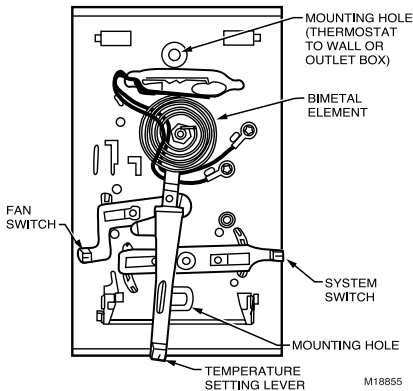


T834G Thermostat For Evaporative Coolers

Application

The T834G Thermostat is used with an R8183 Evaporative Cooler Control Panel to provide 24 to 30 Vac control in evaporative cooling applications. An spdt mercury switch makes R to Y on a temperature rise for cooling. Integral switches control COOL-VENT-PUMP-OFF system operation and LO-HI fan operation. See Fig. 1.

Fig. 1—Internal view of the T834G.



Recycling Notice

This control contains mercury in a sealed tube. Do *not* place control in the trash at the end of its useful life.

If this control is replacing a control that contains mercury in a sealed tube, do *not* place your old control in the trash.

Contact your local waste management authority for instructions regarding recycling and the proper disposal of this control, or of an old control containing mercury in a sealed tube.

If you have questions, call Honeywell at 1-800-468-1502.

Installation

WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.

2. Check the ratings given in the Instructions or on the product to make sure the product is suitable for your application.

3. Installer must be a trained, experienced service technician.

4. After installation is complete, check out product operation as provided in these Instructions.

LOCATION

Locate the thermostat about 5 ft [1.5 m] above the floor on an inside wall in an area with good air circulation at average temperature.

Do not mount the thermostat where it can be affected by:

- drafts or dead spots behind doors or in corners.
- hot or cold air from ducts.
- radiant heat from the sun, fireplaces, or appliances.
- concealed pipes and chimneys.
- unheated (uncooled) areas such as an outside wall behind the thermostat.

WIRING AND MOUNTING

Disconnect power supply before beginning installation to prevent electrical shock or equipment damage.

All wiring must comply with local codes and ordinances.

The T834G can be mounted directly to a wall or vertical outlet box. Use the 193121A Mounting Plate Assembly (ordered separately) to mount on horizontal outlet box or cover marks left by old thermostat. If mounting plate assembly is used, review instructions provided with assembly before wiring and mounting thermostat.

To wire and mount thermostat:

1. In replacement applications, check the existing thermostat wires for cracked or frayed insulation. Replace any wires in poor condition. If the wire is plastered into the wall, make a hole next to the wires and loosen the wires so they can be pushed back into the wall later.

2. In new installations, run wiring (if necessary) to the thermostat location.

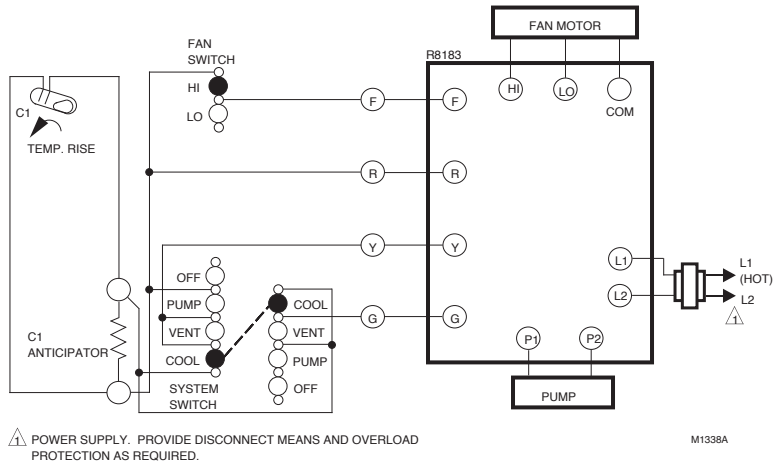
3. Connect the wires to the terminals on the back of the thermostat. See Fig. 2 for internal schematic and typical hookup diagram.

4. Remove thermostat cover by pulling outward on bottom edge of cover until it snaps free of the thermostat base. Carefully remove and discard the foam plastic shipping insert. This insert protects the switch and bimetal assembly during shipping.

5. Push excess wire back through the hole and plug any opening with insulation to prevent drafts that may affect thermostat performance.

6. Loosely fasten the thermostat to the wall or outlet box with a screw through the top mounting hole. Adjust the thermostat so it is approximately level. Fasten the second screw through the bottom mounting hole but do not tighten.

Fig. 2—Internal schematic and typical hookup.



7. Level the thermostat exactly using a spirit level or plumb line. Tighten the mounting screws.

IMPORTANT: An incorrectly leveled thermostat will cause the temperature control to deviate from setpoint.

8. Replace the thermostat cover.

Settings and Adjustment

TEMPERATURE SETTING

Push the temperature setting lever to the desired control point on the temperature scale.

SYSTEM AND FAN SWITCHING

The T834G features SYSTEM and FAN switches for control of the cooling and fan systems.

The SYSTEM switch controls system operation as follows:

COOL: Evaporative cooler provides cooling. Both fan and pump operate.

VENT: Fan only operates. Allows use of outdoor air for cooling.

PUMP: Operates circulator pump only; used for wetting pad before starting fan.

OFF: System is off. Fan does not run.

The FAN switch controls fan operation as follows:

LO: Fan runs at low speed.

HI: Fan runs at high speed.

To switch positions, use thumb and index finger to slide lever to desired position. Switch lever must stop directly over desired function indicator mark for proper circuit operation.

Checkout

IMPORTANT: To assure accurate temperature control, do not touch or breathe on bimetal or thermometer.

COOLING

With the system switch set at COOL and the fan switch set at LO or HI, move the temperature setting lever about 10° F [6° C] below room temperature. The evaporative cooler should start. Fan should operate at low or high speed depending on fan switch position. Move the temperature setting lever about 10° F [6° C] above room temperature; the evaporative cooler and fan should shut off.

Move the system switch to VENT; fan only should operate. Fan speed depends on fan switch position.

Move the system switch to PUMP; only the circulator pump should start. The fan should shut off.

FAN

With the system switch set at COOL or VENT and the fan switch set at LO, the fan should run at low speed. Move the fan switch to HI. The fan should run at high speed. Move the system switch to OFF. The system and fan should shut off.

RECALIBRATION


These thermostats are calibrated at the factory and should not need recalibration. If the thermostat appears to be out-of-adjustment, first check for accurate leveling. To check calibration, proceed as follows:

1. Move the temperature setting lever to the left (low) end of the temperature scale. System switch must be placed at OFF. Wait at least five minutes.

2. Remove the thermostat cover. Move the setting lever until the switch just makes contact. The mercury in the switch will roll to the left end of the tube.

3. Replace cover and wait five minutes for the cover and the thermostat to lose the heat it has gained from your hands. If the thermometer pointer and the setting lever indicator read approximately the same, no recalibration is needed.


If recalibration appears necessary, proceed as follows:

1. Place the temperature setting lever at the same setting as the thermometer. Remove cover.
2. Insert Honeywell Part No. 104994A Calibration Wrench (ordered separately) onto the hex nut under the coil. See Fig. 3. Holding the setting lever so it does not move, turn the wrench clockwise  until the mercury rolls to the right end of the tube. Remove wrench and replace cover.

To assure accurate temperature control, do not touch or breathe on bimetal or thermometer.

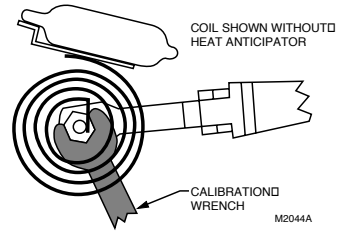
3. Move the setting lever to a low setting. Wait at least five minutes for temperature to stabilize.

4. Slowly move the setting lever until it reads the same as the thermometer.

5. Remove cover. Holding the setting lever so it does not move, reinsert wrench and carefully turn counter-clockwise  until the mercury rolls to the left end of the tube, but *no farther*.

6. Recheck calibration. Set thermostat system switch for desired operation and replace cover.

Fig. 3—Recalibration procedure.



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