# The Round<sup>®</sup> Creative Series Y460A2003 Thermostat

### INSTALLATION MANUAL

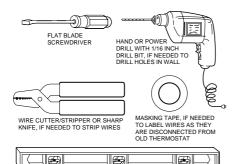
The Y460A2003 Thermostat is for 15 to 30 Vac control of gas- or oil-fueled warm air, steam or hot water heating/electric cooling systems.

### Your Y460A Thermostat

□ Follow these instructions step-by-step for proper installation of your Honeywell thermostat. It is recommended that as you read, understand and complete each step, you check √ it off with a pencil or pen.

### 1 PREPARE FOR INSTALLATION

Assemble the following required tools: Flat-bladed screwdriver; hand or power drill with 3/16 in. (4.8 mm) drill bit; wire cutter/stripper or sharp knife; bubble level or plumb bob and line.



SPIRIT LEVEL OR PLUMB BOB AND LINE TO LEVEL THERMOSTAT FOR ACCURATE OPERATION

### IMPORTANT:

For cooling systems, do not operate cooling if outdoor temperature is below 50°F (10°C).

□ Test your heating and/or cooling systems to be sure they are working, especially if they have been inoperative for any length of time. If either system does not work, contact your local heating/air conditioning dealer for assistance.

#### IMPORTANT:

Turn off power to the system at the main fuse or circuit breaker panel. Most buildings have a separate switch box or circuit breaker for disconnecting power to the furnace.

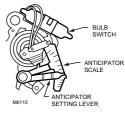
### 2 UNPACK YOUR THERMOSTAT

- ☐ Carefully unpack your new thermostat.
  - Remove and discard the shipping wrap; be sure to save the screws and the instructions.
- Remove the thermostat cover and set it aside to use later.
- Remove the red plastic insert that holds the mercury switch in place.

# 3 REMOVE YOUR OLD THERMOSTAT

 Remove the cover of the old thermostat. If the cover does not snap off when pulled firmly from the bottom, look for screw(s) to loosen to unlock the cover.

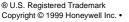
☐ Before removing the old thermostat from the wall, look at it carefully to locate the heat anticipator adjustment mechanism. Look at the illustration to help you recognize the heat anticipator. Make a



note here of that anticipator setting for use in Step 7. The heat anticipator pointer, if adjustable, will be set at one of a series of numbers representing the electrical current rating of the primary control in your furnace: .2, .4, .8, etc or 0.2, 0.4, 0.8, etc. If no heat anticipator/indication is showing, go on to the next step.

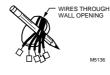
 Loosen screw(s) holding the thermostat base to the subbase or wall and lift it away.







 Disconnect wires from the old thermostat or subbase. Wrap the wires around a pencil or other object, as shown, to prevent them from falling back into the wall opening.



NOTE: As you disconnect each wire, use masking tape to tape the end and label with the letter of the terminal designation to allow easier reconnection to the new subbase.

 Keep the old thermostat for reference until your new thermostat is functioning correctly.



# **RECYCLING NOTICE**

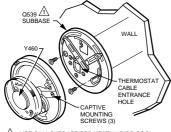
If this control is replacing a control that contains mercury in a sealed tube, do not place your old control in the trash. Dispose of it properly.

Contact your local waste management authority for instructions regarding recycling and the proper disposal of the old thermostat. If you have questions, call the Honeywell Customer Response Center at 1-800-468-1502.

### **4 MOUNT THE SUBBASE**

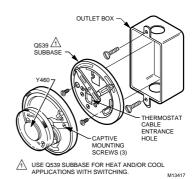
#### IMPORTANT:

- Install your thermostat about 5 ft (1.5m) above the floor in an area with good air circulation at average temperature. Do not install it where it may be affected by:
- drafts, or dead spots behind doors and in corners
- hot or cold air from ducts.
- radiant heat from sun or appliances.
- concealed pipes and chimneys.
- unheated (uncooled) areas such as an outside wall behind the thermostat.
- Bring the thermostat cable through the subbase entrance hole.
- Fasten the subbase to the wall or outlet box with the mounting screws as shown in the illustration.

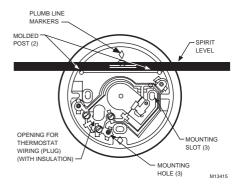


USE Q539 SUBBASE FOR HEAT AND/OR COOL APPLICATIONS WITH SWITCHING.

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☐ Tighten the screws after using a spirit level or plumb line to accurately level the subbase. It must be level to maintain accurate calibration.



### **5 WIRF THE SUBBASE**

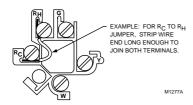
☐ Follow the instructions provided by the heating or heating/cooling equipment manufacturer. If not available, refer to the thermostat wiring diagram.

NOTE: All wiring must comply with local electrical codes and ordinances.

### Wire the Subbase

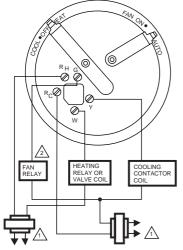
- Refer to the illustration to strip the thermostat wire insulation from the wire where it connects to the terminal, as necessary.
- Refer to the labels you placed on the wires when you removed the old thermostat. Match the letter of your old thermostat wire with the corresponding terminal letter on your new thermostat.
- Connect the wires to the matching terminals on the subbase. If your old thermostat had an R terminal, and your new one has RC and RH terminals, connect the old wire R to terminal RH, and add a small piece of wire to use as a jumper to connect RC to RH. The drawing shows how to jumper RC to RH.

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- Firmly tighten the screws.
- Push the excess wire back into the wall.
- Plug the hole with nonflammable insulation to prevent drafts from affecting the thermostat operation.

Y460A for heating/cooling system using separate RC-RH terminals. If old thermostat has single R terminal, refer to jumper drawing in Subbase Wiring procedure.



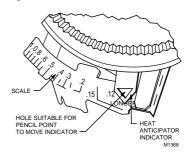
POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

IN HEATING, THE FAN IS CONTROLLED BY ANOTHER CONTROLLER, SUCH AS A HONEYWELL L4064 FAN AND LIMIT CONTROLLER OR FAN TIMER.

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### **6 MOUNT YOUR THERMOSTAT**

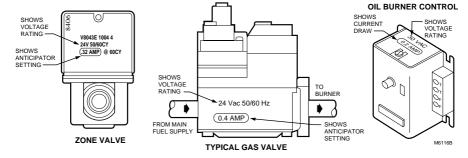
 Set the heat anticipator indicator to 1.2 before mounting to prevent the anticipator from burning out during installation.



Align the thermostat over the subbase and tighten the three captive mounting screws (see Step 4). These captive mounting screws complete the electrical connections to the thermostat.

# 7 SET HEAT ANTICIPATOR INDICATOR

- Be sure the thermostat adjustable heat anticipator is set correctly to accurately control the temperature. An incorrect setting (if too high) can result in wide room temperature swings or (if too low) burn out the anticipator, which voids the thermostat warranty.
- ☐ Make sure you have the current draw (anticipator setting) for your system. This is the number you wrote in the box in Step 3. If you were unable to find the current draw for Step 3, this information can be found printed on the primary control at the furnace or boiler. The primary control is usually a gas valve, a relay or burner control box, Aquastat® Controller or zone valve with the thermostat wires connected to it. These controls are usually located behind the furnace cover; see the illustration.



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- ☐ If the current rating is still unavailable:
  - Remove the W wire from the subbase.
- Connect one probe of an ac ammeter (0 to 2.0A, for example) to the W wire and connect the other probe to the W terminal.

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- Let the system operate through the ammeter for at least one minute before taking a reading.
   Record the reading here \_\_\_\_\_\_\_.
- Reconnect the W wire to the W terminal.
- Move the heat anticipator indicator to match the number you recorded in Step 3 or in Step 7.

NOTE: Hot water and steam systems require you to multiply the current rating times 1.3. For electric heat systems, add the fan relay current, usually 0.2A to 0.4A.

Snap the cover ring over the thermostat dial.

### **8 SET THE TEMPERATURE**

 Turn the transparent dial until the desired point on the setting scale is aligned with the pointer, as shown in the illustration.

### IMPORTANT:

During a call for heat or cool, an electrical spark can be seen through the colored decorator cover ring. Do not be alarmed; this is normal operation for a mercury switch.

### Set Subbase Switch

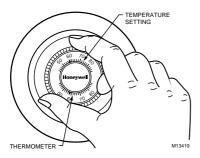


# CAUTION

Equipment Damage Hazard. Can cause permanent damage to the compressor.

Do not rotate the thermostat dial back and forth just to observe the electrical spark; observe the compressor five-minute minimal-off period.

- □ To operate the heating system, set the subbase System switch to Heat. To operate the cooling system, set the subbase System switch to Cool. Set it to Off if you want neither heating or cooling.
- Set the Fan switch to On for continuous fan operation or to Auto for fan operation during heating or cooling cycles.



### 9 CHECK OUT THE SYSTEM

### Heating

☐ Turn down the temperature setting to the lowest point. Move the System switch to Heat. Raise the temperature setting above room temperature; the heating equipment should start. Lower the temperature setting below room temperature; the heating system should stop.

### Cooling



## **CAUTION**

Equipment Damage Hazard.
Can cause permanent damage to the compressor or other equipment.

To avoid possible compressor damage, allow the compressor to remain off for five minutes before restarting.

To avoid possible equipment damage, do not operate cooling when the outside temperature is below 50°F (10°C).

See equipment manufacturer instructions.



## CAUTION

Equipment Damage Hazard.
Can cause permanent damage to the compressor.

Do not rotate the thermostat dial back and forth just to observe the electrical spark; observe the compressor five-minute minimal-off period.

☐ Turn up the temperature setting to the highest point. Move the subbase System switch to Cool. Lower the temperature setting below the room temperature; the cooling equipment should start. Raise the temperature setting above the room temperature; the cooling system should stop.

### WARRANTY

Honeywell warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of one (1) year from the date of purchase by the consumer. If, at any time during the warranty period, the product is defective or malfunctions, Honeywell shall repair or replace it (at Honeywell's option) within a reasonable period of time.

If the product is defective,

- return it, with a bill of sale or other dated proof of purchase, to the retailer from which you purchased it, or
- package it carefully, along with proof of purchase (including date of purchase) and a short description of the malfunction, and mail it, postage prepaid, to the following address:

Honeywell Inc. Return Goods Department 1050 Berkshire Lane Plymouth, MN 55441-4437

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Honeywell that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

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Honeywell's sole responsibility shall be to repair or replace the product within the terms stated above. HONEYWELL SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY HONEYWELL MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IS HEREBY LIMITED TO THE

ONE YEAR DURATION OF THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you have any questions concerning this warranty, please write our Customer Assistance Center, Honeywell Inc., P.O. Box 524, Minneapolis, MN 55440-0524 or call 1-800-468-1502, Monday-Friday, 7:00 a.m. to 5:30 p.m., Central time. In Canada, write Retail Products ON15-02H, Honeywell Limited/Honeywell Limitée, 155 Gordon Baker Road, North York, Ontario M2H 3N7.

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# Honeywell

Home and Building Control

Honeywell Inc. Honeywell Limitée

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Honeywell Plaza 155 Gordon Baker Road P.O. Box 524 North York, Ontario

Minneapolis, MN 55408-0524 M2H 3N7