Honeywell

Quick Start Guide

Programmable Thermostat

RTH7400/RTH7500, RET97 Series

Installation is Easy

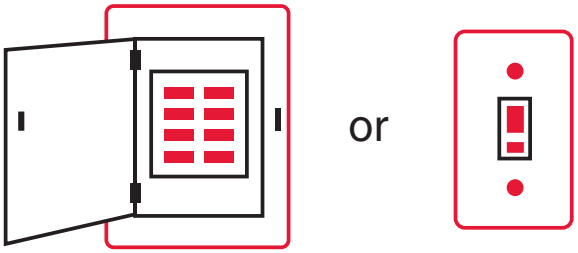
- Label wires and remove your old thermostat
- Install and wire your new thermostat
- Set your new thermostat to match your heating/cooling system
  - This thermostat works with virtually all System Types
  - It is preset for the most common system

We are here to help.

Call 1-800-468-1502 for wiring assistance before returning the thermostat to the store.

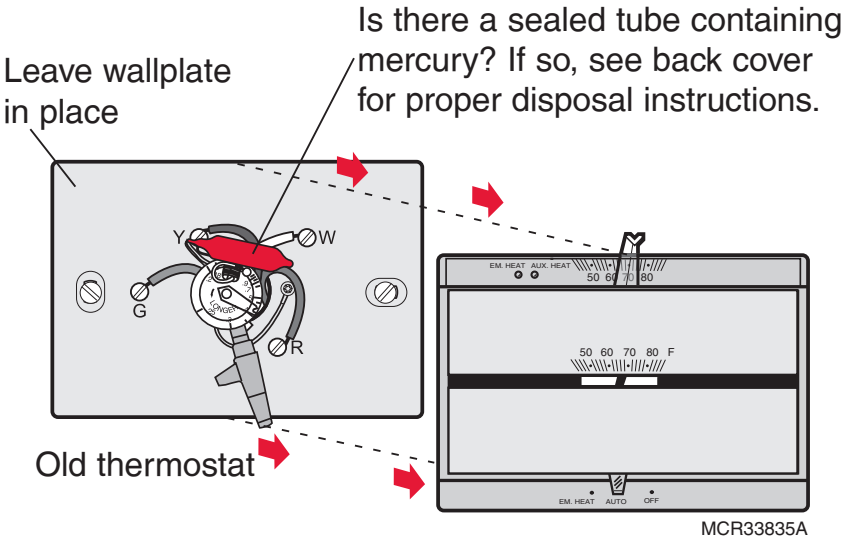
This thermostat works on 24 volt or 750 mV systems. It will NOT work on 120/240 Volt systems.

1 Turn OFF Power to Heating/ Cooling System



2 Remove Old Thermostat

Remove old thermostat but leave wallplate with wires attached.



3 Label Wires with Tags

Label the wires using the supplied wire labels as you disconnect them, then remove the old wallplate.

Wiring Labels
Apply these wiring labels to each wire with the appropriate terminal designation as you remove it from the existing thermostat.

Étiquettes de fils
Lorsque vous retirez les fils des bornes du thermostat existant, collez ces étiquettes sur chaque fil correspondant à la lettre de la borne.

Rótulos para los cables
Coloque estos rótulos, con la designación de las terminales, en cada cable al remover los cables del termostato actual.

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
V/VR	V/VR	W	W	W1	W1	W2	W2	W3	W3
X	X	X1	X1	X2	X2	Y	Y	Y1	Y1
AUX	AUX								

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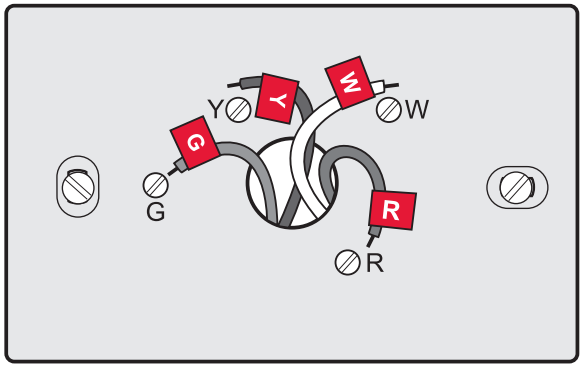
Wire color might not match labels.

Wire Labels



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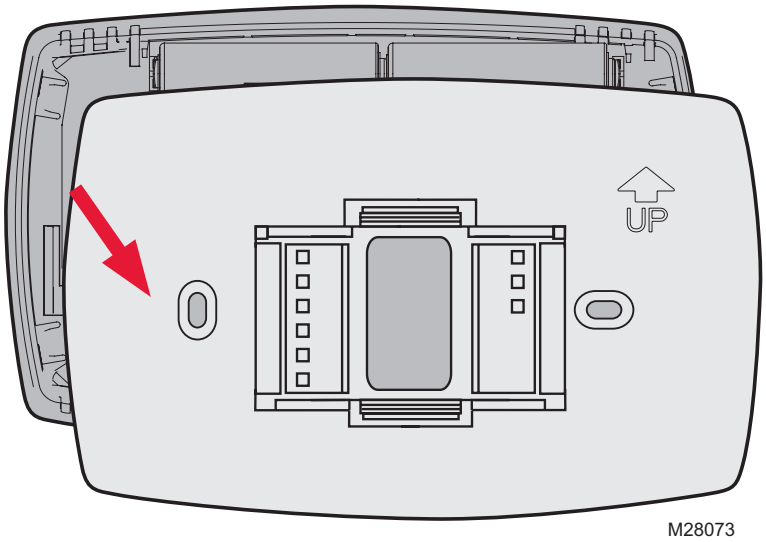
NOTE: Jumper wire used on old thermostat? If yes, note what letters the jumper connected and review in wiring section.

4 Separate Wallplate from New Thermostat

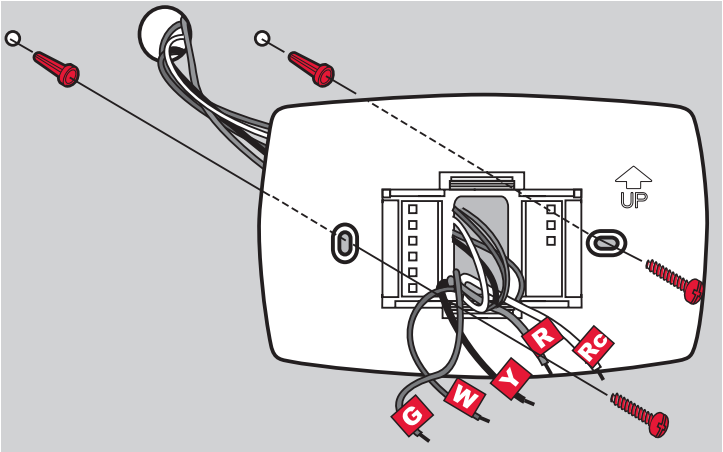
Remove wallplate from the new thermostat.



Wallplate

5 Mount Wallplate

Mount the new wallplate using the included screws and anchors.



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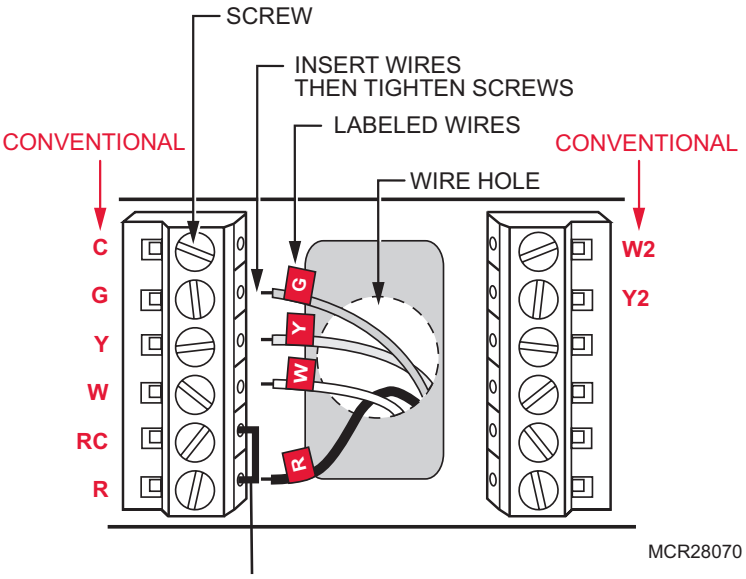
Drill 3/16-in. holes for drywall
Drill 7/32-in. holes for plaster

6 Connect Wires

Simply match wire labels.



Remove metal jumper if you have both **R** and **Rc** wires.

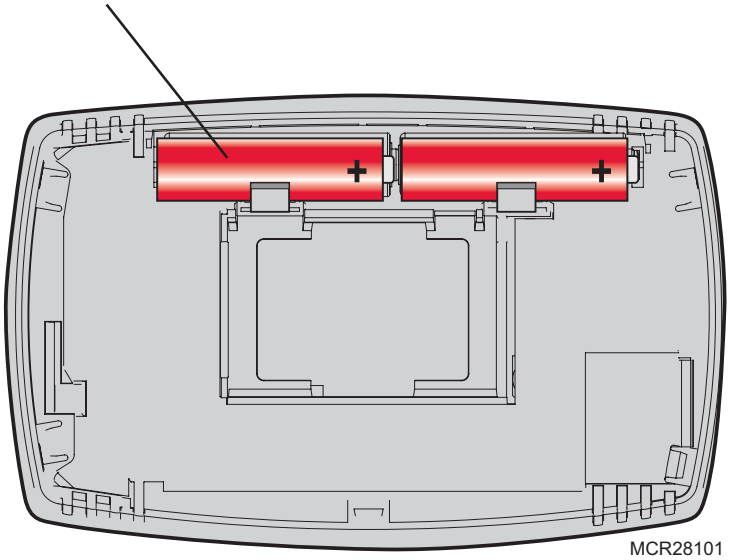
Labels don't match? See Wiring Notes (over).

Have a Heat Pump system? See Wiring Notes (over).

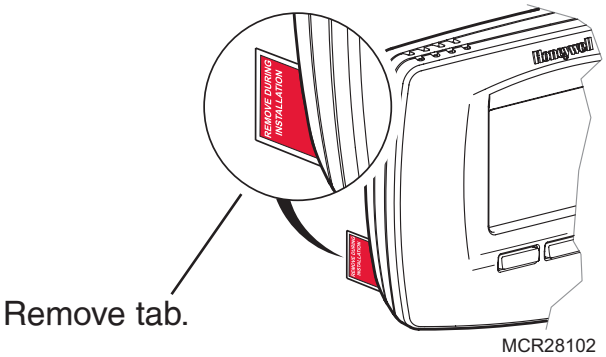
Call 1-800-468-1502 for wiring assistance.

7 Install Batteries

Install two AA alkaline batteries and remove tab.



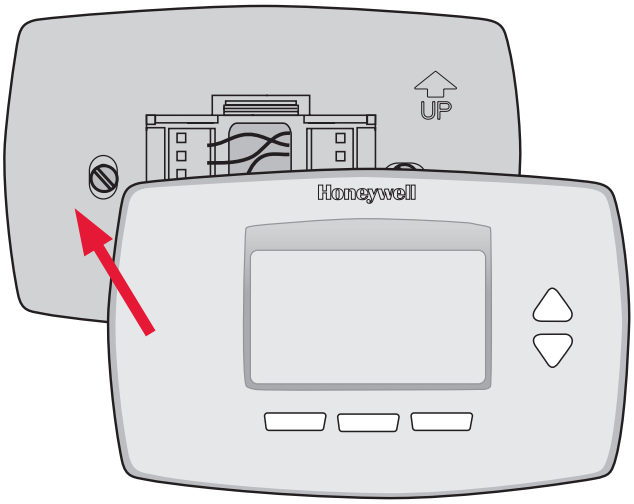
Back of thermostat



Remove tab.

8 Install Thermostat onto Wallplate

Install thermostat onto the wallplate on the wall.



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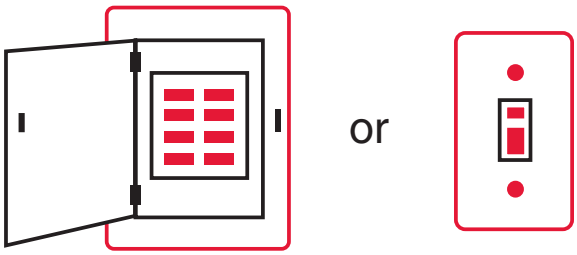
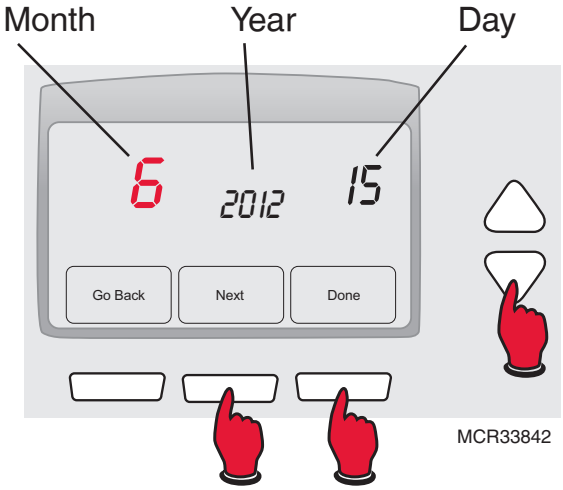
9 Turn Power Back ON

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

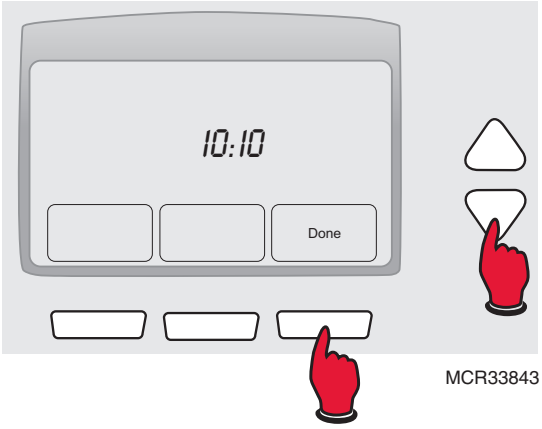


10 Set Time and Date

Press ▲ or ▼ to set month, then press NEXT.
Press ▲ or ▼ to set day, then press NEXT.
Press ▲ or ▼ to set year, then press DONE.



Press ▲ or ▼ to set time, then press DONE to save and exit.



11 If your system type is...

If your system type is:

❑ Single Stage Heat and Cool

Congratulations, you're done!

Thermostat is set with energy saving schedule; see operating manual to adjust schedule.

If your system type is:

❑ Multistage Heat and Cool

❑ Heat Pump* without Backup Heat

❑ Heat Pump* with Backup Heat

❑ Heat Only

❑ Cool Only

Continue to step 12a to match your thermostat to your system type.

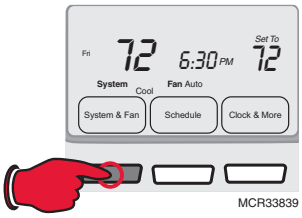
*Heat Pump—an air conditioner that provides cooling in the summer, and also runs in reverse in the winter to provide heating.

If you are not sure of your system type or if you have other questions, call us toll-free at 1-800-468-1502.

12a System Setup

Step 1

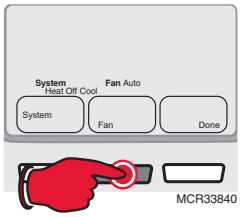
Press and release the left button.



NOTE: Some functions may not appear due to thermostat model or previous selections made.

Step 2

Press and hold the center button until the screen changes (approximately 5 seconds).

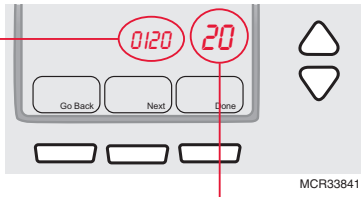


Step 3

1 Press ▲ ▼ to change setting.

2 Press **NEXT** to advance to next function.

3 Press **DONE** to save & exit.



Function	Settings & Options
0120* **Year Setting (first two digits)**	20 = Year 20xx 21 = Year 21xx
0130* **Year Setting (second two digits)**	01 - 99 (i.e., 2001 - 2099)
0140* **Month Setting**	01 - 12 (i.e., January - December)
0150* **Date Setting**	01 - 31
0170 **Select System Type**	1 **Heat/cool:** Gas, oil or electric heating with central air conditioning. 2 **Heat pump:** Heat pump without backup or auxiliary heat. 3 **Heat only:** Gas, oil or electric heat without central air conditioning. 4 **Heat only with fan:** Gas, oil or electric heat without central air conditioning. 5 **Hot water heat only (no fan):** Gas, oil or hot water heat without central air conditioning. 6 **Cool only:** Central air conditioning only. 7 **Heat pump:** Heat pump with backup or auxiliary heating. 8 **Heat/Cool Multiple stages:** 2 heat stages (wires on **W** and **W2**), 2 cooling stages (wires on **Y** and **Y2**). 9 **Heat/Cool Multiple stages:** 2 heat stages (wires on **W** and **W2**), 1 cooling stage (wire on **Y**). 10 **Heat/Cool Multiple stages:** 1 heat stage (wire on **W**), 2 cooling stages (wires on **Y** and **Y2**).
0180 **Heating Fan Control**	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).
0190 **Heat Pump Changeover Valve (for heat pumps only)**	0 **Cooling changeover valve:** Use this setting if you connected a wire labeled “O” to the O/B terminal (see page 22). 1 **Heating changeover valve:** Use this setting if you connected a wire labeled “B” to the O/B terminal (see page 23).
0240 **Heating Cycle Rate**	5 **Gas or oil furnace:** Standard gas/oil furnace (less than 90% efficiency). 9 **Electric furnace:** Electric heating systems. 3 **Hot water or high-efficiency furnace:** Hot water system or gas furnace (more than 90% efficiency). 1 **Gas/oil steam or gravity system:** Steam or gravity heat systems.
0270 **Emergency Heat Cycle Rate (heat pumps only)**	Settings 5, 9, 3, or 1 recommended. Other settings: 2, 4, 6, 7, 8, 10, 11, 12. The number indicates how frequently the system cycles on and off to maintain the set temperature. A higher number means the system is on and off for shorter amounts of time, a lower number means longer on and off times. When these settings are set to match the system type, the thermostat controls temperature more accurately.

* **Functions set in Step 10.**

12b Preferences (optional)

Use the Setup and Navigation steps in 12a to set Display Preferences.

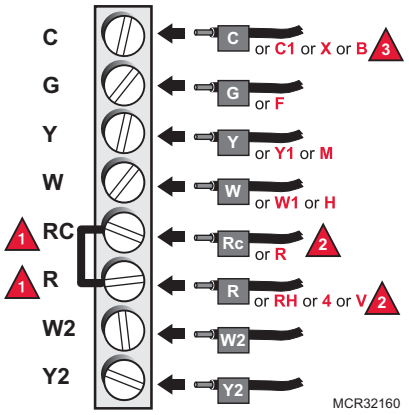
Function		Settings & Options	
0300	**Manual/Auto Changeover**	0	Manual changeover (Heat/Cool/Off).
		1	Automatic changeover (Heat/Cool/Auto/Off). Automatically turns on Heat or Cool based on room temperature. Note: System maintains minimum 3°F difference between heat and cool settings.
0320	**Temperature Format (°F/°C)**	0	Fahrenheit
		1	Celsius
0330	**Daylight Saving Time On/Off**	0	Off: No adjustment for daylight saving time.
		1	On: Auto-change to daylight saving time (for areas that do not use the new 2007 DST calendar).
		2	On: Auto-change to daylight saving time (2007 and beyond, for areas that use the new 2007 DST calendar).
0500	**Furnace Filter Change Reminder**	0	Off (no reminder)
		1	Reminder in about 1 month
		2	Reminder in about 3 months
		3	Reminder in about 6 months
		4	Reminder in about 9 months
		5	Reminder in about 1 year
		6	Reminder in about 3 years
0530	**Smart Response® Technology**	1	On
		0	Off
0600	**Maximum Heat Temperature Limit (select models only)**	90°F (other options: 40-89°F [4-32°C])	
0610	**Minimum Cool Temperature Limit (select models only)**	50°F (other options: 51-99°F [11-37°C])	
0640	**Clock Format**	12	12-hour clock (i.e., “3:30 pm”)
		24	24-hour clock (i.e., “15:30”)

Wiring Notes

Conventional system

Alternate wiring (conventional systems)

1. Remove metal jumper connecting **R** and **Rc** only if you must connect both **R** and **Rc** wires.
2. If your old thermostat had both **R** and **RH** wires, remove metal jumper. Connect the **R** wire to the **Rc** terminal, and the **RH** wire to the **R** terminal.
3. If your old thermostat had only 1 **C** or **C1** wire, connect it to the **C** terminal. If your old thermostat had 2 **C** or **C1** wires, wrap each separately with electrical tape and do not connect them.



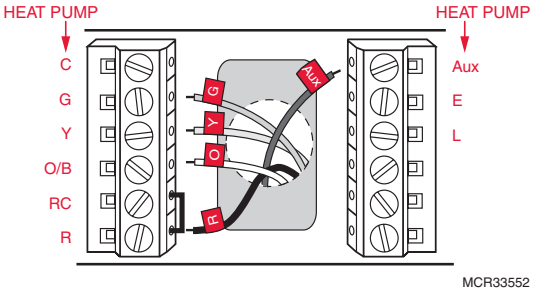
Heat pump

Connect wires: Heat Pump

1. Match each labeled wire with same letter on new thermostat.
2. Use a screwdriver to loosen screws, insert wires into hole under screw, then tighten screws until wire is secure.
3. If **E** and **Aux** do not each have a wire connected, use a small piece of wire to connect them to each other.
4. Push any excess wire back into the wall opening.

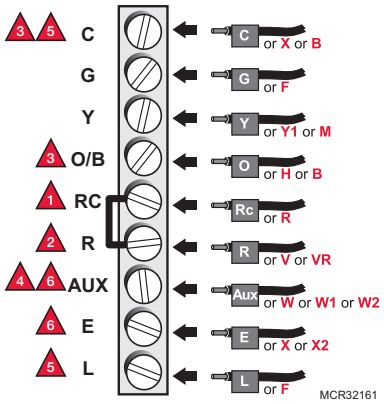
Labels don't match?

If labels do not match letters on thermostat, see Alternate wiring (heat pump system only)



Alternate wiring (heat pump system only)

1. Leave metal jumper in place, connecting **R** & **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, attach the **B** wire to the **C** terminal. If another wire is attached to the **C** terminal, stop now and contact a qualified contractor for help.
4. If your old thermostat had **Y1**, **W1** and **W2** wires, stop now and contact a qualified contractor for help.
5. If **L** terminal is used, **C** terminal wire must be connected (contact a contractor if there is no **C** wire).
6. If **E** and **Aux** terminals do not each have a wire connected, use a small piece of wire to connect them to each other.



Customer assistance

For assistance with this product, please visit
http://yourhome.honeywell.com
or call Honeywell Customer Care toll-free at
1-800-468-1502.

This thermostat contains a Lithium battery which may contain Perchlorate material.
Perchlorate Material—special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate

MERCURY NOTICE: Do not place your old thermostat in the trash if it contains mercury in a sealed tube. Contact the Thermostat Recycling Corporation at www.thermostat-recycle.org or 800-238-8192 for information on how and where to properly and safely dispose of your old thermostat.

CAUTION: To avoid possible compressor damage, do not run air conditioner if the outside temperature drops below 50°F (10°C).

Automation and Control Solutions

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