T6 Pro Smart Programmable Thermostat
TH6220WF2006
TH6320WF2003
Professional Install Guide

Package Includes:
• T6 Pro Smart Thermostat
• UWP™ Mounting System
• Decorative Cover Plate
• Screws and anchors
• Thermostat literature

Search for local rebates: HoneywellHome.com/Rebates

Read before installing

Compatibility
• Compatible with most heating, cooling, and heat pump systems
• Required: 24 VAC power ("C" wire)
• Input: 24 V ~ @ 60 Hz, 1 A
• Does not work with electric baseboard heat (120V-240V)
• Does not work with millivolt systems
• Android or iOS smartphone or tablet

Customer assistance
WEB customer.resideo.com
PHONE 1-800-633-3991
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, drill 7/32” (5.6 mm) holes for drywall.
   - If your box contains yellow anchors, drill 3/16” (4.8 mm) holes for drywall.
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 overtighten. Tighten until the UWP no longer moves. Close the door. See Figure 4.

Optional Decorative Cover Plate installation

Use the **Optional Cover Plate** when you need to cover paint gap from the old thermostat.

There are different cover plates depending on when the thermostat was manufactured.
One plate is square, the other is rectangular.
1. Separate the cover plate from the mounting plate. See Figure 1.
2. Mount the mounting plate to the wall using any of the screw holes. Insert and tighten mounting screws supplied with the cover plate. Do not overtighten. Make sure the mounting plate is level. See Figure 2a (square) or 2b (rectangle).
3. Attach the UWP by hanging it on the top hook of the mounting plate and then snapping the bottom of the UWP in place. See Figure 3.
4. Snap the Cover Plate onto the mounting plate. See Figure 4.

If there are no existing wall anchors, you can follow the same instructions for the UWP Mounting System installation to install the cover plate. Just use 2 screws rather than 3.
**Wiring UWP**

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.

This wiring is just an example, yours may vary.

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**Terminal designations**

<table>
<thead>
<tr>
<th>Conventional Systems</th>
<th>Heat pump systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terminal</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>S/S</td>
<td>Input for a wired indoor, outdoor sensor</td>
</tr>
<tr>
<td>Y</td>
<td>Compressor Stage 1</td>
</tr>
<tr>
<td>Y2</td>
<td>Compressor Stage 2</td>
</tr>
<tr>
<td>G</td>
<td>Fan Relay</td>
</tr>
<tr>
<td>C</td>
<td>24VAC Common wire from secondary side of cooling transformer (if 2 transformers)</td>
</tr>
<tr>
<td>K*</td>
<td>Connect to K on C-wire adaptor</td>
</tr>
<tr>
<td>U/U**</td>
<td>Relay for ventilation</td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Heat Stage 1</td>
</tr>
<tr>
<td>W2</td>
<td>Heat Stage 2</td>
</tr>
<tr>
<td>R</td>
<td>24 VAC Heating transformer</td>
</tr>
<tr>
<td>Rc</td>
<td>24 VAC Cooling transformer</td>
</tr>
</tbody>
</table>

* The THP9045A1098 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.

** Ventilation is not available on all models. When the U slider is in the down position (2 wires), the U contacts are a dry set of contacts. If your ventilation system requires 24 volts, move the U slider to the up position (1 wire). Lower U terminal is internally jumped to the Rc terminal. In this application, you would hook up one wire from your damper to the upper U terminal and the other to the common side of the transformer.
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) of relay to wire ventilation. Please note that ventilation is not supported on all models.
- When the U Slider Tab is in the down position (2 wires) the U contacts are a dry set of contacts.
- If the ventilator is powered by the cooling transformer, move the jumper switch to the up position (1 wire). With this switch set to 1 wire, the lower U terminal is internally jumped to the Rc terminal. In this application, hook up one wire from the vent damper to the U terminal and the other to the common side of the cooling system transformer.
Wiring

NOTES:
1. Available wiring configurations differ by product models/product numbers.
2. Use 18- to 22-gauge thermostat wire. Shielded cable is not required.
3. 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" on page 4.
4. Set the U Slider Tab to the up position (1 wire) for non-powered ventilation or the down position (2 wires) for powered ventilation. See "Setting Slider Tabs" on page 4.

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 24VAC common from cooling transformer
- W Heat relay
- 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.

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 (stage 1)
- C 24VAC common
- G Fan relay
- W2 Heat relay (stage 2)
- Y2 Compressor contactor (stage 2)
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

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*
L  Heat pump fault input

NOTE: If dual fuel, TH6320WF2003 model needed.

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

* If you do not have separate wires for the Aux and E terminals, connect the wire to the Aux terminal.
Ventilation systems

NOTE: Ventilation is not available on all models.

Using U Slider Tab

Wired to ERV/HRV whole house ventilator with internal power supply.

![Diagram of ERV/HRV with U Slider Tab](image1)

Wired to fresh air damper powered by furnace transformer.

![Diagram of Damper with U Slider Tab](image2)

Mounting thermostat

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.
4. If needed, gently pull to remove the thermostat from the UWP.
5. **Search for local rebates:**
   Your thermostat may now be eligible for local rebates. Search for offers in your area at [HoneywellHome.com/Rebates](http://HoneywellHome.com/Rebates)
Setup using the thermostat

• After the thermostat has powered up, touch **START SETUP** on the thermostat. You’ll be asked if you want to perform setup via app. Touch **No**.

• Touch ① or ② to toggle between Installer Set Up (ISU) options.

• Touch **Edit** or touch text area, and then touch ① or ② to edit default setup option.

• Touch **Done** or touch text area to confirm the setting or press **Cancel**.

• Touch ① or ② to continue to setup another ISU option.

**NOTES:**

• To see a list of all setup parameters, go to "Installer setup options (ISU) – advanced menu" on page 11. The thermostat displays the ISU name and the ISU number.

• To finish setup and save your settings, scroll to the **Finish** screen at the end of the ISU list.

• Touch **Select** or touch text area to save changes and exit, or touch ① to return to initial setup screen.
Installer setup – using the Honeywell Home app

Setup using the app

Download the Honeywell Home app from App Store or Google Play to use a hidden PRO installation feature that will allow you to configure the thermostat and personally invite your customer to connect to the installed thermostat at the same time.

Enter Contractor Mode

To enter Contractor Mode, press and hold the **Honeywell Home logo** for 5 seconds. Then tap **Confirm** to begin using Contractor Mode. Follow steps to personally invite your customer to connect their Honeywell Home App.

Installer setup – advanced menu

To access the advanced menu, press and hold the **Menu button** for 5 seconds. Touch ① or ② to go through the options in the advanced menu.

Advanced menu options

**Device Setup**
This is used to access the device ISU setting.

**Screen Lock**
The thermostat touch screen can be set to lock fully or partially.

**Rater View**
A read only place to view all the ventilation settings.

**System Test**
Test the heating and cooling system.

**Range Stop (Temperature)**
Set the minimum, maximum, cool and heat temperature set points.

**Reset**
Access all reset options on the thermostat. This is the only place to access factory reset.
Key features

System status information
Cool On, Heat On
Emergency Heat On,
Recovery, or Auto
Changeover On.

Schedule information
Following time-based
or location-based
temperature control.

Desired Temperature
Displays the current
desired temperature setting.

Indoor Temperature
Displays the current
indoor temperature.

Mode
Select system mode:
Auto/Heat/Cool/Off/EM
Heat (Emergency Heat).

Menu
Touch to display
options. Start here
to set a program
schedule.

Note: Long press of
Menu button for 5
seconds to access
Advanced Menu
options.

Connection status information
Status of Wi-Fi
Connection: Connected,
Disconnected, or Wi-Fi
is Off.

Messaging
Shows device setup
options, menu options,
reminders, schedule
overrides.

Schedule period
Shows schedule period:
Wake/Away/Home/
Sleep.

Fan
Select Fan mode Auto/
On/Circulate.

Time, ISU #, or
Alert #

The screen will wake up by pressing the center area of the displayed temperature. The screen will stay lit for 45 seconds. Brightness can be adjusted in the Menu.
<table>
<thead>
<tr>
<th>#</th>
<th>ISU</th>
<th>ISU Name</th>
<th>ISU Options (defaults in bold)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>Schedule Type</td>
<td>No Schedule</td>
<td>MO-SU = Every day the same, MO-FR, SA, SU = 5-1-1 schedule, MO-FR, SA-SU = 5-2 schedule</td>
<td>You can change default MO-FR, SA-SU schedule here. To edit periods during days, temperature setpoints, or to turn Schedule On/Off, from the home screen, go to MENU/SCHEDULE.</td>
</tr>
<tr>
<td>125</td>
<td>Temp Scale</td>
<td>Fahrenheit, Celsius</td>
<td>Select outdoor temperature data source. This ISU automatically defaults to Internet when registered to Honeywell Home app and no wired outdoor sensor is selected. We recommend using a wired outdoor sensor connected to the “S” terminals on the UWP. (See “Wiring” on page 5.) An outdoor temperature is required to set the following ISUs: ISU 355 Compressor Lockout, ISU 356 Aux Heat Lockout, ISU 1013 Low Outdoor Temperature Ventilation Lockout, ISU 1014 High Outdoor Temperature Ventilation Lockout, and ISU 1015 High Outdoor Dew Point Ventilation Lockout.</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Outdoor Temp</td>
<td>No, Wired, Internet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>System Type</td>
<td>Conventional Forced Air, Heat Pump, Boiler, Cool Only</td>
<td>Basic selection of system your thermostat will control.</td>
<td></td>
</tr>
<tr>
<td>205</td>
<td>Equipment Type</td>
<td>Conventional Forced Air: Standard Gas (STD GAS), High Efficiency Gas (EFF GAS), Oil, Electric, Fan Coil*, Heat Pump: Air To Air, Geothermal, Boiler: Hot Water, Steam</td>
<td>This option selects the equipment type your thermostat will control. Note: This option is NOT displayed if ISU 200 is set to Cool Only. *Fan coil setting is for a residential application with a hot water coil in an air-handler.</td>
<td></td>
</tr>
<tr>
<td>218</td>
<td>Reversing Valve</td>
<td>O/B on Cool, 0/B on Heat</td>
<td>This ISU is only displayed if ISU 200 is set to Heat Pump. Select whether reversing valve O/B should energize on cool or on heat.</td>
<td></td>
</tr>
<tr>
<td>220</td>
<td>Cool Stages (#200=Conv./200=HP)</td>
<td>0, 1, 2</td>
<td>Only 1 compressor stage available on TH6220WF model if configured for heat pump.</td>
<td></td>
</tr>
<tr>
<td>221</td>
<td>Heat Stages/Aux/E Stages (#200=Conv./200=HP)</td>
<td>Heat Stages: 0, 1, 2, AUX/E Stages: 0, 1</td>
<td>Maximum of 2 Heat Stages for conventional systems. Maximum of 1 Aux/E stages for heat pump systems.</td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>Fan Control</td>
<td>Equipment, Thermostat</td>
<td>This ISU is only displayed if ISU 205 is set to Electric Forced Air or Fan Coil.</td>
<td></td>
</tr>
<tr>
<td>253</td>
<td>Aux/E Control</td>
<td>Both Aux/E, Either Aux/E</td>
<td>Set “EITHER AUX/E” if you want to setup and control Auxiliary and Emergency heating separately. This ISU is only displayed if ISU 200 is set to Heat Pump AND if ISU 221 Aux/E stages = 1. Note: This ISU available on TH6320 model only.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** ISU options available may vary upon the thermostat model and equipment setup.
**Installer setup options (ISU) – advanced menu**

<table>
<thead>
<tr>
<th># ISU</th>
<th>ISU Name</th>
<th>Electric, Gas/Oil (or Fossil Forced Air)</th>
<th>Electric, Gas/Oil (or Fossil Forced Air)</th>
<th>Electric, Gas/Oil (or Fossil Forced Air)</th>
<th>Electric, Gas/Oil (or Fossil Forced Air)</th>
</tr>
</thead>
<tbody>
<tr>
<td>255</td>
<td>Aux Heat Type</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>256</td>
<td>EM Heat Type</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>260</td>
<td>Fossil Kit Control</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>300</td>
<td>Auto Changeover</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>303</td>
<td>Auto Differential</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>305</td>
<td>High Cool Stage Finish</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>306</td>
<td>High Heat Stage Finish</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>340</td>
<td>Aux Heat Droop</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
<tr>
<td>350</td>
<td>Up Stage Time Aux Heat</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
<td>Electric, Gas/Oil (or Fossil Forced Air)</td>
</tr>
</tbody>
</table>

**Table 2.**

- **255 Aux Heat Type:** This ISU is displayed only if ISU 200 is set to Heat Pump AND if ISU 221 Aux/E heat stages = 1.
- **256 EM Heat Type:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1 AND if ISU 253 may vary depending on the model of the thermostat.
- **260 Fossil Kit Control:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1 AND if ISU 253 may vary depending on the model of the thermostat.
- **300 Auto Changeover:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1.
- **303 Auto Differential:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1.
- **305 High Cool Stage Finish:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1.
- **306 High Heat Stage Finish:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1.
- **340 Aux Heat Droop:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1.
- **350 Up Stage Time Aux Heat:** This ISU is displayed only if ISU 200 is set to Heat Pump AND ISU 221 Aux/E heat stages = 1.
### Installer setup options (ISU) – advanced menu

<table>
<thead>
<tr>
<th>#ISU</th>
<th>ISU Name</th>
<th>ISU Options (defaults in bold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>355</td>
<td>Balance Point</td>
<td><strong>Compressor Lockout</strong> requires an outdoor temperature Source. <strong>Set Compressor Lockout to the temperature below</strong> which it is inefficient to run the heat pump. When outside temperature is below the setting, thermostat will lockout heat pump and run Aux Heat Only. This ISU is <strong>off</strong> if <strong>ISU 130 = Wired or Internet</strong>, <strong>ISU 200</strong> is set to <strong>Heat Pump</strong>, <strong>ISU 221 Aux/E stages = 1</strong>, and <strong>ISU 260</strong> is set to <strong>Thermostat</strong>. We recommend using a wired remote sensor as an outdoor temperature source. <strong>Default is Off</strong> if ISU 205 Heating Equipment is Air to Air Heat Pump and ISU 255 Aux Heat type is Gas/Oil. Default is <strong>40 °F (4.4 °C)</strong> if ISU 205 Heating Equipment is Air to Air Heat Pump and ISU 255 Aux Heat type is Electric. Default is <strong>Off</strong> if ISU 205 Heating Equipment is Geothermal. Default is <strong>Off</strong> if ISU 205 Heating Equipment is Solar Heat Pump. Compressor Lockout is optional for any type of heat pump (Air to Air Heat Pump, Geothermal Heat Pump).</td>
</tr>
<tr>
<td>356</td>
<td>Aux Heat Lock Out</td>
<td><strong>Aux Heat Lockout</strong> requires an outdoor temperature Source. **Set Aux Heat Lockout to optimize energy bills and to not allow run the more expensive Aux Heat source above certain outdoor temperature limit. This ISU is only displayed if ISU 200 is set to <strong>Heat Pump</strong>, AND ISU 260 is set to <strong>Thermostat control</strong> AND if ISU 221 Aux/E stages = 1.</td>
</tr>
<tr>
<td>365</td>
<td>Cool 1 CPH (Cooling cycle rate stage 1)</td>
<td>1 - 6 CPH (3 CPH) This ISU is only displayed when Cool/Compressor Stages is set to 1 or more stages. Cycle rate limits the maximum number of times the system can cycle per hour. For example, when set to 3 CPH, at a 50% load, the most the system will cycle is 3 times per hour (10 minutes on, 10 minutes off). The system cycles less often when load conditions are less than or greater than a 50% load.</td>
</tr>
<tr>
<td>366</td>
<td>Cool 2 CPH (Cooling cycle rate stage 2)</td>
<td>1 - 6 CPH (3 CPH) This ISU is only displayed when Cool/Compressor Stages is set to 2 or more stages. Cycle rate limits the maximum number of times the system can cycle per hour. For example, when set to 3 CPH, at a 50% load, the most the system will cycle is 3 times per hour (10 minutes on, 10 minutes off). The system cycles less often when load conditions are less than or greater than a 50% load.</td>
</tr>
<tr>
<td>370</td>
<td>Heat 1 CPH (Heating cycle rate stage 1)</td>
<td>1 - 12 CPH This ISU is only displayed when Heat Stages is set to 1 stage or more stages. Cycle rate limits the maximum number of times the system can cycle per hour. For example, when set to 3 CPH, at a 50% load, the most the system will cycle is 3 times per hour (10 minutes on, 10 minutes off). The system cycles less often when load conditions are less than or greater than a 50% load. The recommended (default) cycle rate settings are below for each heating equipment type: Standard Efficiency Gas Forced Air = 5 CPH; High Efficiency Gas Forced Air = 3 CPH; Standard Efficiency Oil Forced Air = 5 CPH; Electric Forced Air = 9 CPH; Fan Coil = 3 CPH; Steam = 1 CPH.</td>
</tr>
<tr>
<td>371</td>
<td>Heat 2 CPH (Heating cycle rate stage 2)</td>
<td>1 - 12 CPH This ISU is only displayed when Heat Stages is set to 2 stage or more stages. Cycle rate limits the maximum number of times the system can cycle per hour. For example, when set to 3 CPH, at a 50% load, the most the system will cycle is 3 times per hour (10 minutes on, 10 minutes off). The system cycles less often when load conditions are less than or greater than a 50% load. The recommended (default) cycle rate settings are below for each heating equipment type: Standard Efficiency Gas Forced Air = 5 CPH; High Efficiency Gas Forced Air = 3 CPH; Standard Efficiency Oil Forced Air = 5 CPH; Electric Forced Air = 9 CPH; Fan Coil = 3 CPH; Steam = 1 CPH.</td>
</tr>
<tr>
<td>375</td>
<td>Aux Heat CPH (Heating cycle rate Auxiliary Heat)</td>
<td>1 - 12 CPH This ISU is only displayed when ISU 200 = Heat Pump and ISU 221=1. It is only displayed when Auxiliary Heat is configured. The recommended (default) cycle rate settings are below for each heating equipment type: Standard Efficiency Gas Forced Air = 5 CPH; High Efficiency Gas Forced Air = 3 CPH; Standard Efficiency Oil Forced Air = 5 CPH; Electric Forced Air = 9 CPH.</td>
</tr>
</tbody>
</table>
# Installer setup options (ISU) – advanced menu

## Notes
- This ISU is only displayed when Emergency Heat is configured and ISU 253: Aux/E Terminal Controls is set to control Aux and E heat independently. The recommended cycle rate settings are below for each heating equipment type.
- The thermostat has a built-in compressor protection (minimum off timer) that prevents the compressor from restarting too early after a shutdown. The minimum-off timer is activated after the compressor turns off. If ISU 220 is set to alarm the compressor will turn off at that stage.
- Adaptive Intelligent Recovery (AIR) is a comfort setting. Heating or cooling equipment will turn on earlier, ensuring the indoor temperature will match the setpoint at the scheduled time.
- Set this ISU when you want to wire a remote indoor sensor to the “S” terminals on the UWP - see “Wiring” on page 5. This ISU is displayed if ISU 130 is set to NO wired outdoor sensor configured.
- Choose either calendar or equipment run time-based reminder.

## Table 4.

<table>
<thead>
<tr>
<th>ISU Name</th>
<th>ISU Options (defaults in bold)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>378 EM Heat CPH</td>
<td><strong>Compressor Protection</strong> Off, 1 - 5 minutes</td>
<td>This ISU is only displayed when Emergency Heat is configured and ISU 253: Aux/E Terminal Controls is set to control Aux and E heat independently. The recommended cycle rate settings are below for each heating equipment type. The minimum-off timer is activated after the compressor turns off. If ISU 220 is set to alarm the compressor will turn off at that stage.</td>
</tr>
<tr>
<td>387 EM Heat CPH</td>
<td><strong>Compressor Protection</strong> Off, 1 - 5 minutes</td>
<td>This ISU is only displayed when Emergency Heat is configured and ISU 253: Aux/E Terminal Controls is set to control Aux and E heat independently. The recommended cycle rate settings are below for each heating equipment type. The minimum-off timer is activated after the compressor turns off. If ISU 220 is set to alarm the compressor will turn off at that stage.</td>
</tr>
<tr>
<td>390 Ext Fan Run Time in Cool</td>
<td>Off, 30, 60, 90 seconds 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 minutes</td>
<td>After the call for cooling ends, the thermostat keeps the fan on for the selected amount of time for increased efficiency.</td>
</tr>
<tr>
<td>391 Ext Fan Run Time in Heat</td>
<td>Off, 30, 60, 90 seconds 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 minutes</td>
<td>After the call for heating ends, the thermostat keeps the fan on for the selected amount of time for increased efficiency.</td>
</tr>
<tr>
<td>425 Adaptive Recovery</td>
<td>Off, 1 - 5 minutes</td>
<td>Adaptive Intelligent Recovery (AIR) is a comfort setting. Heating or cooling equipment will turn on earlier, ensuring the indoor temperature will match the setpoint at the scheduled time.</td>
</tr>
<tr>
<td>429 Max Cool Temperature from Min. Cool Temp. to 99 °F or 37 °C (90 °F or 32 °C)</td>
<td>The user cannot set the cooling temperature above this level.</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
<tr>
<td>430 Min Cool Temperature from 50 °F or 10 °C to Max. Cool Temp. (50 °F or 10 °C)</td>
<td>The user cannot set the cooling temperature below this level.</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
<tr>
<td>431 Max Heat Temperature from Min. Heat Temp. to 90 °F or 32 °C (90 °F or 32 °C)</td>
<td>The user cannot set the heating temperature above this level.</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
<tr>
<td>432 Min Heat Temperature from 40 °F or 4.4 °C to Max. Heat Temp. (50 °F or 10 °C)</td>
<td>The user cannot set the heating temperature below this level.</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
<tr>
<td>500 Indoor Sensor</td>
<td>No, Yes</td>
<td>Set this ISU when you want to wire a remote indoor sensor to the “S” terminals on the UWP - see “Wiring” on page 5. This ISU is only displayed if ISU 130 is set to NO wired outdoor sensor configured.</td>
</tr>
<tr>
<td>515 Sensor type</td>
<td>10k, 20k</td>
<td>Choose resistance type of wired indoor sensor. This ISU is only displayed when indoor sensor is configured - ISU 500.</td>
</tr>
<tr>
<td>520 Temperature Control</td>
<td>Thermostat, Wired, Average</td>
<td>You can choose what temperature source to be used or you can ask thermostat to use both thermostat and remote sensors for higher accuracy of measurement.</td>
</tr>
<tr>
<td>702 Air Filters</td>
<td>Off, 10, 20, 30, 45, 60, 90, 120, 150 Run Time Days 3, 4, 5, 6, 7, 8, 9, 12, 15 Months</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
<tr>
<td>711 Air Filter 1 Reminder</td>
<td>Off, 30, 45, 60, 90, 120, 150 Run Time Days 3, 4, 5, 6, 7, 8, 9, 12, 15 Months</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
<tr>
<td>712 Air Filter 2 Reminder</td>
<td>Off, 30, 45, 60, 90, 120, 150 Run Time Days 3, 4, 5, 6, 7, 8, 9, 12, 15 Months</td>
<td>Choose either calendar or equipment run time-based reminder.</td>
</tr>
</tbody>
</table>
## Installer Setup Options (ISU) – Advanced Menu

<table>
<thead>
<tr>
<th>ISU</th>
<th>ISU Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>810</td>
<td>Hum Pad Reminder</td>
<td>6, 12 Calendar Months</td>
</tr>
<tr>
<td>921</td>
<td>Dehum Filter Reminder</td>
<td>30, 60 Calendar Days</td>
</tr>
<tr>
<td>1000</td>
<td>Vent Type</td>
<td>None: The thermostat does not control ventilation. ERV/HRV: The thermostat controls an Energy Recovery Ventilator or Heat Recovery Ventilator for ventilation. Passive (Fan Only): The thermostat turns the fan on for ventilation. When set to passive fan, the thermostat does not control dampers or increase ventilation. This setting will not open a damper or run a ventilator to increase ventilation. Passive fan settings on the indoor side of the thermostat may automatically open or have a damper that automatically opens whenever the blower fan is on.</td>
</tr>
<tr>
<td>1005</td>
<td>Vent Method</td>
<td>ASHRAE 2010, ASHRAE 2013, Percent On Time</td>
</tr>
<tr>
<td>1006</td>
<td>Vent Fan Control</td>
<td>Thermostat: The thermostat turns on the ventilation and the fan when ventilation is needed. Equipment: Ventilation equipment controls the blower fan. This ISU is only displayed when ISU 1005 Ventilation Method is set to ASHRAE 2010 or 2013.</td>
</tr>
<tr>
<td>1007</td>
<td>Bedrooms</td>
<td>1 - 6 (2)</td>
</tr>
<tr>
<td>1008</td>
<td>Home Size</td>
<td>1000 Sq. Ft. - 5000 Sq. Ft. (1000 Sq. Ft.)</td>
</tr>
<tr>
<td>1009</td>
<td>Vent Rate</td>
<td>3CFM - 35CFM (in 5CFM increments (150CFM))</td>
</tr>
<tr>
<td>1011</td>
<td>Vent Percent On Time</td>
<td>10% - 100% (30%)</td>
</tr>
<tr>
<td>1012</td>
<td>Vent Priority</td>
<td>Lockouts, ASHRAE</td>
</tr>
</tbody>
</table>

**Notes:**
- Some models only offer the passive fan setting.
- Options of this ISU may vary depending on the model of the thermostat.
- Table 5.
<table>
<thead>
<tr>
<th># ISU</th>
<th>ISU Name</th>
<th>ISU Options (defaults in bold)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1013</td>
<td>Low Outdoor Temp Vent Lockout</td>
<td>Off, -20 °F to -40 °F (in 5 °F increments) or -28.0 °C to -40.0 °C (in 2.0 °C increments)</td>
<td>ISU 130 must be set to Wired or Internet. This ISU is only displayed when ISU 1000 Ventilation Type is set to ERV/HRV or Fresh Air Damper.</td>
</tr>
<tr>
<td>1014</td>
<td>High Outdoor Temp Vent Lockout</td>
<td>Off, 80 °F to 110 °F (in 5 °F increments) or 26 °C to 44 °C (in 2 °C increments)</td>
<td>ISU 130 must be set to Wired or Internet. This ISU is only displayed when ISU 1000 Ventilation Type is set to ERV/HRV or Fresh Air Damper.</td>
</tr>
<tr>
<td>1015</td>
<td>High Outdoor Dewpoint Vent Lockout</td>
<td>Off, 65 °F to 85 °F (in 5 °F increments) or 18 °C to 30 °C (in 2 °C increments)</td>
<td>ISU 130 must be set to Internet. This ISU is only displayed if ISU 1000 Ventilation Type is set to ERV/HRV or Fresh Air Damper.</td>
</tr>
<tr>
<td>1017</td>
<td>Vent Core Reminder</td>
<td>Off, 3, 6, 9, 12 months</td>
<td>This ISU is displayed only if ISU 1000 is set to ERV/HRV.</td>
</tr>
<tr>
<td>1018</td>
<td>Vent Filter Reminder</td>
<td>Off, 3, 6, 9, 12 months</td>
<td></td>
</tr>
<tr>
<td>1100</td>
<td>UV Devices</td>
<td>0 - 2</td>
<td>Some systems may have two UV devices, one for the A-Coil and another for Air Treatment. A replacement reminder can be setup for each one separately.</td>
</tr>
<tr>
<td>1105</td>
<td>UV Bulb 1 Reminder</td>
<td>Off, 6, 12, 24 months</td>
<td></td>
</tr>
<tr>
<td>1106</td>
<td>UV Bulb 2 Reminder</td>
<td>Off, 6, 12, 24 months</td>
<td></td>
</tr>
<tr>
<td>1401</td>
<td>Idle Brightness</td>
<td>Off, 0 - 5</td>
<td>Adjust brightness of an inactive backlight (idle screen) from default 0 (backlight off) to 5 (maximum brightness).</td>
</tr>
<tr>
<td>1410</td>
<td>Clock Format</td>
<td>12 hour, 24 hour</td>
<td></td>
</tr>
<tr>
<td>1415</td>
<td>Daylight Saving</td>
<td>On, Off</td>
<td>Set to Off in areas that do not follow Daylight Saving Time.</td>
</tr>
<tr>
<td>1420</td>
<td>Temp Offset</td>
<td>Off, -3 °F to 3 °F (in 1 °F increments) or -1.5 °C to 1.5 °C (in 0.5 °C increments)</td>
<td>0 °F (0 °C) - No difference in displayed temperature and the actual room temperature. The thermostat can display up to 3 °F (1.5 °C) lower or higher than the actual measured temperature.</td>
</tr>
</tbody>
</table>
Performing a system test

You can test the system setup in ADVANCED MENU under SYSTEM TEST option.

1. Press and hold Menu on the thermostat for 5 seconds to access ADVANCED MENU options.
2. Touch ▼ or ▲ to go to SYSTEM TEST.
3. Touch Select or touch text area.
4. Touch ▼ or ▲ to select system test type. Touch Select or touch text area.
5. For the heat test and cool test, use ▼ or ▲ to activate each stage of the equipment. For the fan test, use ▼ or ▲ to turn the fan on and off.

NOTE: The clock is used as a timer while the stages are running. The Heat On and Cool On indicators are displayed when the system test is running.

Viewing equipment status

You can see the status of thermostat-controlled equipment in the Menu under the EQMT STATUS option.

1. Touch Menu on your thermostat.
2. Touch ▼ or ▲ to go to EQMT STATUS. Touch Select or touch text area.
3. Touch ▼ or ▲ to view statuses of all the equipment the thermostat is controlling. Depending on what feature the thermostat supports or how it was installed, the Equipment Status screen reports data for the following systems:
   - Heating and cooling
   - Fan
   - Ventilation (available on certain models only)
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
- Change screen brightness in thermostat Menu. Increase brightness intensity for inactive backlight of the thermostat screen (max. is level 5).

Heating or cooling system does not respond
- Touch Mode to set system to Heat. Make sure the temperature is set higher than the Inside temperature.
- Touch Mode 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.

Heat runs with cooling
- Verify there is not a wire attached to W for heat pump systems. See wiring on pages 5-6.

Alerts and reminders

Alerts and reminders are displayed via the alert symbol and alert number in the clock area on the home screen. You can read more information about active alerts, snooze or dismiss non-critical alerts in Menu/Alerts.

<table>
<thead>
<tr>
<th>Number</th>
<th>Alert/Reminder</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>Heat Pump Needs Service</td>
<td>Heat pump needs service. Contact dealer to diagnose and service heat pump.</td>
</tr>
<tr>
<td>168</td>
<td>Wi-Fi Radio Error</td>
<td>Wireless features are not available. Try removing the thermostat from the wallplate or power cycle at breaker for 1 minute. If the code is still shown, please contact dealer to replace the thermostat.</td>
</tr>
<tr>
<td>170</td>
<td>Internal Memory Error</td>
<td>The memory of the thermostat has encountered an error. Please contact dealer for assistance.</td>
</tr>
<tr>
<td>171</td>
<td>Set the Date and Time</td>
<td>Set the date and time on your thermostat. The date and time are required for certain features to operate, like the program schedule.</td>
</tr>
<tr>
<td>173</td>
<td>Thermostat Temperature Sensor Error</td>
<td>The sensor of the thermostat has encountered an error. Please contact dealer to replace the Thermostat.</td>
</tr>
<tr>
<td>175</td>
<td>AC Power Resumed</td>
<td>AC power resumed to thermostat after power loss.</td>
</tr>
<tr>
<td>177</td>
<td>Indoor Temperature Sensor Error</td>
<td>Wired indoor temperature sensor is not connected or there is a wiring short. Please contact dealer for assistance.</td>
</tr>
<tr>
<td>178</td>
<td>Outdoor Temperature Sensor Error</td>
<td>Wired outdoor temperature sensor is not connected or there is a wiring short. Please contact dealer for assistance.</td>
</tr>
<tr>
<td>Number</td>
<td>Alert/Reminder</td>
<td>Definition</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>181</td>
<td>Replace Air Filter (1)</td>
<td>Replace air filter (1). Reset the timer by touching the “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>182</td>
<td>Replace Air Filter (2)</td>
<td>Replace air filter (2). Reset the timer by touching the “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>183</td>
<td>Clean Humidifier Tank and Replace Water Filter</td>
<td>Clean humidifier tank and replace the water filter, or contact dealer to do this for you. Reset the timer by touching the “dismiss” button on the thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>184</td>
<td>Replace Humidifier Pad</td>
<td>Replace humidifier pad. Reset the timer by touching the “dismiss” button on the thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>185</td>
<td>Replace Dehumidifier Filter</td>
<td>Replace the dehumidifier filter. Reset the timer by touching “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>186</td>
<td>Clean Ventilator Core</td>
<td>Clean ventilator core. Reset the timer by touching the “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>187</td>
<td>Clean or Replace Ventilator Filter</td>
<td>Clean or replace ventilator filter. Reset the timer by touching the “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>188</td>
<td>Replace UV Bulb (1)</td>
<td>Replace UV Bulb (1). Reset the timer by touching the “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>189</td>
<td>Replace UV Bulb (2)</td>
<td>Replace UV Bulb (2). Reset the timer by touching the “dismiss” button on thermostat screen after it is replaced.</td>
</tr>
<tr>
<td>210</td>
<td>Register Online For Outdoor Temperature</td>
<td>Online registration is required to receive outdoor temperature from the Internet. Outdoor temperature is needed for your current system setup. Download the Honeywell Home app to register your thermostat.</td>
</tr>
<tr>
<td>388</td>
<td>Register Online for Remote Access and Outdoor Temperature</td>
<td>Online registration is required for remote access and outdoor temperature. Download the Honeywell Home app to register your thermostat.</td>
</tr>
<tr>
<td>399</td>
<td>No Internet</td>
<td>The connection to the Internet has been lost. Please check your network settings.</td>
</tr>
<tr>
<td>400</td>
<td>No Wi-Fi Signal</td>
<td>The Wi-Fi signal has been lost. Please wait for the thermostat to reconnect or select a new Wi-Fi network. Follow steps in the Honeywell Home app</td>
</tr>
<tr>
<td>508</td>
<td>Wi-Fi Not Configured</td>
<td>Please download the Honeywell Home app and follow the steps to connect thermostat to your Wi-Fi network.</td>
</tr>
</tbody>
</table>
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.

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
37 °F to 102 °F (2.8 °C to 38.9 °C)

Shipping Temperature
-20 °F to 120 °F (-28.9 °C to 48.9 °C)

Operating Relative Humidity
5% to 90% (non-condensing)

Physical Dimensions in inches (H x W x D)
T6 Pro Smart Thermostat (TH6320WF2003): 4-5/64 x 4-5/64 x 1-1/16 (104 x 104 x 27)
T6 Pro Smart Thermostat (TH6220WF2006): 4-5/64 x 4-5/64 x 1-1/16 (104 x 104 x 27)

Electrical Ratings

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

5-year limited warranty
For Warranty information go to http://customer.resideo.com

Power Consumption
Backlight On: 1.48VA
Backlight Off: 0.88VA

Regulatory information

FCC REGULATIONS
47 CFR § 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, and
2. This device must accept any interference received, including interference that may cause undesired operation.

47 CFR § 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.

47 CFR § 15.105 (b)

IC REGULATIONS
RSS-GEN
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). 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.

The operation of this equipment is subject to the following two conditions:
(1) this equipment or device may not cause harmful interference, and (2) this equipment or device must accept any interference, including interference that may cause undesired operation.