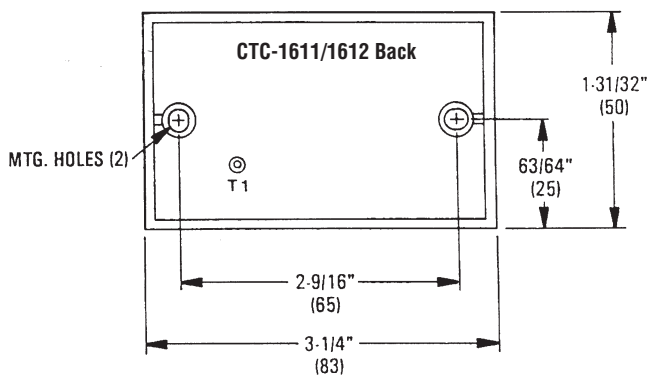


Installation Guide

Mounting

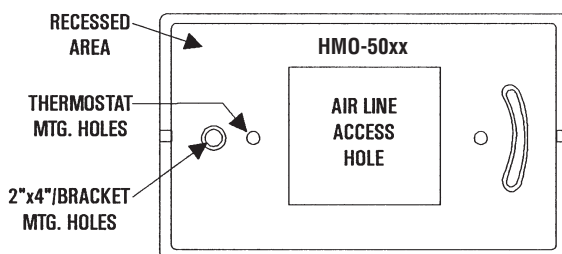
Location

For optimum performance, the thermostat must be mounted on an interior wall and away from heat sources, sunlight, windows, air vents, and air circulation obstructions (e.g., curtains, furniture). Units may be mounted horizontally or vertically to either a 2" x 4" electrical box or a hollow wall.



Electrical Box Mounting

1. Attach the desired **HMO-50xx backplate** to the box with the two 6-32 screws supplied.
2. Level the box using the slot in the backplate.
3. Fit the aluminum plate into the recess.
4. Pass the 3/32" ID tubing through access hole.
5. Make connections (see Connections section).
6. Mount the thermostat to the backplate with two 6-20 x 2" screws supplied with thermostat.



Hollow Wall Mounting

NOTE: Thermostats may be mounted on hollow walls up to 5/8" with the **HMO-5023 kit**.

1. Using the template, printed on the HMO-5023 package, make a 2-11/16" x 1-1/2" cutout.

2. Loosely mount the bracket to the thermostat with two 6-32 x 2" screws supplied.
3. Make connections (see Connections section).
4. Insert the bracket diagonally through the wall.
5. Center the thermostat and tighten the screws.

Scale Plate

All adjustments must be made with the scale plate removed. Complete adjustments before installing the scale plate. (See Adjustments section.)

1. Remove the gauge tap's rubber cap.
2. Slide the scale plate under the setpoint indicator.
3. Insert the retaining pins (two supplied), twisting to lock into place.
4. Reinstall the gauge tap's rubber cap.

Setpoint Options

If setpoint indicator is not needed, simply snip off the indicator with a wire cutter. Limit or lock the range of the setpoint by installing **setpoint stops (HFO-0027)** in the slider track.

Cover

Covers are available in 2 styles:

- ◆ **Window-insert covers** include a symbol-coded **label strip (HPO-1320)** for setpoint indication. Apply the label in the recessed area underneath the window.
- ◆ **Blank covers** require the removal of the setpoint thumb adjuster. Insert a small screwdriver in the slot between the thumb adjuster and the cam and pry apart. Discard the adjuster.

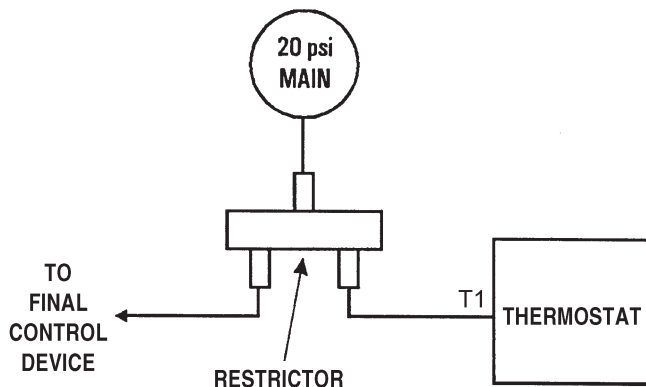
To install a cover:

1. Check that the thermostat is mounted securely and gauge tap cap and accessories are installed.
2. Slide the cover over the base.
3. Using a 1/16" hex wrench, turn both cover mounting screws on the thermostat base **CCW (outward)** until the cover is secured. (See the illustration in the Adjustments section.)

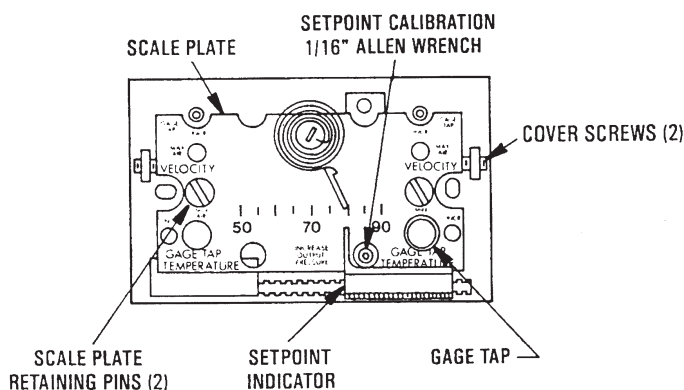
Connections

The CTC-1611/1612 requires an **HFO-0028 tubing kit** and a 14.4 scim restrictor T.

1. Insert the restrictor into the HFO-0028 tubing.
2. Connect the restrictor to Port T1.
3. Connect the open side of the T with tubing to the final device actuator (**DA unit for the CTC-1611 or RA unit for the CTC-1612**).



Adjustments



Calibration

These thermostats are factory calibrated and do not require further calibration at installation. Should it be necessary to change calibration:

1. Remove the cover and gauge tap rubber cap.
2. Install a gauge on the gauge tap using 3/32" ID tube.
3. Measure the ambient temperature with an accurate thermometer.
4. Move the setpoint slider to the measured ambient temperature.
5. Use a 1/16" hex wrench and turn the calibration adjustment until the test gauge indicates the desired pressure. (Clockwise rotation decreases the output pressure.)

6. Replace the gauge tap rubber cap after calibrating.
7. Place the setpoint slider to the desired temperature and replace the cover.

Throttling Range

Throttling range is the temperature required to change the thermostat output pressure from 3–15 psi. All CTC-1600 series thermostats are factory-set for a 3° F throttling range. The approximate throttling range setting is stamped on each lever in both °F and °C. If it is necessary to change this setting, reverify calibration after adjustment.

1. Remove scale plate (see the Scale Plate section).
2. Slide the black TR adjuster to appropriate value/location.

NOTE: The hole in the TR adjuster fits a 1/16" hex wrench. Gently rotate the adjuster back and forth while sliding. **Do not turn excessively!**

3. Rotate back to a "square" position after adjustment.
4. Reinstall the scale plate.

Maintenance

Remove dust as necessary from the slots. Clean the window with soft, damp cloth and mild soap.

Care should be taken to keep the unit clean from dust during installation. Each component is designed for dependable, long-term reliability, and performance. Careful installation will also ensure long-term reliability and performance.

Important Notices

For specifications and accessories, see the [CTC-1611/1622 Data Sheet](#) on the [KMC web site](#).

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