

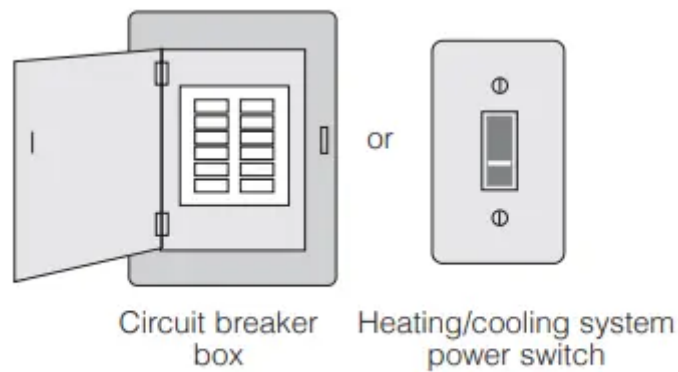
Owner's Manual Programmable Thermostat

Installation is Easy

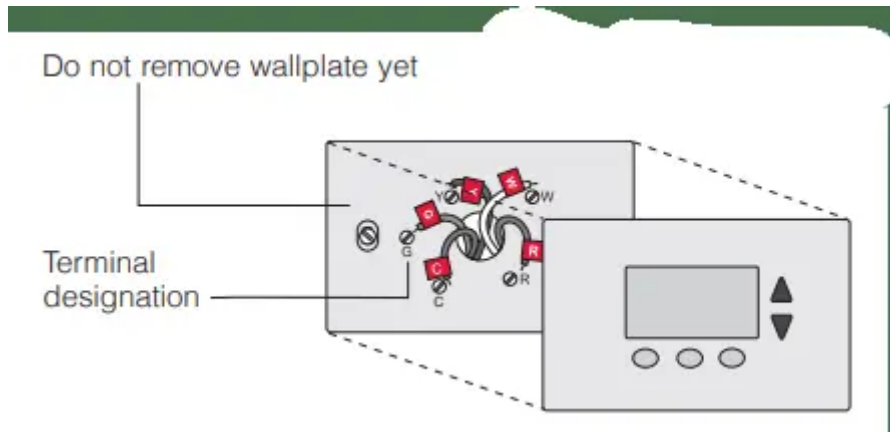
1. Label wires and remove your old thermostat
2. Install and wire your new thermostat
3. Set your new thermostat to match your heating/cooling system
 - It is preset for the most common system

Installation

- 1 Turn Off Power to Heating/Cooling System



- 2 Remove Old Thermostat



- Remove old thermostat but leave wallplate with wires attached.

If you have an older thermostat with a sealed mercury tube, turn to page 2 for proper disposal instructions.

- 3 Label Wires with Tags

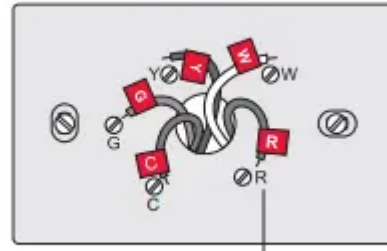
- Label the wires using the supplied wire labels as you disconnect them.

Wiring Labels		Étiquettes de fils		Etiquetas para los cables					
Apply these wiring labels to each wire with the appropriate terminal designation as you remove it from the existing thermostat.		Lorsque vous retirez les fils des bornes de thermostat existant, collez ces étiquettes sur chaque fil correspondant à la lettre de la borne.		Cópialos estos mástos, con la designación de los terminales, en cada cable al removerlo de cada terminal existente.					
B	B	Y2	Y2	C	C	E	E	F	F
G	G	H	H	L	L	O	O	P	P
R	R	RC	RC	RH	RH	T	T	U	U
WVR	WVR	W	W	W1	W1	W2	W2	W3	W3
X	X	X1	X1	X2	X2	Y	Y	Y1	Y1

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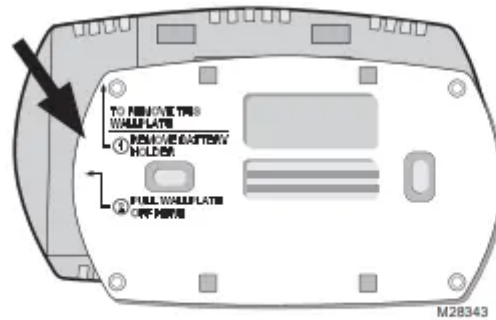
Wire Labels



Terminal designation

4 Separate Wallplate from New Thermostat

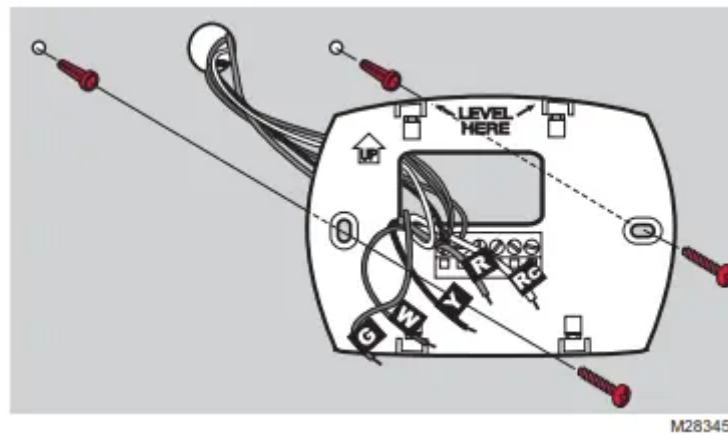
- Remove wallplate from the new thermostat and mount onto wall.



Wallplate

5 Mount Wallplate

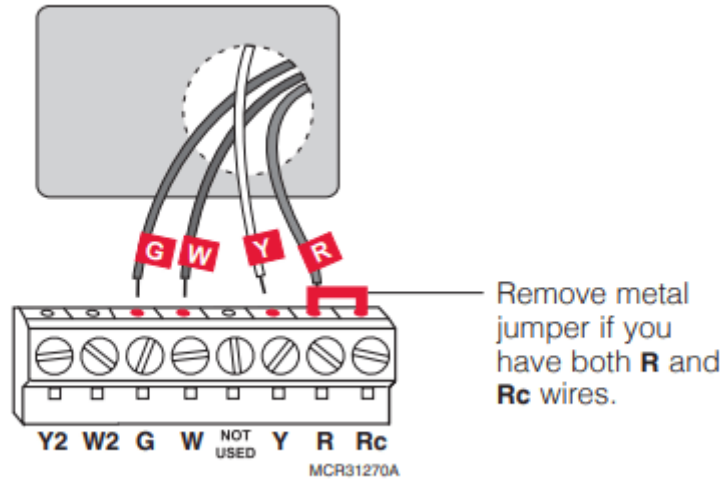
- Mount the new wallplate using the included screws and anchors.



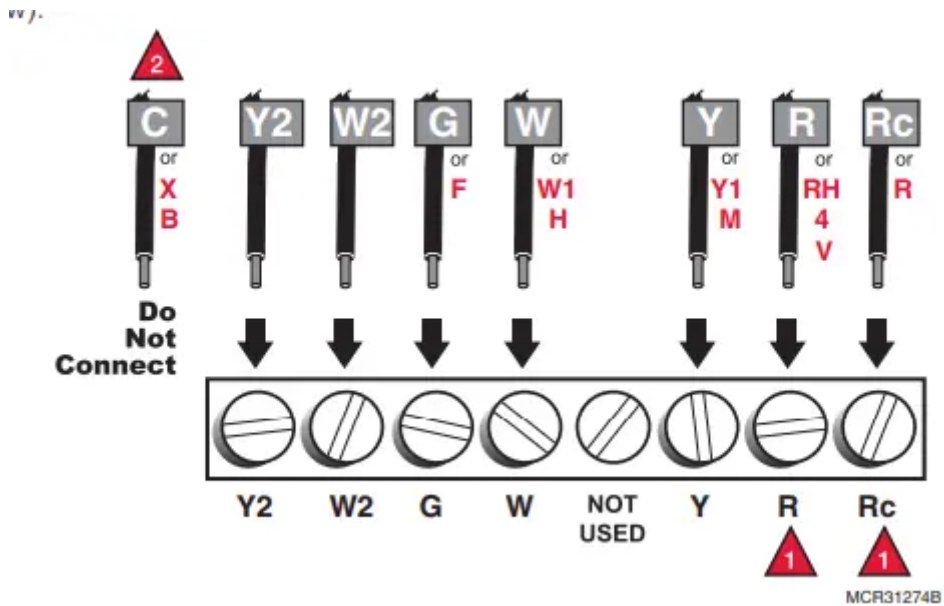
- Drill 3/16-in. holes for drywall
- Drill 3/32-in. holes for plaster

6 Connect Wires

- Simply match wire labels.
- If labels do not match letters on the thermostat, check Alternate Wiring on page 6 and connect to terminal as shown (see notes, below).

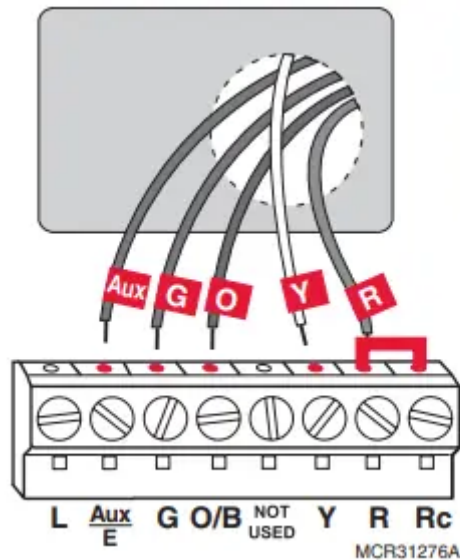


Alternate Wiring (Conventional Systems): If labels do not match terminals, connect wires as shown here (see notes, below).

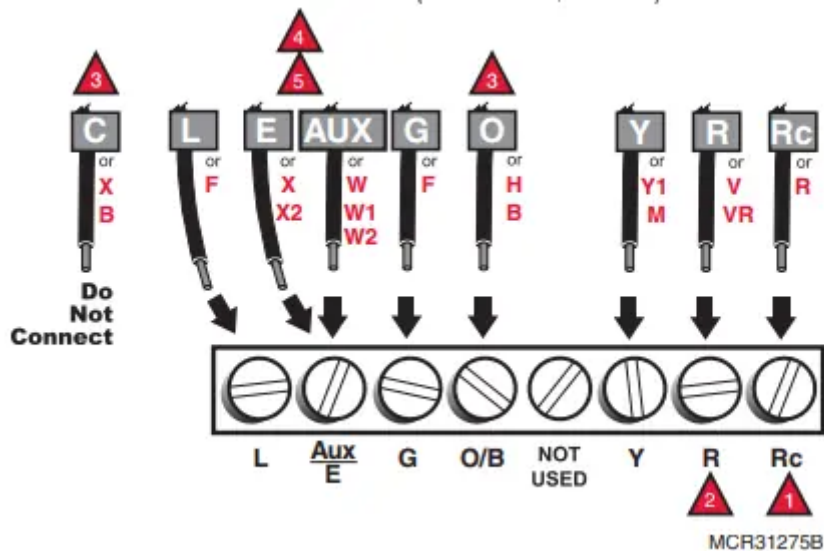


1. f wires will be connected to both R and Rc terminals, remove metal jumper.
2. Do not use C, X or B. Wrap bare end of wire with electrical tape

Wiring—Heat Pump: If E and Aux do not each have a wire connected, use a small piece of wire to connect them to each other.



Alternate Wiring (Heat Pump Only): If labels do not match letters on the thermostat, check the chart below and connect to terminal as shown here (see notes, below).

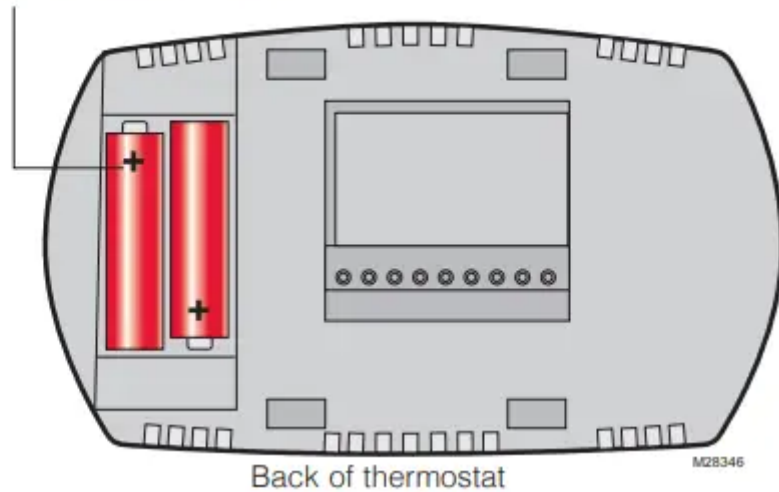


1. Leave metal jumper in place, connecting R and Rc terminals.
2. If your old thermostat had both V and VR wires, stop now and contact a qualified contractor for help.
3. If your old thermostat had separate O and B wires, wrap the B wire in electrical tape and do not connect.
4. If your old thermostat had Y1, W1 and W2 wires, stop now and contact a qualified contractor for help.
5. If there were separate wires on E and Aux, place both wires in the Aux/E terminal.

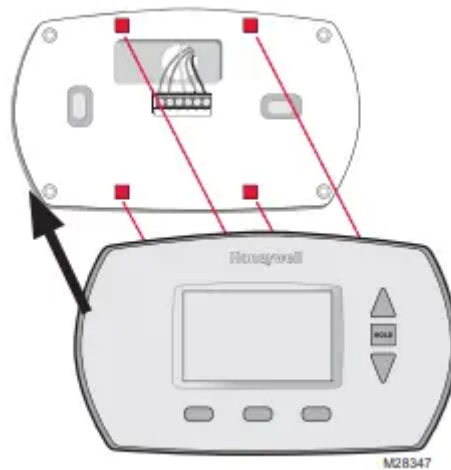
7 Install Batteries



Install two AA alkaline batteries.

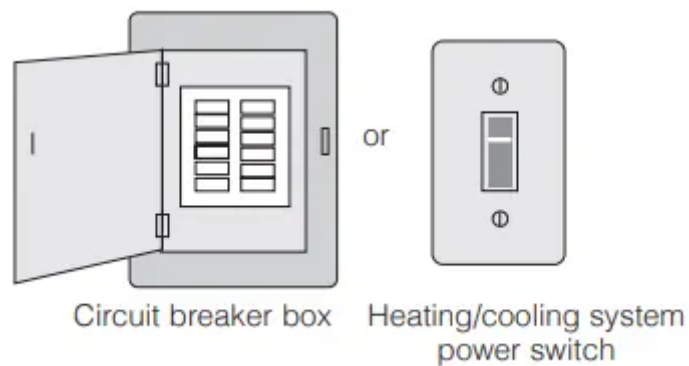


8 Install Thermostat onto Wallplate



- Install thermostat onto the wallplate on the wall.

9 Turn Power Back On



- Turn the power back on to the heating/cooling system.

10 If your system type is...

If your system type is:

- Single Stage Heat and Cool

If your system type is:

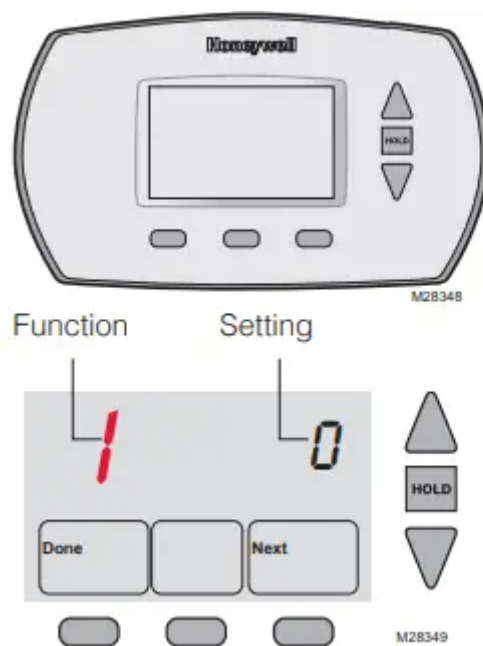
- Multistage Heat and Cool
- Heat Pump* without Backup Heat
- Heat Pump* with Backup Heat
- Heat Only
- Cool Only

Continue with Advanced Installation to match your thermostat to your system type.


*Heat Pump—an air conditioner that provides cooling in the summer, and also runs in reverse in the winter to provide heating.

This thermostat works on 24 volt or 750 mV systems. It will NOT work on 120/240 Volt systems.

Advanced Installation



Enter System Setup

- To enter system setup, press and hold both the  and FAN buttons until the display changes (approximately 5 seconds).

Changing Settings

1. Press the  or  button to change the setting.

2. Press NEXT to advance to the next function.

3. Press DONE to exit and save settings.

Function -- Description Press the  or  button to -- Setting

1 - select the type of system you have in your home

- 0 Heating & cooling: Gas, oil or electric heating with central air conditioning.
- 1 Heat pump: Outside compressor provides both heating and cooling without backup or auxiliary heat.
- 2 Heating only: Gas, oil or electric heating without central air conditioning.
- 3 Heating only with fan: Gas, oil or electric heating without central air conditioning. (Use this setting if you could turn the fan on and off with a fan switch on your old thermostat.)
- 4 Cool only: Central air conditioning only.
- 5 Heat pump: Outside compressor provides both heating and cooling with backup or auxiliary heating.
- 6 Heat/Cool Multiple Stages: Two heat stages (wires on W and W2), two cooling stages (wires on Y and Y2).
- 7 Heat/Cool Multiple Stages: Two heat stages (wires on W and W2), one cooling stage (wire on Y).
- 8 Heat/Cool Multiple Stages: One heat stage (wire on W), two cooling stages (wires on Y and Y2).

2 - select whether your changeover valve is used in heating or cooling

- 0 Cooling changeover valve: Use this setting if you connected a wire labeled "O" to the O/B W wire terminal.
- 1 Heating changeover valve: Use this setting if you connected a wire labeled "B" to the O/B W wire terminal.

3 - select your heating system and fan operation

- 0 Gas or oil heat: Use this setting if you have a gas or oil heating system (system controls fan operation).
- 1 Electric heat: Use this setting if you have an electric heating system (thermostat controls fan operation).

5 - select your Stage 1 heating system and optimize its operation

- 5 Gas or oil furnace: Use this setting if you have a standard gas or oil furnace that is less than 90% efficient.
- 9 Electric furnace: Use this setting if you have any type of electric heating system.

- 3 Heat pump, hot water or high-efficiency furnace: Use this setting if you have a hot water system or a gas furnace of greater than 90% efficiency.
- 1 Gas/oil steam or gravity system: Use this setting if you have a steam or gravity heat system.

6 - select your Stage 2 heating system and optimize its operation

- 5 Gas or oil furnace: Use this setting if you have a standard gas or oil furnace that is less than 90% efficient.
- 9 Electric furnace: Use this setting if you have any type of electric heating system.
- 3 Heat pump, hot water or high-efficiency furnace: Use this setting if you have a hot water system or a gas furnace of greater than 90% efficiency.
- 1 Gas/oil steam or gravity system: Use this setting if you have a steam or gravity heat system

8 - Emergency Heat Cycle Rate (heat pumps only)

- 9 Electric furnace: Electric heating systems

12 - select Manual or Auto Changeover

- 0 Manual Changeover: (Heat/Off/Cool)
- 1 Automatic Changeover: (Heat/Off/Cool/Auto) Automatically turns on heat or cool based on room temperature.

13 - select Smart Response® Technology

- 1 Smart Response Technology ON
- 0 Smart Response Technology OFF

14 - select Fahrenheit or Celsius temperature display

- 0 Fahrenheit temperature display (°F)
- 1 Celsius temperature display (°C)

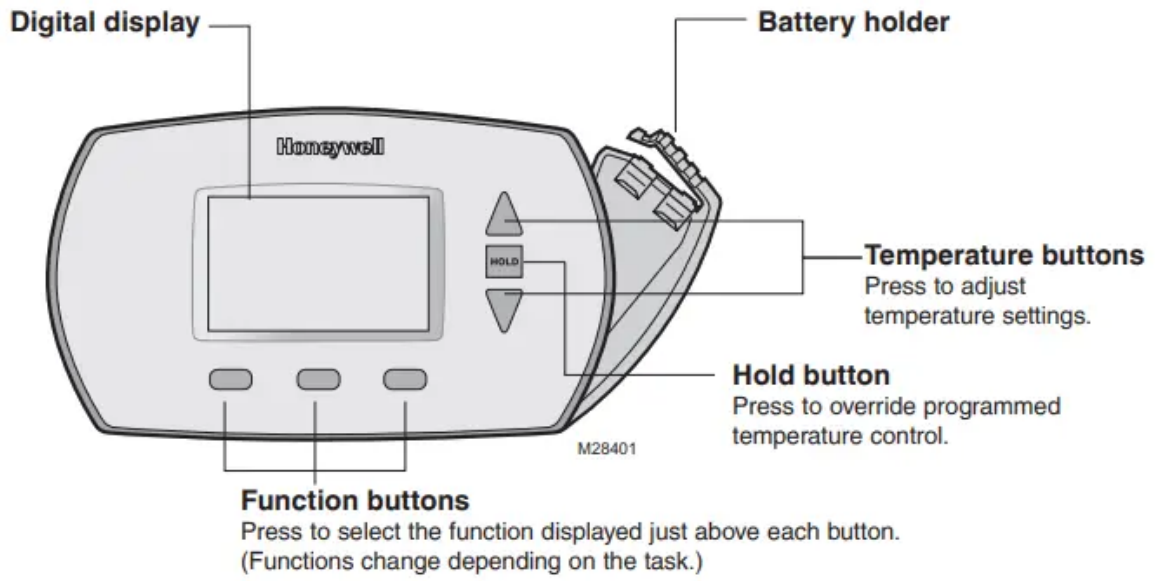
About your new thermostat

Your new Honeywell thermostat has been designed to give you many years of reliable service and easy-to-use, push-button climate control.

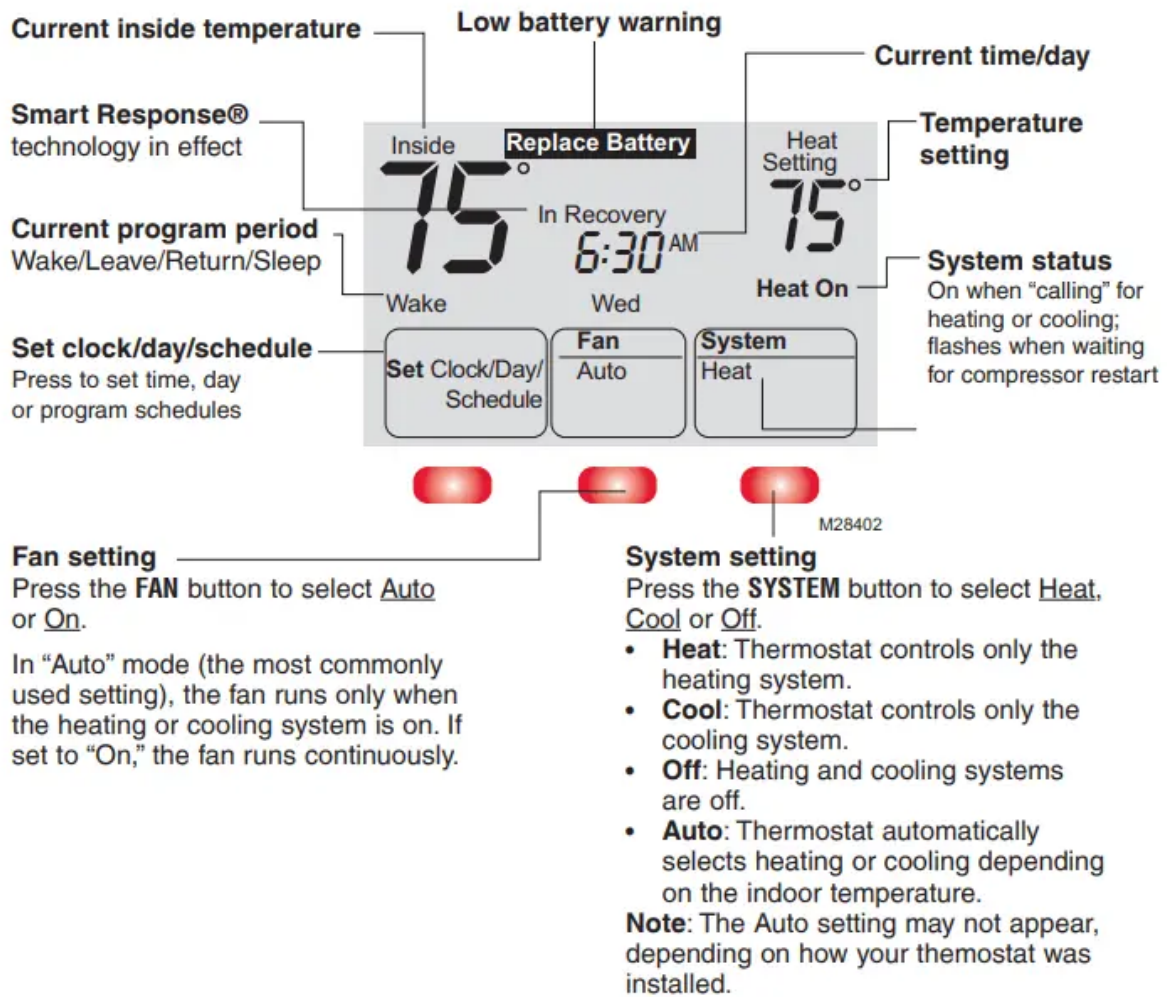
- Easy-to-follow menu programming.
- One-touch temp control overrides program schedule at any time.
- Large, clear, backlit display is easy to read — even in the dark.
- Displays both room temperature and temperature setting.
- Removable battery holder for fast, easy replacement.

- Built-in compressor protection.

Thermostat controls



Display screen



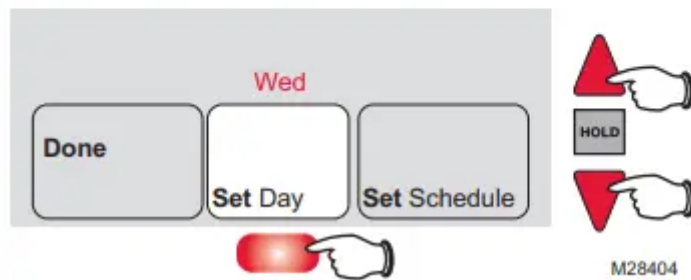
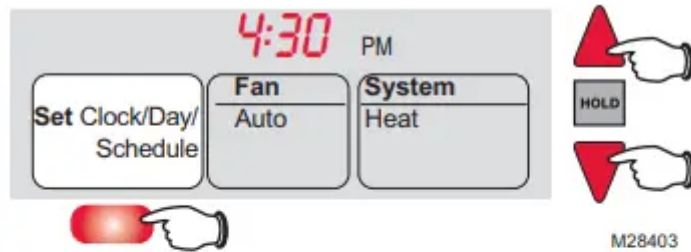
Fan setting





- Press the FAN button to select Auto or On.
- In “Auto” mode (the most commonly used setting), the fan runs only when the heating or cooling system is on. If set to “On,” the fan runs continuously

System setting

- Press the SYSTEM button to select Heat, Cool or Off.
 - Heat: Thermostat controls only the heating system.
 - Cool: Thermostat controls only the cooling system.
 - Off: Heating and cooling systems are off.
 - Auto: Thermostat automatically selects heating or cooling depending on the indoor temperature.
- Note: The Auto setting may not appear, depending on how your thermostat was installed.

Set the time and day



1. Press SET CLOCK/DAY/SCHEDULE, then press  or  to set the clock time.
2. Press the SET DAY button, then press  or  to select the day of the week.
3. Press DONE to save & exit.

NOTE: If the SET CLOCK/DAY/ SCHEDULE option is not displayed, press DONE or RUN SCHEDULE.

NOTE: If the display flashes Set Clock, the thermostat will follow your settings for the weekday "Wake" time period until you reset the time and day.

Programming and operation

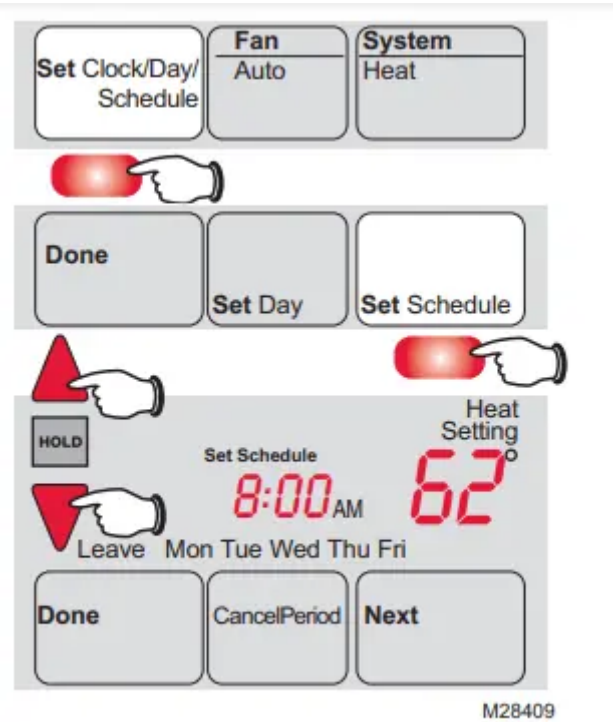
Program Schedule





	Heat	Cool
Wake (6:00 am)	70°	78°
Leave (8:00 am)	62°	85°
Return (6:00 pm)	70°	78°
Sleep (10:00 pm)	62°	82°

- You can program four time periods each day, with different settings for weekdays and weekends. We recommend the pre-set settings (shown in the table below), since they can reduce your heating/cooling expenses.
- Wake - Set to the time you awaken and the temperature you want during the morning, until you leave for the day.
- Leave - Set to the time you leave home and the temperature you want while you are away (usually an energy-saving level).
- Return - Set to the time you return home and the temperature you want during the evening, until bedtime.
- Sleep - Set to the time you go to bed and the temperature you want overnight (usually an energy-saving level).
- NOTE: Leave and Return periods can be canceled on weekends.



To adjust program schedules (RTH6350 and RET93E only)



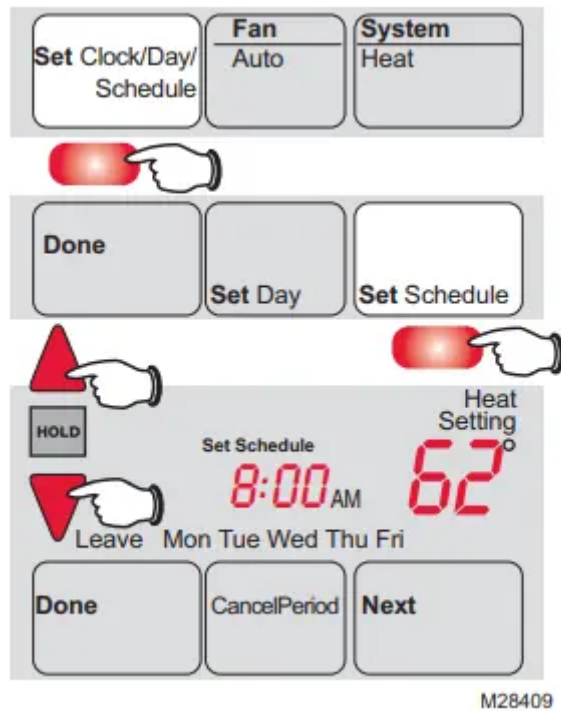
1. Press SET CLOCK/DAY/SCHEDULE, then SET SCHEDULE.
2. Press  or  to set your weekday Wake time (Mo-Fr), then press NEXT.
3. Press  or  to set the temperature for this time period, then press NEXT.
4. Set time and temperature for the next time period (Leave). Repeat steps 2 and 3 for each weekday time period.
5. Press NEXT to set weekend time periods (Sa & Su), then press DONE to save & exit.

NOTE: Make sure the thermostat is set to the system you want to program (Heat or Cool).

NOTE: You can press CANCEL PERIOD to eliminate unwanted time periods (except Wake).



To adjust program schedules (RTH6450 and RET95E only)

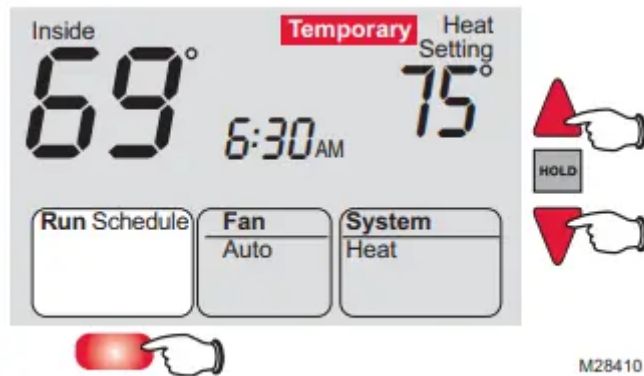


1. Press SET CLOCK/DAY/SCHEDULE, then SET SCHEDULE.
2. Press ▲ or ▼ to set your weekday Wake time (Mo-Fr), then press NEXT.
3. Press ▲ or ▼ to set the temperature for this time period, then press NEXT.
4. Set time and temperature for the next time period (Leave). Repeat steps 2 and 3 for each weekday time period.
5. Press NEXT to set Saturday time periods.
6. Press NEXT to set Sunday time periods, then press DONE to save & exit.

NOTE: Make sure the thermostat is set to the system you want to program (Heat or Cool).

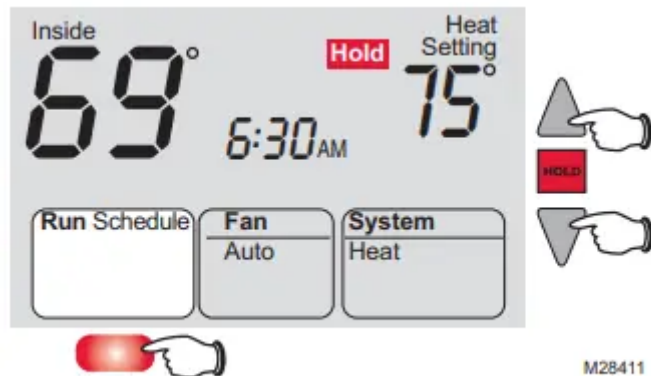
NOTE: You can press CANCEL PERIOD to eliminate unwanted time periods (except Wake)

Program schedule override (temporary)



- Press ▲ or ▼ to immediately adjust the temperature. This will temporarily override the temperature setting for the current time period.
- “Temporary” will appear on the display and the current program period will flash.
- The new temperature will be maintained only until the next programmed time period begins
- To cancel the temporary setting at any time, press RUN SCHEDULE.
- NOTE: Make sure the thermostat is set to the system you want to control (heat or cool).

Program schedule override (permanent)

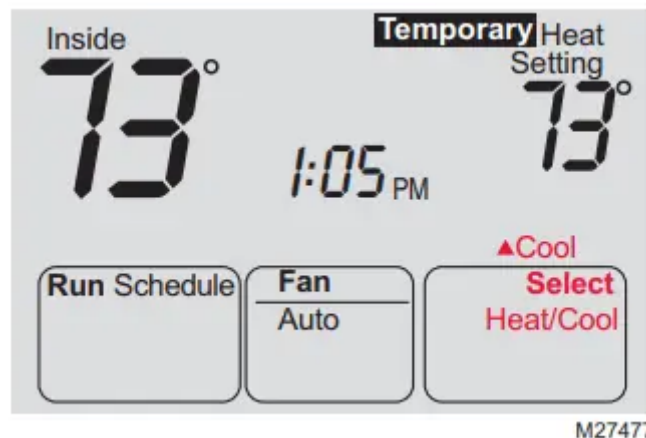


- Press HOLD to permanently adjust the temperature. This will override the temperature settings for all time periods.
- The “Hold” feature turns off the program schedule and allows you to adjust the thermostat manually, as needed.
- Whatever temperature you set will be maintained 24 hours a day, until you manually change it, or press RUN SCHEDULE to cancel “Hold” and resume the program schedule.

- NOTE: Make sure the thermostat is set to the system you want to control (heat or cool).

Auto Changeover (RTH6450 and RET95E only)

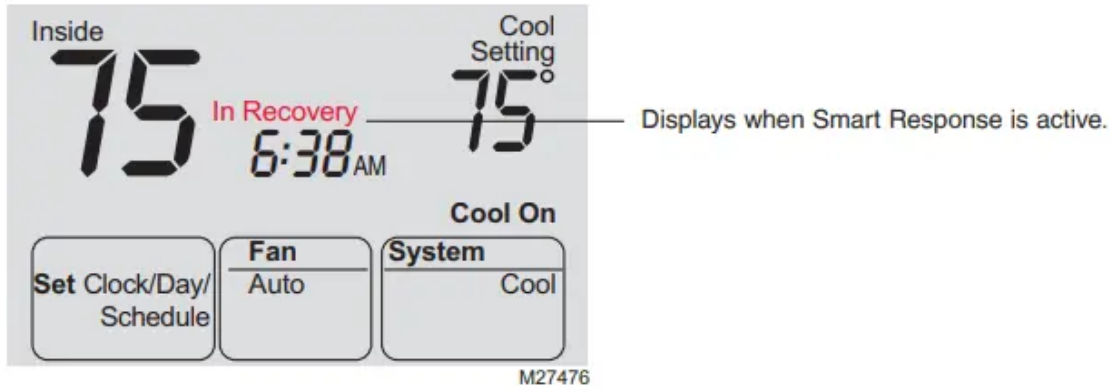
- Use this feature in climates where both air conditioning and heating are used on the same day. When the system mode is in Auto, the thermostat automatically selects heating or cooling depending on the indoor temperature.
- While in the Auto mode, if a schedule override takes place (temporarily or permanently) the thermostat will automatically adjust the cooling and heating settings to maintain a 3-degree separation between the cool and heat settings.
- For example, if the heat temperature is raised to where it gets within 3-degrees of the cool setting, the display will show an up arrow next to “cool” to show the thermostat is raising the cool setting up to maintain a 3-degree separation.
- Press the Select Heat/Cool button to select between the heat and cool to view/ adjust either mode.



- NOTICE: To avoid possible compressor damage, do not use Auto Changeover if the outside temperature drops below 50°F (10°C).

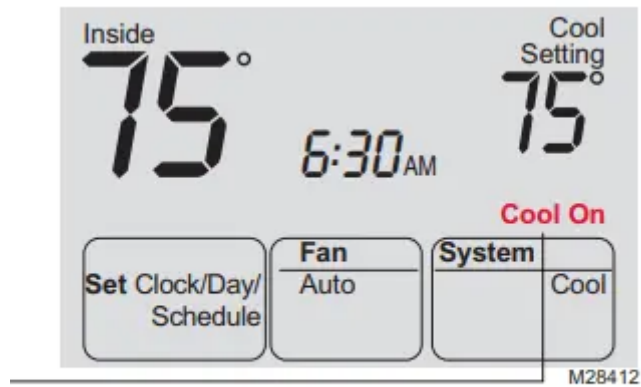
Smart Response® Technology

- Smart Response® Technology: This feature allows the thermostat to “learn” how long the furnace and air conditioner take to reach programmed temperature settings, so the temperature is reached at the time you set. For example: Set the Wake time to 6 am, and the temperature to 70°. The heat will come on before 6 am, so the temperature is 70° by the time you wake at 6. The message “In Recovery” is displayed when the system is activated before a scheduled time period.

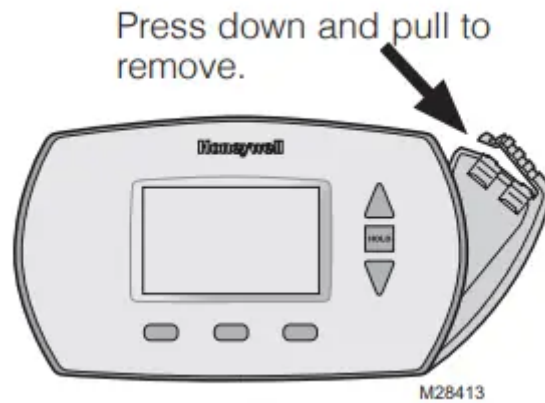


Built-in compressor protection

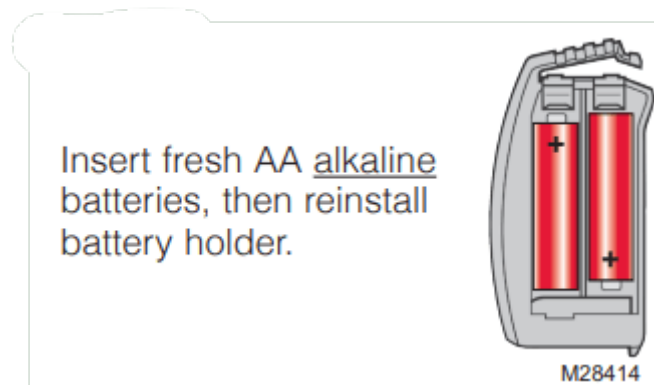
- This feature helps prevent damage to the compressor in your air conditioning or heat pump system.
- Damage can occur if the compressor is restarted too soon after shutdown. This feature forces the compressor to wait a few minutes before restarting.
- During the wait time, the display will flash the message Cool On (or Heat On if you have a heat pump). When the safe wait time has elapsed, the message stops flashing and the compressor turns on



Battery replacement



- Install fresh batteries immediately when REPLACE BATTERY begins flashing. The warning flashes about two months before the batteries are depleted.
- Replace batteries once a year, or when you will be away for more than a month.
- If batteries are inserted within two minutes, the time and day will not have to be reset. All other settings are permanently stored in memory and do not require battery power.



Troubleshooting

If you have difficulty with your thermostat, please try the following suggestions. Most problems can be corrected quickly and easily

1. Display is blank

- Make sure fresh AA alkaline batteries are correctly installed

2. Temperature settings do not change: Make sure heating and cooling temperatures are set to acceptable ranges:

- Heat: 40° to 90°F (4.5° to 32°C).
- Cool: 50° to 99°F (10° to 37°C).

3. Cannot change system setting to Cool

- Check Function 1: System Type to make sure it is set to match your heating and cooling equipment Fan does not turn on when heat is required
- Check Function 3: Heating Fan Control to make sure it is set to match your heating equipment

4. Heating or cooling system does not respond

- Press SYSTEM button to set system to Heat. Make sure the temperature is set higher than the Inside temperature.
- Press SYSTEM button to set system to Cool. Make sure the temperature is set lower than the Inside temperature.
- Check circuit breaker and reset if necessary.
- Make sure power switch at heating & cooling system is on.
- Make sure furnace door is closed securely.
- Wait 5 minutes for the system to respond.

5. “Cool On” or “Heat On” is flashing

- Compressor protection feature is engaged. Wait 5 minutes for the system to restart safely, without damage to the compressor.

6. Heat pump issues cool air in heat mode, or warm air in cool mode

- Check Function 2: Heat Pump Changeover Valve to make sure it is properly configured for your system

7. Heating and cooling equipment running at the same time (or heat does not turn off)

- Check Function 1: System Type to make sure it is set to match your heating and cooling equipment.
- Grasp and pull thermostat away from wallplate. Check to make sure bare wires are not touching each other.

8. Heating system is running in cool mode

- Check Function 1: System Type to make sure it is set to match your heating and cooling equipment

Warning

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.

