Honeywell Home

Programmable Thermostat

Owner's Manual

RTH2510/ RTH2410 Series

Set Hold Run	0 0 0		

Read and save these instructions.

For help please visit honeywellhome.com

Identify System Type

.

This thermostat is compatible with the following systems:

- Gas, oil or electric furnace
- Central air conditioner
- Hot water system with or without pump
- Millivolt system
- Central heating and cooling system
- Heat pump without auxiliary/backup heat
- Heat pump with auxiliary/backup heat





CAUTION: MERCURY NOTICE

If this product is replacing a control that contains mercury in a sealed tube, do not place the old control in the trash. Contact your local waste management authority for instructions regarding recycling and proper disposal.

CAUTION: ELECTRONIC WASTE NOTICE

The product should not be disposed of with other household waste. Check for the nearest authorized collection centers or authorized recyclers. The correct disposal of end-oflife equipment will help prevent negative consequences for the environment and human health.

FCC statement at: https://customer.resideo.com/en-US/support/residential/codes-and-standards/FCC15105/Pages/default.aspx



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

Customer Assistance

For assistance with this product, please visit honeywellhome.com.

Or call Resideo Customer Care toll-free at 1-800-468-1502.

To save time, please note your model number and date code before calling.

Pull at bottom to remove thermostat from wallplate.

Turn thermostat over to find model number and date code.



Table of Contents

Installation

Installation	3
Advanced Installation9)

About Your New Thermostat

Controls and Home Screen	
Quick Reference11	
Preset Energy-Saving Schedules12)

Programming and Operation

Setting the Clock	12
Adjusting Program Schedules	13

Overriding Schedule Temporarily	14
Overriding Schedule Permanently.	14
Compressor Protection	15
Early Start	15
Change Filter	16
Replace Batteries	16

Appendices

Troubleshooting1	7
Limited Warranty1	

1 Turn Off Power to Heating/Cooling System





Circuit breaker Heating/cooling system box power switch

or

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.

Wiring Lat Apply these v each wire wit terminal desi remove it fro thermostat.	wiring lat th the ap ignation a	propriate as you	Lorsq borne collez chao	s du them ces étiqu	tirez les fil hostat exis attes sur spondant à	lant,	Rótulos Coloque er designació en cada ca cables del	stos rótulo n de las te ble al rem	s, con la rminales, over los
в	в	Y2	Y2	с	С	Е	Е	F	F
G	G	н	н	L	L	0	0	Ρ	Р
R	R	RC	RC	RH	RH	т	т	U	U
V/VR \	//VR	W	W	W1	W1	W2	W2	W3	W3
×	х	X1	X1	X2	X2	Υ	Y	Y1	Y1
69-0823EFS • 5-03 • Printed in U.S.A. www.honeywell.com/yourhome									

M28100



Terminal designation

4 Separate Wallplate from New Thermostat Remove wallplate from the new thermostat and mount onto wall.



5 Mount Wallplate

Mount the new wallplate using the included screws and anchors.



M32714

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 (Conventional Systems)" on page 6 and connect to terminal as shown (see notes, below).



Maximum load: 1 A @ 24 Vac, 50/60HZ per output.

We are here to help. Call 1-800-468-1502 for wiring assistance.

Alternate Wiring (Conventional Systems)

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



If wires will be connected to both ${\bf R}$ and ${\bf Rc}$ terminals, remove metal jumper.

, Do not use **C** or **X**. Wrap bare end of wire with electrical tape.



If you <u>have</u> a **heat pump** without auxiliary/backup heat connect **O** or **B**, <u>not</u> both.

Alternate Wiring (Heat Pump)

If labels do not match letters on thermostat, see page 7.



Alternate wiring (for heat pumps with auxiliary or backup heat only)

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





Leave metal jumper in place, connecting **R** & **Rc** terminals.

If your old thermostat had both ${\bf V}$ and ${\bf VR}$ wires, $\underline{stop}\ now$ and contact a qualified contractor for help.

If your old thermostat had separate **O** and **B** wires, wrap the B wire in electrical tape and do not connect.

If your old thermostat had **Y1**, **W1** and **W2** wires, <u>stop now</u> and contact a qualified contractor for help.



Do not use **C** or **X** wire. Do not use **B** wire if you already have **O** wire. Wrap bare end of wire with electrical tape.

6

Do not use **L** wire. Wrap bare end of wire with electrical tape.

If your old thermostat had ${\bf E}$ and ${\bf Aux}$ wires (or alternate wires), connect both wires to ${\bf Aux}$ terminal.

7 Install Batteries

Install two AAA alkaline batteries. —



Back of thermostat

8 Set Fan Operation Switch

Move the switch to the proper setting:

Gas or Oil: For <u>gas</u> or <u>oil</u> heating systems, leave the fan operation switch in this factory-set position (for systems that control the fan in a call for heat).

Electric or Heat Pump: Change the switch to this setting for <u>heat pump</u> or <u>electric heat</u> systems. (This setting is for systems that allow the thermostat to control the fan in a call for heat, if a fan wire is connected to the **G** terminal.)



9 Install Thermostat Onto Wallplate

Install thermostat onto the wallplate on the wall.



10 Turn Power Back On

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



Φ
O

or

Circuit breaker box Heating/cooling system

11 If Your System Type is...

If your system type is:

Single Stage Heat and Cool

Heat Only or Cool Only

Congratulations, you're done!

If your system type is:

Heat Pump* with Backup Heat

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.

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

This thermostat works on 24 volt or 750 mV systems. It will NOT work on multistage conventional systems.

Advanced Installation

Enter System Setup

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



Changing Settings

- Press the ▲ or ▼ button to change the setting.
- Press the ▲ and ▼ buttons simultaneously for one second to advance to the next function.
- 3. Press the **RUN** button to exit and save settings.



NOTE: If you do not press any button for 60 seconds while you are in the setup menu, the thermostat automatically saves any changes made and exits the menu.

Function	Description Press the ▲ or ▼ button to	Setting
1	select system type	 O Heating & cooling: Gas, oil or electric heating with central air conditioning or heat pump without auxiliary/back-up heat. 1 Heat pump with auxiliary/backup heat: Outside compressor provides both heating and cooling.
5	select your 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. 6 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. 2 Gas/oil steam or gravity system: Use this setting if you have a steam or gravity heat system.
13	select Early Start	1 On O Off
14	select Fahrenheit or Celsius temperature display	0 Fahrenheit temperature display (°F) 1 Celsius temperature display (°C)
15*	select Compressor Protection settings	1 On O Off
20	select clock display	0 12-hour display 1 24-hour display
21	select Change Filter Timer	0 Off3 6 months1 30 days4 9 months2 90 days5 1 year
40	restore program schedule to default settings	0 Off 1 On: Program schedule default settings are listed on page 12.

* **Compressor Protection:** This feature forces the compressor to wait approximately 5 minutes before restarting, to prevent equipment damage. During the wait time, the message "Cool On" or "Heat On" is displayed on screen.

About Your New Thermostat

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

- Backlit display is easy to read
- Displays ambient (measured) temperature at all times
- One-touch access to setpoint temperature
- Preset program settings
- Temporary and permanent override of schedule
- Early start ensures the right temperature at the right time
- Built-in compressor protection