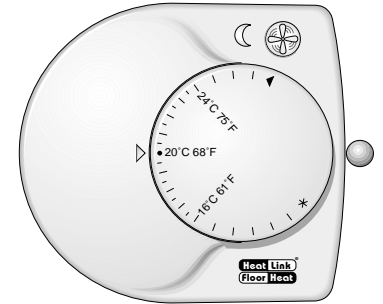


Dear Customer,

We would like to congratulate you on choosing this high quality product. Combining function and design is a sensible and important consideration when selecting a room temperature thermostat. Our thermostats offer a very accurate and reliable operation complete with an interesting and eye-catching (as well as architecturally pleasing) design.

Our electronic room thermostats are specifically designed to work with hydronic heating systems (ie. for use with in-floor radiant heating, baseboards, radiators, and convection panel systems). When used in conjunction with our wax based zone drive operators, they maintain a precise setpoint with minimal fluctuation above and below the setpoint.

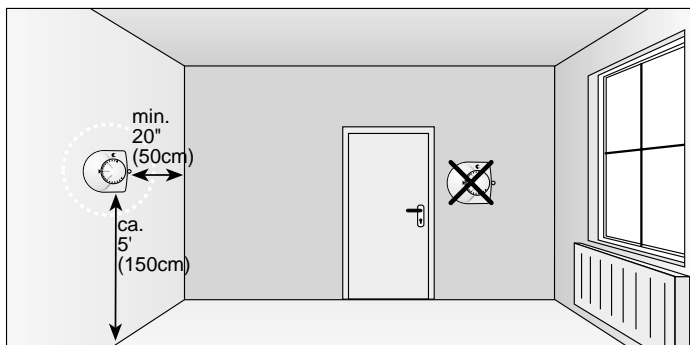


Heat /Cool Thermostat

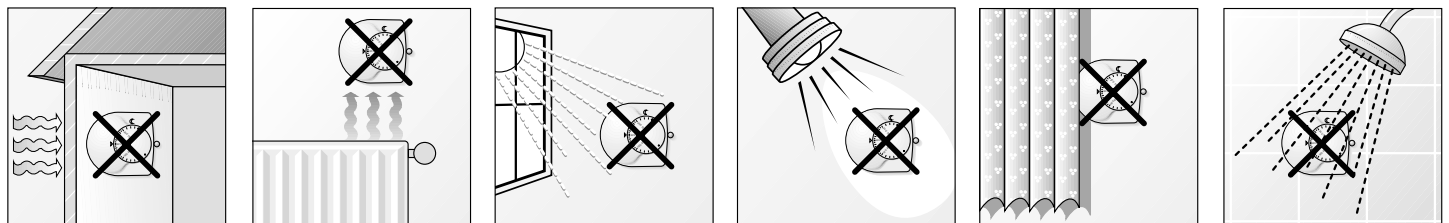
Innovations include:

- Simple installation,
- Easy operation,
- Optimized assembly,
- Excellent serviceability,
- Top class comfort control with 1/4° temperature adjustment!

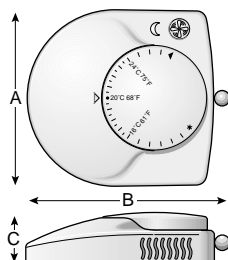
Thermostat Mounting Location Recommendations



- No higher than 5' (150 cm) off the floor
- Minimum 20" (50 cm) from an outer wall
- Do not mount on an outer wall
- Away from door openings
- Away from any direct heat or light source
- Do not cover; allow complete air circulation
- Keep away from moisture



Dimensions in inches and mm

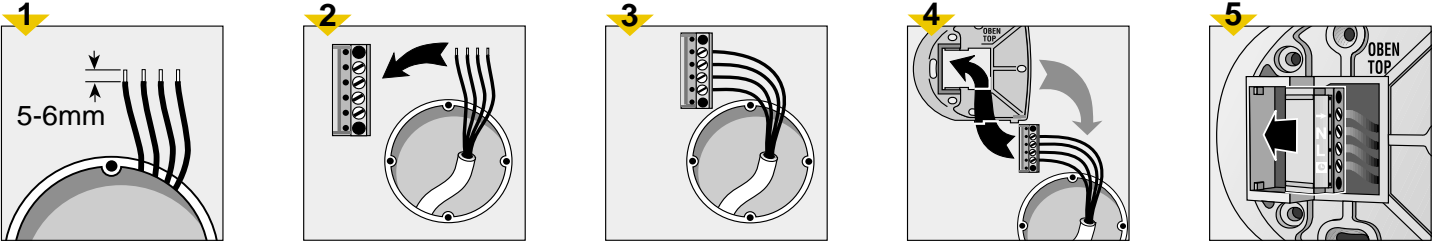


Dimension	in	mm
A	3-1/8"	79
B	3-3/4"	93
C	1-1/8"	27

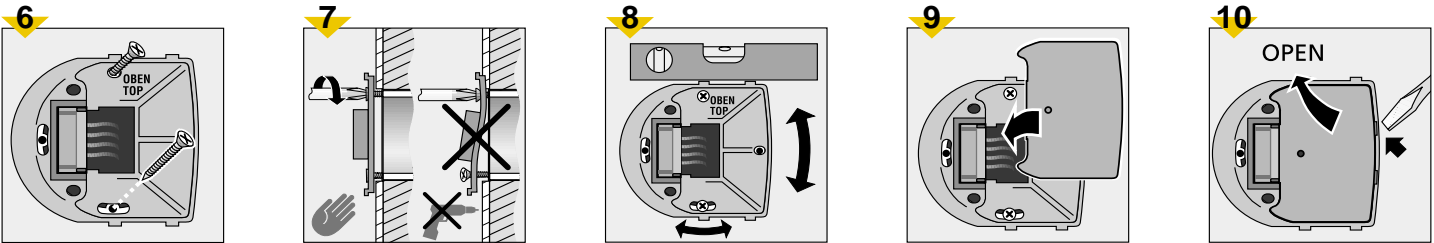
Installation and Assembly

Wall Plate and Thermostat Mounting

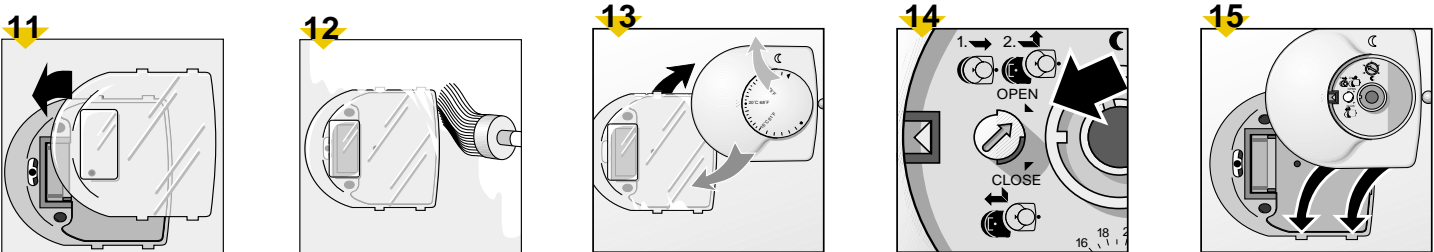
The electrical installation must be carried out by a certified technician in accordance with national, and local electrical & safety codes.



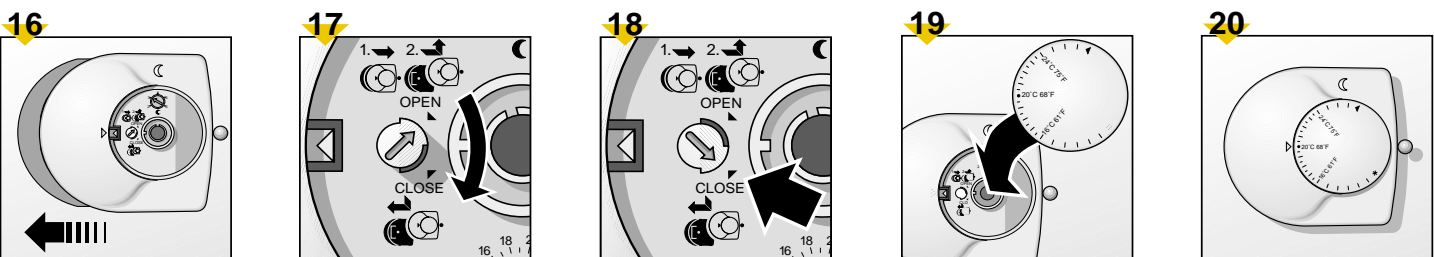
- 1-3. Ensure wire and plug can be recessed into the wall without pinching the thermostat wires.
- 4,5. Install plug into thermostat base with terminal connections facing to the right.



6. For mounting the base onto the wall, **only use countersunk screws**.
7. **Ensure screws are recessed flush into base** so that the locking plate (see diagram 9) can be installed properly; **do not over-tighten to where the base is deforming**; base must sit flush and straight on wall!
8. Use a level if necessary to ensure base is installed properly.
9. After base is installed, **install locking plate**. Do not install without locking plate. The plate's function is to keep the plug in position and locked as the thermostat is removed from the base.
10. For removal of the locking plate, use a small flat head screwdriver in notches as indicated.



- 11,12. If the thermostat base has been installed before all the drywall taping or painting has been completed, the clear plastic dust/paint protective cover can be installed.
13. For permanent mounting of thermostat, remove clear plastic dust/paint protective cover from base, and remove dial from thermostat to access lock screw underneath.
14. Ensure lock screw is in the open position.
15. Line up thermostat body to the base notches.



16. Slide the thermostat to the left until the thermostat pins are connected securely to the base plug. (Note: Do not use force; if the thermostat is difficult to slide, check position of base, lock screw, locking plate, & wire plug to ensure everything lines up & is flush).
- 17,18. Lock thermostat to base by turning locking screw clockwise to the "close" position.
- 19,20. Reinstall thermostat dial.

Installation and Assembly

Electrical Installation

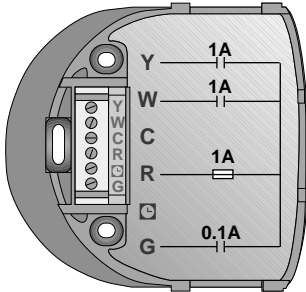
The electrical installation must be carried out by a certified technician in accordance with national, and local electrical & safety codes.

Meaning of Symbols:

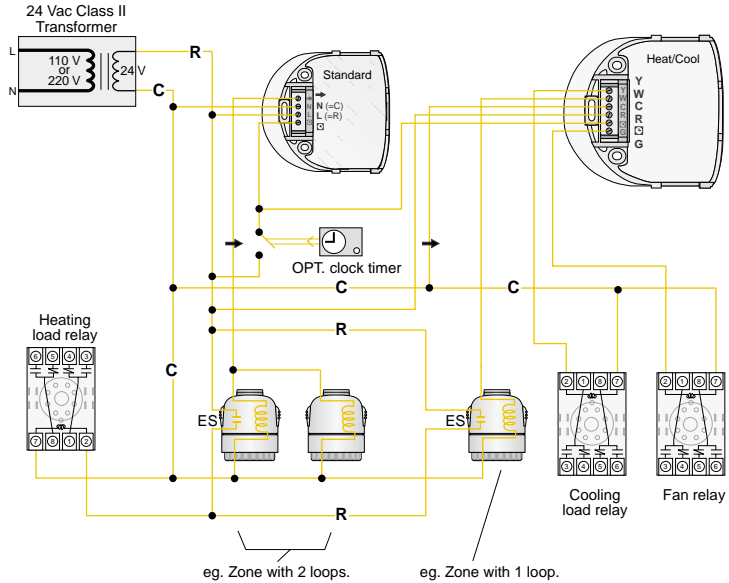
- ➔ Switched output
- C,N Working Voltage C
- R(+),L Working Voltage R(+)
- ⊞ Automatic temperature set-back

Connection symbols:

- ⏱ 1 Channel timer switch
- ⏸ Zone Operator
- Ⓜ Wall Plate



Internal Wiring Schematic



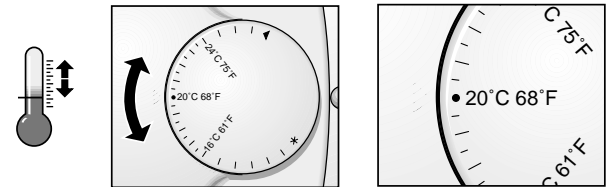
Operating Panel

Nominal Temperature Setpoint

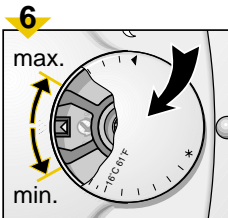
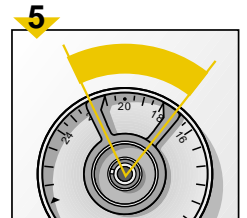
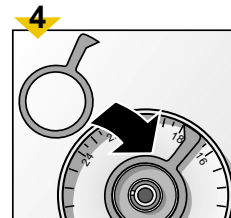
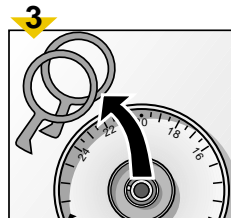
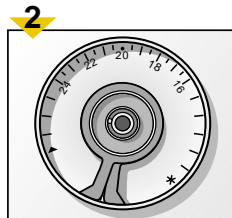
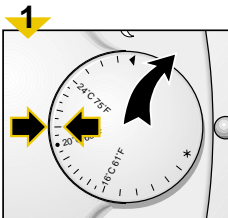
Temperature scale in °C/°F.

Nominal temperature setpoint with “soft-click.”

Both heating & cooling mode will operate to maintain the selected setpoint. There is no fixed temperature differential. Signal lengths and cycle times will vary depending on the actual situation. Switching between heating and cooling operation uses the Selection Switch.



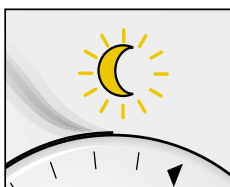
Limiting the Temperature Range



Conversion Chart	
16° C	61° F
18° C	64.5° F
20° C	68° F
22° C	71.5° F
24° C	75° F

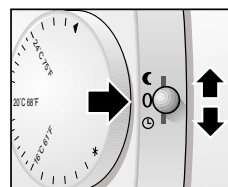
1. To lock and/or limit the temperature range on the thermostat dial, remove dial.
2. Underneath the dial there are two removable locking clips.
3. Place the first clip on the maximum temperature desired.
4. Place the second clip on the minimum temperature desired.
5. Locking clips can be positioned to provide as wide or narrow of a temperature range as desired. (Note: An almost complete lock with only a 0.25° temperature adjustment is possible if desired.)
6. Replace dial and confirm temperature range is set correctly.

Temperature Set-back Indicator



The moon is illuminated when the temperature set-back is in operation.

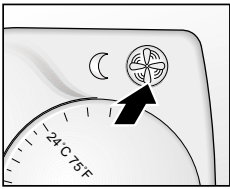
Selection Switch



- ☾ Heating with continual permanent set-back
- ⊖ Heating with automatic set-back
- ⊕ Cooling (no set-back)

Operating Panel (continued)

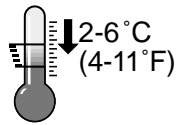
Fan Toggle Switch



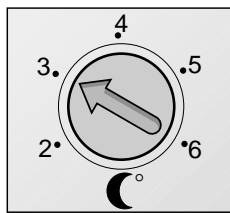
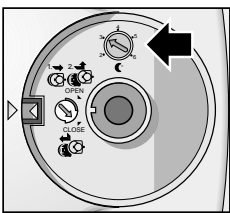
Pushed in - continuous fan operation (regardless of operation mode)
Pushed out - fan auto function (synchronized with the cooling signal, off in heating mode)

Internal Adjustments

Temperature Set-back (Adjustable)



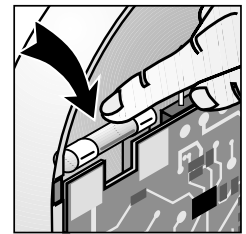
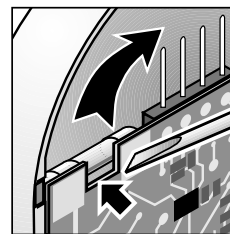
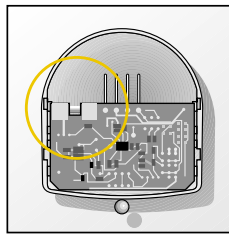
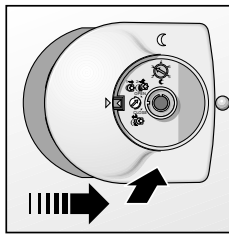
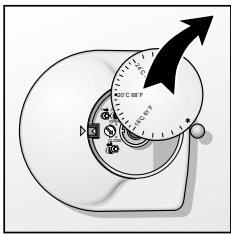
With the set-back thermostats (ie. the adjustable setback or digital timer thermostats) can be varied by 2-6°C (4-11°F) of the set point temperature. (Note: Automatic temperature set-back is only possible with an external timer switch or a digital timer thermostat.)



Conversion Chart	
2°C	3.6°F
3°C	5.4°F
4°C	7.2°F
5°C	9.0°F
6°C	10.8°F

Service

Fuse Exchange



The fuse classification is 1.0 A at 24 V AC.

Technical Data

Functions Chart

Operating Panel:	
Nominal temperature setpoint 50-82° F (10-28° C) with "soft click"	●
Large temperature scale with grade positioning	●
Operating status indicator with illuminated symbol	●
Selection switch for selecting operating mode	●

Internal Adjustments:	
Range limitation of the setpoint temperature	●
Temperature setback: adjustable 3.6-10.8° F (2-6° C)	●

Technical Data:	
Operating voltage 24 V AC	●
Electronic switching output	●
Switch current: max 1A*	●
Number of zone operators max. 5	●
"Automatic" temperature setback	●
Switching temperature differential: ca. 0.4° F/0.2° C	●
Contact type/Contactor class casing: IP 30	●
Assembly: plug-in connection	●

* resistive load

General Notes

Temperature Set-back

The actual set-back in temperature of a room with activated set-back depends on the insulation of the building and the length of time that the set-back is in operation.

Technical Data

Storage temperature -25...60°C (-13...140°F)
Ambient temperature -25...40°C (-13...104°F)
Ambient humidity max. 80% relative humidity, non-condensing

Cooling mode

on/off automatic controller with 0.5°C hysteresis

Heating mode

Proportional + Integral (PI) automatic controller with max 0.3°C rule rockers, cycle time on/off time: 45s - 14min 15 seconds maximum deviation of the adjusted target temperature: <= 0.7°C