

TSC-3 Two-Speed Control

All HP21-2 series units (single-phase and three-phase) are equipped with a TSC-3 two-speed control. The speed-control thermostat (formerly key number S55) has been removed from the unit and has been incorporated into the circuitry of the TSC-3 control (see figure 1). The function and operating sequence are otherwise identical to the TSC-2 plus the separate thermostat used in previous HP21 units.

The purpose of the speed control thermostat is to force the compressor to operate on high speed when outdoor temperature is low. It initiates a speed change delay and automatically energizes high speed when temperature drops below the setpoint. The setpoint is factory preset and can be field adjusted.

When temperature rises above the setpoint, the control initiates a speed change delay and automatically energizes low speed.

The setpoint can be changed by adjusting the potentiometer shown in figure 1. The potentiometer is factory set as shown in table 1.

TABLE 1

Speed Control Thermostat Adjustable Range	Min.	Mid.	Factory Setting	Max.
Cut-In (close on temperature drop)	37°F±2	46°F±2	42°F±2	55°F±2
Cut-Out (open on temperature rise)	47°F±2	56°F±2	52°F±2	65°F±2

To adjust the speed control thermostat, insert a small slot screwdriver into the potentiometer as shown in figures 1 and 2. To lower the setpoint, turn the potentiometer counter-clockwise. To raise the setpoint, turn the potentiometer clockwise. Do not force the potentiometer to turn past its stops; the potentiometer will be damaged.

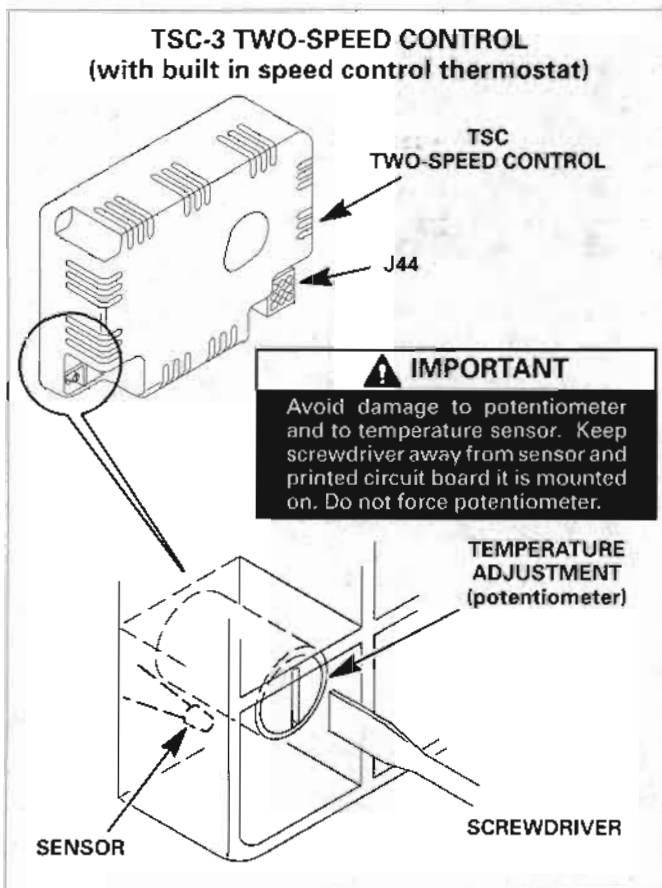


FIGURE 1

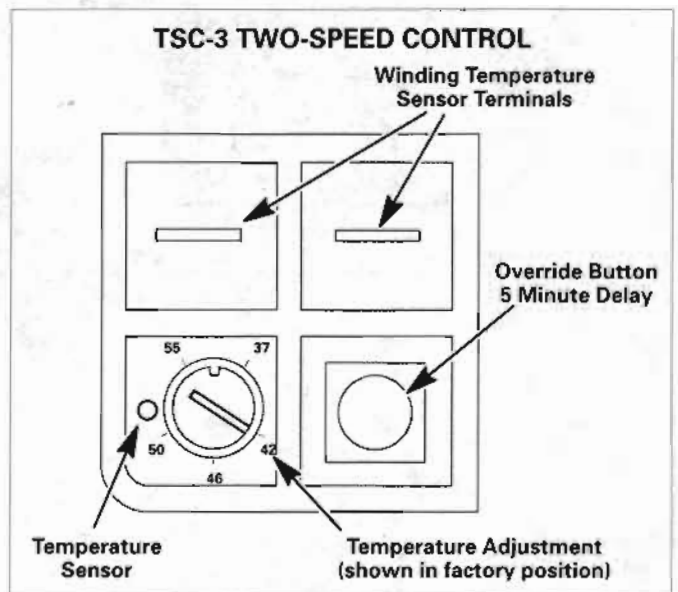


FIGURE 2

The unit wiring diagrams have been revised to reflect this change. A typical diagram is shown in figure 3.

HP21-2 Wiring (Single Phase Units Shown)

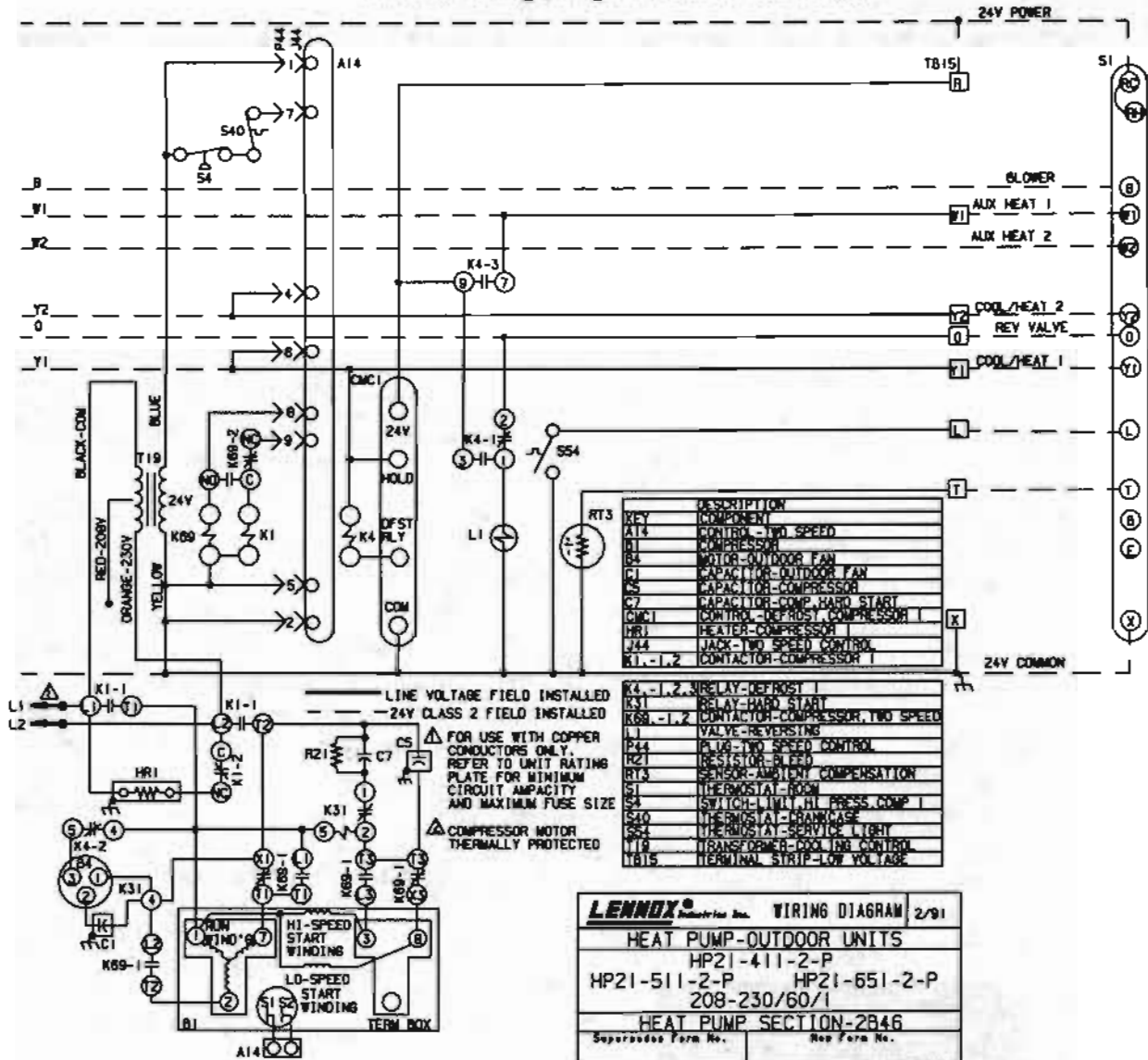


FIGURE 3