

This manual covers the following models*:
T822K,L • T827K

* Images are for reference only and may not represent the actual thermostat.

Pre-Installation checklist

Check package contents:

- Thermostat
- Wall anchors & screws (2 each)

Before you begin, make sure you have:

- No. 2 Phillips & small pocket screwdrivers
- Hammer
- Level (optional)
- Pencil
- Drill and bit (3/16" for drywall, 7/32" for plaster)

Must be installed by a trained, experienced technician

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



CAUTION: ELECTRICAL HAZARD

Can cause electrical shock or equipment damage. Disconnect power before beginning installation.



MERCURY NOTICE

If this product is replacing a control that contains mercury in a sealed tube, do not place the old control in the trash. Contact your local waste management authority for instructions regarding recycling and proper disposal.



Product application

This thermostat provides control of:

- 24 Vac heating systems (T822K)
- 750 mV or 12 Vdc heating systems (T827K)
- 24 Vac cooling systems (T822L)

System Types

- Gas or oil
- Warm air, hot water, high-efficiency furnaces, heat pumps, steam, gravity
- Normally closed hot water valves (T822K)
- 2-wire cooling systems (T822L)
- Normally open hot water valves (T822L)

System Settings

- Heat, Off (select models only)

Fan Settings

- Auto, On (select models only)

Specifications

Temperature Control Range

- 45° to 95°F (7° to 35°C)
- 35° to 85°F (2° to 29°C)*

Operating Ambient Temperature

- 0° to 120°F (-18° to 49°C)

Operating Relative Humidity

- 5% to 90% (non-condensing)

Dimensions (vertical model)

- 2.88W x 4.75H x 1.5D (inches)
- 73W x 121H x 38D (mm)

Dimensions (horizontal model)

- 4.75W x 2.88H x 1.5D (inches)
- 121W x 73H x 38D (mm)

Electrical Ratings

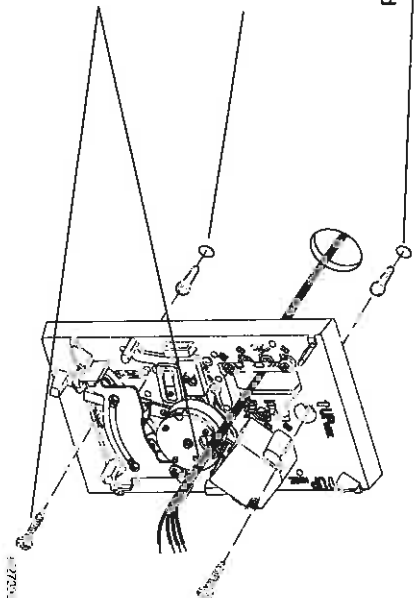
Terminal	Voltage (50/60Hz)	Running Current
W ¹ Heating (Powerline)	20-30 Vac 750 mVdc	0.02-1.2 A 100 mAdc
(DC Powered)	12 Vdc	.55 A
Y ² Cooling	20-30 Vac	0.02-1.2 A
G Fan	20-30 Vac	0.02-0.6 A
(Normally open hot water valve.)		
1	T822K and T827K	0.02-1.2 A
2	T822L	



* **CAUTION:** Do not use a product with this temperature control range in a home. Temperatures at or below freezing can occur. A product with this temperature range is for use in areas where temperatures below freezing can occur, such as a garage.

Base installation

1. Pull wires through wire hole. Position base on wall, level and mark hole positions.
2. Drill holes (3/16" holes for drywall, 7/32" holes for plaster), then tap in supplied wall anchors.
3. Pull wires through base, position over anchors, and insert screws. Check level if desired, then tighten screws.



Wiring

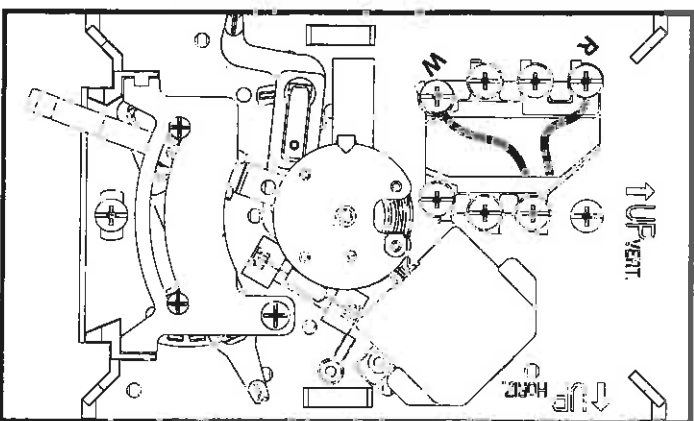
1. Loosen screw terminals, insert bare wires beneath screws, then re-tighten screws.
2. Push any excess wire back into the wall opening.
3. Plug the wall opening with nonflammable insulation to prevent drafts from affecting thermostat operation.

Terminal Designations

- R** Heating power: Connect to secondary side of heating system transformer.
- W¹** Heat relay.
- Y²** Cool relay, or normally open hot water valve.
- G** Fan relay (select models only)
 - 1 T822K and T827K
 - 2 T822L

Wire specifications

Use 18-gauge thermostat wire. Shielded cable is not required.

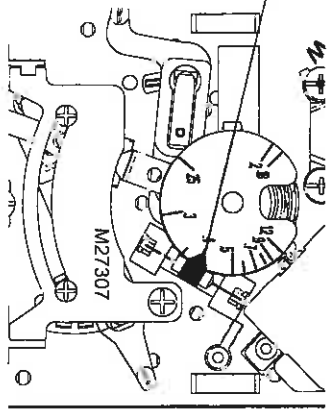


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Set heat anticipator (model T822K only)

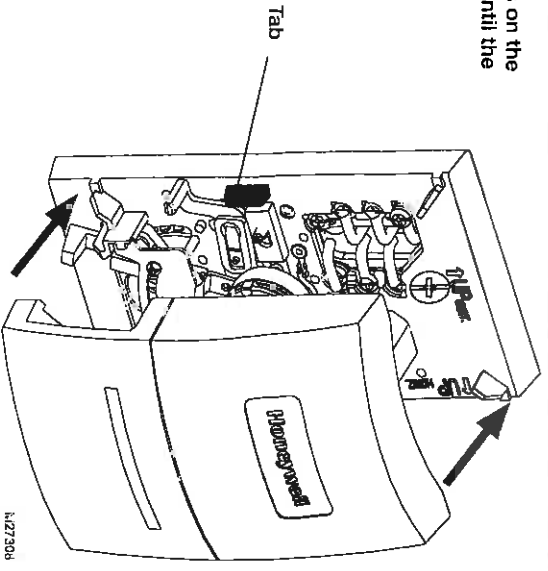
Move the adjustment arrow to the proper setting for your system (see table below).

Your system	Setting
Steam	1.2
Hot water heat	0.8
Warm air (high efficiency)	0.8
Warm air (standard)	0.4
Electric heat	0.3



Thermostat mounting

Align the slots on the cover with tabs on the sides of the base, then push gently until the cover snaps into place.



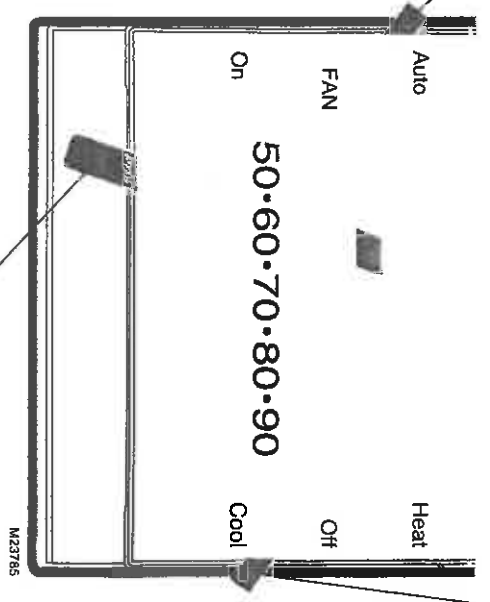
Operation

Fan switch (select models)

- On: Fan runs continuously.
- Auto: Fan runs only when heating or cooling system is on.

System switch (select models)

- Heat: Controls the heating system.
- Off: All systems are off.



Temperature setting

Adjust to set desired indoor temperature. Note: Temperature scale varies by model.