Installation Instructions
Low Ambient Control (R-410A) Kit # ALA14CU0A1

SAFETY REQUIREMENTS

These instructions apply to the PGX3, PAX3, PDX3, PHX3, PGX4, PAX4, PDX4, and PHX4 package units Low Ambient Control Kit procedures only. This accessory is used when unit operation is required during low ambient conditions. Installation of this control provides a means of de-energizing the condenser fan motor. This permits the suction pressure (low side) to remain above the point which can cause icing of the evaporator (inside the coil).

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury, or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory--authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing. Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Use quenching cloth for brazing operations. Have fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements. Recognize safety information. This is the safety--alert symbol!! When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand these signal words; DANGER, WARNING, and CAUTION. These words are used with the safety--alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies hazards which could result in personal injury or death. CAUTION is used to identify unsafe practices which would result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

SERVICE PARTS LIST

QTY	DESCRIPTION
1	Pressure Switch (Fast P/N 1176654)
1	Dual Check Valve
1	Splice Connector
1	Instructions

⚠ WARNING

EXPLOSION, ENVIRONMENTAL SAFETY HAZARD

Failure to follow this warning could result in personal injury, death or equipment damage.

This system uses R-410A refrigerant which has higher operating pressures than R-22 and other refrigerants. No other refrigerant may be used in this system. Gauge set, hoses, and recovery system must be designed to handle R-410A. If you are unsure, consult the equipment manufacturer.

⚠ CAUTION

CUT HAZARD

Failure to follow this warning may result in personal injury.

Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing and gloves when handling parts.

⚠ WARNING

EXPLOSION, ENVIRONMENTAL SAFETY HAZARD

Failure to follow this warning could result in personal injury or death.

Before performing service or maintenance operations on the system, turn off main power to unit and install lockout tag.

Attaching Low Ambient Control Switch (All units).

1. Shut OFF electric power to unit at unit disconnect and/or service panel.
2. Remove compressor service panel.
3. Take the cap off the Compressor Discharge Line Access Port and save the cap (Fig. 1) (The Compressor Discharge Line Access Port may be oriented vertically or horizontally)
4. Take the Dual Check Valve (swivel "T") and screw it on the Low Ambient Pressure switch (Fig. 2)
5. Put the cap on the other port.
6. Install the assembly on the access port.
7. After the switch is installed in the compressor compartment, route the wires into the control box.

NOTE - Inspect the Dual Check Valve (swivel "T") to ensure the male connectors (fittings) have the cores in them.

Figure 1 Compressor Discharge Line Acess Port

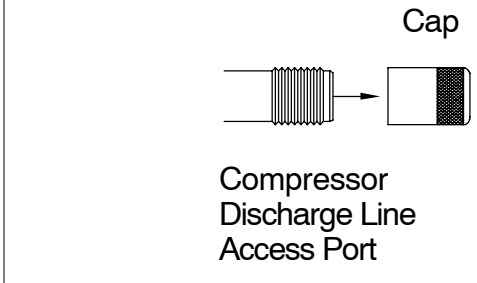
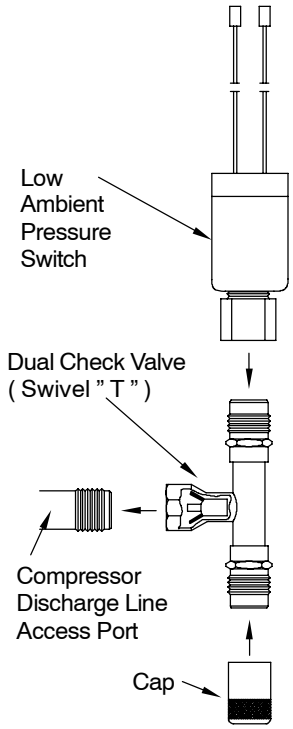


Figure 2 Low Ambient Pressure Switch Installation



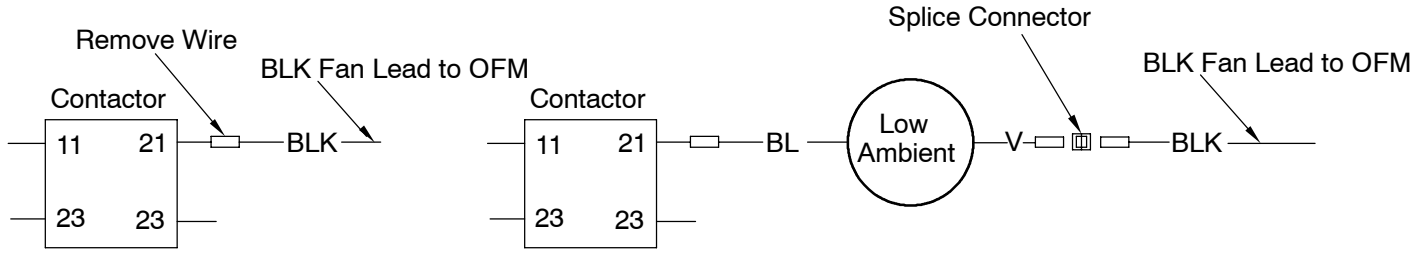
Wiring for PAX3 (K,H,L), PGX3 (K,H,L), PAX4 (K), and PGX4 (K) (Figure 3)

1. Shut OFF electric power to unit at unit disconnect and/or service panel.
2. Remove the black fan lead from the 21 connector on the contactor.
3. Attach the blue wire (female) from the low ambient control to the 21 connection on the contactor.
4. Attach the Violet lead (female) from the low ambient control and the female connector on the black fan wire removed from 21 of the contactor to the Connector Wire.
5. Once the Kit is installed use wire ties to dress the wires so they follow the current wire bundle.

LEGEND for Figures 3, 4, 5

K = 208/230-1-60 V
H = 208/230-3-60 V
L = 460-3-60 V

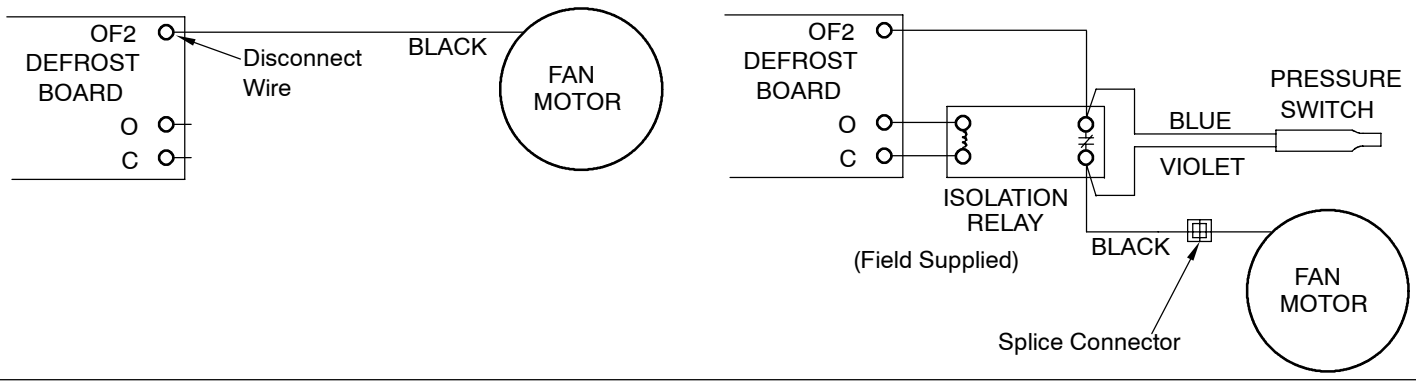
Figure 3 **Wiring for PAX3 (K,H,L), PGX3 (K,H,L), PAX4 (K), and PGX4 (K)**



Wiring for PHX3 (K,H), PDX3 (K), and PHX4 (K) (Figure 4)

1. Shut OFF electric power to unit at unit disconnect and/or service panel.
2. Remove the black fan lead from the defrost board terminal OF2 and reconnect it to the NC terminal of the isolation relay, which is field supplied.
3. Connect the violet lead from the low ambient pressure switch to the same NC terminal of the isolation relay.
4. Connect a wire from the defrost board terminal OF2 to the other NC terminal of isolation relay.
5. Connect the blue lead from the low ambient pressure switch to the same NC terminal of the isolation relay.
6. Once the Kit is installed use wire ties to dress the wires so they follow the current wire bundle.
7. Connect the coil of the isolation relay to terminals O and C on the defrost board.

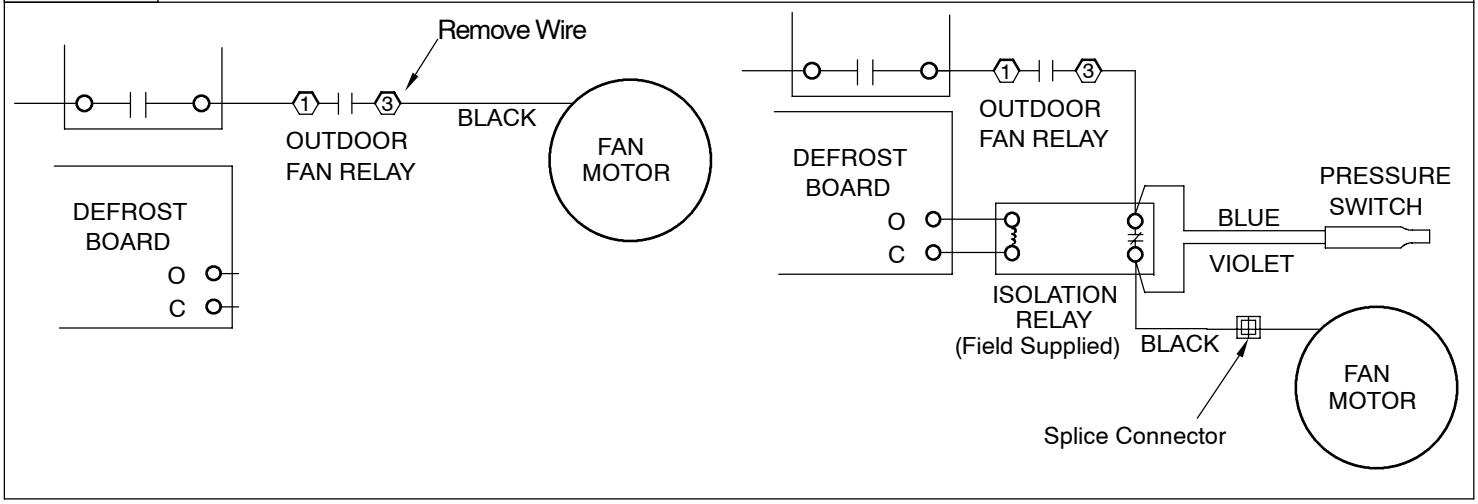
Figure 4 **Wiring for PHX3 (K,H), PDX3 (K), and PHX4 (K)**



Wiring for PHX3 (L) (Figure 5)

1. Shut OFF electric power to unit at unit disconnect and/or service panel.
2. Remove the black fan lead from the outdoor fan relay terminal number 3 and reconnect it to the NC terminal of the isolation relay, which is field supplied.
3. Connect the violet lead from the low ambient pressure switch to the same NC terminal of the isolation relay.
4. Connect a wire from the outdoor fan relay terminal number 3 to the other NC terminal of isolation relay.
5. Connect the blue lead from the low ambient pressure switch to the same NC terminal of the isolation relay.
6. Once the Kit is installed use wire ties to dress the wires so they follow the current wire bundle.
7. Connect the coil of the isolation relay to terminals O and C on the defrost board.

Figure 5 **Wiring for PHX3 (L)**



Unit Operational Check

1. Restore power and check for proper operation.
2. Outdoor fan cycles off when discharge pressure drops below 200 ± 10 psig.
3. Outdoor fan cycles on when discharge pressure rises above 365 ± 10 psig.