

Omnistat Architectural Specifications



HAI RC-Series Omnistat Thermostats feature a sleek, modern case design that blends in with any décor. The large LCD display shows time, temperature and operational mode. The controls are easy to use, with simple raise and lower temperature keys, mode (off, heat, cool, auto), and fan keys (on, auto), Program, and Hold (current settings).

When used with HAI's Omni family of automation controllers, full control of RC-Series thermostats is available on remote LCD consoles, telephones (with voice response) and over the Internet with HAI Web-Link II. The Omni's advanced programming features add comprehensive energy management capabilities to one or more thermostats. The Omni automatically sets the thermostat's time and outdoor temperature displays.

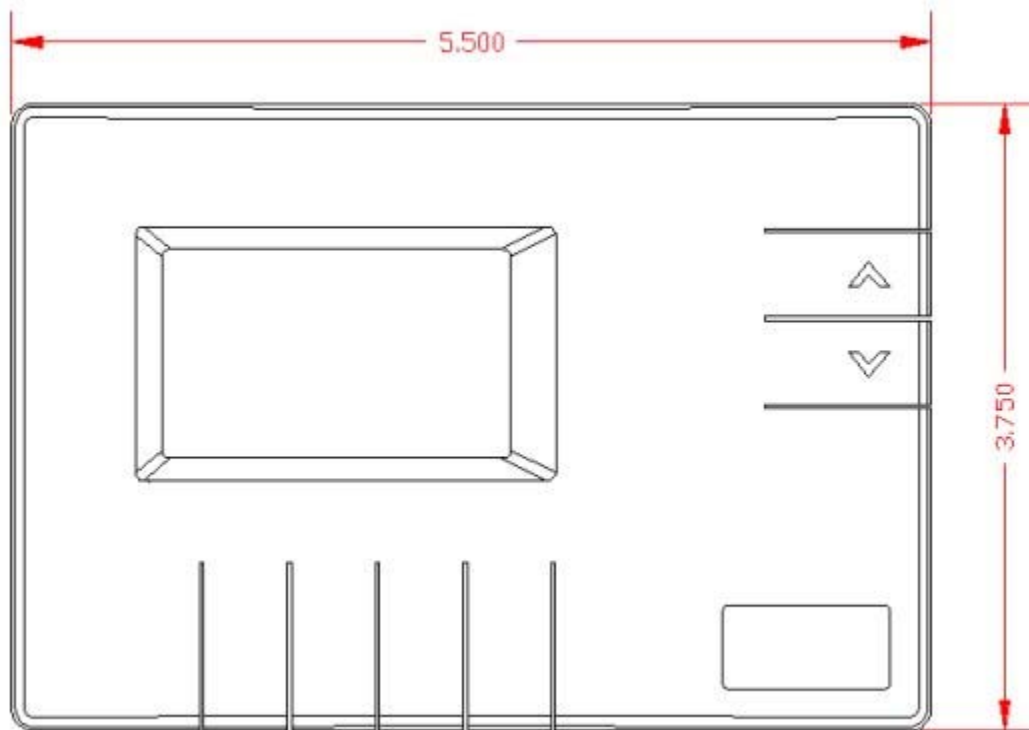
All models feature advanced logic for superior temperature control, including "anticipation" for maximum comfort. Models with more than one stage feature HAI's advanced Energy Efficient Control (EEC) to minimize the use of expensive auxiliary heat. The installer can set limits on the heat and cool settings, to prevent the thermostat from being set too high or too low. The thermostat prevents short cycling, protecting the system's compressor. A filter reminder tracks running time of the fan, indicating when it is time to replace the filter.

HAI is an ENERGY STAR Partner. All RC-Series programmable thermostats meet the Environmental Protection Agency's ENERGY STAR Guidelines for energy efficiency.



Available Models

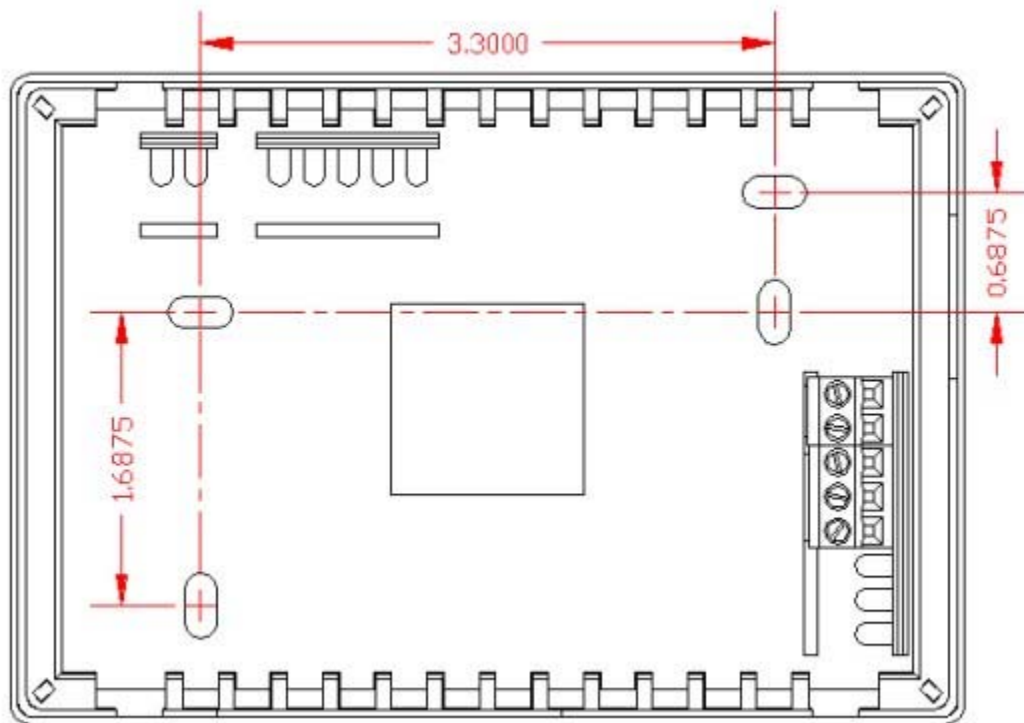
- RC-80B: Single stage heating and cooling systems, heat only or cool only, radiant, hydronic, forced air; gas or electric heat (1 stage cool, 1 stage heat)
- RC-90B: Single stage heating and cooling systems with zoned damper control systems (1 stage cool, 1 stage heat with B and O terminals for master control)
- RC-100B: Single speed heat pump heating and cooling system with auxiliary heat (1 stage cool, 2 stage heat)
- RC-112B: Two speed heat pump system with auxiliary heat (2 stage cool, 3 stage heat)
- RC-122B: Two stage (non heat pump) heating and cooling systems, including two speed furnaces and air conditioners (2 stage cool, 2 stage heat)



RC-Series Omnistat Dimensions



RC-Series Omnistat Depth



RC-Series Omnistat Base Mounting

Features:

- Compatible with systems using 24 volt (20 to 30 V) AC or DC controls.
- Simple user controls for: Mode, Fan, Set, Hold, Raise and Lower Temperature.
- Automatic Changeover between heating and cooling modes (can be configured for manual changeover if auto is not desired).
- Heat Only and Cool Only modes for systems with only one function (RC-80B, -90, -122).
- Adjustable cycle times.
- Adjustable anticipation for wide range of heating system types, including gas, oil or electric, forced air, radiant, hydronic, steam, etc. (RC-80B, -90). Selectable Fahrenheit or Celsius display, AM/PM or 24 hour time format.
- Large LCD Display with time, temperature and mode display.
- System Runtime monitor (this week, last week; hours).
- Filter Clean/Replace indicator reminds owner to clean filter to maintain best efficiency and performance (press Prog key to reset).
- 5-1-1 programming capability: Separate schedules for Weekdays, Saturday and Sunday, with separate heat and cool settings for morning, day, evening and night. Internal scheduler can be disabled for use with automation systems.
- Energy Star compliant.
- High limit for heat setting is adjustable by installer.
- Low limit for cool setting is adjustable by installer.

- Advanced Energy Efficient Control (EEC) monitors performance to minimize use of auxiliary heat (heat pump models RC-100B, RC-112B) or second stage heat (two stage model RC-122B).
- Non-volatile program and setting memory: no batteries required for long term, maintenance-free operation.
- Heat pump and two-stage models have adjustable differential between stages.
- Heat pump models have "emergency heat" mode (in case of heat pump failure).
- RC-80B has power stealing capability for retrofitting 4-wire heating and cooling systems, or can use "common" wire to disable power stealing (All other models use a transformer common wire).
- Dimensions: 5.5 W x 3.75 H x 1.1 D inches.

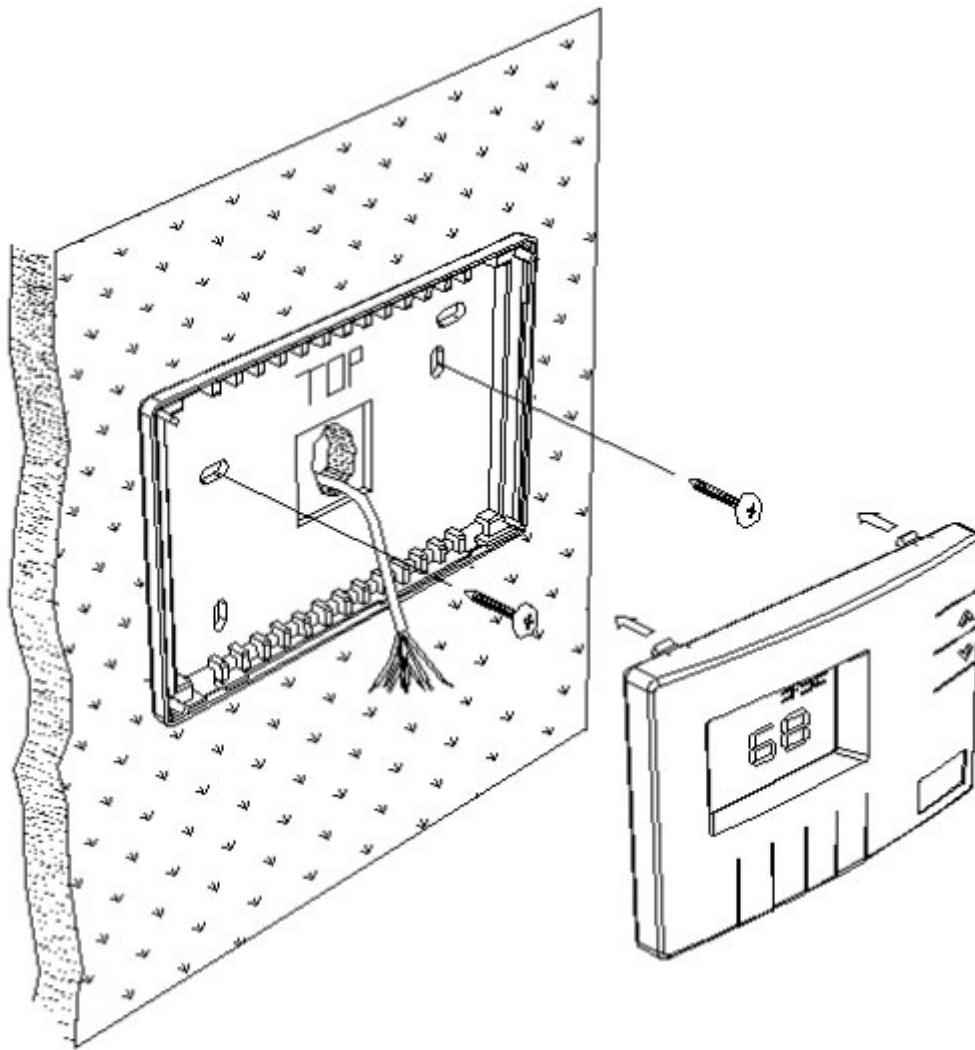
Remote Communications

- 4 communications modes, selectable during installation: 2 serial modes for connection to home automation systems, building management systems and personal computers, and 2 voltage signal modes for connection to time clocks, remote setback switches and many burglar alarm panels.
- Data signal is electrically isolated from heating and cooling system for superior reliability in all modes. Fully interactive with all HAI manufactured controllers, including mode, heat setting, cool setting, fan and hold settings (Serial Mode 1).
- Can communicate directly with the RS-232 port of a personal computer - no adapter required. Serial mode protocol: addressable up to 127 units, bi-directional, 1 start bit, 8 data bits, 1 stop bit NRZ. 300 baud data rate. Can communicate continuously without loss of function. Protocol is available from HAI web site (Serial Mode 2).
- Remote selection between Day and Night settings: a remote signal (12 VDC) selects between user programmed "day" and "night" settings for both heating and cooling modes. The settings can be changed by a user, but they will return to the preprogrammed ones on application (for night) or removal (for day) of the signal. Ideal for use with time clocks, building management systems, access control systems, alarm systems to set to preprogrammed temperatures when building is unoccupied (Voltage signal mode 1).
- Thermostat Override: a remote signal (12 VDC) overrides the thermostat operation and turns off the HVAC system. Removal of signal restores normal operation. Remote indicator shows that thermostat is overridden. Safety feature will turn on heat if temperature drops below 45 degrees F (Voltage signal mode 2).

RC-SERIES OMNISTAT MOUNTING INSTRUCTIONS

When mounting the Omnistat, grasp the thermostat by the sides, avoiding the keys, and unsnap the base from the face.

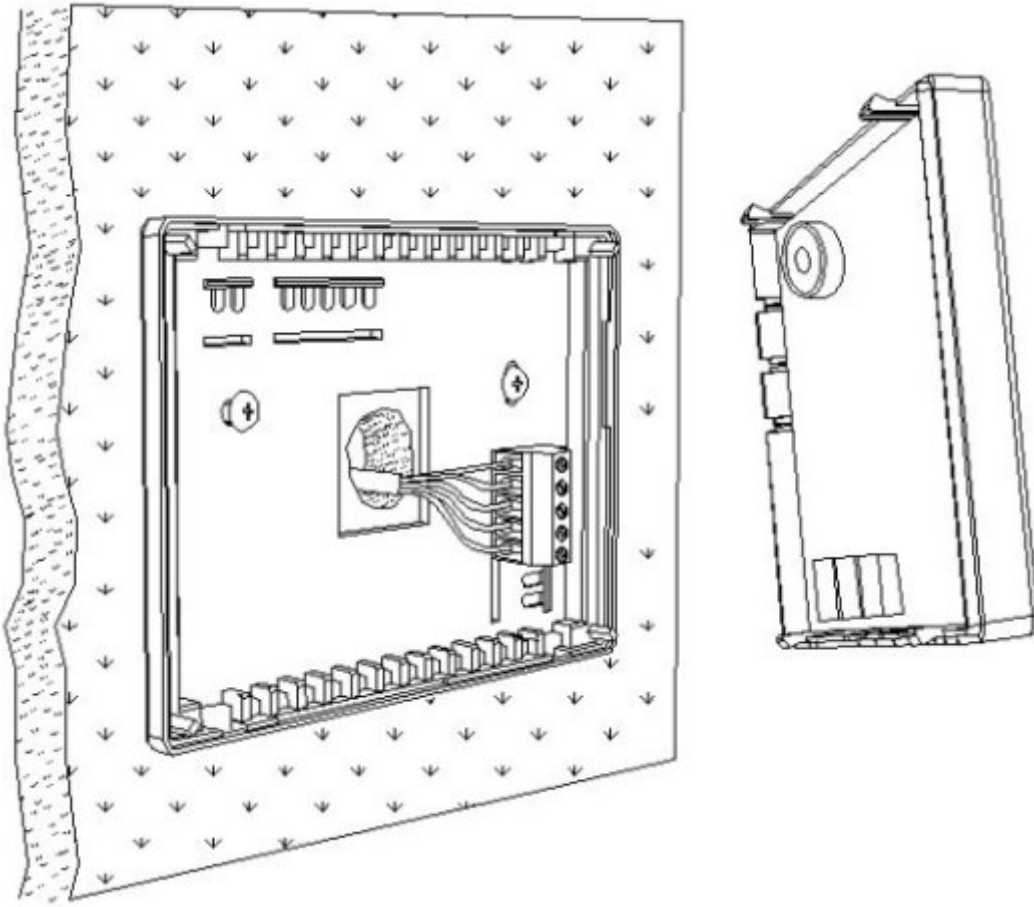
1. Holding the base to the wall so that the word "TOP" is upright and facing you:
2. Mark the two mounting holes on the wall using a pencil.
3. Drill a hole using a 3/16" bit at each mounting hole marking.
4. Install the two wall anchors supplied.
5. Slide the system wires through the opening in the base.
6. Mount the base to the wall using the two #6 x 1/2" self-tapping screws supplied.



Mounting the Thermostat Base

Connect each wire to the terminal strip on the thermostat base per the wiring diagram for your system application..

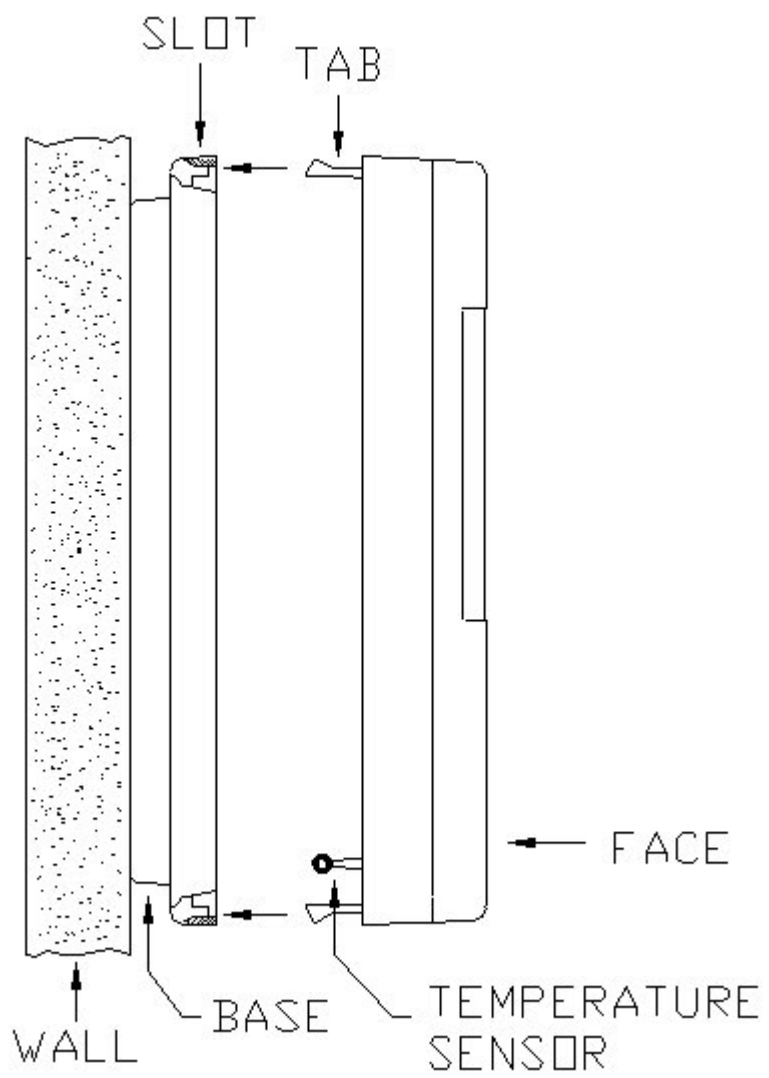
Form the thermostat wiring so that the cable lies flat between the terminal strip and the center of the thermostat base.



Forming Thermostat Wiring

Upon completion of wiring the thermostat, push all excess wiring into the hole in the wall. Plug the hole with the supplied insulating foam to ensure an accurate temperature reading by the thermostat.

Align the tabs of the thermostat face with the slots of the thermostat base. Gently push the thermostat face into the thermostat base locking it into place.



Mounting Thermostat Face to Thermostat Base