

LENNOX

Industries Inc.

INSTALLATION INSTRUCTIONS

501,109M
5/75

Supersedes 1/75

Litho U.S.A.

HEAT PUMP ACCESSORIES

FMP1 FUELMASTER +

INSTALLATION INSTRUCTIONS FOR FMP1 FUELMASTER +

I—SHIPPING AND PACKING LIST

Package 1 of 1 Contains:

- 1—Assembled control box
- 1—Heat pump delay control
- 1—Defrost limit control

II—APPLICATION

The Fuelmaster + combines the operation of a heat pump unit with a fossil fuel furnace. Two stage heat is used; first stage controls heat pump operation (furnace de-energized) and second stage controls furnace operation (heat pump de-energized). A heat pump delay control and defrost limit control are used for sensing plenum temperatures. On all applications the indoor coil must be placed downstream from the furnace.

III—OPERATING SEQUENCE

- 1—On a demand for heat, first stage heat contacts of thermostat close to start the heat pump. If first stage heat cannot satisfy the demand, second stage heat contacts of thermostat close to start furnace. Heat pump circuit will then be de-energized.

NOTE—During a heat pump-furnace cycle, the blower will run continuously.

- 2—When second stage heat has been satisfied, the furnace circuit will de-energize. Heat pump will restart with a thermostat demand and when plenum air has cooled below setting of heat pump delay control (90° to 100°F).
- 3—During a heat pump defrost cycle, the furnace will cycle from the defrost limit control to prevent plenum temperatures from exceeding approximately 120°F.
- 4—HP8 heat pump units are equipped with a low temperature compressor monitor that will lock compressor out at low temperatures. Under these conditions, only the furnace will operate on a heat demand until ambient temperature reaches "cut-in" point of the monitor.

NOTE—If other heat pumps are used and are not equipped with a low temperature compressor monitor, it is recommended a low temperature kit be installed. This will prevent possible compressor damage at low ambient temperatures.

IV—INSTALLATION

A—Control Box

Mount control box in a convenient location near the furnace.

B—Heat Pump Delay Control

This control prevents compressor from starting after a furnace cycle until plenum has cooled below control setting.

Install control in supply air plenum as shown in Figure 1. Refer to Figure 2 for correct setting.

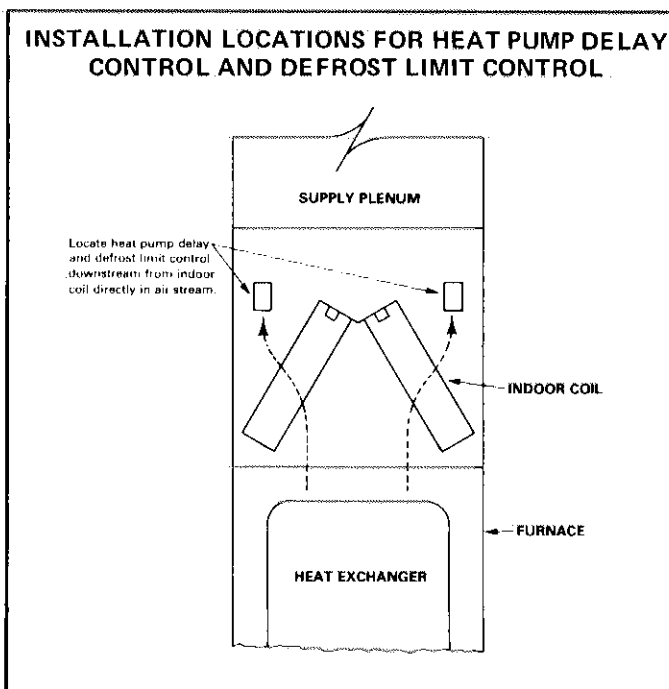


FIGURE 1

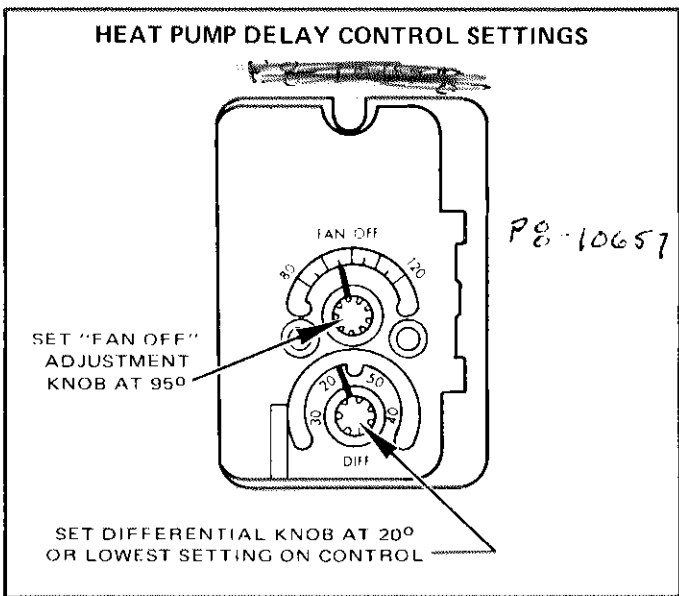


FIGURE 2

C-Defrost Limit Control

During a defrost cycle, this control will shut off the furnace when plenum temperature reaches the control setting.

Install control in supply air plenum as shown in Figure 1. Refer to Figure 3 for correct setting.

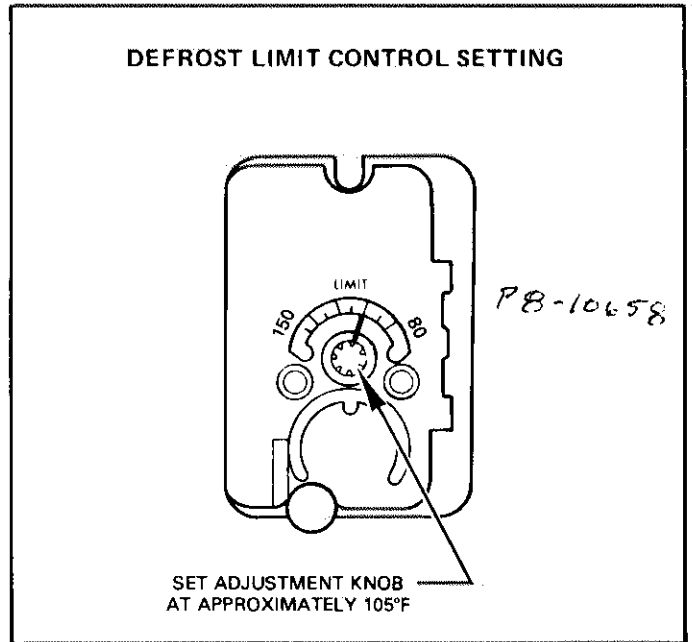


FIGURE 3

