the strip heater using the wire nuts provided.
7. Connect the other lead from each of the 37T21 limits to the 96" wires included in the kit.



**FIGURE 6 - All Connections**

8. Loosen the screws and remove the electrical insulation tubing from the strain relief bushing in the lower left corner of the blower section. (See Fig. 8 "Blower Section Wiring" on page 4).
9. Run the 96" wires through the strain relief bushing into the blower section. See Fig. 7 "Wiring from Gas Section Going to Blower Section" on page 3).



**FIGURE 7 - Wiring from Gas Section Going to Blower Section**

10. Remove the knockout at the upper left corner of the blower section. Use the knockout closest to the wall and right next to the control wiring.
11. Install the snap bushing in the knockout hole.
12. Run the 96" accessory wires (one at a time) up through the snap bushing into the raceway, then through the raceway from the blower section into the compressor section. Follow the same path as the existing wire bundle through the foam tape insulation to avoid damaging the foam tape. (See Fig. 9 "Wire through Raceway from Blower Section to Compressor Section" on page 4).



**FIGURE 8 - Blower Section Wiring**



**FIGURE 9 - Wire through Raceway from Blower Section to Compressor Section**

13. Pull the wire across the compressor compartment, through the knockout in the upper corner of the control panel and into the control box. Follow the same path as the control wiring over the filters making sure that the wires do not interfere with the removal/insertion of the filters. Make sure no slack is left in the blower section of the unit. Loose wire in the blower compartment could get

caught in the belt. (See Fig. 8 "Blower Section Wiring" on page 4).



**FIGURE 10 - Compressor Section Wiring**

14. Rewrap the electrical insulation tubing around all of the wires in the blower section in between the strain relief bushing and the wiring.

**NOTE:** The tubing is meant to protect the wiring from damage due to clamping in the strain relief bushing.

15. Clamp the electrical insulation tubing in the mouth of the strain relief bushing and tighten the strain relief bushing on the tubing.

16. Install the fuses in the inline fuseholders. (See Fig. 11 "Fuseholder Assembly" on page 4).

**NOTE:** For 480V and 575V kits, skip to step #19. For 240V kits continue with step #17.



**FIGURE 11 - Fuseholder Assembly**

17. Crimp the 96" wires in the load side of the inline fuseholders. Look carefully at the fuseholders and make sure that the fuseholders are oriented properly. (See Fig. 12 "Fuse Closeup" on page 5). Crimp the 12" wires included in the kit, in the line side of the fuseholders.



**FIGURE 12 - Fuse Closeup**

18. Connect the other end of the 12" wires to L1 and L2 of the terminal block (TB1) on lower right corner of the control panel. (See Fig. 13 "Terminal Block (TB1)" on page 5). The 12" wires may have to be added to lugs that are already in use if there aren't any empty lugs. Skip to step #23.



**FIGURE 13 - Terminal Block (TB1)**

19. Locate the hole in the control panel that is approximately 1" below the 3 amp breaker. Use this hole as the upper right mounting hole for the transformer. The remaining mounting holes will line up with the 3 remaining mounting slots in the transformer. (See Fig. 14 "Transformer" on page 5).

**NOTE:** In some units the two leftmost mounting holes will not exist. If this is the case, the screws included in the kit can be used to self drill the two necessary holes.



**FIGURE 14 - Transformer**

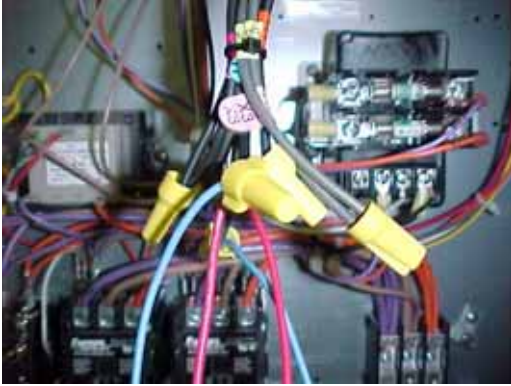
20. Crimp the 96" wires in the load side of the inline fuseholders. Look carefully at the fuseholders and make sure that the fuseholders are oriented properly (See "Fuse Closeup" on page 5). Crimp a 12" wire in the other side of each fuseholder. See Wiring Diagram for correct wire locations.



**FIGURE 15 - Fuse Closeup**

21. Connect the remaining two 12" wires to L1 and L2 of the terminal block. (See Fig. 13 "Terminal Block (TB1)" on page 5). The 12" wires may have to be added to lugs that are already in use if there aren't any empty lugs.

22. Connect the 12" wires from the terminal block and the wires from the fuseholders (which continue on to the heater) to the transformer according to the wiring diagram included in the kit. Use the wire nuts provided in the kit. The transformer leads are clearly labeled with tabs identifying X1, H1, etc. Use wire tie(s) to bundle the transformer wiring once all of the connections have been made. (See Figure 16 "Transformer Wire Bundle" on page 6).



**FIGURE 16 - Transformer Wire Bundle**



**FIGURE 17 - Control Box View**

23. Secure the fuse holders to the compressor wire bundle located below and to the left of the terminal block using the wire ties provided.
24. Tie any loose wires together in the compressor section. The wires can be tied to the control wiring bundle that runs through the compressor section.
25. Secure the wires in the blower section to the control wire bundle. Be sure to clip any extra length of the wire ties to avoid the ties getting caught in the belt/pulley. Also, make sure that there are no loose wires in the blower section that may get caught in the belt/pulley.
26. Tie the kit wiring in the gas heat section to the manifold on the side opposite of the burner orifices. The wires **must not** interfere with the burner orifices. Secure the wires from the 37T22 limit that run to the control board so that they do not interfere with the burner orifices as well.
27. Verify that all connections in the kit are secure.
28. Sign and date the CSA certification label that is included in the kit.
29. Affix the certification label and the wiring diagram to the inside of the control box door.
30. Close and secure all unit doors.
31. Reconnect the power to the unit.



