Honeywell Home T10 Programmable Smart Thermostat

Honeywell Home T10 Programmable Smart Thermostat Installation Guide

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Honeywell Home

Honeywell Home T10 Programmable Smart Thermostat

Product Information

Specifications

- **Model:** Programmable Thermostat
- **Model Numbers:** M38794, M37786, M37787, M37788
- **Compatibility:** Works with utility programs for energy savings
- **Customer Assistance:** WEB honeywellhome.com, PHONE 1-800-633-3991

FAQ

- **Q:** Can I use different screws for mounting the device?
  - **A:** Use the supplied screws (#6 5/8 for red anchors and #6 1-1/2 for yellow anchors) as specified in the instructions for secure installation.
- **Q:** How do I release wires from the terminals if needed?
  - **A:** Push down the terminal tabs on the sides of the UWP to release the wires safely.

Read Before Installing

Package Includes:

- T10 or T10+ Pro Smart Thermostat
- UWP™ Mounting System
- Standard Installation Adapter (J-box adapter)

- Decorative Cover Plate
- Screws and Anchors
- Thermostat literature
- Kits may include other accessories. Kit models listed on specifications page

Compatibility

- Compatible with most heating, cooling, and heat pump systems
- **Required:** 24 VAC power (“C” wire)
- Does not work with electric baseboard heat (120-240V)
- Android or iOS smartphone or tablet

Customer Assistance

- **WEB:** honeywellhome.com
- **PHONE:** 1-800-633-3991

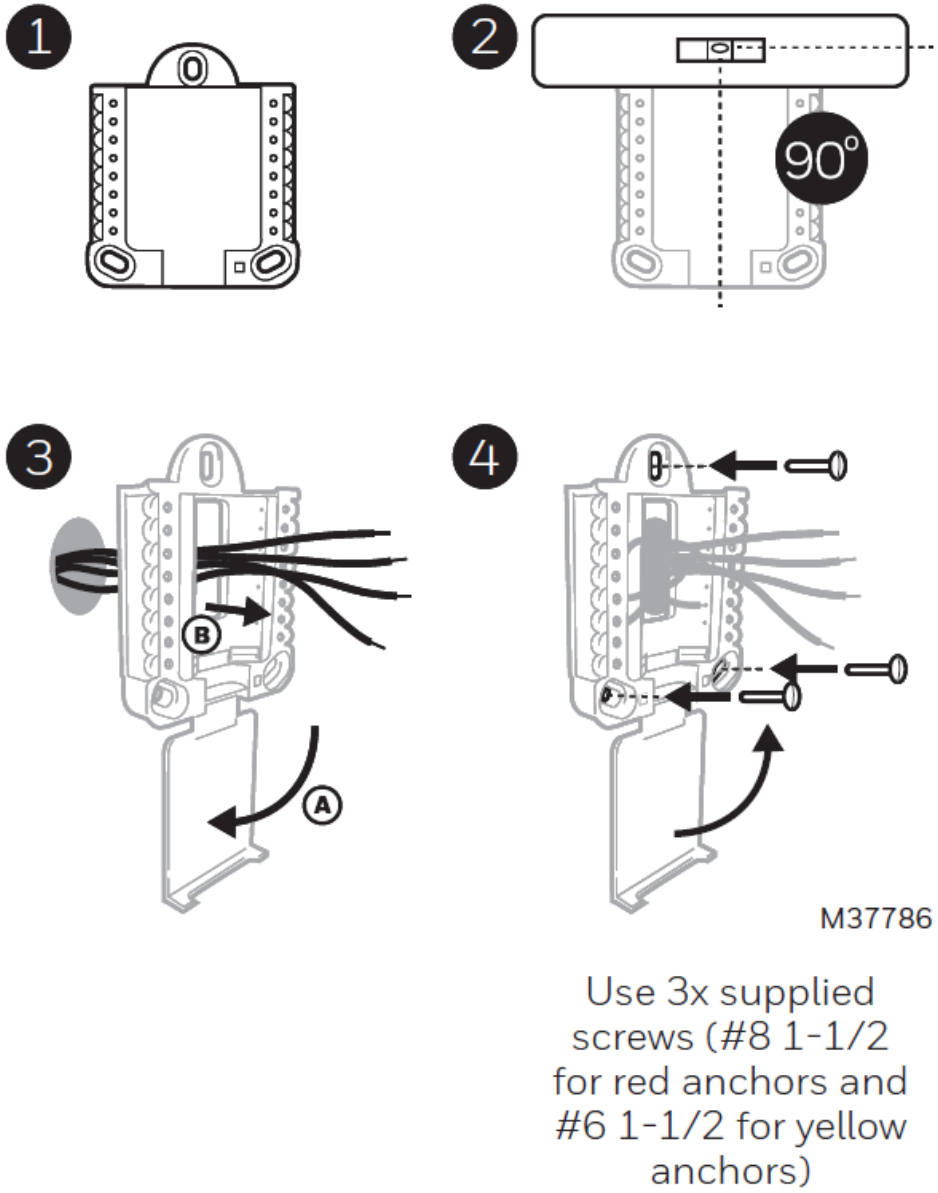
Search for local rebates

- Honeywell Home thermostats work with utility programs to reward you for helping save energy.
- HoneywellHome.com/Rebates

For more detailed instructions including ISU settings and wiring diagrams, scan QR code or go to https://customer.resideo.com/resources/Techlit/TechLitDocuments/33-00000s/33-00462.pdf

Mounting System And Cover Plate

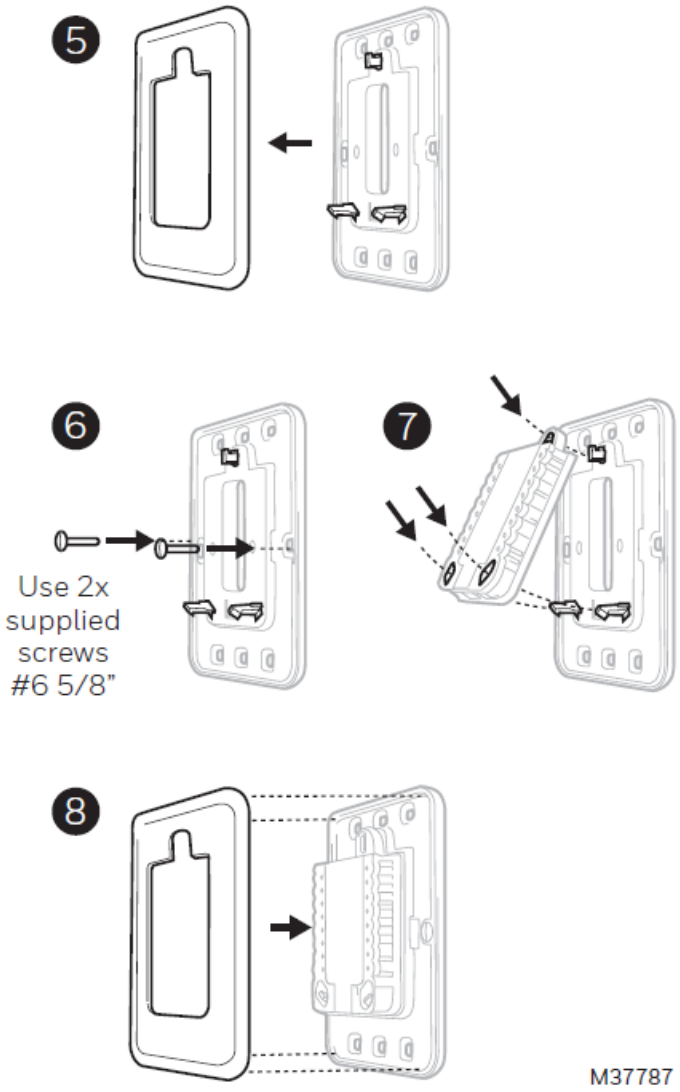
UWP Mounting System Installation



- **1.** Open package to find the UWP. See Figure 1.
- **2.** Position the UWP on the wall. Level and mark hole positions. See Figure 2. Drill holes at marked positions, and then lightly tap supplied wall anchors into wall using a hammer.
    - If your box contains red anchors, use a 7/32” drill bit. If your box contains yellow anchors, use a 3/16” drill bit.
- **3.** Pull the door open and insert wires through wiring hole of the UWP. See Figure 3.
- **4.** Place the UWP over the wall anchors. Insert and tighten mounting screws supplied with the UWP. Do not over tighten. Tighten until the UWP no longer moves. Close the door. See Figure 4.\

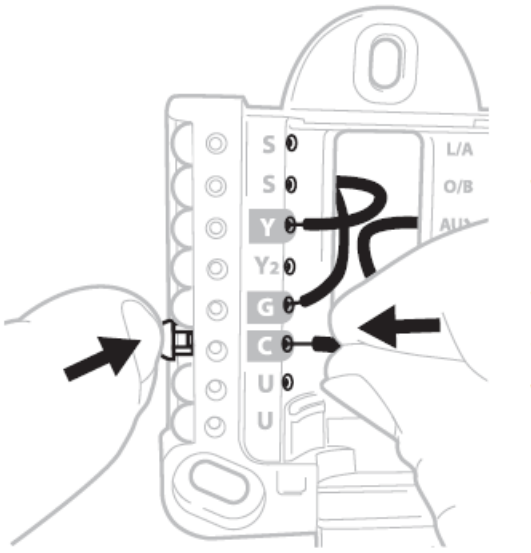
Optional Cover Plate Installation

- **Note:** cover plate included can vary by model of T10/T10+.
  Use the Optional Cover Plate when:
    - Mounting the thermostat to an electrical junction box
    - Or when you need to cover paint gap from the old thermostat.



- **5.** Separate the Junction Box Adapter from the Cover Plate. See Figure 5.
- **6.** Mount the Junction Box Adapter to the wall or an electrical box using any of the eight screw holes. Insert and tighten mounting screws supplied with Cover Plate Kit. Do not overtighten. Make sure the Adapter Plate is level. See Figure 6.
- **7.** Attach the UWP by hanging it on the top hook of the Junction Box Adapter and then snapping the bottom of the UWP in place. See Figure 7.
- **8.** Snap the Cover Plate onto the Junction Box Adapter. See Figure 8.

Wiring UWP



This wiring is just an example, yours may vary.

Push down on the tabs to put the wires into the inner holes of their corresponding terminals on the UWP (one wire per terminal) until they are firmly in place. Gently tug on the wires to verify they are secure. If you need to release the wires again, push down the terminal tabs on the sides of the UWP.

Note

- The T10+ models can wirelessly link to a THM04R3000 EIM. If using THM04R3000 EIM, wire only R and C to T10+ to power the thermostat.
- Then follow wiring diagrams included in EIM literature.

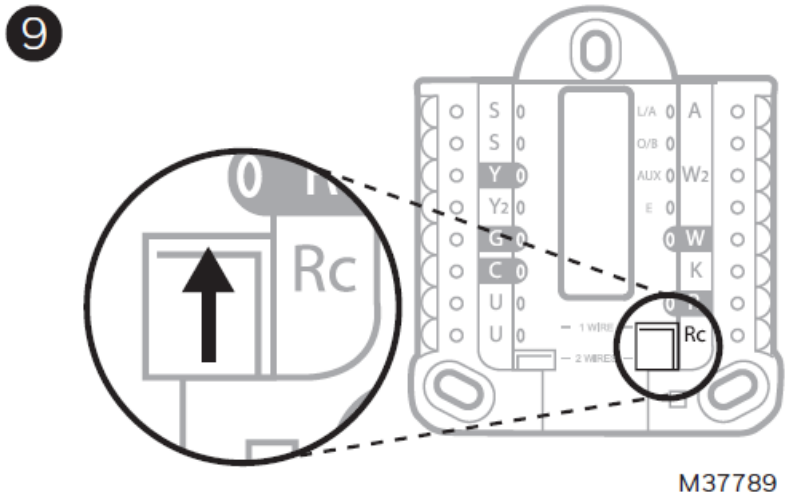
Terminal Designations

Conventional Systems		Heat pump systems	
Terminal	**Description**	**Terminal**	**Description**
S/S	Input for a wired indoor, outdoor, or sl ab sensor	S/S	Input for a wired indoor, outdoor sensor
Y	Compressor Stage 1	Y	Compressor Stage 1
Y2	Compressor Stage 2	Y2	Compressor Stage 2
G	Fan Relay	G	Fan Relay
C	24VAC Common wire from secondary side of cooling transformer (if 2 transf ormers)	C	24VAC Common wire from secondar y side of cooling transformer
K*	Connect to K on C-wire adaptor	K*	Connect to K on C-wire adaptor
U/U**	Relay for humidifier, dehumidifier, or ventilator	U/U**	Relay for humidifier, dehumidifier, or ventilator
A		L/A	Connect to compressor monitor
W	Heat Stage 1	O/B	Changeover valve for heat pumps
W2	Heat Stage 2	Aux	Backup Heat
		E	Emergency Heat
R	24 VAC Heating transformer	R	24 VAC Heating transformer
Rc	24 VAC Cooling transformer	Rc	24 VAC Cooling transformer

***** The THP9045A C-wire adaptor is used on heat/cool systems when you only have four wires at the thermostat and you need a fifth wire for a common wire. Use the K terminal in place of the Y and G terminals on conventional or heat pump systems to provide control of the fan and the compressor through a single wire—the unused wire then becomes your common wire. See THP9045 instructions for more information.
****** See note on Wiring U terminals on the following page.

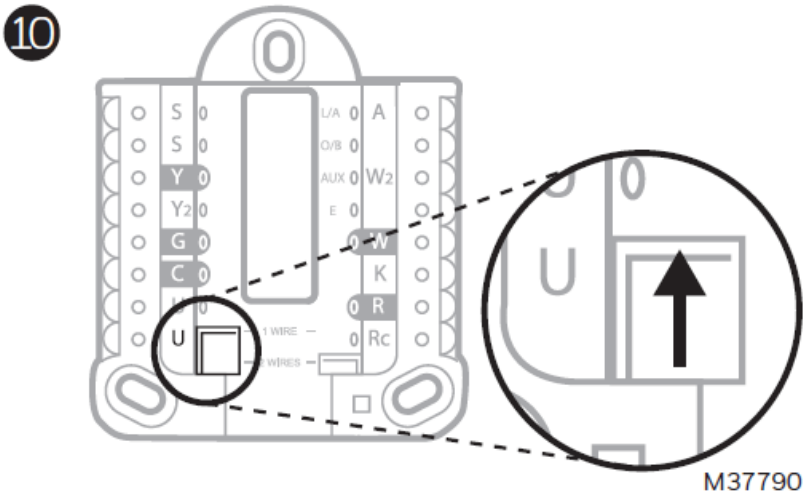
Setting Slider Tabs

Set R Slider Tab, see Figure 9



- Use built-in jumper (R Slider Tab) to differentiate between one or two transformer systems.
- If there is only one R wire, and it is connected to the R, Rc, or RH terminal on the old thermostat, set the slider to the up position (1 wire).
- If there is one wire connected to the R terminal and one wire connected to the Rc terminal, set the slider to the down position (2 wires).

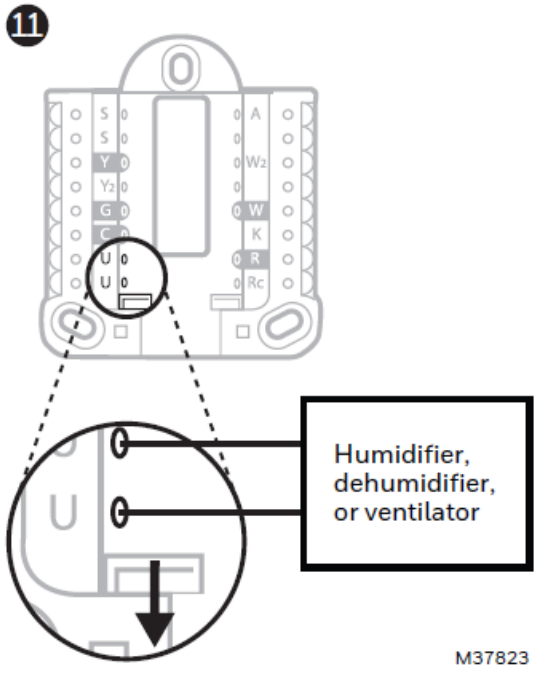
Set U Slider Tab, see Figure 10

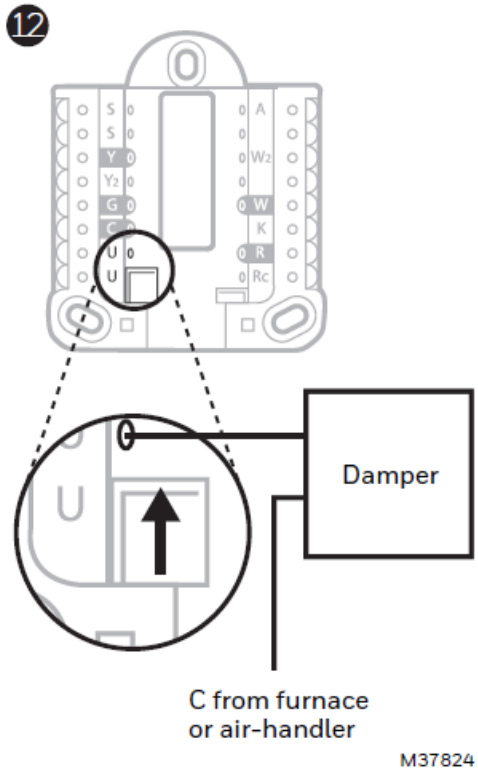


- Use built-in jumper (U Slider Tab) for IAQ device.
- When the U Slider Tab is in the down position (2 wires) the U contacts are a dry set of contacts.
- If your IAQ device is powered by the cooling transformer, move the U Slider Tab to the up position (1 wire). When this is done, the lower U terminal is internally jumped to the Rc terminal. In this application, you would hook up one wire from your IAQ device to the upper U terminal and the other to the common side of the cooling transformer. The 1 wire setting is most commonly used when using a fresh air damper for ventilation or using low speed fan for dehumidification.
- See wiring examples on the next page.

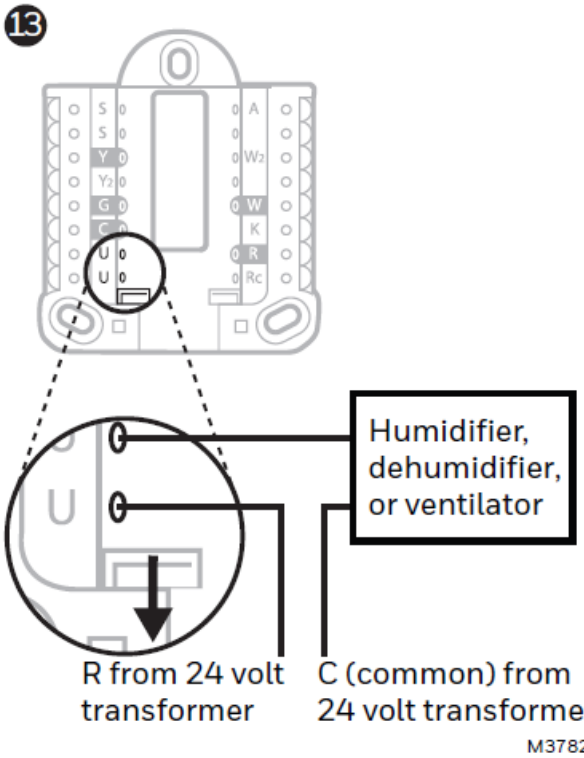
Whole house humidifier, dehumidifier, or ventilator

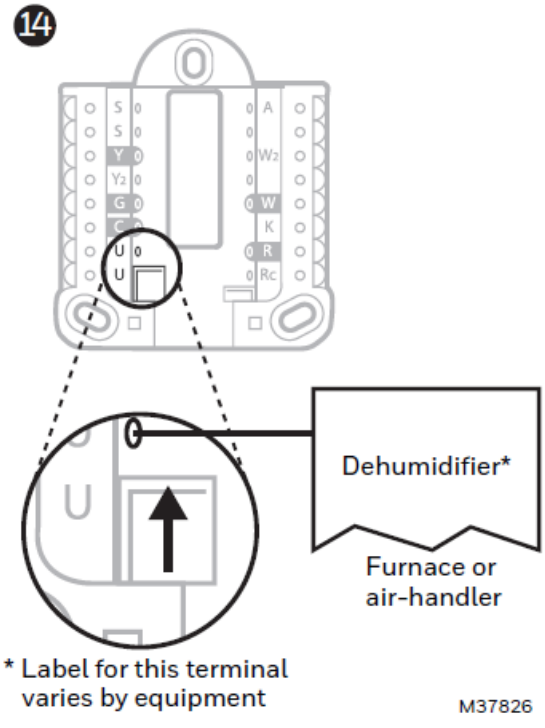
Using U Slider Tab





- Wired to humidifier, dehumidifier or ventilator with built-in transformer.
- Wired to fresh air damper powered by furnace transformer.





- Wired to humidifier, ventilator, or damper powered by external transformer
- Wired to low speed fan terminal on HVAC for dehumidification

Wiring

NOTES

1. Use 18- to 22- gauge thermostat wire. Shielded cable is not required.

2. Set the R Slider Tab on the UWP to the up position (1 wire) for 1 transformer systems or the down position (2 wires) for 2 transformer systems. See “Setting Slider Tabs”.
3. Set the U Slider Tab as shown in the diagrams.
4. When T10+ is used with THM04R3000 EIM, wire only R and C to T10+ to power the thermostat. Then follow the wiring diagrams included in EIM literature.

Conventional Systems

1H/1C System (1 transformer)

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor
- **C*** 24VAC common
- **W** Heat relay
- **G** Fan relay

1H/1C System (2 transformers)

- **R** Power (heating transformer)
- **Rc** Power (cooling transformer)
- **Y** Compressor contactor
- **C*** 24 VAC common from cooling transformer
- **W** Heat relay
- **G** Fan relay

2H/2C System (1 transformer)

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor (stage 1)
- **C*** 24VAC common
- **W** Heat relay (stage 1)
- **G** Fan relay
- **W2** Heat relay (stage 2)
- **Y2** Compressor contactor (stage 2)

Heat-only System with Fan

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **C*** 24VAC common
- **W** Heat relay
- **G** Fan relay

Cool-only System with Fan

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor
- **C*** 24VAC common
- **G** Fan relay

Hot Water Relay Panel

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **W** Heat Relay
- **C*** 24VAC common

NOTE

- If the panel does not provide 24 volts AC at R and C, set the slider to down position and wire a separate transformer to Rc and C.

* This thermostat requires a C-Wire. If a C-Wire is not available and the system uses Y and G, use C-Wire adapter accessory THP9045A.

Note

- When T10+ is used with THM04R3000 EIM, wire only R and C to T10+ to power the thermostat. Then follow the wiring diagrams included in EIM literature.

Power open Zone valve

- **R** Power from transformer
- **Rc** [R+Rc joined by Slider Tab]
- **W** Valve
- **C*** 24VAC common

Series 20 Zone valve
(power open and power closed)

- **R** Power from transformer
- **Rc** [R+Rc joined by Slider Tab]
- **W** Power open valve (usually B)
- **Y** Power close valve (usually W)
- **C*** 24VAC common

NOTE

- If the valve uses Y for power close, the thermostat needs to be configured for a radiant heat system without cooling.

Heat Pumps Systems

1H/1C Heat Pump System

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor
- **C*** 24VAC common
- **O**/**B** Changeover valve
- **G** Fan relay

2H/2C Heat Pump System

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor (stage 1)
- **C*** 24VAC common
- **O**/**B** Changeover valve
- **G** Fan relay
- **Y2** Compressor contactor (stage 2)
- **L** Heat pump fault input

2H/1C Heat Pump System

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor
- **C*** 24VAC common
- **O**/**B** Changeover valve
- **G** Fan relay
- **Aux** Auxiliary heat**
- **E** Emergency heat relay**
- **L** Heat pump fault input

3H/2C Heat Pump System

- **R** Power
- **Rc** [R+Rc joined by Slider Tab]
- **Y** Compressor contactor (stage 1)
- **C*** 24VAC common
- **O**/**B** Changeover valve

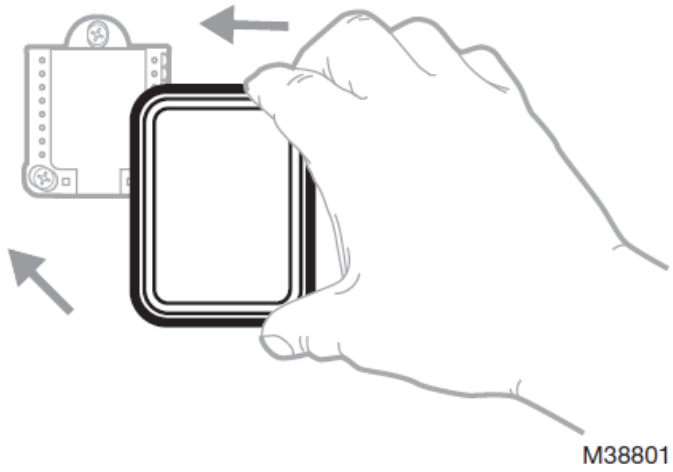
- **G** Fan relay
- **Aux** Auxiliary heat**
- **E** Emergency heat relay**
- **Y2** Compressor contactor (stage 2)
- **L** Heat pump fault input

NOTE

- Do NOT use W for heat pump applications. Auxiliary heat must wire to AUX or E.

* This thermostat requires a C-Wire. If a C-Wire is not available and the system uses Y and G, use C-Wire adapter accessory THP9045A.
** If you do not have separate wires for the Aux and E terminals, connect the wire to the Aux terminal.

Mounting Thermostat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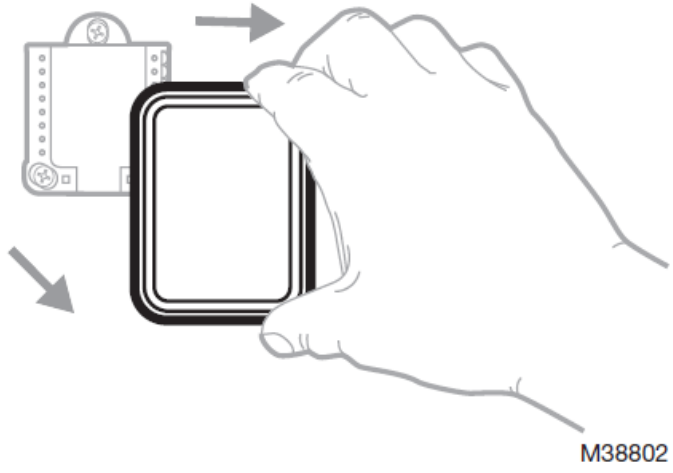

M38802

1. Push excess wire back into the wall opening.
2. Close the UWP door. It should remain closed without bulging.
3. Align the UWP with the thermostat, and push gently until the thermostat snaps in place.

Note

- If using the molded grey coverplate, remove the trim ring from the thermostat before step 3. Then align the

thermostat with cover plate and push gently until the thermostat snaps into place.

- If needed, gently pull to remove the thermostat from the UWP

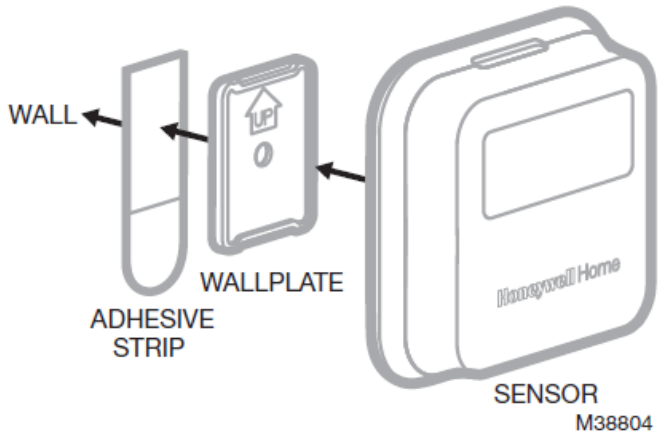
Installer Setup

M38800

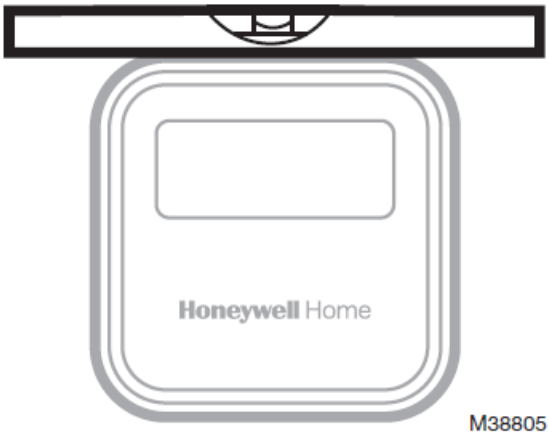
- The display will walk you through equipment setup, connecting to wireless sensors and connecting to WiFi.
- The final step in the setup is a place you can enter your company name and contact information.
- That contact information will be displayed with alert or reminder messages to keep you connected to your customer.

Sensor Installation

(Optional C7189R2002 or C7189R3002 wireless sensor sold separate. Up to 20 sensors max per thermostat)



1. Remove cover from base and Insert (2) AAA Alkaline batteries in the sensor.
2. Open the menu.
3. Tap “Devices & Sensors.”
4. Tap “Add.”
5. Follow the on-screen instructions.
6. Snap the sensor onto the wall-plate.



7. Adhere the included command strip to the wall-plate. Then adhere the sensor to the wall. Level sensor for

appearance. (See the sensor instructions for proper placement.)

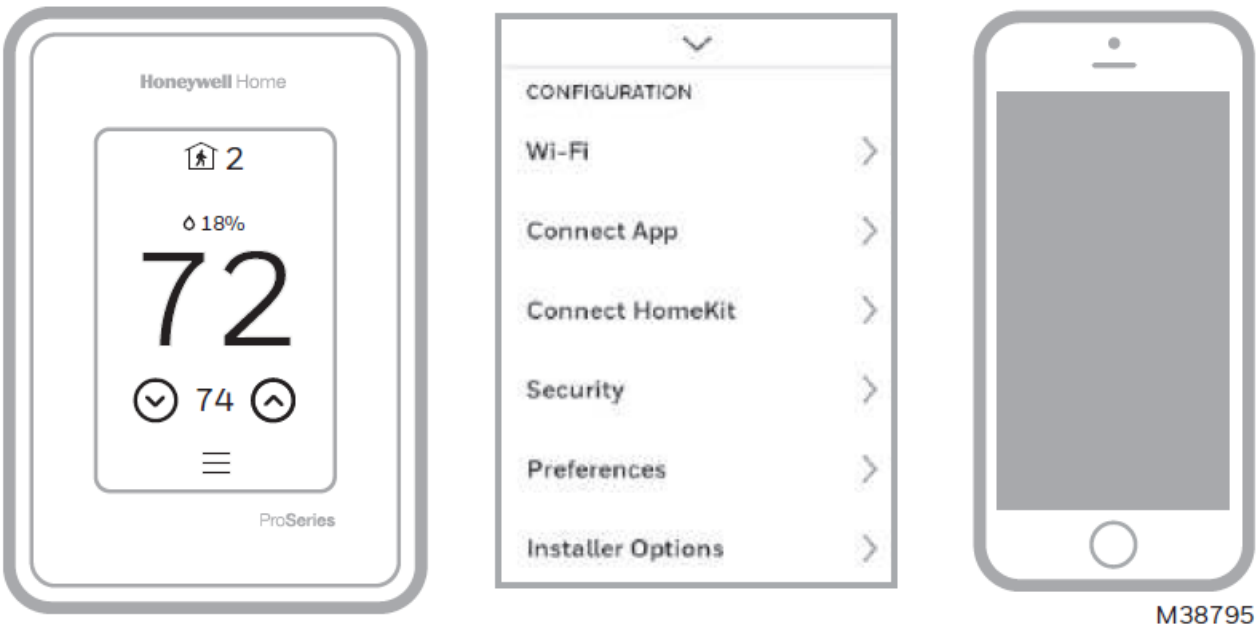
EIM Installation

- The T10+ can be connected wirelessly to an EIM and wireless outdoor sensor.
- The thermostat will ask whether or not you are using an EIM during initial setup and walk you through that process.
- EIM specific instructions are included with the THM04R3000 EIM.

Wireless outdoor sensor Installation

- The T10+ can be connected wirelessly to a C7089R3013 wireless outdoor sensor.
- The thermostat will ask if you want to add a device during initial setup or you can add the outdoor sensor later using the steps above.

Apple® HomeKit™ Setup

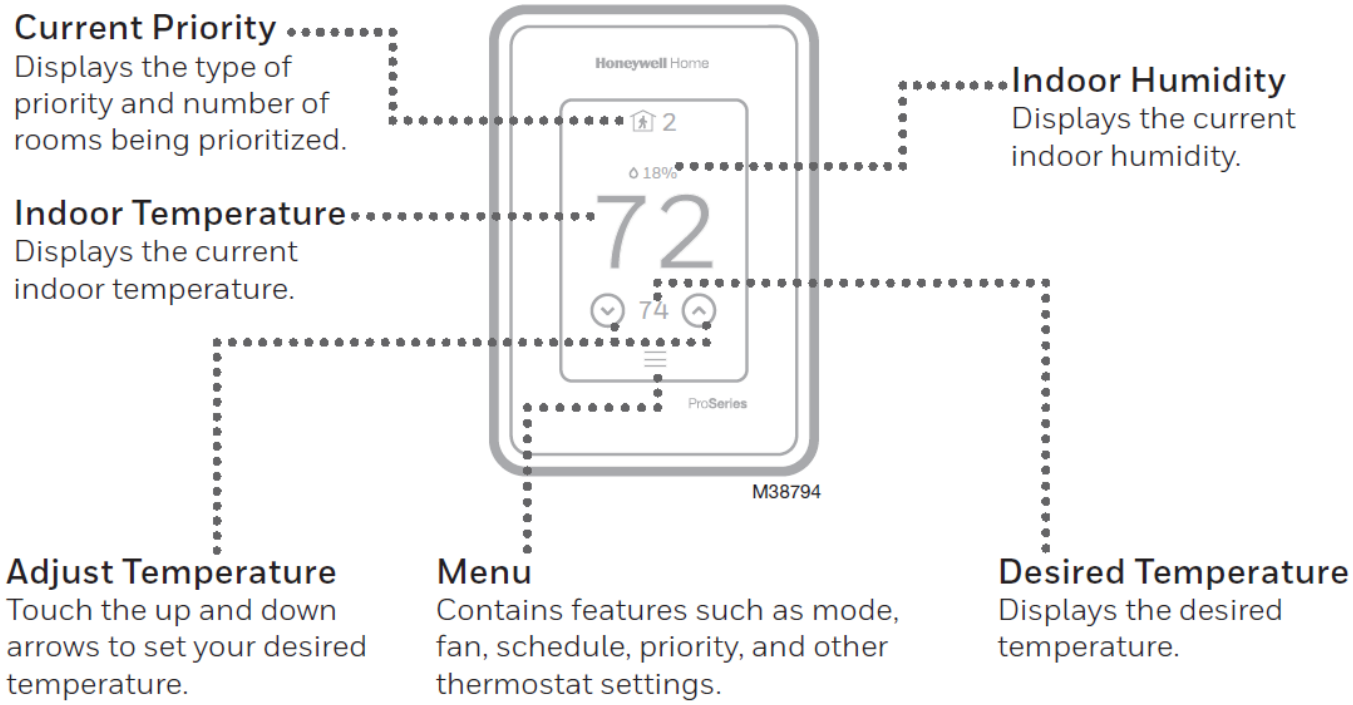


1. Touch Menu icon at the bottom of the T10 home screen.
2. Scroll down and select “Connect HomeKit”.
3. Use the Apple Home App and select “Add Accessory”. Scan the code shown on your thermostat with your phone.
4. Follow the instructions on your phone.

How To Use Thermostat And Priority

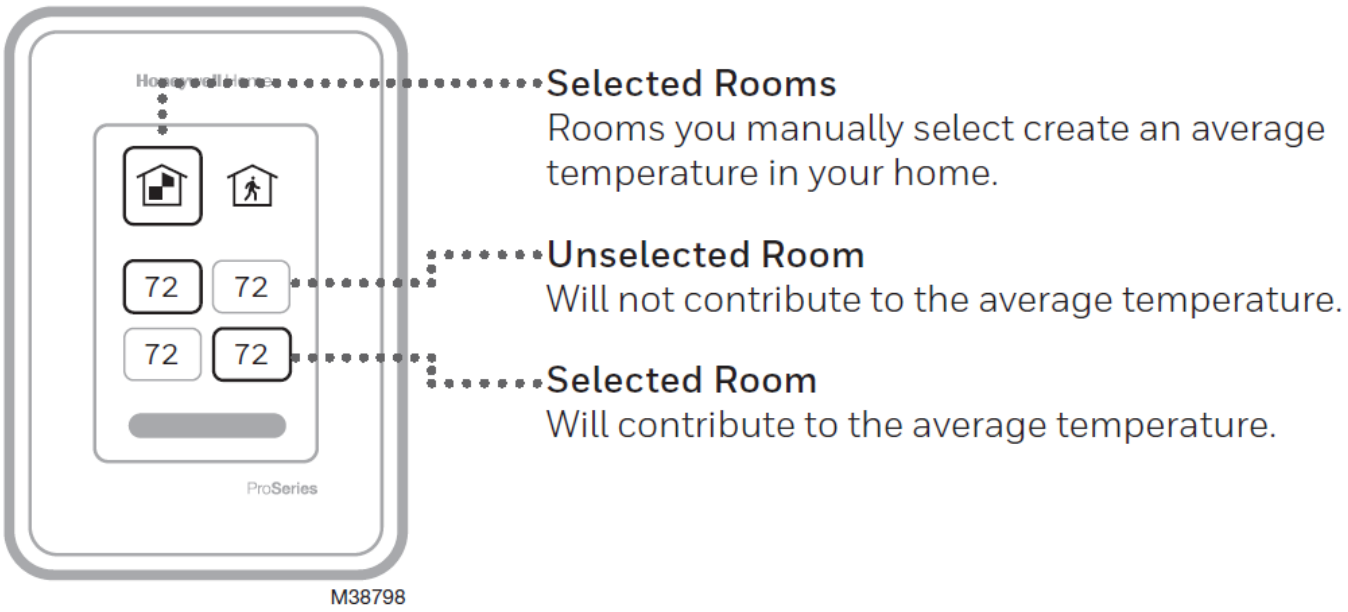
How to use your thermostat

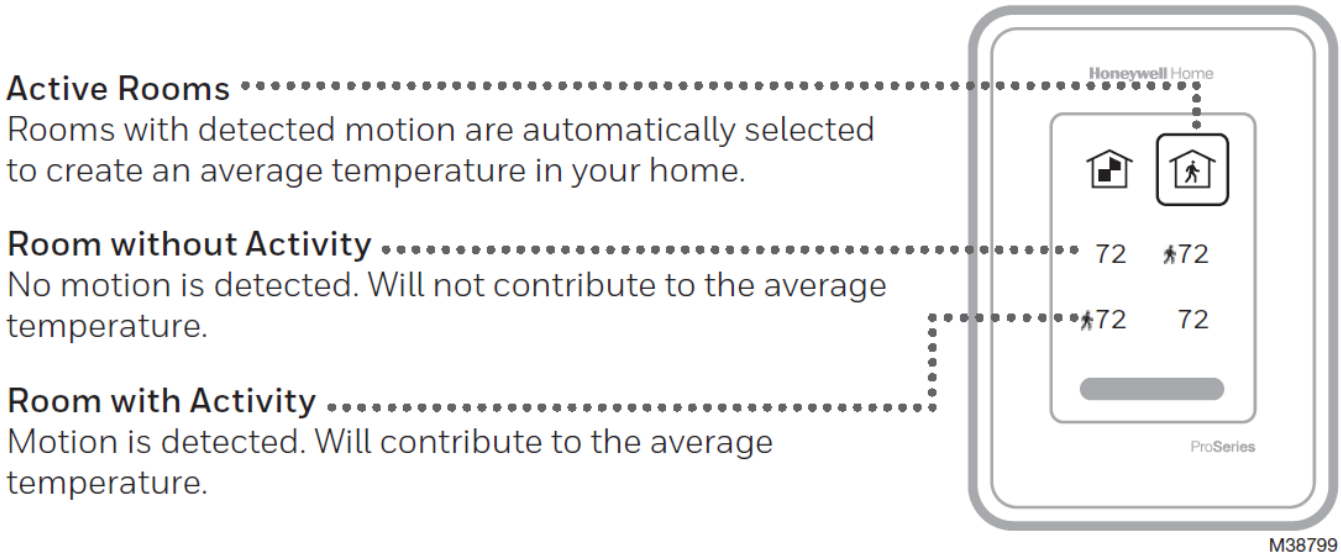
The screen will wake up by pressing the center area of the displayed temperature.



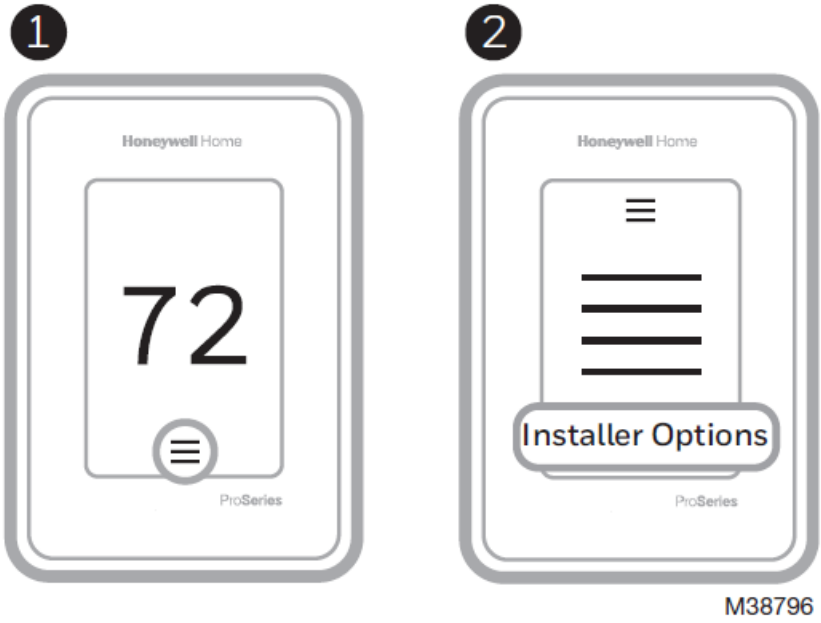
How to use Priority

Priority creates an average temperature in your home based on specific rooms. This allows you to prioritize comfort where you want it.





How To Find More Options



1. Touch the menu button.
2. Scroll up and down for more options.

Installer Options Include

Installer Setup

- System type
- IAQ control (hum, dehum, vent) reminders

Installer Test

- Turn on heat, cool, or IAQ equipment

Devices & Sensors

- View, add, or remove RedLINK 3.0 indoor sensors
- View, add, or remove wireless outdoor sensor (T10+ model only)
- View information about EIM (T10+ model only)
- Identify wireless sensors

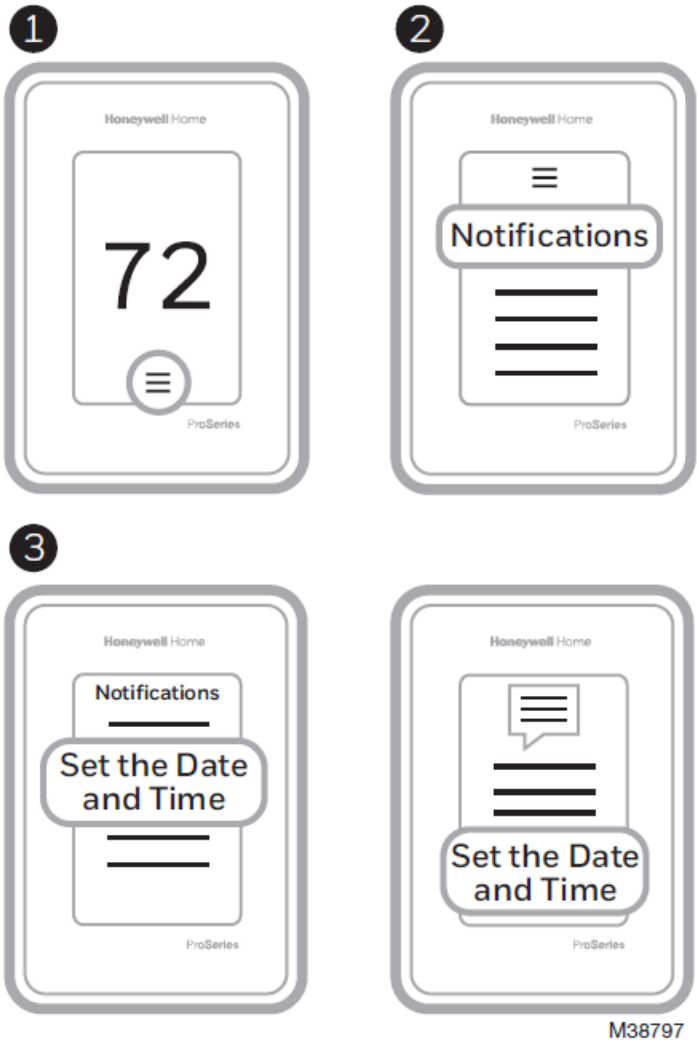
Thermostat Information

- MAC ID number
- IP address
- Date code
- Model number
- Build date
- Stat app
- Firmware version
- Stat app boot #
- Hardware

Dealer Information

- Finding date code (pass code) for installer setup.
- Open the Menu icon, and choose Thermostat Information. Write down date code.

Alerts And Notifications



1. The red dot above the Menu icon indicates an active alert or notification. Touch the Menu icon to view active Alerts & Notifications.
2. Touch Notifications to open this menu.
3. Touch the alert message to see more information about the alert.

Troubleshooting

- **Screen is blank**
  - Check circuit breaker and reset if necessary.
  - Make sure power switch at heating and cooling system is on.
  - Make sure furnace door is closed securely.
- **Screen is difficult to read**
  - Check setting in MENU/ Preferences / Inactive backlight brightness or Inactive sleep backlight brightness
- **Heating or cooling system does not respond**
  - Touch MENU to go to system mode. Set to heat. Make sure the heat setpoint is above the room temperature.
  - Touch MENU to go to system mode. Set to cool. Make sure the cool setpoint is below the room 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.

- **Temperature settings do not change**

  Make sure heating and cooling temperatures are set to acceptable ranges:
  - **Heat:** 40 °F to 90 °F (4.5 °C to 32.0 °C)
  - **Cool:** 50 °F to 99 °F (10.0 °C to 37.0 °C)
- **“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.
- **Aux heat runs in cooling**
  - For heat pump systems, verify there is not a wire attached to W on UWP systems. See “Heat pumps systems”.
- **Cool runs with a call for heat**
  - For heat pump systems, verify there is not a wire attached to W on UWP systems. See “Heat pumps systems”.
- **Heat runs with cooling**
  - Verify there is not a wire attached to W for heat pump systems. See “Wiring”.
- **Sensor will not connect**
  - Press and hold Connect on the wireless sensor for 15 seconds. The LED will turn Amber. Return to the thermostat menu and press Menu > Devices and Sensors. Follow the on-screen instructions to add the sensor.

Specifications

- **Temperature Ranges**
  - **Heat:** 40 °F to 90 °F (4.5 °C to 32.0 °C)
  - **Cool:** 50 °F to 99 °F (10.0 °C to 37.0 °C)
- **Operating Ambient Temperature**
  - 32 °F to 120 °F (0 °C to 48.9 °C)
- **Shipping Temperature**
  - -20 °F to 120 °F (-28.9 °C to 48.9 °C)
- **Operating Relative Humidity**
  - 5% to 90% (non-condensing)
- **Humidity setting range**
  - 10% to 60% RH.
- **Dehumidity setting range**
  - 25% to 80% RH.

Physical Dimensions in inches (mm) (H x W x D)

- T10 and T10+ PRO Smart Thermostat:
  - 4.9″ x 3.7″ x 0.93″ (125.4 x 94.1 x 23.68)
- UWP Mounting System (included):
  - 2-9/32″ x 2-13/64″ x 2-43/64″ (58 x 56 x 10)
- Cover Plate – (THX321WFS2001W):

    - 5-11/64″ x 5-1/2″ x 11/16″ (131 x 140 x 17.5)
- Cover Plate – (THX321WF2003W, THX321WF3003W, THX321WFS3001W):
    - 6-7/64″ x 6-7/64″ x 9/32″ (155 x 155 x 7)
- C7189R2002 and C7189R3002 wireless indoor sensor:
    - 2.6” X 2.6” X .77” (66.25 x 66.25 x 19.7)
- Equipment Interface Module (For use with T10+ models only) THM04R3000:
    - 9-5/16″ x 4-13/16″ x 1-19/32″ (91 mm x 147 mm x 42 mm)
- Wireless outdoor sensor (For use with T10+ models only) C7089R3013:
    - 5″ x 3-1/2” x 1-11/16″ (127 mm x 89 mm x 43 mm)

Electrical Ratings

Note: Terminal ratings for THM04R3000 EIM are shown in the EIM installation guide.

Terminal	**Voltage (50/60Hz)**	**Running Current**
W Heating	20-30 Vac	0.02-1.0 A
(Powerpile)	750 mV DC	100 mA DC
W2 (Aux) Heating	20-30 Vac	0.02-1.0 A
E Emergency Heat	20-30 Vac	0.02-0.5 A
Y Compressor Stage 1	20-30 Vac	0.02-1.0 A
Y2 Compressor Stage 2	20-30 Vac	0.02-1.0 A
G Fan	20-30 Vac	0.02-0.5 A
O/**B** Changeover	20-30 Vac	0.02-0.5 A
L/**A** Input	20-30 Vac	0.02-0.5 A
U	20-30 Vac	0.02-0.5 A

- Power Consumption
    - 3 VA

Model numbers

- THX321WF2003W T10 thermostat without wireless sensor in package
- THX321WFS2001W T10 thermostat with wireless sensor in package
- THX321WF3003W T10+ thermostat without sensor in package

THX321WFS3001W T10+ thermostat with sensor in package

- THM04R3000 EIM for T10+
- C7189R2002-2 Wireless indoor temperature, humidity, and motion sensors (2 pack)
- C7189R3002-2 Wireless indoor temperature, humidity, and motion sensor (2 pack)
- C7089R3013 Wireless outdoor temperature and humidity sensor for T10+
- YTHM1004R3000 T10+ thermostat, EIM, wireless indoor sensor, and RATS/DATS
- YTHM1004R3001 T10+ thermostat, EIM, wireless outdoor sensor, wireless indoor sensor, and RATS/DATS

CAUTION: ELECTRICAL HAZARD

- Can cause electrical shock or equipment damage. Disconnect power before beginning installation.

CAUTION: EQUIPMENT DAMAGE HAZARD

- Compressor protection is bypassed during testing. To prevent equipment damage, avoid cycling the compressor quickly.

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-of-life equipment will help prevent potential negative consequences for the environment and human health.

Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

AirPlay, iPad, iPad Air, iPad Pro, iPhone and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. HomePod is a trademark of Apple Inc.

Limited Warranty

- 5-year Limited Warranty

For Warranty information go to: http://honeywellhome.com

FCC STATEMENT

Regulatory Information

FCC REGULATIONS

§ 15.19 (a)(3)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

IC REGULATIONS
RSS-GEN

This device complies with Industry Canada's license-exempt RSSs.
Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Warning (Part 15.21) (USA only)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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-of-life equipment will help prevent potential negative consequences for the environment and human health.

Contact

Resideo Technologies, Inc.

- 1985 Douglas Drive North, Golden Valley, MN 55422
- 1-800-633-3991
- **www.resideo.com**

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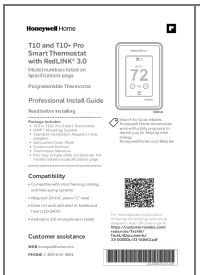
Documents / Resources

	Honeywell Home T10 Programmable Smart Thermostat [pdf] Installation Guide THX321WFS3001W, YTHM1004R3000, T10, T10 Programmable Smart Thermostat, Programmable Smart Thermostat, Smart Thermostat, Thermostat

References

- Honeywell Home | Smart Home Comfort and Security
- Utility Rewards Programs
- Resideo Customer Portal
- Sign In
- User Manual