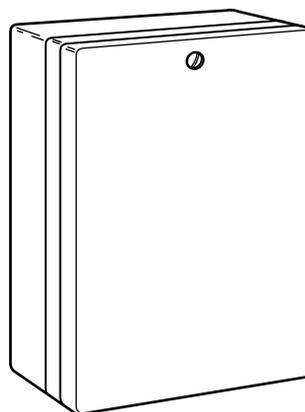


Operator: Save these instructions for future use!

FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING OR OPERATING THIS CONTROL COULD CAUSE PERSONAL INJURY AND/OR PROPERTY DAMAGE.

DESCRIPTION

This Evaporative Cooler Control has a rain-proof enclosure and can be used with either 120 VAC or 240 VAC systems. It was designed for use with White-Rodgers 1F51-619, 1F51W-619, or 1D51W-632 Thermostats to provide automatic temperature and ventilation control and remote fan speed selection of an evaporative cooler with 2-speed fan. The pump relay is automatically operated to allow wetting of cooler pads before starting fan.



PRECAUTIONS

If in doubt about whether your wiring is millivolt, line, or low voltage, have it inspected by a qualified heating and air conditioning contractor, electrician, or someone familiar with basic electricity and wiring.

Do not exceed the specification ratings.

All wiring must conform to local and national electrical codes and ordinances.

This control is a precision instrument, and should be handled carefully. Rough handling or distorting components could cause the control to malfunction.

⚠ CAUTION

To prevent electrical shock and/or equipment damage, disconnect electric power to system, at main fuse or circuit breaker box, until installation is complete.

⚠ WARNING

Do not use on circuits exceeding specified voltage. Higher voltage will damage control and could cause shock or fire hazard.

SPECIFICATIONS

Electrical Ratings:

Input Voltage: 120 or 240 VAC, 60 Hz.

Operating Ambient Temperature Range:

40 to 150°F (5 to 65°C)

Power Consumption:

6 Watts nominal with all three relays energized

Fan Rating:

12 FLA., 72 LRA; 120 VAC

6 FLA., 36 LRA; 240 VAC

Pump Rating:

10 FLA., 60 LRA; 120 VAC

5 FLA., 30 LRA; 240 VAC

Combined Total Connected Load:

16 FLA., 120 VAC

8 FLA., 240 VAC

Mounting:

Four $\frac{9}{16}$ " Dia. holes

(2 $1\frac{1}{2}$ " x 5" center line to center line)

Dimensions:

6" wide x 8" high x 3" deep

The 8A18Z-2 Evaporative Cooler Control consists of three relays and a low voltage transformer with dual voltage primary. The pump relay is automatically operated, which allows the cooler pads to become wet before the fan starts. This will eliminate the fan from blowing dust, warm air, and odor on initial start-up. The fan relay controls operation of the fan without the pump when the thermostat subbase is in the vent position, and controls operation of both fan and pump when the thermostat subbase is in the cool position.

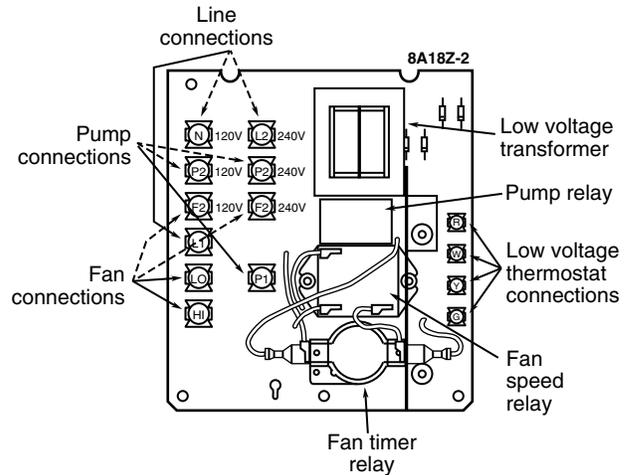


Figure 1. Panel assembly

INSTALLATION

1. Remove cover screw. To remove cover, pull cover outward at the top, then lift cover off the locating tabs at the bottom of the case.
2. Remove panel assembly from case and discard packing material.

NOTE

Place panel assembly in a safe location to prevent damage to the panel while installing the case.

3. Determine which knockouts will be used for electrical conduits, then remove electrical knockouts from case before mounting.

NOTE

If the larger knockout is to be removed, remove the smaller knockout **before** removing the larger one.

4. To remove the knockouts, place a screwdriver on the knockout at the location indicated by the arrow (see fig. 3). Tap the screwdriver to pop the knockout out of the case. If the knockout is not completely removed, carefully use pliers to twist the knockout until it comes out.

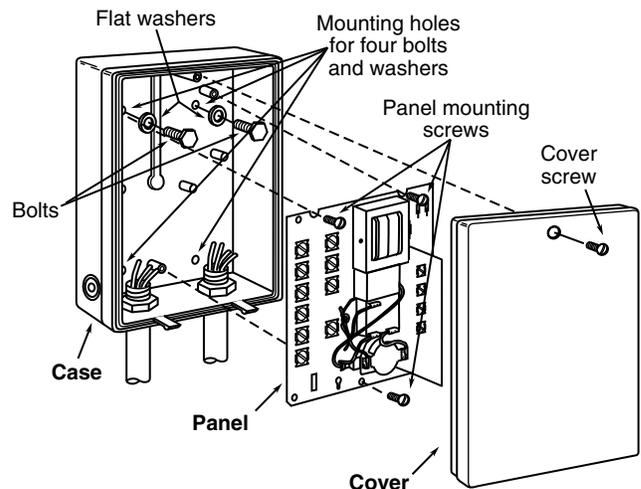


Figure 2. Installing control

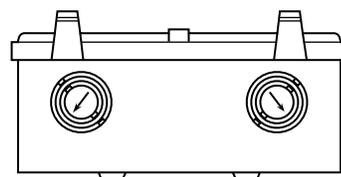


Figure 3. Electrical knockouts

INSTALLATION (cont'd)

- Select an appropriate location for mounting the control. Position the case on a smooth flat surface in a vertical position **only** (with electrical knockouts down). Mount the case using flat washers and screws (not provided) through the four mounting holes in the back of the case.

NOTE

Install conduit, then run wiring and install the thermostat according to thermostat installation instructions (included with thermostat) **before** installing panel assembly in case.

CAUTION

Non-metallic enclosure does not provide grounding between conduit connections. Use grounding bushings and jumper wires to ensure proper grounding of control.

- After wiring is run into case, bend the wires out slightly so that the wires will be in front of the panel assembly when it is installed.
- Loosen the three panel mounting screws in the case approximately one turn. Slide the two slots located at the top of the panel assembly under the two mounting screws at the top of the case. Lower the panel assembly into the case until the bottom mounting screw protrudes through the keyhole slot on the panel. Slide the panel assembly up toward the top of the case, then hold the panel assembly in place while tightening all three mounting screws.

CAUTION

Do not over tighten panel mounting screws to avoid damage to the panel assembly.

- Connect wires to proper terminals (see fig. 4 for typical wiring connections).

CAUTION

Do not press against panel assembly while tightening terminal screws to avoid damage to the panel assembly.

- Replace cover and test operation per the checkout section.

WIRING

CAUTION

To prevent electrical shock and/or equipment damage, disconnect electric power to system at main fuse or circuit breaker box until installation is complete.

All wiring should be done in accordance with local and national electrical codes and ordinances.

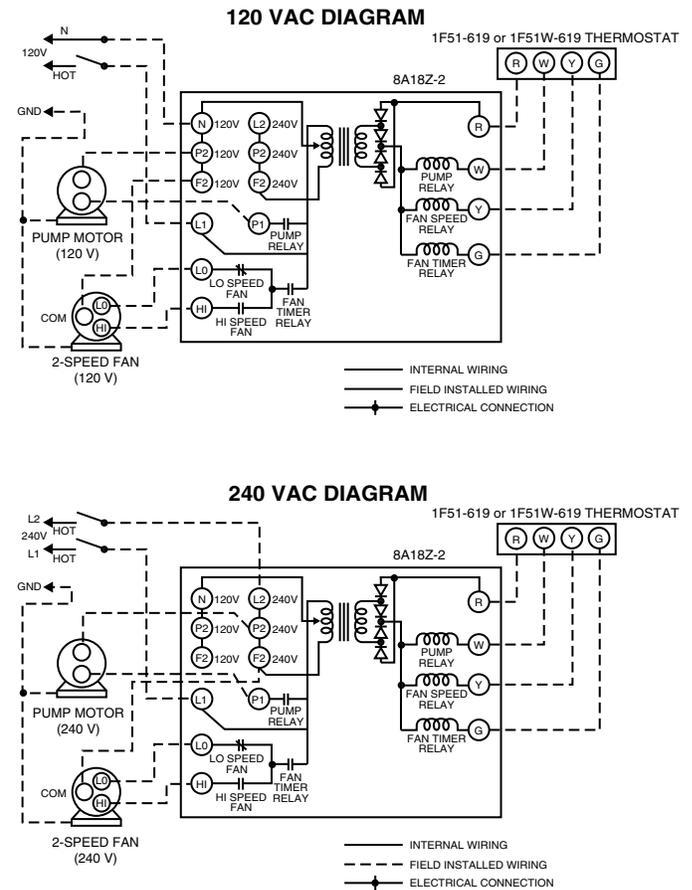


Figure 4. Typical wiring diagrams

CHECKOUT

- After mounting and wiring has been completed, set thermostat switch to “OFF” position and fan switch to “LO” position. Turn thermostat lever to “5” and thermostat switch to “COOL”. Nothing should happen provided the room temperature is below 95°F.
- Turn thermostat lever to “1”. The pump should start immediately, provided the room temperature is above 55°F.
- After a time delay of 30 to 120 seconds to allow the cooling pads to become soaked, the fan should start running at low speed.
- Turn fan switch to “HI” position. The fan should now be operating on high speed.
- Turn thermostat switch to “VENT” position. The pump should stop immediately.
- Turn the thermostat switch to “OFF” position. After a delay of 3 to 30 seconds, the fan should stop running.

TECH SUPPORT HELP LINE: 1-800-284-2925

White-Rodgers is a division
of Emerson Electric Co.

The Emerson logo is a
trademark and a service mark
of Emerson Electric Co.

White
Rodgers

St. Louis, Missouri

www.white-rodgers.com


EMERSON™
Climate Technologies