Group: Fan Coil

Date: March 2002

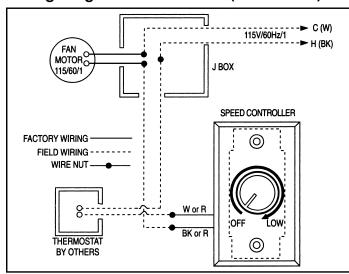
# Solid-State Speed Controller Steam/Hot Water Unit Heaters

#### **Application**

For remote control of air delivery, a solid-state speed controller is available for Daikin steam/hot water unit heaters. Models UH-18 through 108 with 115/60/1 motors (Power Code A). A solid-state module in the controller controls motor input voltage to maintain steady-state speed regulation at any setting between "High" and "Low". Controllers are packed separately and must be connected according to wiring diagram, Figure 1 or 2.

**NOTE:** These controllers are **not interchangeable** with different motor sizes or motor manufacturers. Before installation, check unit heater model number, motor manufacturer and speed controller size (listed in Amps on back of controller), to verify compatibility. If not matched correctly and failure occurs, warranty will be nullified. For UH86 and UH108 the speed control cannot be used to turn unit on/off for 3-lead motors. A thermostat or disconnect switch must be used.

Figure 1
Wiring Diagram - 2 wire motors (UH18 - UH63)



#### Installation

- 1. Controllers are furnished assembled and must be connected between the fan motor and the thermostat; see Figure 1 or 2.
- 2. Install thermostat at desired location, (see instructions packed with thermostat).
- 3. Install speed controller in a suitable location that will not invite tampering.

## **Wiring Connections**

- 1. Disconnect line voltage supply from service at the main electrical panel. Bring power supply leads into junction box.
- 2. Remove speed controller cover and make wiring connections as per the appropriate wiring diagram.

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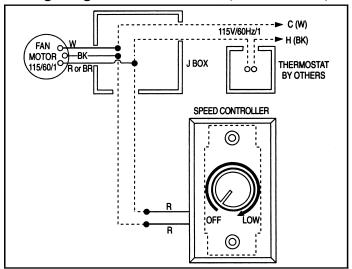
Failure to wire this device according to the appropriate diagram may result in failure of the equipment or injury to the installer or user.

## **Operation Check**

Set thermostat to lowest possible position. Turn controller to minimum speed. Turn on power to the system. Adjust thermostat above room temperature. Motor will then start on lowest speed. Adjust the controller to select the desired fan speed.

If motor does not start on lowest setting, the minimum control speed may be adjusted. This can be accomplished by removing the cover plate to the controller and turning the screw labeled MIN SPEED ADJ with a small screw driver. Turn as indicated to increase or decrease minimum set point. If the motor still does not start, check power supply and wiring. On new motors, bearings may be slightly tight until motor is "broken-in". Do not adjust speed controller below minimum speed level until motor has experienced some running time. Periodically repeat above procedure if lower speeds are desired.

Figure 2
Wiring Diagram - 3 wire motors (UH86 & UH108)



ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES. ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

