



WHITE-RODGERS

TYPE 1E56

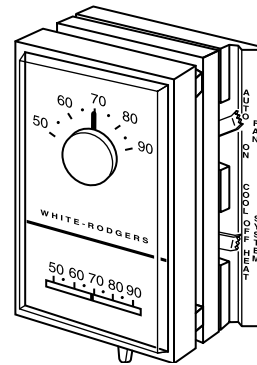
Low Voltage Heating/Cooling Thermostat
INSTALLATION INSTRUCTIONS

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 low voltage thermostat is designed to provide convenient control of the heating/cooling system. To provide greater room comfort, the sensitive spiral bimetal is combined with an adjustable heating anticipator and a fixed cooling anticipator to provide maximum comfort.



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.

Do not short out terminals on gas valve or primary control to test. Short or incorrect wiring will burn out heat anticipator and could cause personal injury and/or property damage.

⚠ WARNING

Do not use on circuits exceeding 30 volts. Higher voltage will damage control and could cause shock or fire hazard.

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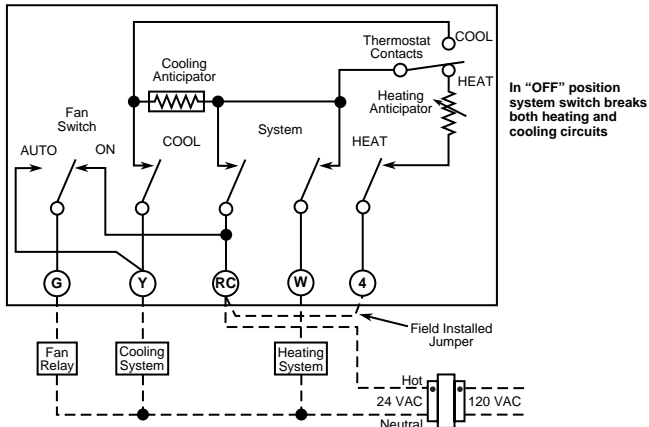


Figure 2. For installations where heating and cooling systems are powered by the same transformer

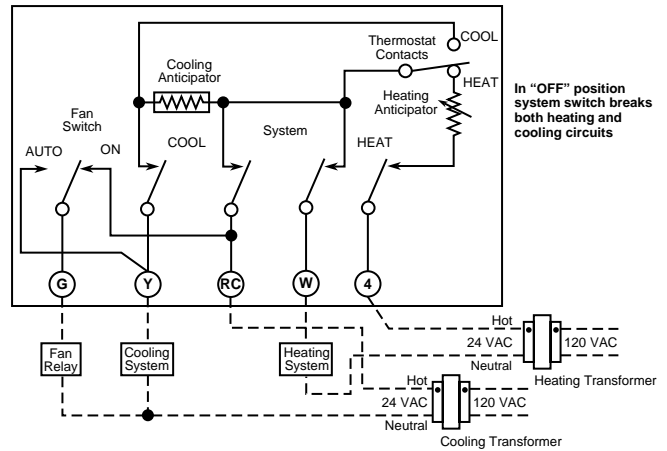


Figure 3. For installations where heating system is powered by a separate transformer

ATTACH THERMOSTAT TO SUBBASE

1. Remove cover from thermostat base by gripping the base in one hand. Use the other hand to pull gently at the top or bottom of the cover.
2. Carefully remove the shipping protective packing from the switch.
3. Attach thermostat base to subbase, being sure that all captive screws are tightened snugly, since they serve as electrical connections between thermostat and subbase (see fig. 4).
4. Snap cover on thermostat and set switches and temperature lever to desired setpoint (see **OPERATION** section).
5. Turn on power to the system.

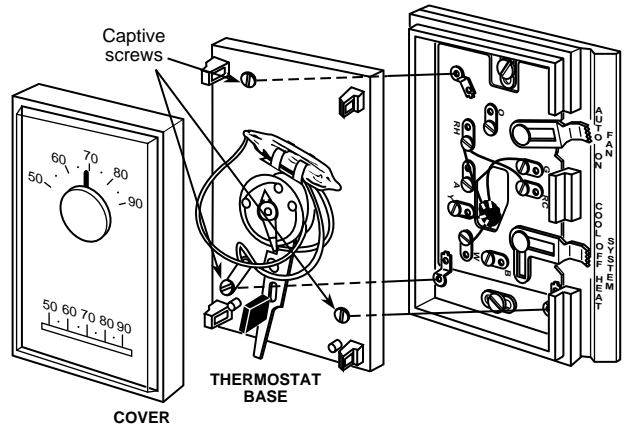


Figure 4. Attach thermostat to subbase

OPERATION & MAINTENANCE

This thermostat is easy to operate. Fig. 5 shows how the heating/cooling system and fan operate when the switches are in various positions. Use the system switch to select either heating or cooling, or to turn the heating/cooling system off. Use the fan switch to control fan operation. When the fan switch is in the **AUTO** position, the fan will cycle with the heating or cooling system (the fan will not run if the system switch is in the **OFF** position and the fan switch is in the **AUTO** position). When the fan switch is in the **ON** position, the fan will run continuously, regardless of system switch position (even if the system switch is set to **OFF**, the fan will run if the fan switch is in the **ON** position).

■ Shows switch position		OPERATION
FAN	SYSTEM	
<input type="checkbox"/> AUTO	<input type="checkbox"/> COOL	OPERATION
<input type="checkbox"/> ON	<input type="checkbox"/> OFF	
<input type="checkbox"/> ON	<input type="checkbox"/> HEAT	
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> HEAT	
<input type="checkbox"/> ON	<input checked="" type="checkbox"/> HEAT	
<input type="checkbox"/> ON	<input type="checkbox"/> OFF	No heating; no cooling; no fan
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	No heating; no cooling; fan runs continuously
<input type="checkbox"/> ON	<input checked="" type="checkbox"/> COOL	Cooling system cycles from thermostat; fan runs continuously
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> COOL	Cooling system and fan cycle from thermostat
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> HEAT	Heating system cycles from thermostat; fan cycles from fan control on furnace
<input type="checkbox"/> ON	<input checked="" type="checkbox"/> HEAT	Heating system cycles from thermostat; fan runs continuously

Figure 5. Subbase switching and thermostat/system operation

ADJUSTING HEAT ANTICIPATOR

⚠ CAUTION

The adjustable heat anticipator **WILL BURN OUT** if 25 VAC is applied directly to the thermostat by shorting out the primary control during testing. This may cause personal injury and/or property damage.

This thermostat is equipped with an adjustable heat anticipator and was preset at the factory to provide satisfactory operation of the heating system under normal conditions. If additional adjustments are necessary, they may be made as follows (see fig. 6):

1. Remove thermostat cover.
2. If heat cycle is too long, set heat anticipator to a slightly lower dial setting ($\frac{1}{2}$ division).
3. If heat cycle is too short, set heat anticipator to a slightly higher dial setting ($\frac{1}{2}$ division).
4. Replace thermostat cover.

CALIBRATING THERMOSTAT

This thermostat has been carefully adjusted at the factory and should not require recalibration.

Due to environmental conditions, during normal operation there may be a few degrees of difference between the indicator setting of the thermostat and actual room temperature. If the disagreement is appreciable, however, first make sure that the thermostat is properly located and leveled. Then, if recalibration still seems necessary, proceed as follows:

⚠ CAUTION

To prevent electrical shock and/or equipment damage, disconnect electrical power to the system until recalibration is complete.

1. The anticipator's heat may adversely affect thermostat recalibration. To prevent this, disconnect electrical power to the thermostat at the furnace, main fuse, or breaker box.
2. Move temperature adjustment lever to a setting about 5° above room temperature.
3. Remove thermostat cover. Slip $\frac{7}{32}$ " wrench onto hex nut beneath bimetal. While holding temperature adjustment lever stationary, turn hex nut clockwise until mercury shifts to the right end of the tube (see fig. 7).
4. Move temperature adjustment lever to lowest setting.

5. Replace thermostat cover. Wait 10 minutes for bimetal temperature to stabilize. Do not stand near the thermostat during this period, as your breath and body heat will affect bimetal temperature.
6. Move temperature adjustment lever to correspond to actual room temperature. Then remove thermostat cover.
7. Slip $\frac{7}{32}$ " wrench onto hex nut. While holding temperature adjustment lever stationary, turn hex nut counter-clockwise until mercury just barely shifts to the left end of the tube (see fig. 7).
8. Replace thermostat cover and set temperature adjustment lever to desired temperature. Turn on electrical power to system.

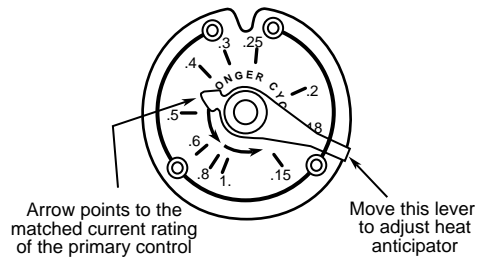


Figure 6. Anticipator adjustment

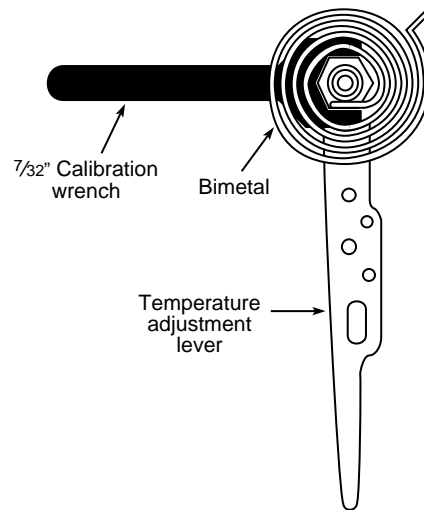


Figure 7. Calibrating thermostat

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