

# Single Package Air Conditioner and Heat Pump

## Installation Instructions

### Low Ambient Control Kit 913549

#### INTRODUCTION

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of heating and/or air conditioning appliances. Before beginning the installation, read these instructions thoroughly and follow all warnings and cautions in the instructions and on the unit. Improper installation, service, adjustment, or maintenance can cause explosion, fire, electrical shock, or other conditions which may result in personal injury or property damage.

The Low Ambient Control Kit is designed for use in single package air-conditioner and heat pump products. The kit consists of a pressure switch, a service adapter tee, a 24V relay for heat pump applications, and miscellaneous parts for mounting. The kit is intended to maintain system pressures at normal levels should cooling be required at low outdoor temperatures. The pressures are controlled by a pressure switch that cycles the outdoor fan motor. When the liquid pressure drops below 200 psig, the fan motor is switched off. If the liquid pressure then rises above 250 psig, the fan motor is switched on again.

#### INSTALLATION SEQUENCE

### ! WARNING:

To avoid risk of electric shock, personal injury, or death, disconnect electrical power to the unit before performing any maintenance or service. The unit may have more than one electric power supply.

The installation sequence is as follows:

1. Read these installation instructions completely before proceeding.
2. Disconnect all power to the unit.
3. At the front of the unit remove the service panel to the control box. This will have all of the electrical control components within and in the case of the R4 units the gas control components as well.
4. Remove the front panel with the service ports and drain tube opening from the unit.
5. There are two service valves in the interior of the unit. Locate the one in the 1/2" diameter compressor discharge line.
6. Remove the cap from the service valve. Mount the pressure switch on the service valve and tighten. If desired, a service adapter tee is supplied with the kit to keep a service port available. Be sure that the service valve cores shipped with the kit are inserted in the valve bodies before proceeding. If used, place the cap removed from the service valve on the service adapter tee.
7. Route the two wire leads from the switch through the wire grommet at the top of the panel separating the compressor from the control box.

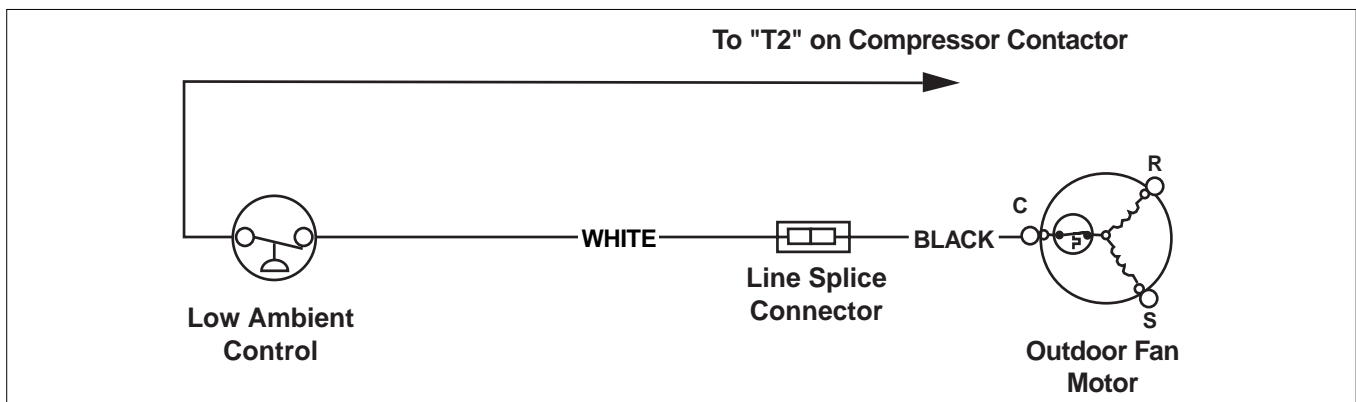


Figure 1. Single Package Air Conditioner Low Ambient Control Kit

### A. For Single Package Air Conditioners

- a) Remove the fan motor common lead from "T2" on the contactor (black wire).
- b) Using wire splice provided connect one lead from the pressure switch to the fan motor lead.
- c) Connect the other pressure switch lead to "T2" on the contactor. (See Figure 1)

### B. For Single Package Heat Pumps

- a) Mount the relay provided in the control box, near the low voltage compartment.
- b) Connect the two black wires to terminals #1 and #3 on the relay and route the wires through the low voltage divider. Connect one black wire to "O" on the defrost board. Connect the other black wire to 24V common ("C" on the defrost board).
- c) Remove the black wire from "DF1" on the defrost board and plug it into the line splice connector.

- d) Connect the insulated terminals of the two twin wire leads provided to the relay: one twin lead to terminal #6 on the relay and the other to terminal #2 on the relay.
- e) Cut off the two terminals from the ends of the low ambient control and strip the wires. Using the closed-end connectors provided, connect the two control leads to the two stripped wires of the twin leads from the relay.
- f) Plug one of the two remaining wires from the relay into the line splice connector. Connect the other wire to "DF1" on the defrost board. (See Figure 2)

- 11) Tie all wires back as needed.
- 12) Replace the service panels removed in Steps #2 through #5.
- 13) Restore power to the unit.

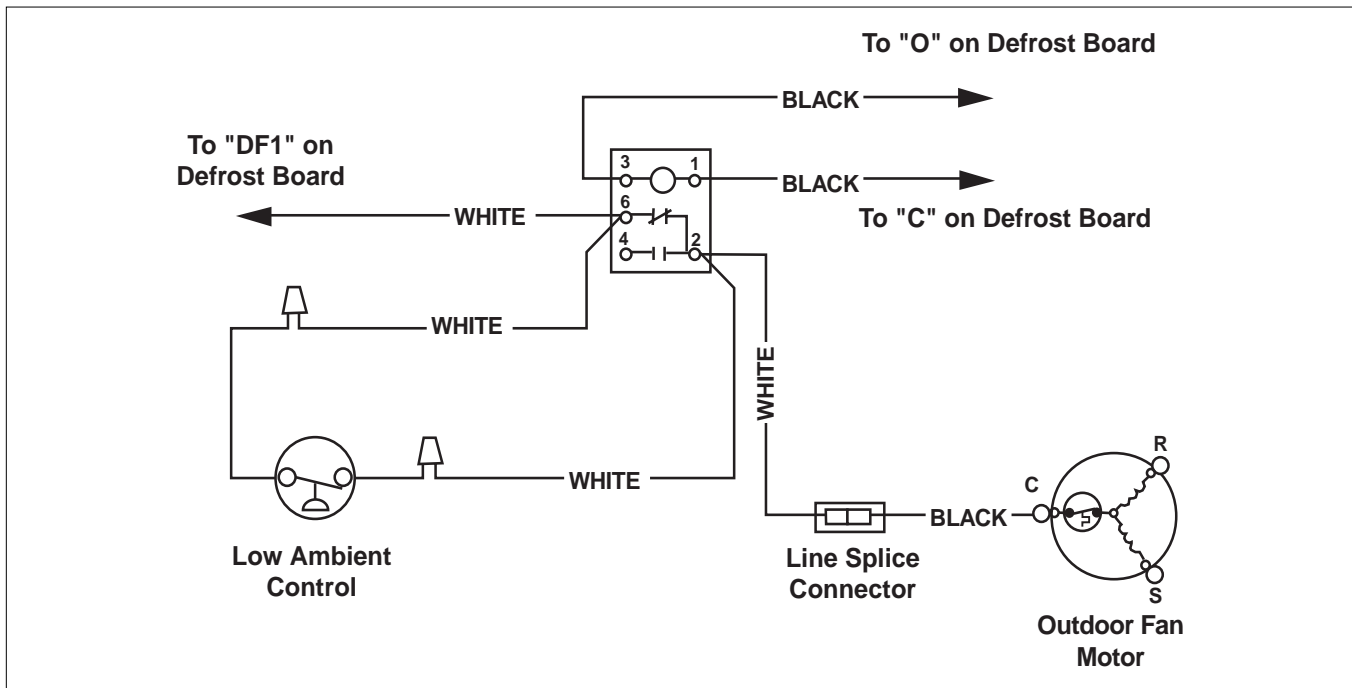


Figure 2. Heat Pump Low Ambient Control Kit Wiring Diagram