# INSTALLATION INSTRUCTIONS LOCKOUT PROTECTION MODULE KIT RXRX-AL01 7.5, 10.0-TON RXRX-AL02 12.5, 15.0 & 20-TON GAS, ELECTRIC & SELF-CONTAINED PACKAGED UNIT

Recognize this symbol as an indication of Important Safety Information!

Parts List	RXRX-AL01		RXRX-AL02	
Description	Part Number	Quantity	Part Number	Quantity
WIRE NUT	45-18058-01	1	45-18058-01	2
ANTI CYCLE DELAY CONTROL	47-104319-01	1	AS-104325-01	1
HIGH PRESSURE CONTROL	47-102290-01	1	47-102290-01	2
SCREW-SHEET METAL 6-20 X 3/4	63-22153-07	4	63-22153-07	4
WIRE TIE	64-17606-01	1	64-17606-01	1
ADAPTER TEE	83-21457-02	1	83-21457-02	2
INSTALLATION INSTRUCTIONS	92-104323-01	1	92-104323-01	1
WIRING DIAGRAM	90-104329-01	1	90-104329-02	1
WIRE HARNESS	AS-104330-01	1	AS-104330-03	1
WIRE HARNESS	AS-104330-02	1	AS-104330-04	1

# **WARNING**

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS KIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION, ADJUSTMENT, OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE, POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

# **A**WARNING

BEFORE BEGINNING ANY MODIFICATION, BE SURE MAIN DISCONNECT SWITCH IS IN THE "OFF" POSITION. FAIL-URE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. TAG DISCONNECT WITH A SUITABLE WARN-ING LABEL.

# TOOLS/SUPPLIES REQUIRED

- a. 1/4" nut driver.
- b. wire cutters/stripper.
- c. handheld voltmeter/ohmmeter.
- d. electrical tape.
- e. 9/16" open end wrench
- f. 7/16" open end wrench
- g. power drill.

# GAS, ELECTRIC AND SELF-CONTAINED UNITS <u>RXRX-AL01 INSTALLATION</u> <u>7.5 AND 10.0-TON</u>

# **1. HIGH PRESSURE SWITCH INSTALLATION**

- a. Shut off power to unit (see warning above).
- b. Remove blower compartment access panel.
- c. Remove brass cap from Schrader valve located on liquid line (see Figure 1) that is normally used for the low ambient control accessory. If a low ambient control accessory is already installed, it must be removed first.
- d. Using the 9/16" open end wrench, assemble the High Pressure Control to the Adapter Fitting that does not have a valve core. Always "backup" the fitting when tightening using the 7/16" open end wrench. Attach pressure control/adapter fitting onto liquid line access fitting and torque to 8-10 ft./lbs. (see Figure 1) using the same wrenches and technique.
- e. If a low ambient control accessory is used, install it next using the same torque settings.





# 2. SWITCH ELECTRICAL CONNECTIONS

- a. Route wires on the new auto-reset refrigerant high pressure switch toward the unit control box by placing them across the wire trough over the indoor coil. The indoor top panel may need to be partially lifted by removing fasteners to complete this step. The two-pin connector (Plug 22) on Figure 4 must be visible in the control box of the unit when finished.
- b. Remove the existing manual reset refrigerant high pressure switch from the electrical circuit by cutting the wire leads to the original switch and connecting the wire leads still in the circuit together with a wire nut. **DANGER: The remaining** steps must be completed to provide overpressure protection!!!
- c. Use electrical tape over the wirenut to secure and provide moisture protection.
- d. Secure loose wires with wire tie.
- e. Replace blower compartment access cover.

#### 3. ANTI-CYCLE DELAY CONTROL INSTALLATION

- a. Shut off power to unit (see warning above).
- b. Remove control box access panel.
- c. Remove control box cover.
- d. Remove control shelf (see Figure 2).
- e. Drill holes (see Figure 2) and install new control board on control shelf with included fasteners.
- f. Reinstall control shelf.



## 4. CONTROL WIRING CONNECTIONS

a. Using the wire harnesses provided with the kit, make the electrical connections as shown on the wiring diagram.

1. Remove the yellow 24 volt wire from the compressor contactor coil (CC1) and attach it to the input "Y" on the Anti-Cycle Delay Control.

2. Connect the purple wire from PL8 to CC1 coil where the yellow wire was removed in the previous step (see Figure 4).

- b. Replace control box cover.
- c. Paste included Anti-Cycle Delay Control wiring diagram on control box cover near the unit wiring diagram.
- d. Replace control box access panel.
- e. Restore power to unit and check for proper operation.

# GAS, ELECTRIC AND SELF-CONTAINED UNITS <u>RXRX-AL02 INSTALLATION</u> <u>12.5-TON</u>

#### 1. INSTALLATION OF HIGH PRESSURE SWITCHES

- a. Shut off power to unit (see warning above).
- b. Remove blower compartment access panel.
- c. Remove brass cap from Schrader valve located on refrigerant circuit #1 liquid line (see Figure 1) that is normally used for the low ambient control accessory. If the low ambient control is already installed, it must be removed first.
- d. Using the 9/16" open end wrench, assemble the High Pressure Control to the Adapter Fitting that does not have a valve core. Always "backup" the fitting when tightening using the 7/16" open end wrench. Attach pressure control/adapter fitting onto liquid line access fitting and torque to 8-10 ft./lbs. (see Figure 1) using the same wrenches and technique.
- e. If a low ambient control accessory is used, install it next using the same torque settings.
- f. Repeat steps "c" through "e" above for refrigerant circuit #2 liquid line.

## 2. SWITCH ELECTRICAL CONNECTIONS

- a. Route wires on the new auto-reset refrigerant high pressure switches toward the unit control box by placing them across the wire trough over the indoor coil. The indoor top panel may need to be partially lifted by removing fasteners to complete this step. The two-pin connectors (Plug 22 & Plug 23) on Figure 5 must be visible in the control box of the unit when finished.
- b. Remove the existing manual reset refrigerant high pressure switches from the electrical circuit by first cutting the wire leads for refrigerant circuit #1 and connecting the wire leads still in the circuit together with a wire nut. Repeat for refrigerant circuit #2. **DANGER: The remaining steps must be completed to provide overpressure protection!!!**
- c. Use electrical tape over the wire nuts to secure and provide moisture protection.
- d. Secure loose wires with wire tie.
- e. Replace blower compartment access cover.

## 3. ANTI-CYCLE DELAY CONTROL INSTALLATION

- a. Shut off power to unit (see warning above).
- b. Remove control box access panel.
- c. Remove control box cover.
- d. Remove control shelf (see Figure 2).
- e. Remove control boards from control board assembly without disturbing attached wiring.
- f. Discard sheet metal base from control board assembly.
- g. Drill holes (see Figure 2) and install two new control boards on control shelf with included fasteners.
- h. Reinstall control shelf.

## 4. CONTROL WIRING CONNECTIONS

a. Using the wire harnesses provided with the kit, make the electrical connections as shown on the wiring diagram.

1. Remove the yellow 24 volt wire from the compressor contactor coil (CC1) and attach it to the input "Y" on the Anti-Cycle Delay Control.

2. Connect the purple wire from PL8 to CC1 coil where the yellow wire was removed in the previous step (see ACD1 on Figure 5). The orange 24 volt wire that originally went to the compressor contactor (CC2) is now the input "Y" to the second stage Anti-Cycle Delay Control (ACD2) board.

- b. Verify Plug 20 & Plug 22 are connected to the refrigerant high pressure switch on refrigerant circuit #1.
- c. Verify Plug 21 & Plug 23 are connected to the refrigerant high pressure switch on refrigerant circuit #2.
- d. Replace control box cover.
- e. Paste included Anti-Cycle Delay Control wiring diagram on control box cover near the unit wiring diagram.
- f. Replace control box access panel.
- g. Restore power to unit and check for proper operation.

# GAS, ELECTRIC AND SELF-CONTAINED UNITS <u>RXRX-AL02 INSTALLATION</u> <u>15.0 AND 20.0-TON</u>

#### **1. HIGH PRESSURE SWITCH INSTALLATION**

- a. Shut off power to unit (see warning above).
- b. Open blower compartment access door.
- c. Remove brass cap from Schrader valve located on refrigerant circuit #1 liquid line (see Figure 1) that is normally used for the low ambient control accessory. If the low ambient control is already installed, it must be removed first.
- d. Using the 9/16" open end wrench, assemble the High Pressure Control to the Adapter Fitting that does not have a valve core. Always "backup" the fitting when tightening using the 7/16" open end wrench. Attach pressure control/adapter fitting onto liquid line access fitting and torque to 8-10 ft./lbs. (see Figure 1) using the same wrenches and technique.
- e. If a low ambient control accessory is used, install it next using the same torque settings.
- f. Repeat steps "c" through "e" above for refrigerant circuit #2 liquid line.

# 2. SWITCH ELECTRICAL CONNECTIONS

- a. Route wires on the new auto-reset refrigerant high pressure switches toward the unit control box by placing them across the wire trough over the indoor coil. The indoor top panel may need to be partially lifted by removing fasteners to complete this step. The two-pin connectors (Plug 22 & Plug 23) on Figure 5 must be visible in the control box of the unit when finished.
- b. Secure loose wires with wire ties.
- c. Close blower compartment access door and secure with fasteners.
- d. Remove the front and the rear compressor access panels.
- e. Remove the existing manual reset refrigerant high pressure switches from the electrical circuit by first cutting the wire leads for refrigerant circuit #1 and connecting the wire leads still in the circuit together with a wire nut. Repeat for refrigerant circuit #2. DANGER: The remaining steps must be completed to provide overpressure protection!!!
- f. Use electrical tape over the wirenuts to secure and provide moisture protection.
- g. Reinstall the front and rear compressor access panels.

#### 3. ANTI-CYCLE DELAY CONTROL INSTALLATION

- a. Shut off power to unit (see warning above).
- b. Open control box access door by removing fasteners.
- c. Remove control box cover.
- d. Install control board assembly above existing IFC control (see Figure 3) with included fasteners.

# 4. CONTROL WIRING CONNECTIONS

a. Using the wire harnesses provided with the kit, make the electrical connections as shown on the wiring diagram.

1. Remove the yellow 24 volt wire from the compressor contactor coil (CC1) and attach it to the input "Y" on the Anti-Cycle Delay Control.

2. Connect the purple wire from PL8 to CC1 coil where the yellow wire was removed in the previous step (see ACD1 on Figure 5). The orange 24 volt wire that originally went to the compressor contactor (CC2) is now the input "Y" to the second stage Anti-Cycle Delay Control (ACD2) board.

- b. Verify Plug 20 & Plug 22 are connected to the refrigerant high pressure switch on refrigerant circuit #1.
- c. Verify Plug 21 & Plug 23 are connected to the refrigerant high pressure switch on refrigerant circuit #2.
- d. Replace control box cover.
- e. Paste included Anti-Cycle Delay Control wiring diagram on control box cover near the unit wiring diagram.
- f. Close control box access door and install fasteners.
- g. Restore power to unit and check for proper operation.





