

Honeywell

TS819A, TS8019A POWERPILE (MILLIVOLT) THERMOSTAT

APPLICATION

The TS819A and TS8019A are 2-wire, heating thermostats for use in 750 millivolt pilot generator systems. Make certain the pilot generator, valve, and thermostat have corresponding millivolt ratings. The spst, snap-acting, open-contact switch is operated by a bimetallic coil. The set point range is 60 to 95 F for the TS819A and 55 to 95 F for the TS8019A. The TS819A is available with a positive OFF switch.

INSTALLATION

CAUTION

1. Installer must be a trained, experienced serviceman.
2. All wiring must comply with applicable codes and ordinances.
3. Always conduct a thorough checkout when installation is complete.

LOCATION

Locate the thermostat about 5 feet above the floor in an area with good air circulation at average temperature.

Do not mount the thermostat where it may be affected by drafts, hot or cold air from ducts, or radiant heat from the sun or appliances.

MOUNTING

This thermostat is a precision instrument that was carefully adjusted at the factory. **HANDLE IT CAREFULLY.**

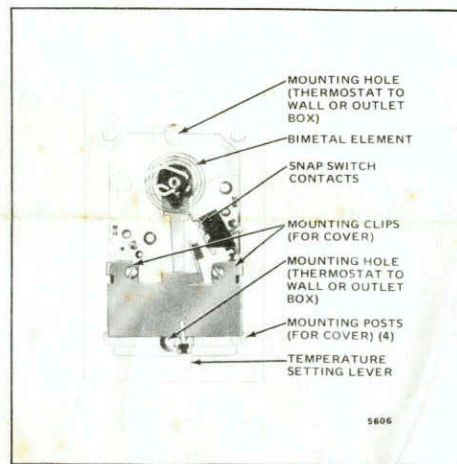


Fig. 1—Internal view of TS819A.

Run wire to the selected location (see Wiring) and connect to the terminals on the back of thermostat base. Push the excess wire back into the wall and plug the hole in the wall to prevent drafts from affecting the thermostat. Remove the snap-off cover and fasten the thermostat to the wall or outlet box.

WIRING

All wiring must comply with local electrical codes and ordinances in matters such as wire size, insulation and enclosure. Use up to 80 feet of No. 14 wire, 50 feet of No. 16, or 30 feet of No. 18, two-wire cable.

CAUTION

Use this thermostat only in a millivoltage pilot generator system; **DO NOT** connect thermostat to transformer or any other power source.

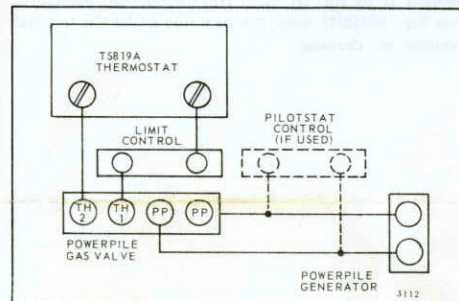


Fig. 2—Typical wiring hookup for the TS819A or TS8019A in a Powerpile (millivolt) system.

SETTING AND CHECKOUT

TEMPERATURE SETTING

Move the temperature setting lever to the desired point on the scale.

POSITIVE OFF

For models with positive OFF setting, move temperature setting lever to the lowest point on the scale. For TS819A move to far left of scale; for TS8019A move to bottom of scale.

CHECKOUT

Before leaving the job, make certain the heating system operates on and off in response to the thermostat.

CAUTION

Do **NOT** check operation by shorting across the terminals of the primary control or valve.

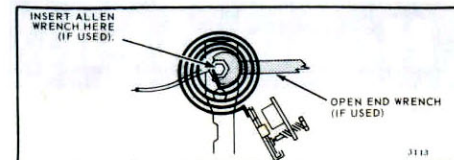
CALIBRATION

This thermostat was carefully calibrated at the factory and should not need adjustment in the field. If it seems out of adjustment, check as follows:

1. Place the temperature setting lever to the left end of the temperature scale. (This is the low end.) Do not move the lever all the way to OFF on models with positive OFF switch. Wait at least 5 minutes.
2. Remove the cover and slowly move the temperature lever until the snap switch just makes contact.
3. Replace cover and wait 5 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 Allen wrench (an accessory, Part No. 33890) into hole on top of the bimetal support post. An optional method is to slip an open end wrench (an accessory, Part No. 104994) onto the hex nut under the bimetal element. See drawing.



3. Hold the temperature lever firmly and turn the bimetal assembly clockwise with the wrench. Turn it until the snap switch just breaks contact. Replace cover.

IMPORTANT

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

4. Move the temperature lever to the far left end and wait at least 5 minutes for the thermostat to cool.
5. Slowly move the temperature lever up the scale until it reads the same as the thermometer. Remove cover.
6. Hold the temperature lever firmly and use the wrench to turn the bimetal assembly counterclockwise until the snap switch just makes contact, but **NO FARTHER.**
7. Replace cover, recheck calibration and set the thermostat for desired operation.