Installation Instructions
Part No. WINST001A00, WINST002A00

SAFETY CONSIDERATIONS

Installing, starting up, and servicing air-conditioning equipment can be hazardous due to system pressures, electrical components, and equipment location.

Only trained, qualified installers and service mechanics should install, start up, and service this equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils. All other operations should be performed by trained service personnel.

When working on the equipment, observe precautions in the literature and on tags, stickers, and labels attached to the equipment.

• Follow all safety codes.
• Wear safety glasses and work gloves.
• Use care in handling and installing this accessory.

Table 1 — Package Contents

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NUMBER</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Start Timer</td>
<td>HK25SZ025</td>
<td>1</td>
</tr>
<tr>
<td>Wiring Diagram Label</td>
<td>053-00867</td>
<td>1</td>
</tr>
<tr>
<td>Brown Wire Marked 900</td>
<td>CA04ZBN1111#900</td>
<td>1</td>
</tr>
<tr>
<td>White Wire Marked 901</td>
<td>CA05WH1150#901</td>
<td>1</td>
</tr>
<tr>
<td>Yellow Wire Marked 902</td>
<td>CA120YEL1150#902</td>
<td>1</td>
</tr>
<tr>
<td>Yellow Wire Marked 903</td>
<td>CA05YEL1150#903</td>
<td>1</td>
</tr>
<tr>
<td>Packet of No. 8 Screws</td>
<td>109655</td>
<td>1</td>
</tr>
</tbody>
</table>

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<th>PART NUMBER</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Start Timer</td>
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<tr>
<td>Wiring Diagram Label</td>
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<tr>
<td>Brown Wire Marked 900</td>
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<tr>
<td>White Wire Marked 901</td>
<td>CA05WH1150#901</td>
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<tr>
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<td>109655</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2 — Package Usage

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PART NUMBER</th>
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</thead>
<tbody>
<tr>
<td>50XCA06,08 or 50XCR06,08</td>
<td>WINST001A00</td>
</tr>
<tr>
<td>50XCA12-24 or 50XCR12-24</td>
<td>WINST002A00</td>
</tr>
</tbody>
</table>

INSTALLATION

Before beginning installation of this kit, be sure all power to the unit is disconnected, and that tags are properly placed to alert others. Electrical shock can cause personal injury and death.

Do not interconnect stage 1 and stage 2 winter start kits. Failure to maintain separation will result in erratic unit operation and possible compressor/coil damage.

NOTE: The winter start kit contains wires designed for the largest unit in the series, so there may be excess wire. Coil any excess wire and secure this to the control panel or unit to prevent damage during unit operation/service.

1. Disconnect and lock out unit power.
2. Open the control box and compressor access doors.
3. Install the winter start timer(s) in the area shown on the component arrangement on the kit wiring diagram. See Fig. 1.
4. Route brown wire 900 to terminal block TB3 and connect to any terminal of TB3. See Fig. 2.
5. Route wires 901 and 903 to the compressor lockout (CLO) board.
   a. For the first stage compressor, this is CLO1. For the second stage compressor, this is CLO2.
   b. Disconnect the wire(s) currently connected to the CLO terminal no. 2. Plug white wire 901 onto CLO terminal no. 2, then plug the wires previously connected to terminal no. 2 onto the piggy-back terminal on wire 901.
   c. Disconnect the wire currently connected to the CLO terminal no. 3. Plug yellow wire 903 onto CLO terminal no. 3, then plug the wire previously connected to terminal no. 3 onto the piggy-back terminal on wire 903.

Verify that wires 901 and 903 and associated wiring do not contact other wiring or components on the CLO.

WARNING
Electrical shock can cause personal injury and death. Shut off all power to this equipment during installation. There may be more than one disconnect switch. Tag all disconnect locations to alert others not to restore power until work is completed.

CAUTION
Do not interconnect stage 1 and stage 2 winter start kits. Failure to maintain separation will result in erratic unit operation and possible compressor/coil damage.

CAUTION
Verify that wires 901 and 903 and associated wiring do not contact other wiring or components on the CLO.

CAUTION
Do not interconnect stage 1 and stage 2 winter start kits. Failure to maintain separation will result in erratic unit operation and possible compressor/coil damage.

NOTE: The winter start kit contains wires designed for the largest unit in the series, so there may be excess wire. Coil any excess wire and secure this to the control panel or unit to prevent damage during unit operation/service.
6. a. On single compressor units, open the two-screw strain-relief connector (Greenfield) adjacent to the CLO.
   b. On two compressor units, open the two-screw strain-relief connector (Greenfield) adjacent to the winter start timers.

7. Open the protective wiring sleeve.

8. Route yellow wire 902 through the wiring sleeve and strain-relief connector and along the piping to the appropriate compressor.

9. a. On single compressor units (or first stage of two compressor units), disconnect blue wire 523 at the low pressure switch. Connect wire 902 in place of blue/523 and then connect blue/523 to the piggy-back of wire 902.
   b. On the second stage of two compressor units, disconnect pink wire 534 at the low pressure switch. Connect wire 902 in place of pink/534 and then connect pink/534 to the piggy-back of wire 902.

10. Close the strain-relief connector. Check all connections before restoring unit power.

**CAUTION**

Verify that the kit wiring does not short-circuit the low pressure switch (LPS).

**SEQUENCE OF OPERATION**

At the end of a compressor cycle, power is removed from the winter start timer. The normally closed (NC) contact of the winter start timer is closed, which short circuits the refrigerant low pressure switch on that circuit.

On a call for first stage compressor operation, 24 v is applied to terminal 2 of CLO1 and to the first stage winter start timer (terminal 1). This starts the 90 second time delay of the winter start timer.

CLO1 transfers the 24-v signal to terminal 3 of the CLO board and this is maintained as long as there is a call for cooling AND compressor operation is detected. If compressor current is NOT detected for more than 2 seconds, the CLO board will break the transfer to terminal 3 and the compressor will be locked out until the call for cooling is satisfied.

Terminal 3 of CLO1 provides power to the low-pressure switch AND the contacts of the winter start timer (terminal C).

The normally open (NO) contact of the winter start timer is connected to the opposite side of the low pressure switch. As long as the winter start timer is un-powered OR as long as 90 seconds have not elapsed, the winter start timer will short-circuit (bypass) the low-pressure switch. This will maintain compressor operation in low pressure conditions for 90 seconds.

Once the low-pressure switch has been powered for 90 seconds the NC contacts will open. A trip of the low pressure switch will now result in a compressor lockout.

The second stage timer works in the same manner.

**LOW PRESSURE SWITCH (LPS) WITH 523/BLU (FIRST STAGE) OR 534/PNK (SECOND STAGE)**

**COMPONENT ARRANGEMENT - TWO STAGE**

(50XCA12-24 or 50XCR12-24)

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**Fig. 1 — Winter Start Kit — Component Arrangement**
Fig. 2 — Winter Start Kit — Wiring Diagram