INSTALLATION INSTRUCTION

REFRIGERANT SAFETY KIT MODEL 2PK04700824

Supersedes: Nothing | 530.46-N1.11V (995)

035-13205

FOR SINGLE PACKAGE GAS/ELECTRIC, ELECTRIC/ELECTRIC AIR CONDITIONERS AND SINGLE PACKAGE HEAT PUMPS

GENERAL

This information is intended for the installation of a high pressure switch, a low pressure switch and a freeze stat switch. The installation instructions supplied with the appliance are to be used for all other aspects of the installation.

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.

INSPECTION

The following list details the parts included in this kit. Inspect the kit to ensure that all listed parts are included.

CONTENTS OF KIT

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	025-17620-014	High Pressure Switch (HP)
2	1	025-30249-000	Low Pressure Switch (LP)
3	1	325-27727-025	Freeze Stat Switch (FS)
4	1	035-13205-000	Accessory Instruction Form
5	1	AB004YEL7157800	Wire, 800/YEL [not used on heat pumps applications]
6	1	AB024BLU7157801	Wire, 801/BLU [not used on heat pumps applications]
7	1	AB024BLK7171802	Wire, 802/BLK
8	1	AB030BLU7171805	Wire, 805/BLU
9	1	024-24116-000	Relay (LR) [not used on heat pumps applications]
10	2	021-15513-000	Screw, Pan Head,#6 x ½" lg.
11	1	010-04468-000	Pipe Insulation
12	3	025-30717-000	Cable Strap (small - for wires)
13	1	025-30805-000	Cable Strap (double - for freeze stat)
14	2	025-27642-000	Cable Strap (large - for insulation around freeze stat)

TOOLS REQUIRED FOR INSTALLATION

The following list details the tools needed to install this kit. These tools are not supplied with this kit and must be supplied at time of installation.

ITEM	QTY.	DESCRIPTION
1	1	Hex Nut Driver, 5/16"
2	1	Open End Wrench, 11/16"
3	1	Open End Wrench, 9/16"
4	1	Open End Wrench, 7/16"
5	1	Joint Pliers

INSTALLATION

WARNING: Make sure both the gas and electric power are shut-off. Failure to disconnect the electric power could result in electrical shock or severe injury from the outdoor fan.

1. Disconnect power to the unit.
2. Use the 5/16 inch nut driver to remove the control access panel and the condenser panel from the unit.
3. Use the 9/16 inch wrench to remove the Schrader access valve caps from the high and low pressure Schrader access valves. Save for later use.
4. Use the 11/16 inch wrench to remove the hex nuts securing the high and low pressure Schrader access valves. Save the hex nuts for later use.
5. Carefully push the Schrader access valves into the unit and bend the ¼ inch tubes back about 2 inches. Avoid bending the tube near the braze joints or crimping the tubes. The pressure switches will be attached to the Schrader access valves.
6. Identify the high pressure switch by the 025-17620-014 part number printed on the switch. Both the high and low pressure switches look alike, so carefully identify each switch. Connect the high pressure switch to the high pressure Schrader access valve and tighten using the 9/16 inch and 7/16 inch wrenches. Insert the high pressure switch in the top hole on the front of the unit.
7. Identify the low pressure switch by the 025-30249-000 part number printed on the switch. Connect the low pressure switch to the low pressure Schrader access valve and tighten using the 9/16 inch and 7/16 inch wrenches. Insert the switch in the bottom hole on the front of the unit.
8. Secure both pressure switches to the cabinet with the 11/16 inch hex nuts removed in step #4. Use the 7/16 inch wrench as a back-up and tighten the nuts with the 11/16 inch wrench.
9. Check the connection between the pressure switches and the Schrader access valve for leaks.
10. Using the double cable strap, secure the freeze stat to the suction line as close to the indoor coil as possible.
11. Insulate the freeze stat with the pipe insulation, and secure the insulation with large cable straps.

NOTE: *For gas\electric and electric/electric unit applications continue to Step 12, however, for heat pump unit applications go to Step 23.*

GAS/ELECTRIC AND ELECTRIC/ELECTRIC UNIT WIRING

12. Use the two #6 screws to install the lock out relay in the control compartment. Holes are provided in the partition. Locate the relay with the terminals facing out. See unit wiring diagram for relay location.

13. Use the pliers to remove the strain relief from the partition that separates the control compartment from the condenser section.

14. Wire 800/YEL (Supplied with kit): Connect the piggy-back to LR-7 and the other end to LR-A. See Figure 1.

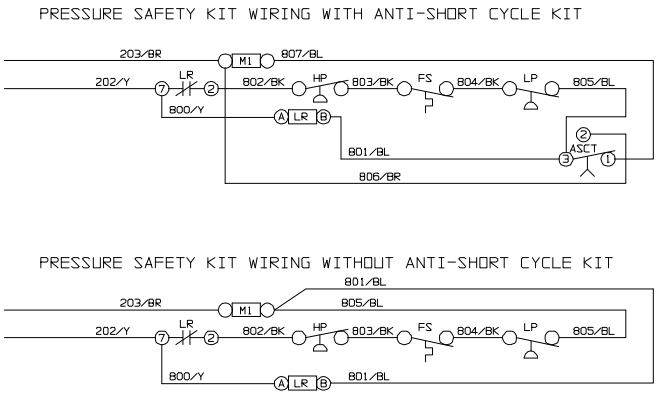

FIGURE 1 - GAS/ELECTRIC AND ELECTRIC/ELECTRIC UNIT PRESSURE SAFETY KIT WIRING DIAGRAM

15. Wire 202/YEL (Existing wire in unit): Remove 202/YEL from contactor coil M1-A and connect it to the piggy-back on LR-7. See Figure 1.

16. Wire 801/BLU (Supplied with kit): Connect the ¼ inch straight quick connect end to LR-B. If an anti-short-cycle timer is installed, connect the piggy-back end to ASCT-3. If no anti-short-cycle timer is present, connect the piggy back end to M1-A (where 202/YEL used to be). See Figure 1.

17. Wire 802/BLK (Supplied with kit): Connect the un-insulated end to LR-2. Route the insulated end through the hole in the condenser partition and connect to the high pressure switch. See Figure 1.

18. Wire 803/BLK (Connected to the freeze stat): Connect wire 803/BLK to the high pressure switch. See Figure 1.

19. Wire 804/BLK (Connected to the freeze stat): Connect wire 804/BLK to the low pressure switch. See Figure 1.

20. Wire 805/BLU (Supplied with kit): Connect the insulated terminal on wire 805/BLU to the low pressure switch. Route the wire through the condenser partition into the control compartment. If an anti-short-cycle timer is installed, connect 805/BLU to 801/BLU on ASCT-3. If no anti-short-cycle timer is present, connect 805/BLU to 801/BLU on M1-A. See Figure 1.

21. Replace the strain relief in the condenser partition.

22. Use the small cable ties to secure and bundle the new wiring to insure that no wires can be damaged by the condenser fan.

HEAT PUMP UNIT WIRING

23. Use the pliers to remove the strain relief from the partition that separates the control compartment from the condenser section.

24. Disconnect and discard wire 219/BK from the unit. See Figure 2.

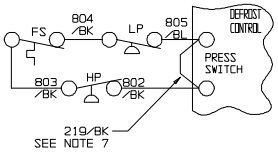

FIGURE 2 - HEAT PUMP UNITS PRESSURE SAFETY KIT WIRING DIAGRAM

25. Wire 802/BLK (Supplied with kit): Connect the un-insulated end to the defrost control "pressure switch" terminal. Route the insulated end through the hole in the condenser partition and connect to the high pressure switch. See Figure 2.

26. Wire 803/BLK (Connected to the freeze stat): Connect wire 803/BLK to the high pressure switch. See Figure 2.

27. Wire 804/BLK (Connected to the freeze stat): Connect wire 804/BLK to the low pressure switch. See Figure 2.

28. Wire 805/BLU (Supplied with kit): Connect the insulated terminal on wire 805/BLU to the low pressure switch. Route the un-insulated end through the condenser partition into the control compartment and connect to the defrost control "pressure switch" terminal.

29. Replace the strain relief in the condenser partition.

30. Use the small cable ties to secure and bundle the new wiring to prevent it from touching hot copper tubing or sheet metal edges.

OPERATION CHECK

1. Replace the condenser panel on the unit.

2. Connect refrigerant gauges to the Schrader access valves.

3. Disconnect the black the outdoor fan motor wire from contactor M1-T1 on A/C units or from the defrost control on heat pump units.

4. Connect the power supply and run the unit in the cooling mode. Be prepared to shut the compressor off quickly.

5. Without the outdoor fan motor running, the head pressure will rise past the 380 psig cutout pressure and the unit should lock-out. If the pressure rises above 420 psig, shut the compressor off immediately and disconnect power to the unit. Make sure the high pressure switch is on the discharge line and verify the wiring with the wiring diagram.

6. After the unit has successfully locked out, disconnect the power to the unit. Replace the black outdoor fan motor wire on M1-T1 on A/C units or from the defrost control on heat pump units.

7. Replace the control access panel, and restore power to the unit.

8. With the unit running in the cooling mode, make sure the outdoor fan operates properly. Disconnect the refrigerant gauges and replace the schrader valve caps. Tighten the caps with the 9/16 inch wrench.

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