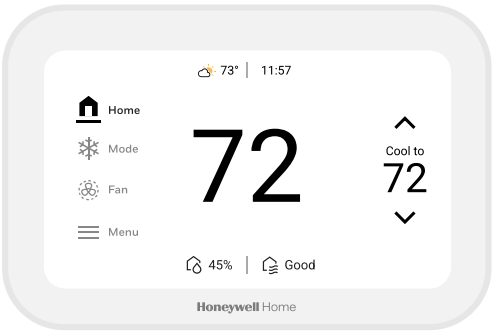
Honeywell Home

ElitePRO™ Series Thermostats, EIM, ERM, & Redlink 3.0 accessories

Installation Manual



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Models

THX1200W5, YTHX1200W5, THX1200B6, YTHX1200B6, YTHX1200W7, YTHX1200B8, THX1200W7S, THX1200B8S, THX1100W3, THX1100B4, THX1000W1, THX1000B2, THX900W1, THX900B2, EIM4010, ERM4010.

See "ElitePRO™ Series Thermostats and Accessories" on page 6 for detailed model information.

Package Includes:

- ElitePRO™ Series Thermostat
- UWP Wall Plate
- Decorative Cover Plate with J-Box Adapter
- Screws and Anchors
- Thermostat Literature
- **NOTE:** Kits may include other accessories.

Access the latest version of this documentation online by scanning the QR code or by visiting the following link:

info.honeywellhome.com/elitepro-im

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Table of Contents

Application

The ElitePRO™ Series Thermostats feature effortless, 7-Day programming on an easy-to-use touchscreen.

Compatible with 24 VAC systems including:

- Residential or light commercial application settings.
- Up to 3 Heat/2 Cool heat pump systems (Extra aux heat stage options shown in wiring section)
- Multi-stage conventional (different staging options shown in wiring diagrams)
- Dual Fuel systems
- Radiant hot water systems (with optional floor sensor)
- 2-pipe or 4-pipe fan coil units with 1-3 fan speeds
- PTAC units with 1-3 fan speeds (when used without EIM).
- Humidification, dehumidification, or ventilation (Two with S1000, S1100 and S1200, all three when EIM is used)
- Economizer control for commercial applications

Features

ENERGY STAR®

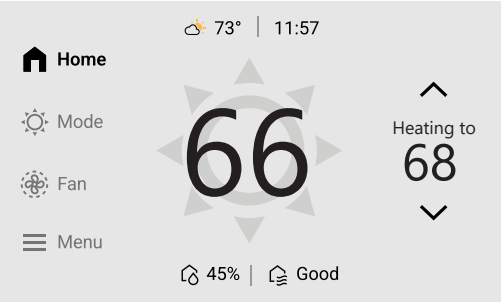
- This ENERGY STAR® certified WiFi thermostat features flexible scheduling and auto-away functionality.
- **Get Rewarded**
  Search for energy providers near you who offer thermostat incentives and rebates at: resideo.info/utility-savings-programs

Capabilities

- **Redlink 3.0 wireless accessories.** S1000, S1100, and S1200 work with Redlink 3.0 wireless accessories (see "Redlink™ accessories" on page 59 for details).
- **Flexible scheduling** allows you to choose location-based temperature control (Auto Away technology), program a set schedule or use a combination of both to make sure your home is always comfortable. Refer to "Scheduling and Auto-Away" on page 127 for more information.
- **Built-in radar sensor** can be used with wireless sensors as part of the priority comfort settings and can transition from idle to active screen on approach (S1000, S1100, and S2000).
- **Tip:** The First Alert App can be used to manage multiple thermostats and multiple users in a household.
- **Smart Alerts:** The ElitePRO™ Series Thermostat can send alerts for occurrences such as extreme indoor temperatures and reminders for filter changes and other required maintenance.
- **Auto change from Heat to Cool:** When Auto mode is selected, the ElitePRO™ Series Thermostat can automatically determine whether your home needs heating or cooling to reach the desired temperature.
- **Adaptive Recovery:** The ElitePRO™ Series Thermostat learns your heating and cooling cycle times to make sure the system delivers the temperature you want, when you want it. See "Adaptive Recovery (Sometimes called “Adaptive Intelligent Recovery”)" on page 162 to learn more.
- **Video Doorbell integration.** (select models only, see "Connecting a Video Doorbell (S1200 only)" on page 185).
- **Indoor air quality monitoring and viewing**. (select models only, see "Indoor Air Quality Monitoring (S1100 and S1200 only)" on page 156).
- **Control a humidifier, dehumidifier, or ventilator**.
- **Light Commercial features:**
  - Commercial language (Occupied/Unoccupied)
  - Temporary override (Permanent Hold is not allowed)
  - Temporary override duration limited to the value set by the installer
  - Adjustable ramp rates
  - Ability to manually initiate occupancy
  - Custom name display on the home screen
  - Remote setback using an occupancy sensor and/or onboard sensor
  - Economizer or Time-of-Day output support
  - Pre-occupancy purge function
  - Additional dehumidification control options

Heating and Cooling Status Display

Calling for heat



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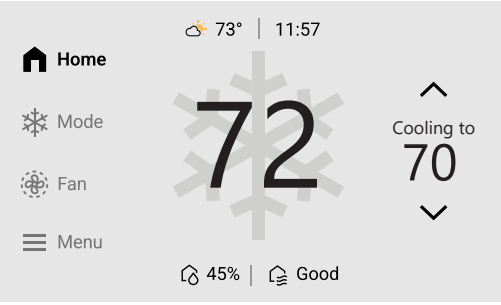
When the thermostat is calling for heat, there will be a sun icon behind the room temperature reading on the display and the thermostat will show “Heating to” (rather than “heat to”) above the heat setpoint.

Calling for Cool



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When the thermostat is calling for cooling, there will be a snowflake icon behind the room temperature reading on the display and the thermostat will show “Cooling to” (rather than “Cool to”) above the cool setpoint.

> **NOTE:**
> If “WAITING FOR EQUIPMENT” is shown in the display, the thermostat is delaying the heat or cool call to protect the equipment from short cycling. The delay should not last more than 5 minutes.

AUX Heat Indication:

Display shows “**Using Auxiliary heat**” above the room temperature.

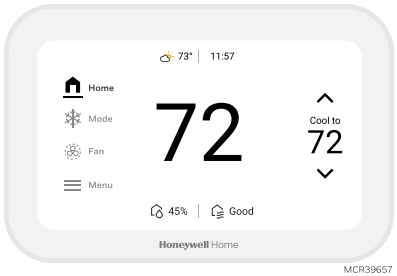
Matter Setup

The ElitePRO™ Series Thermostat supports Matter. At thermostat, select the **Menu** icon. Then choose **Matter** and follow the instructions (refer to "Getting the Most from the ElitePRO™ Series Thermostats" on page 141 for more information).

Model Numbers

ElitePRO™ Series Thermostats and Accessories

S1100 and S1200



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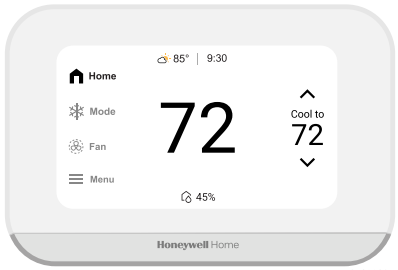
S1000



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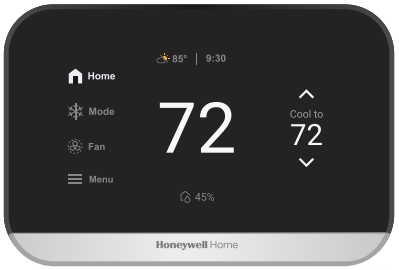

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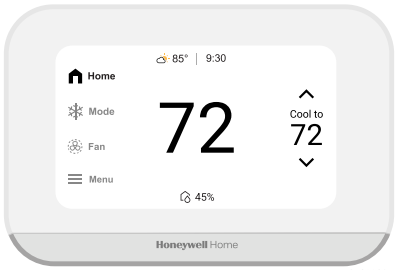
S900



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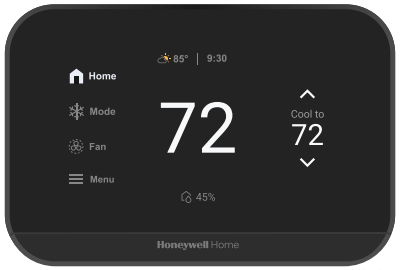

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Product	Part Number	Redlink 3.0	Video Doorbell	Onboard radar sensor	IAQ	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Dimensions in inches (mm)
ElitePRO S900 White Thermostat with grey bottom accent	THX900W1	—	—	—	Control humidifier, dehumidifier or ventilator	31 to 102 °F (2.8° to 38.9° C)	5% to 90% Non-condensing	-20 to 120 °F (28.9 to 48.9 °C)	**Thermostat:** 3-9/19" H x 5-1/4" W x 14/16" D (90 mm H x 133 mm W x 24 mm D) **Display size:** 4.3-inch capacitive touchscreen display. Resolution 800 by 400 pixels.
ElitePRO S900 Black Thermostat & bottom accent	THX900B2	—	—	—					
ElitePRO S1000 White Thermostat with silver bottom accent	THX1000W1	✓	—	✓	Control humidifier, dehumidifier or ventilator (2 of 3)				
ElitePRO S1000 Black Thermostat with dark silver bottom accent	THX1000B2	✓	—	✓					

Product	Part Number	Redlink 3.0	Video Doorbell	Onboard radar sensor	IAQ	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Dimensions in inches (mm)
ElitePRO S1100 White Thermostat	THX1100W3	✓	—	✓	Air quality monitoring and reporting with VOC & estimated CO2 detection. Control humidifier, dehumidifier or ventilator (2 of 3)	**Thermostat:** 37 to 102 °F (2.8° to 38.9° C)	5% to 90% Non Condensing	-20 to 120 °F 28.9 to 48.9 °C)	**Thermostat:** 3-9/19" H x 5-1/4" W x 14/16" D (90 mm H x 133 mm W x 24 mm D) **Display size:** 5-inch capacitive touchscreen display. Resolution 800 by 400 pixels.
ElitePRO S1100 Black Thermostat	THX1100B4	✓	—	✓					
ElitePRO S1200 White Thermostat	THX1200W5	✓	✓	✓		**Thermostat:** 37 to 102 °F (2.8° to 38.9° C)	5% to 90% Non Condensing	-20 to 120 °F 28.9 to 48.9 °C)	
ElitePRO S1200 Black Thermostat	THX1200B6	✓	✓	✓					
ElitePRO S1200 White Thermostat with wireless indoor sensor	YTHX1200W5	✓	✓	✓					
ElitePRO S1200 Black Thermostat with wireless indoor sensor	YTHX1200B6	✓	✓	✓					
ElitePRO S1200 White Thermostat - EIM Required	THX1200W7S	These thermostats are included in the **YTHX1200W7** and **YTHX1200B8** kits with EIMs. These ElitePRO models cannot be used *without* pairing the thermostat with an EIM. These models include a U relay on the thermostat, which can be assigned to certain equipment that is not located in the same space as the EIM. If replacing an ElitePRO thermostat that was previously used with an EIM, *any* of the S1000, S1100, or S1200 thermostats can used as a replacement.							
ElitePRO S1200 Black Thermostat - EIM Required	THX1200B8S								

Product	Part Number	Redlink 3.0	Video Doorbell	Onboard radar sensor	IAQ	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Dimensions in inches (mm)
ElitePRO S1200 White Thermostat with EIM	YTHX1200W7	✓	✓	✓	Air quality monitoring and reporting with VOC & estimated CO2 detection. Control humidifier, dehumidifier or ventilator (all 3)	**Thermostat:** 37 to 102 °F (2.8° to 38.9° C)	5% to 90% Non Condensing	-20 to 120 °F 28.9 to 48.9 °C)	**Thermostat:** 3-9/19" H x 5-1/4" W x 14/16" D (90 mm H x 133 mm W x 24 mm D) **Display size:** 5-inch capacitive touchscreen display. Resolution 800 by 400 pixels.
ElitePRO S1200 Black Thermostat with EIM	YTHX1200B8	✓	✓	✓					
Wireless indoor temperature, humidity, & motion sensor. Up to 20 per thermostat.	C7189R3010	✓	N/A	N/A	N/A	*0 to 120 °F (-17.8° to 48.9°C)	5% to 90% Non-Condensing	-20 to 120 °F (-28.9 to 48.9 °C)	2.4" W x 2.4" H x 0.77" D (61 mm x 61 mm x 19.6 mm)
Equipment Interface Module (EIM) for Indoor Unit	EIM4010	✓	N/A	N/A	N/A	-40 to 165 °F (-40 to 73.9 °C)	5% to 95% Non-Condensing	-20 to 165 °F (-28.9 to 73.9 °C)	5-23/64" W x 8-5/64" H x 1-19/32" D (136 mm W x 205 mm H x 41 mm D)

Product	Part Number	Redlink 3.0	Video Doorbell	Onboard radar sensor	IAQ	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Dimensions in inches (mm)
Equipment Interface Module (EIM) for Indoor Unit (Current Release).	THM04R3000 **	✓	N/A	N/A	N/A	-40 to 165 °F (-40 to 73.9 °C)	5% to 95% Non-Condensing	-20 to 165 °F (-28.9 to 73.9 °C)	5-5-16" W x 7-11/16" H x 1-1/2" D (135 mm W x 195 mm H x 39 mm D)
Antenna used with EIM4010 when signal from thermostat to EIM is impeded (Future Release)	ANT4010	✓	N/A	N/A	N/A	-40 to 167 °F (-40 to 75 °C)	N/A	N/A	4-13/16" H x 3-43/50" wide (122 mm H x 98 mm W) Cable 118" (3000 mm +/- 10%)
Equipment Remote Module (ERM) for Indoor Unit (Future Release)	ERM4010	✓	N/A	N/A	N/A	**Compressor:** -40 F to +155 F (-40 C to +68 C) **Boiler:** 30 F to +130 F (-1 C to +54 C)	0% to 99% RH	-20 to 165 °F (-28.9 to 73.9 °C)	6-7/8" W x 6-39/64" H x 1-31/64" D (175 mm W x 168 mm H x 38 mm D)
Wireless outdoor temperature & humidity sensor	C7089R3013	✓	N/A	N/A	N/A	-40 to 140 °F (-40 to 60 °C)	5% to 95% Non-Condensing	-40 to 140 °F (-40 to 60 °C)	5" H x 3-1/2" W x 1-11/16" D (127 mm H x 89 mm W x 43 mm D)

Product	Part Number	Redlink 3.0	Video Doorbell	Onboard radar sensor	IAQ	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Dimensions in inches (mm)
White cover plate and J-Box Adapter (included with white thermostat)	THP2400WH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4-19/32" H x 6-1/16" W (117 mm H x 154 mm W)
Black cover plate and J-Box Adapter (included with black thermostat)	THP2400BL	N/A	N/A	N/A	N/A				
Floor/Slab sensor for radiant floor heat (optional for all ElitePRO thermostat models)	AC112-01	—	N/A	N/A	N/A	N/A	N/A	N/A	10 ft leadwires
Discharge or return sensor. (optional for all ElitePRO models; supports low A-Coil shutoff temperature)	C7735A1000	—	N/A	N/A	N/A	N/A	N/A	N/A	N/A

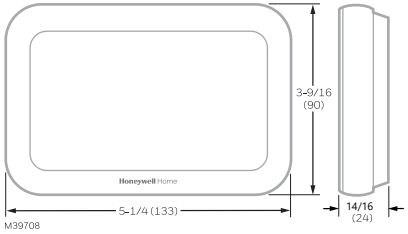
Product	Part Number	Redlink 3.0	Video Doorbell	Onboard radar sensor	IAQ	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Dimensions in inches (mm)
Wired outdoor temperature sensor (optional for all ElitePRO thermostat models)	C7089U1006	—	N/A	N/A	N/A	N/A	N/A	N/A	5 ft leadwires
Wired indoor temperature sensor (optional for all ElitePRO thermostat models)	C7189U1005	—	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* For optimal battery life, operating temperature range of 35 to 114 °F (1.7 to 45.6 °C) is recommended.

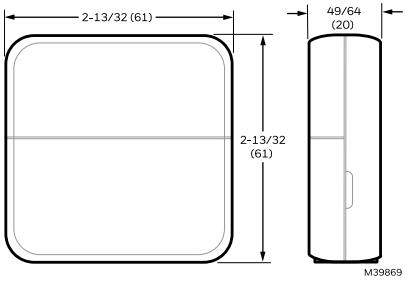
** ElitePRO Redlink models are compatible with the THM04R3000 EIM with Firmware 1.1.4 or later (higher). This will be the firmware on THM04R3000 EIM from factory with date code 2337 or higher.

Dimensions

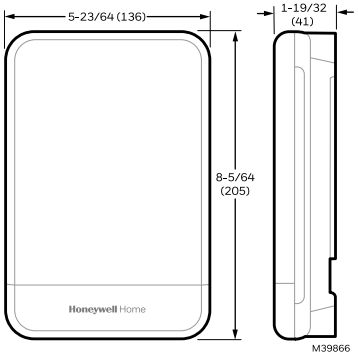
Dimensions of ElitePRO™ Series Thermostat in inches (mm)



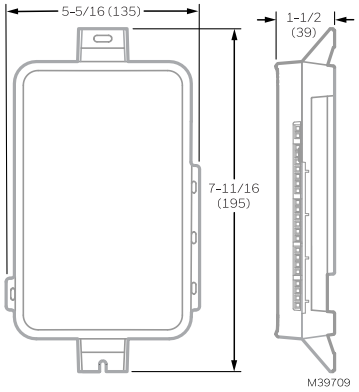
Dimensions of C7189R3010 sensors in inches (mm)



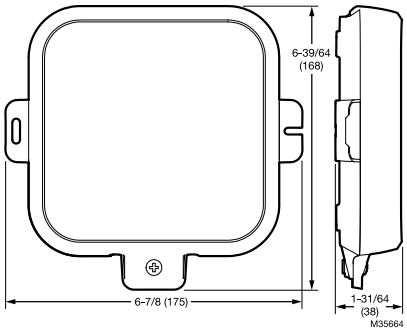
Dimensions of EIM4010 EIM in inches (mm)



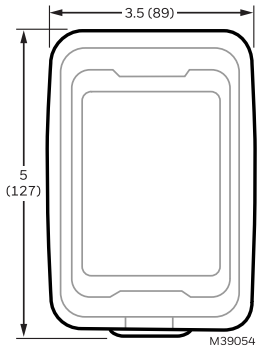
Dimensions of THM04R3000 EIM in inches (mm)



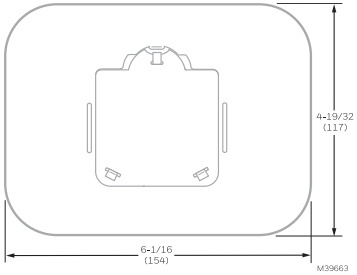
Dimensions of ERM4010 (Equipment Remote Module) in inches (mm)



Dimensions of C7089R3013 wireless outdoor sensor in inches (mm)



Dimensions of cover plate included with all ElitePRO™ Series Thermostats in inches (mm).



Specifications

ElitePRO™ Series Thermostat Description

Feature	Description
Powering Method	
Stages: **Up to 3H/2C* Heat pump** **Up to 2H/2C* conventional** **Radiant floor with slab sensor**	**Equipment type**: • Dual fuel • Hot water or steam. 2-pipe, 4-pipe or hot water fan coil • PTAC*** • Gas or oil furnace • High-efficiency or mid-efficiency • Cool only • Humidifier, Dehumidifier, or Ventilator control**
Changeover	Manual or Auto Changeover Selectable
System Setting	Em Heat-Heat-Off-Cool-Auto
Fan Setting	Auto-On-Circ(High, Medium & Low for Fan Coil or PTAC)

* 4H/2C heat pump or 3H/4C conventional when using U or L at thermostat or U1-U3 at EIM for additional stages.
** ElitePRO thermostat with EIM can control three IAQ devices. S1000, S1100 and S1200 ElitePRO thermostat without EIM can control two IAQ devices
*** ElitePRO thermostats cannot be set for PTAC when used with the THM04R version of EIM.

Electrical ratings of ElitePRO™ Series Thermostat without EIM

Input Ratings: 24V~ 60 Hz, 0.11A

> **NOTE:**
> THX1200W7S and THX1200B8S models only have a U relay on thermostat and MUST be used with an EIM.

Terminal	Voltage (60Hz)	Running Current
W (Stage 1 heat for most non-heat pump applications. Do not use for Heat pump systems)	20-30 VAC	0.02-1.0 A
W2 / AUX (Auxiliary heat for heat pump systems. Stage 2 heat for non-heat pump systems)	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
E (Emergency Heat. Not used unless set for separate aux and E)	20-30 VAC	0.02-1.0 A
G (Fan)	20-30 VAC	0.02-0.5 A

Terminal	Voltage (60Hz)	Running Current
O/B (Reversing Valve / Changeover valve for heat pump)	20-30 VAC	0.02-0.5 A
L/A (Fault input from heat pump or economizer or output for humidifier, dehumidifier, or ventilator)*	20-30 VAC	0.02-0.5 A
U (Hum, Dehum, Vent. Economizer. Extra heat or cool stage. 3rd fan speed for fan coil)	20-30 VAC	0.02-0.5 A

* Only S1000, S1100 and S1200 models can use L/A as an output.
Power Consumption:
S900 and S1000: 2.2 VA.
S1100 and S1200: 2.6 VA.

Electrical ratings of EIM

Terminal	Voltage (60Hz)	Max. Current Rating
O/B (Reversing Valve / Changeover valve for heat pump)	20-30 VAC	1.00 A
Y (Compressor Stage 1)	20-30 VAC	1.00 A
Y2 (Compressor Stage 2 or 2nd fan speed for Fan coil)	20-30 VAC	1.00 A
G (Fan)	20-30 VAC	0.50 A
W1 (stage 1 heat for most non-heat pump applications. Do not use for Heat pump systems)	20-30 VAC	0.60 A
W2 / AUX 1 (Auxiliary/Emergency heat for heat pump systems. Stage 2 heat for non-heat pump systems)	20-30 VAC	0.60 A
W3 / AUX 2 (Second auxiliary/Emergency heat for heat pump systems. Stage 3 heat for non-heat pump systems)	20-30 VAC	0.60 A
L (input only. Heat pump or Economizer fault)	20-30 VAC	0.60 A
U1-U1, U2-U2, U3-U3 (Dry contacts for hum, dehum, vent, economizer, or extra stage(s) cool)	20-30 VAC	0.50 A

Power Consumption: 3.0 VA MAX

Wireless Communication:

Bluetooth: BLE 2.4 GHz

Dual-Band Wi-Fi: 2.4 & 5GHz

Redlink 3.0 Communication (S1000, S1100, and S1200 models): 900 MHz (Re-sync time: Redlink 3.0 devices re-establish communication within 6 minutes after AC power resumes.)

Radar (S1000, S1100, and S1200 models): 61.5 GHZ.

Temperature Setting Range:

Heating: 40 to 90 °F (4.5 to 32 °C).

Cooling: 50 to 99 °F (10 to 37 °C).

> **NOTE:**
> Adjustable high and low range-stop settings.

Humidification Setting Range:

0% to 90% RH.

Dehumidification Setting Range:

10% to 100% RH.

Humidity Sensor Accuracy:

± 5% RH from 30% to 50% RH at 75 F.

Interstage Differential:

Comfort (default setting):

The thermostat keeps the indoor temperature within 1 degree of the set point (Differential less control). Unless the system is dual fuel, or a Differential setting is used, the thermostat turns on stage 2 when the capacity on stage 1 reaches 90%.

- See **ISU 3030** for cool differential options.
- See **ISU 3050** and **ISU 3090** for Backup Heat Differential options.

Clock Accuracy:

1 minute per month at 77 °F (25 °C). ± 2 minutes per month over the operating ambient temperature range. Automatically updates when connected to WiFi router and registered to account.

Mounting Means:

Thermostat mounts directly on the wall in the living space using mounting screws and anchors provided. Can mount to a horizontal 2 x 4 in. junction box using J-Box adapter & Cover plate.

Terminal Designations

Terminals on ElitePRO™ Series Thermostat without EIM

> **NOTE:**
> THX1200W7S and THX1200B8S models only have a U relay on thermostat and MUST be used with an EIM.

Conventional Systems		Heat Pump Systems	
Terminal	**Description**	**Terminal**	**Description**
S/S	Input for a wired sensor or dry contact alert	**S/S**	Input for a wired sensor or dry contact alert.
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 transformers)	**C**	24VAC Common wire from secondary side of cooling transformer
K*	Connect to K on C-wire adapter	**K***	Connect to K on C-wire adapter
U/U	Relay for humidifier, dehumidifier, ventilator, economizer, or extra heat or cool stage.	**U/U**	Relay for humidifier, dehumidifier, ventilator, economizer, or an auxiliary heat stage.
L/A	Connect to economizer fault alert. Could alternately be used as an input from a remote setback switch. S1000, S1100 and S1200 models can use this to control a humidifier, dehumidifier, or ventilator.	**L/A**	Connect to heat pump fault monitor or economizer fault alert. Could alternately be used as an input from a remote setback switch. S1000, S1100 and S1200 models can use this to control a humidifier, dehumidifier, or ventilator.
W	Heat Stage 1	**O/B**	Changeover valve for heat pumps
W2	Heat Stage 2	**AUX**	Backup Heat (U can alternately be used for backup heat if powered off a separate transformer such as with a boiler)
		E	Emergency Heat when separate aux and E are selected during setup (not typical).
R	24 VAC Heating transformer	**R**	24 VAC Heating transformer
Rc	24 VAC Cooling transformer	**Rc**	24 VAC Cooling transformer

* The THP9045A C-wire adapter is used on heat/cool systems when you only have four wires at the thermostat and you need an extra 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 the common wire. See THP9045A instructions for more information.

Terminals on EIM4010 or THM04R3000 Equipment Interface Module (EIM).

Conventional Systems		Heat Pump Systems	
Terminal	**Description**	**Terminal**	**Description**
S1, S2, S3, S4 (Two of each)	Input for indoor sensor, outdoor sensor, floor sensor, RATS, DATS, Dry Contact Alert, or input from a remote setback switch.	**S1, S2, S3, S4 (Two of each)**	Input for indoor sensor, outdoor sensor, floor sensor, RATS, DATS, Dry Contact Alert, or input from a remote setback switch
Y	Compressor Stage 1	**Y**	Compressor Stage 1
Y2	Compressor Stage 2	**Y2**	Compressor Stage 2
G	Fan Relay	**G**	Fan Relay
C	Common from HVAC transformer when R is jumped to Rc. Common from separate transformer if R is not jumpered	**C**	Common from HVAC transformer when R is jumped to Rc. Common from separate transformer if R is not jumpered
U1, U2, U3 (Two of each)	Relay for humidifier, dehumidifier, ventilator, economizer, or extra cool stages	**U1, U2, U3 (Two of each)**	Relay for humidifier, dehumidifier, ventilator, or economizer,
L	Economizer fault alert	**L**	Connect to compressor monitor
O/B	Not used for conventional applications	**O/B**	Changeover valve for heat pumps
W1	Heat Stage 1	**W1**	Not used for heat pump applications
W2	Heat Stage 2	**AUX1**	Stage 1 of AUX/EM heat
W3	Heat Stage 3	**AUX2**	Stage 2 of AUX/EM heat
R	24V from transformer to power EIM	**R**	24V from transformer to power EIM
Rc	24 VAC Cooling transformer	**Rc**	24 VAC Cooling transformer
Rh	24 VAC Heat transformer	**Rh**	24 VAC Heat transformer

2-Pipe Fan Coil Unit Terminals

2-pipe fan coil unit terminals at thermostat/UWP when EIM is not used

Terminal	Description
Rc **R**	**R** and **Rc** are usually jumpered together (slider switch up) on a 2-pipe FCU with the 24 VAC hot to **R**. If the Aux Heat is powered by a separate transformer you may slide the **R/Rc** switch down, then aux heat is wired to **R** and **Aux**. FCU is wired to **Rc**, **C**, **Y**, **G**, etc.
C	24 VAC common from fan coil unit transformer
Y	Heat/Cool relay
W	Not used on 2-pipe fan coil unit
G	Low speed fan
Y2	Medium speed fan when 3 fan speeds are selected. High when 2 fan speeds are selected.
U (Upper U terminal)	High speed fan if 3 fan speeds are selected. U slider switch must be up If fan only has 2 speeds, If there are only 2 fan speeds, U can be used for a humidifier, dehumidifier, or ventilator.
Aux / W2	Auxiliary Heat (Some 2-pipe fan coil units do not have auxiliary heat)
S, S*	Optional wired 10K/20K pipe sensor for changeover.
L/A - A*	**Choose one:** Dry contact switch input for pipe changeover from Heat to Cool, or input from a remote setback switch. S1000, S1100 and S1200 models could alternately use this as a 24 VAC output to control a humidifier, dehumidifier, or ventilator.
O/B	Not used on 2-pipe fan coil unit

***The ElitePRO™ Series Thermostat uses either a wired 10K or 20K pipe sensor to the S terminals, or a dry contact switch to L/A to tell the thermostat whether the pipe is hot or cold. The ISU settings allow you to choose the method being used. If a dry contact switch is wired to L/A, the thermostat allows you to use the S terminals for a wired indoor or outdoor sensor or wire to a switch that triggers a dry contact alert or remote setback.

2-pipe fan coil unit terminals when EIM is used

Terminal	Description
R **Rc** **Rh**	Typically **R**, **Rh** and **Rc** would be jumpered together for a 2-pipe fan coil unit with that transformer wired to **R** and **C**. If jumpers are removed, **R** and **C** power the EIM, **Rc** is the 24 volt hot from fan coil unit. **Rh** and **Aux** may be used for an auxiliary heat source if that source is powered by a separate transformer. If using the **L/A** for Heat/Cool changeover, **R** and **Rc** must be jumped
C	24 VAC common from the transformer powering the fan coil unit.
Y	Heat/Cool relay
W	Not used on 2-pipe fan coil unit
G	Low speed fan
Y2	Medium speed fan when 3 fan speeds selected. High speed when 2 speeds are selected.
U1, U2, U3	High speed fan when 3 speeds are selected. During setup, select which U contacts are used for this. Jumper one of the U terminals from the set selected to R as shown in wiring diagrams. Other U terminals can control a humidifier, dehumidifier, or ventilator.
Aux1	Auxiliary Heat (Some 2-pipe fan coil units don't have Auxiliary Heat)
S1, S2, S3, S4*	Optional wired 10K/20K pipe sensor for changeover the Set of S terminals used for this is selected during setup. The other 3 sets of S terminals could be used for an optional 10K/20K wired indoor sensor, 10K wired outdoor sensor, dry contact alert, or remote setback with dry contact occupancy sensor
L*	Input for pipe changeover switch from Heat to Cool
OB	Not used on 2-pipe fan coil unit

* The ElitePRO™ Series Thermostat uses either a wired 10K or 20K pipe sensor to the S terminals, or a dry contact switch to L to tell the thermostat whether the pipe is hot or cold. The ISU settings allow you to choose the method being used.

4-Pipe Fan Coil Unit Terminals

4-pipe fan coil unit terminals at thermostat /UWP when EIM is not used

Terminal	Description
R **Rc**	R and Rc must be jumpered together (slider switch up) on a 4-pipe FCU with the 24 VAC hot from FCU transformer to R. If the Aux Heat is powered by a separate transformer an isolation relay will be needed from the Aux terminal on UWP
C	24 VAC common from fan coil unit transformer
Y	Cool relay
W	Heat relay
G	Low speed fan
Y2	Medium speed fan when 3 fan speeds are selected. High when 2 fan speeds are selected.
U (Upper U terminal)	High speed fan if 3 fan speeds are selected. U slider switch must be up If fan only has 2 speeds, If there are only 2 fan speeds, U can be used for a humidifier, dehumidifier, or ventilator.
Aux/W2	Auxiliary Heat
S,S	Optional 10K/20K wired indoor sensor or 10K wired outdoor sensor , or input from a dry contact alert switch.
L/A - A	Optional input from remote setback switch. S1000, S1100 and S1200 models could alternately use this as a 24 VAC output to control a humidifier, dehumidifier, or ventilator.
O/B	Not used on 4-pipe fan coil unit

4-pipe fan coil unit terminals when EIM is used

Terminal	Description
R **Rc** **Rh**	Typically R/Rh/Rc terminals are all jumpered together for this application. Rh, and Rc must be jumpered together for a 4-pipe fan coil unit.The R jumper may be removed to power the EIM with a separate transformer unless the L is used for changeover. If Aux Heat is powered off a separate transformer, an isolation relay would be needed.
C	24 VAC common from the transformer powering the fan coil unit.
Y	Cool relay
W	Heat relay
G	Low speed fan
Y2	Medium speed fan when 3 fan speeds selected. High speed when 2 speeds are selected.
U1, U2, U3	High speed fan when 3 speeds are selected. During setup, select which U contacts are used for this. Jumper one of the U terminals from the set selected to R as shown in wiring diagrams. Other U terminals can control a humidifier, dehumidifier, or ventilator.
Aux1	Auxiliary Heat (Some 4-pipe fan coil units don't have auxiliary heat)
S1, S2, S3, S4	Any set of S terminals can be used for an optional 10K/20K wired indoor sensor, a 10K wired outdoor sensor, dry contact alerts, or remote setback with dry contact occupancy sensor.
O/B	Not used on 4-pipe fan coil unit

System Installation

When Installing This Product...

1. Read these instructions carefully. Failure to follow the instructions can damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After completing installation, use these instructions to verify the product operation.

⚠ WARNING

THIS PRODUCT MUST BE INSTALLED BY A TRAINED, EXPERIENCED HVAC PROFESSIONAL. IMPROPER WIRING OR CONFIGURING OF THIS THERMOSTAT CAN CAUSE UNINTENDED OPERATION OF YOUR HVAC SYSTEM WHICH COULD LEAD TO PROPERTY DAMAGE, INJURY, INCLUDING DEATH.

⚠ DANGER

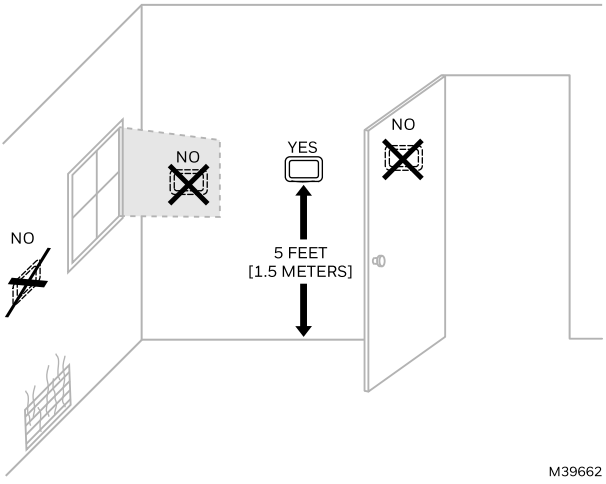
ELECTRICAL SHOCK HAZARD

CAN CAUSE ELECTRICAL SHOCK OR EQUIPMENT DAMAGE.

DISCONNECT POWER SUPPLY BEFORE CONNECTING WIRING.

Selecting Thermostat Location

Install the thermostat about 5 ft. (1.5m) above the floor in an area with good air circulation at average temperature. See illustration below.



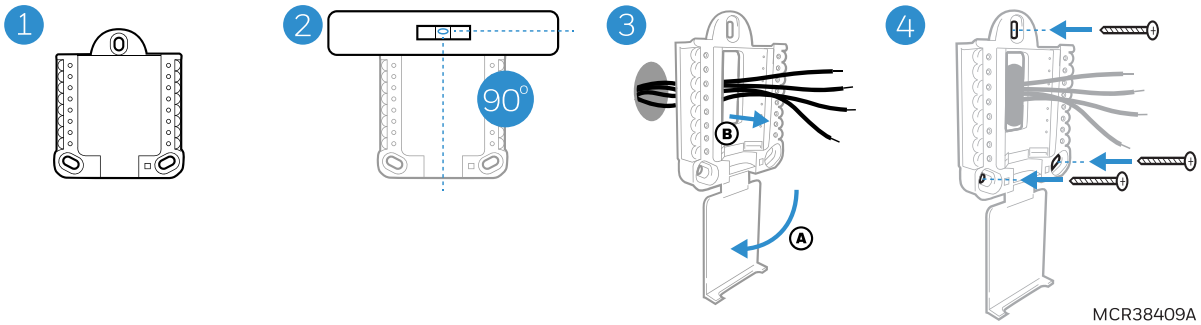
Do not install the thermostat where it can be affected by:

- Drafts or dead spots behind doors and in corners
- Hot or cold air from ducts
- Radiant heat from sun or appliances
- Concealed pipes and chimneys
- Unheated (uncooled) areas such as an outside wall behind the thermostat

UWP Wall Plate Installation

If the cover plate is used, the UWP snaps on the cover plate as shown in "Optional Decorative Cover Plate Installation " below.

1. Before starting, turn the power off at the breaker box or switch. Open the package to find the UWP. *See step 1*.
2. Position the UWP on wall. Level and mark hole positions. *See step 2*.
3. Using a 3/16" bit, drill holes at marked positions and then lightly tap the supplied wall anchors into the wall using a hammer.
4. Pull the door open and insert the wires through wiring hole of the UWP. *See step 3*.
5. 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. *See step 4*.



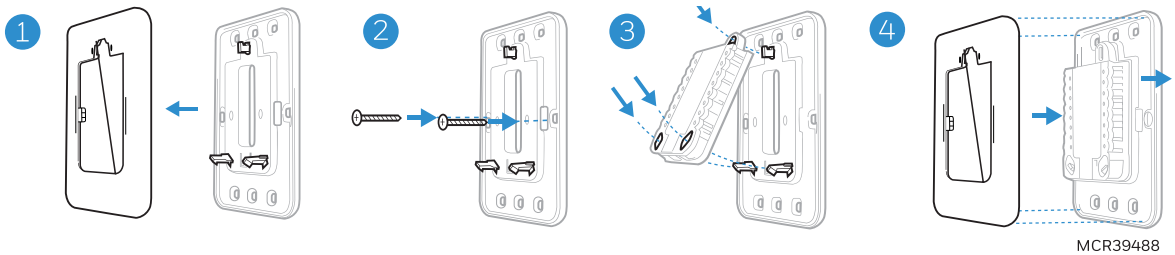
Use 3x supplied #6 1-1/2" screws

Optional Decorative Cover Plate Installation

If the Optional Cover Plate is *not* required, see UWP Wall Plate Installation.

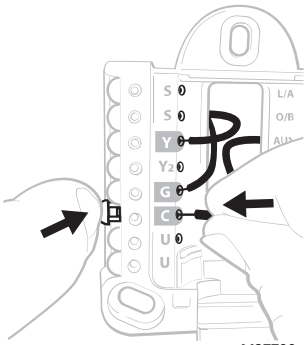
Use the Optional Cover Plate when you need to cover a paint gap from the old thermostat or mount the thermostat to a J-Box.

1. Separate the Cover Plate from Mounting Plate. *See step 1*.
2. Mount the Mounting Plate on to the wall or J-box using any of the 8 screw holes. Insert and tighten mounting screws. Do not overtighten. *See step 2*. Make sure the Mounting Plate is level.
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 step 3*.
4. Snap the Cover Plate onto the Mounting Plate. *See step 4*.



Wiring UWP

> **NOTE:**
> If EIM is used with ElitePRO™ Series Thermostat, the UWP only requires wires to R and C of a 24 VAC power supply. Usually R and C from UWP goes to R & C at upper right of EIM.



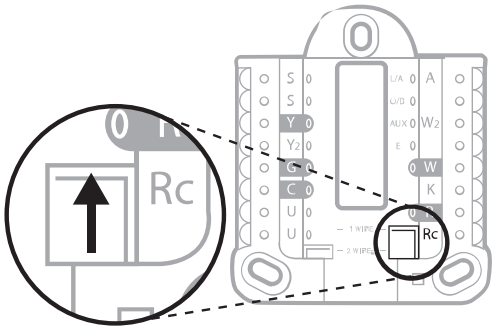
Push down on the tabs to put the wires into the inner holes of their corresponding terminals on the UWP (one wire per terminal) until they are firmly in place.

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.

Setting Slider Tabs

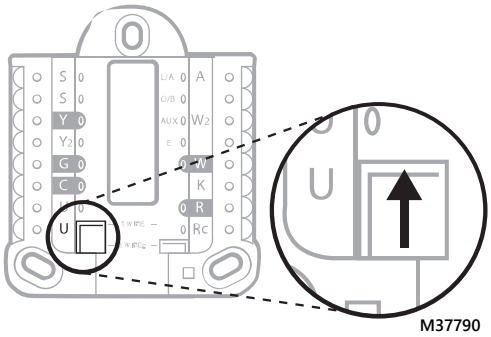
Set R Slider Tab



Setting the R Slider Tab

- 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



Setting the U Slider Tab

- 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, extra cool stage, or whatever is wired to the U 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, extra cool stage, etc. to the upper U terminal. If powering a humidifier or damper without an internal transformer, wire the other wire from the humidifier or damper to the common of the cooling transformer. Ensure the cooling transformer is sized to handle the extra load. 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 "Wiring Diagrams" on page 29.

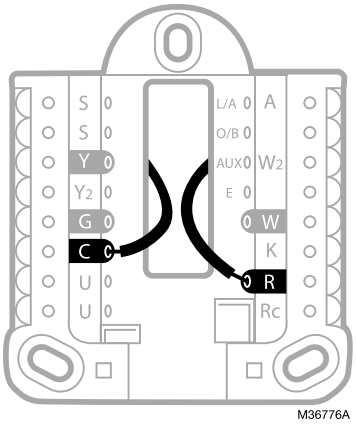
Power Options

The ElitePRO™ Series Thermostat requires 24 VAC at R and C (or Rc and C on 2-transformer system) to power the display.

Insert **R** and **C** wires into designated terminals for AC power. Remove wires by pressing down on the terminal tabs. (C terminal is required for ElitePRO™ Series Thermostats).

No C-wire?:

If there is no C-wire from the previous thermostat and no extra wire in the bundle to the thermostat, but it does have wires to both Y and G, you may use the **THP9045A** C-wire adapter (sold separately).



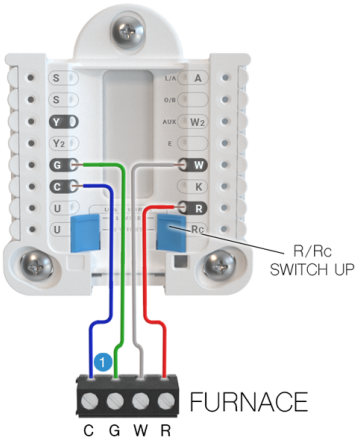
> **NOTE:**
> For more information on the THP9045A C-wire adapter, go to: C-WIRE Adapter Installation Guide

Wiring Diagrams

Wiring an ElitePRO™ Series Thermostat without EIM

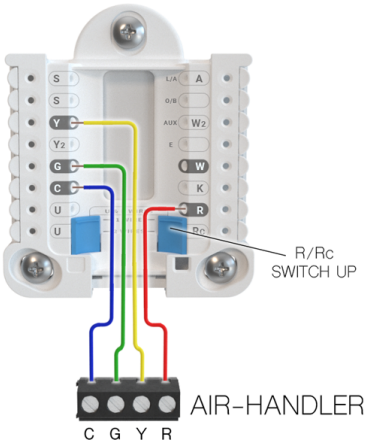
1. Use 18- to 22- gauge thermostat wire. Shielded cable is not required.
2. Set the R Slider Tab on the UWP to the up position (1 wire) for 1 transformer systems or the down position (2 wires) for 2 transformer systems.
3. Set the U Slider Tab to the position shown for IAQ wiring diagrams on "Using U Terminals" on page 37.

Heat only: Gas. Oil, or Electric furnace



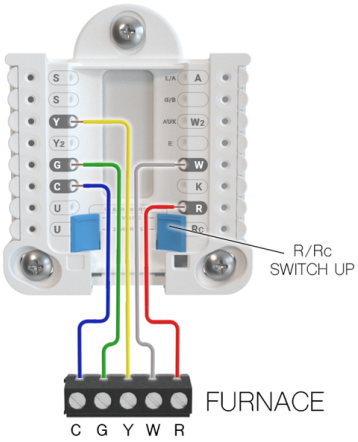
MCR39490

Cool only



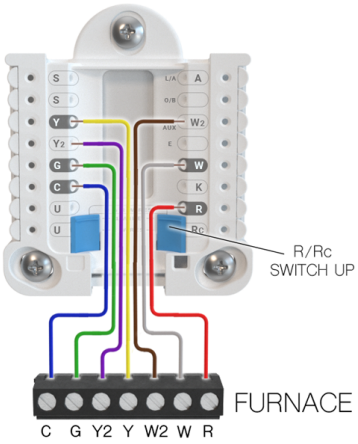
MCR39491

1H/1C gas or Electric furnace



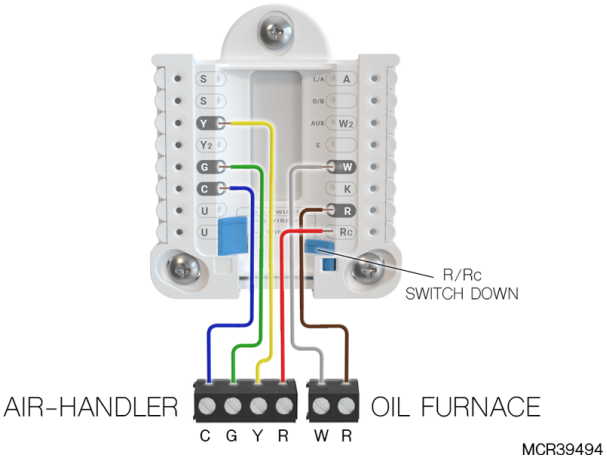
MCR39493

2H/1C gas furnace



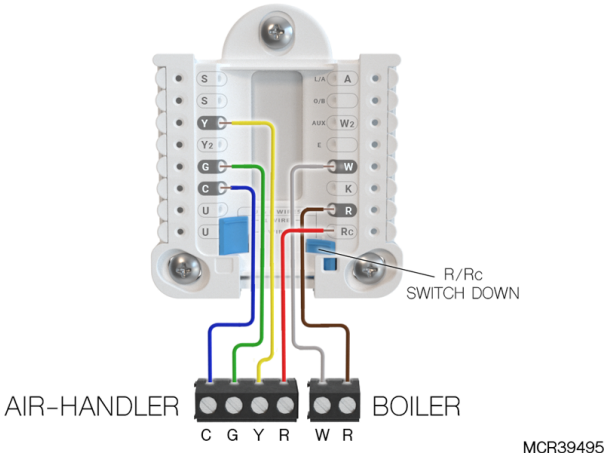
MCR39497

2-transformer system; 1H/1C oil furnace



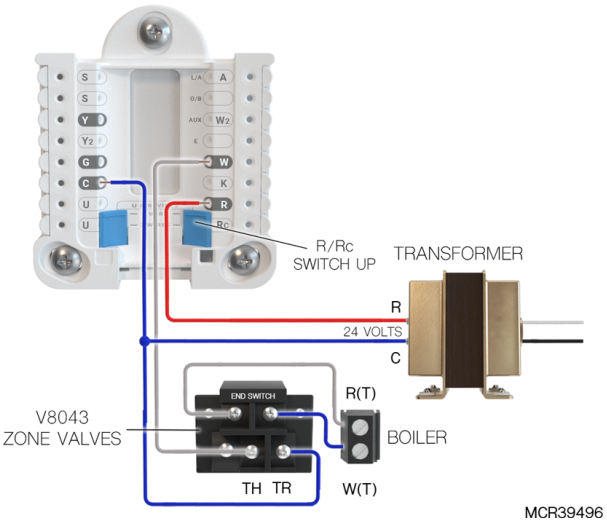
MCR39494

2-transformer system; hot water heat with air-conditioning (or hot water coil)



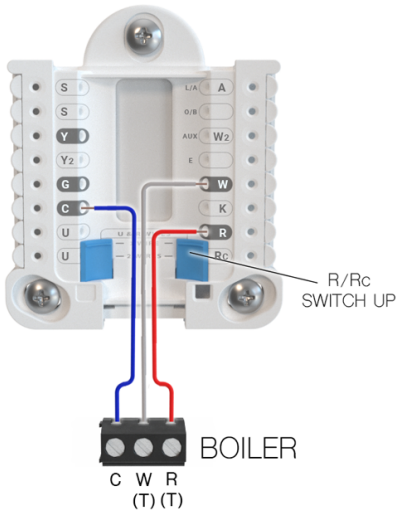
MCR39495

Hot water heat with power open zone valve



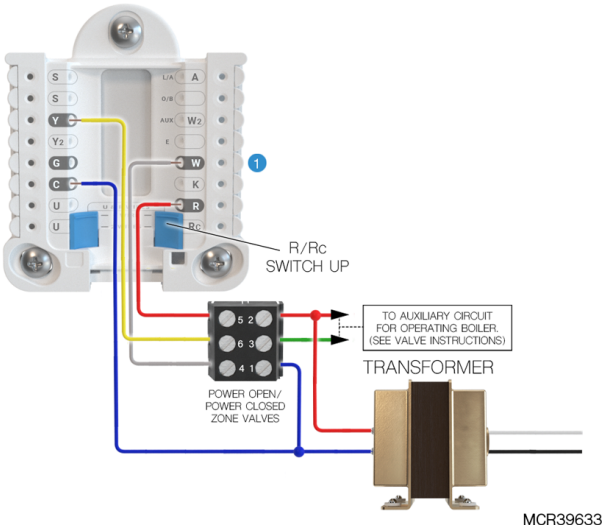
MCR39496

Hot water boiler, heat only



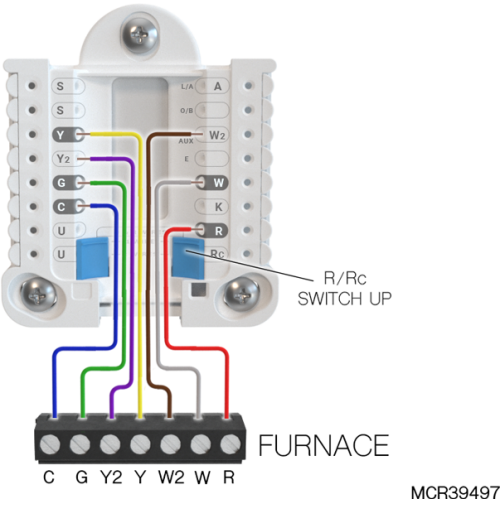
MCR39632

Series 20 valve (power open and power closed)

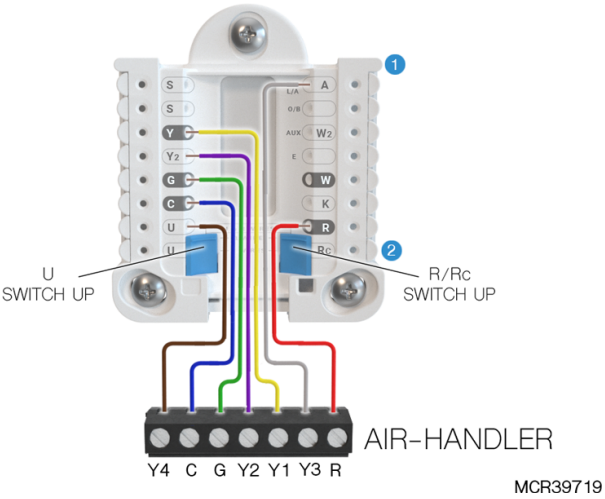


1 Thermostat must be configured for radiant heat with 0 (zero) cool stages.

2H/2C Gas Furnace



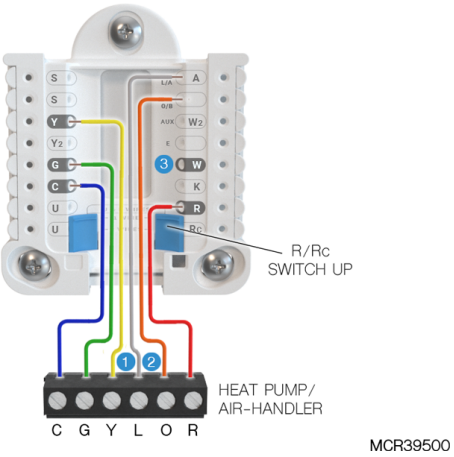
Wiring a third and fourth Cool stage without EIM



1 S900 models of ElitePRO™ Series Thermostats cannot use L/A for a cool stage. Verify ISU settings 2080 & 2090 match wiring. The L/A and U wires may be reversed.

2 If heating (not shown) uses a different transformer than cooling, cooling transformer goes to Rc and the R/Rc slider should be down.

1H/1C Heat Pump without Aux Heat

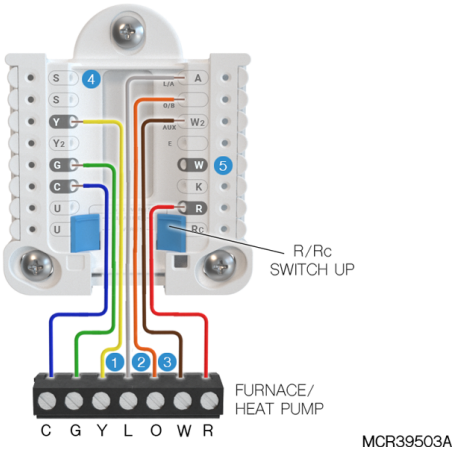


1 **L** only connected if heat pump has a fault terminal.

2 Some heat pumps use **B** rather than **O** for reversing valve.

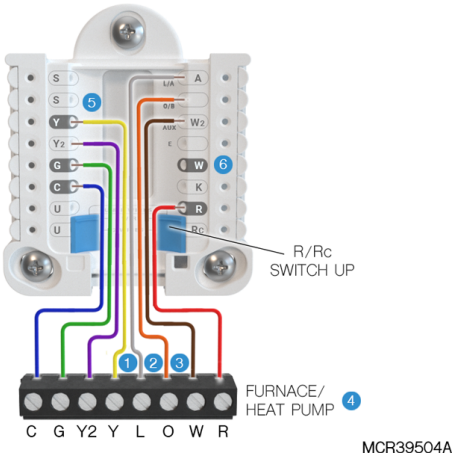
3 **IMPORTANT:** DO NOT connect any wire to **W** for heat pump applications! This can cause heat to run continuously.

Dual fuel 2H/1C Heat pump



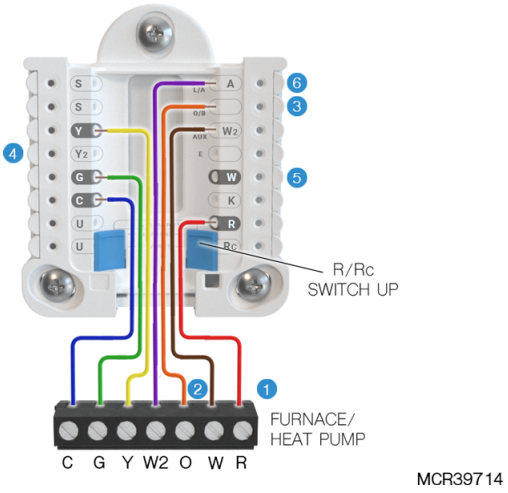
1. **L** only connected if heat pump has a fault terminal.
2. Some heat pumps use **B** rather than **O** for reversing valve.
3. The furnace and Heat Pump have separate boards. We show them together to simplify the diagram. W is from the Furnace board.
4. Balance point lockout can be done through router/internet connection and App, wired outdoor sensor or wireless outdoor sensor.
5. DO NOT connect any wire to W for heat pump applications! This can cause heat to run continuously.

Dual Fuel, 3H/2C Heat Pump



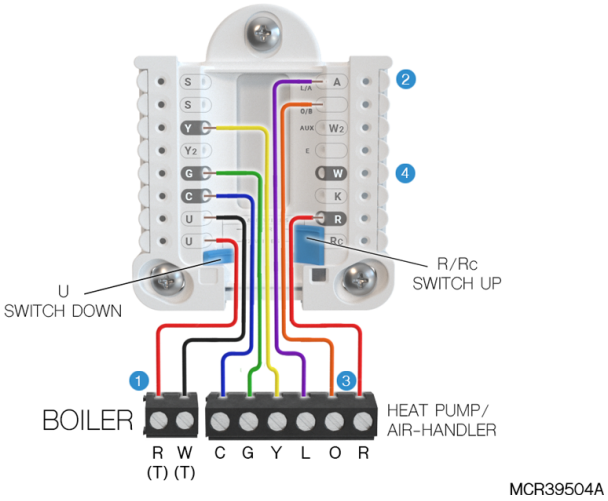
1. Common Required.
2. L only connected if heat pump has a fault terminal.
3. Some heat pumps use **B** rather than **O** for reversing valve.
4. The furnace and Heat Pump have separate boards. We show them together to simplify the diagram. W is from the Furnace board.
5. Optional: C7089U1006 Wires to the two S terminals.
6. DO NOT connect any wire to W for heat pump applications! This can cause heat to run continuously.

Dual fuel with 2-stage Furnace



1. Terminals used for furnace chose in ISU 2170 and 2171. Verify these setting match the wiring.
2. The furnace and Heat Pump have separate boards. We show them together to simplify the diagram. W and W2 are from the Furnace board.
3. Some heat pumps use **B** rather than **O** for reversing valve.
4. Connect Y2 (not shown) for 2 stage compressor if used.
5. DO NOT connect any wire to W for heat pump applications! This can cause heat to run continuously.
6. L/A terminal can be used for furnace stage 2 on S1000, S1100 and S1200 models. Alternately, the upper U terminal could be used for stage 2 furnace on any ElitePRO model.

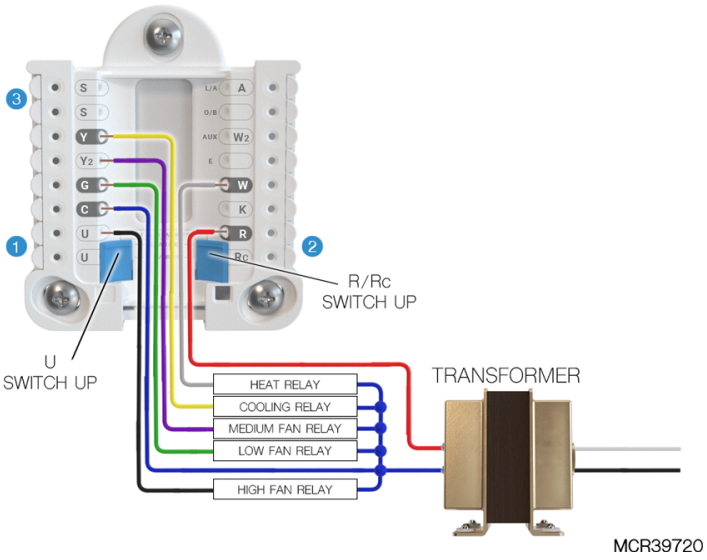
Heat Pump with Boiler



1. Verify ISU 2170 is set to use U for backup heat.
2. **L** only connected if heat pump has a fault terminal.
3. Some heat pumps use **B** rather than **O** for reversing valve.
4. DO NOT connect any wire to W for heat pump applications! This can cause heat to run continuously.

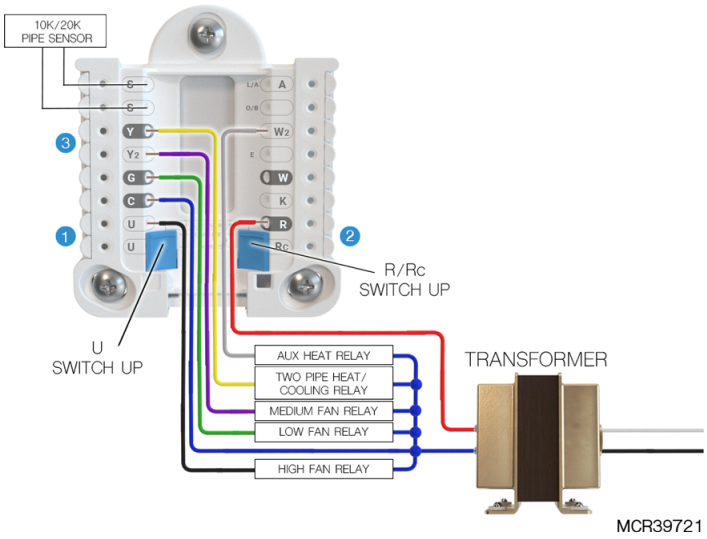
Fan Coil Unit Wiring Diagrams without EIM

Typical wiring of 4-pipe fan coil



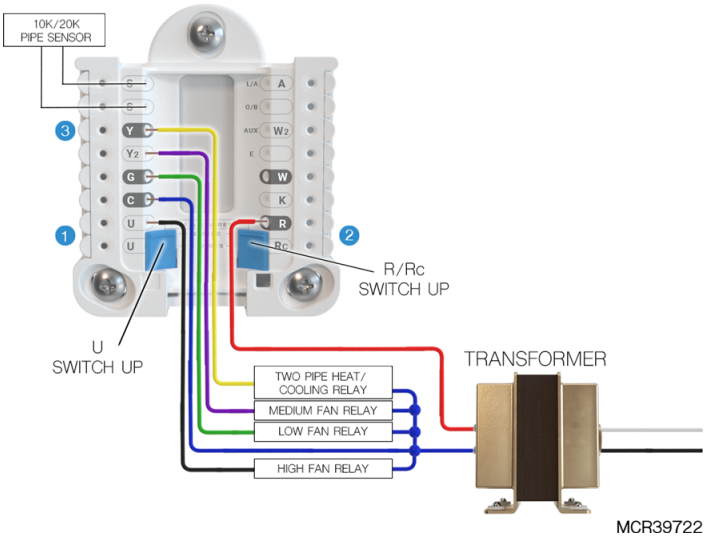
1. The high speed fan could alternately be wired to L/A on S1000, S1100 or S1200 models. Verify the wiring matches the ISU 2107. If wired to U, the U slider switch should be set to the up position as shown.
2. The R/Rc slider switch should be set to the up position as shown.
3. S terminals can be used for a wired indoor sensor or outdoor sensor. See the Remote setback wiring options if a sensor/switch was wired to S terminals on previous thermostat.

Typical wiring of 2-pipe fan coil <u>with</u> reheat using wired 10K/20K Heat/cool changeover pipe sensor



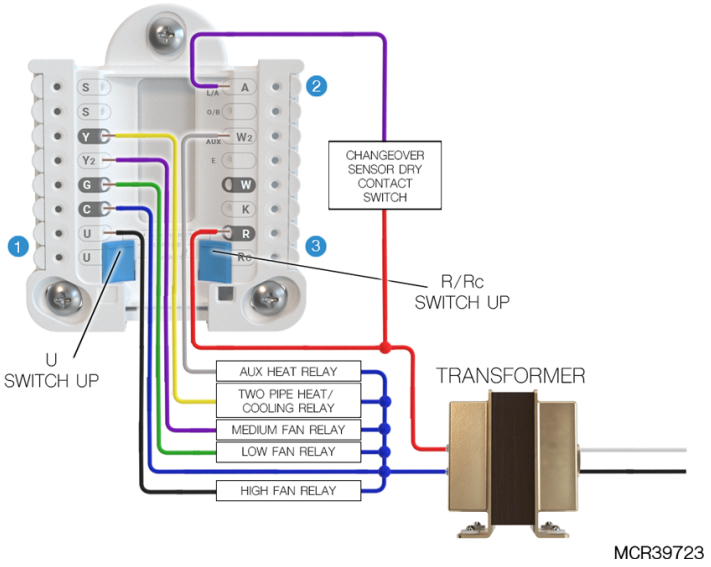
1. The high speed fan could alternately be wired to L/A on S1000, S1100 or S1200 models. Verify the wiring matches the ISU 2107. If wired to U, the U slider switch should be set to the up position as shown.
2. The R/Rc slider switch should be set to the up position as shown.
3. S terminals can be used for a wired 10K or 20K pipe sensor for heat/cool changeover.

Typical wiring of 2-pipe fan coil without reheat using wired 10K/20K Heat/Cool changeover pipe sensor



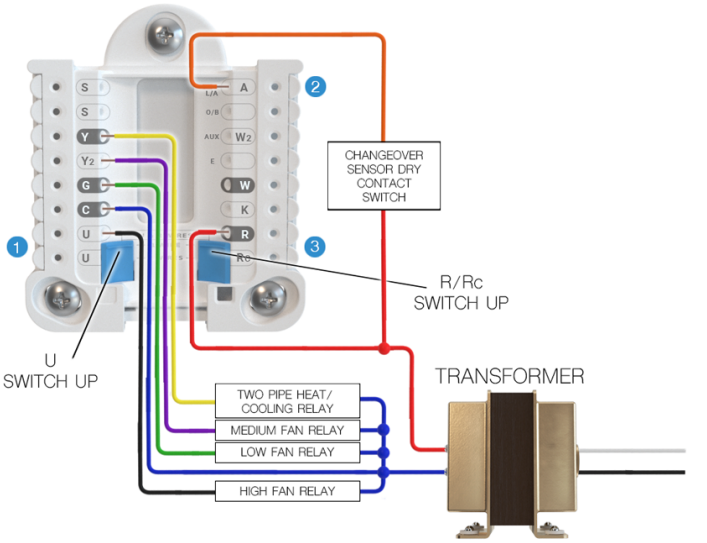
1. The high speed fan could alternately be wired to L/A on S1000, S1100 or S1200 models. Verify the wiring matches the ISU 2107. If wired to U, the U slider switch should be set to the up position as shown.
2. The R/Rc slider switch should be set to the up position as shown.
3. S terminals can be used for a wired 10K or 20K pipe sensor for heat/cool changeover.

Typical wiring of 2-pipe fan coil with reheat using dry contact switch for Heat/Cool changeover



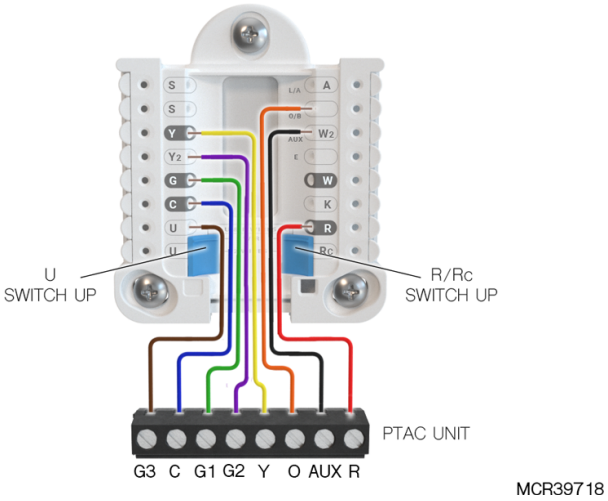
1. Verify the wiring matches the ISU 2107. If wired to U, the U slider switch should be set to the up position as shown.
2. Wire the dry contact changeover switch to R at the fan coil unit and L as shown. ElitePRO™ Series Thermostats can be configured for the changeover switch to be normally open in cool or heat mode. See ISU settings 2054 & 2055.
3. The R/Rc slider switch should be set to the up position as shown.

Typical wiring of 2-pipe fan coil without reheat using dry contact switch for Heat/Cool changeover



1. Verify the wiring matches the ISU 2107. If wired to U, the U slider switch should be set to the up position as shown.
2. Wire the dry contact changeover switch to R at the fan coil unit and L as shown. ElitePRO™ Series Thermostats can be configured for the changeover switch to be normally open in cool or heat mode. See ISU settings 2054 & 2055.
3. The R/Rc slider switch should be set to the up position as shown.

PTAC with multiple fan speeds

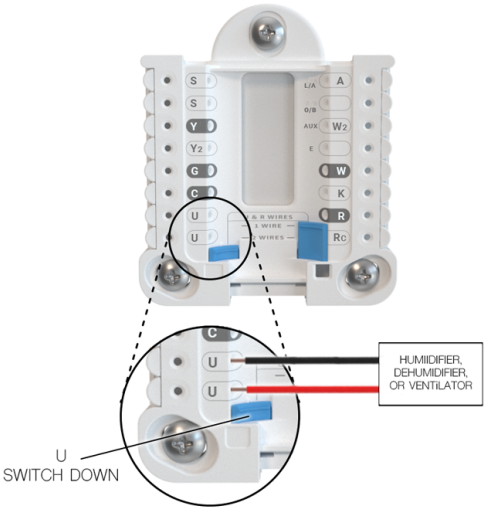


1. Some PTAC units use B rather than O for reversing Valve.
2. Do not wire to W on UWP for PTAC systems. If the system has auxiliary heat this must wire to AUX. If the system does not have auxiliary heat the dotted line from this diagram is not used.
3. S terminals can be used for a wired sensor. L/A terminal can be used for remote setback. Other diagrams show this optional equipment.

Whole house humidifier, dehumidifier, or ventilator wiring

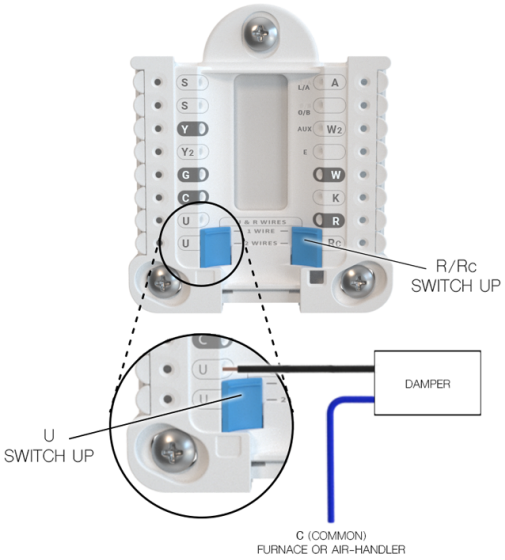
Using U Terminals

Wired to humidifier, dehumidifier, or ventilator with built-in transformer



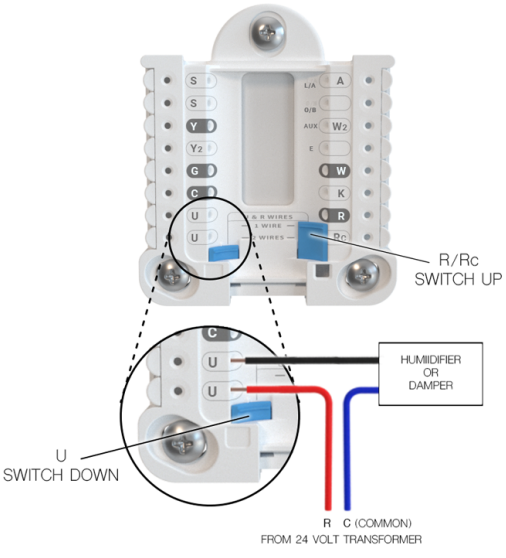
MCR37823

Wired to fresh air damper powered by furnace transformer



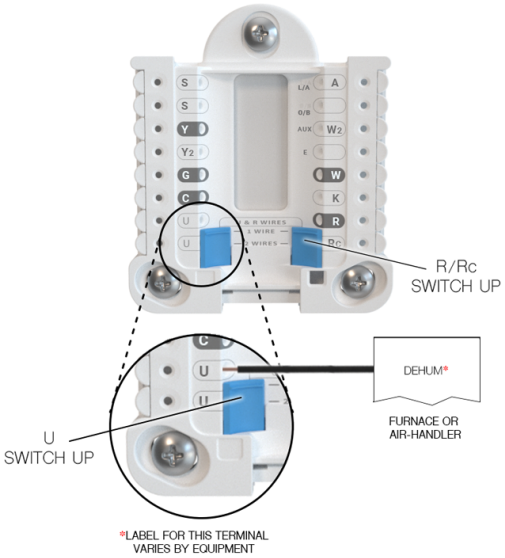
MCR37824

Wired to humidifier, ventilator or damper powered by external transformer



MCR37825

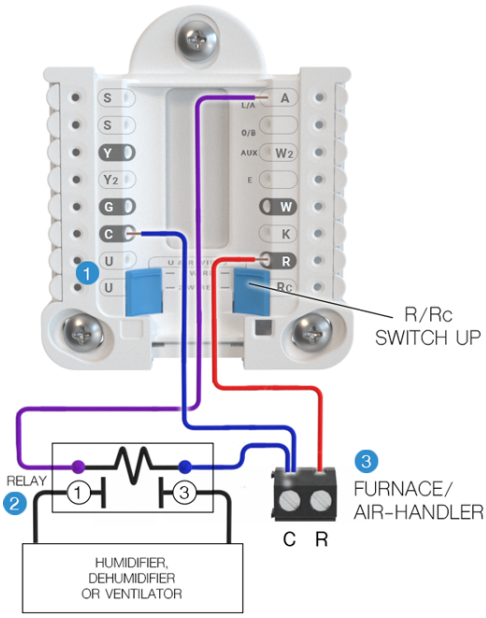
Wired to low speed fan terminal on HVAC for dehumidification



MCR37826

Using the L terminal to control IAQ (S1000, S1100, & S1200 only)

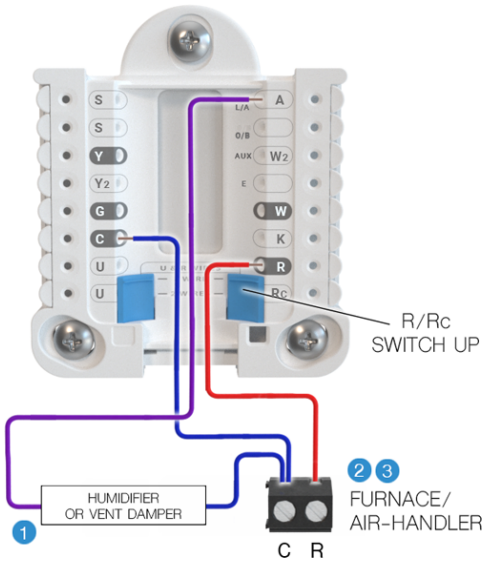
L/A Wired to humidifier, dehumidifier, or ventilator with built-in transformer



MCR39716

1. Verify ISU 10020 is set to use L for ventilation rather than U.
2. An R8222B or equivalent low-voltage-rated relay could be used.
3. Furnace/Air-handler wiring varies by system. See system wiring diagrams for system wiring.

L/A wired to humidifier or vent damper powered by furnace transformer transformer



MCR39717

1. Verify ISU 8030 (humidifier) or 10020 (ventilator) is set to use L/A rather than U. This wiring is only for a vent damper or a humidifier which does not have a built-in transformer.
2. Furnace/Air-handler wiring varies by system. See system wiring diagrams for system wiring.
3. Verify system transformer is sized to handle additional load of humidifier or vent damper.

Installing Equipment Interface Module (if used)

EIM4010 is the new EIM that is being developed for ElitePRO S1000, S1100, and S1200 Thermostats.

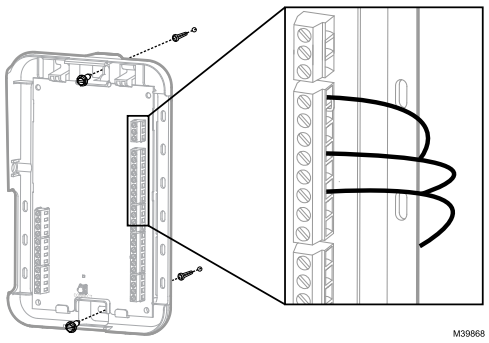
The previous THM04R3000 EIM with Firmware rev. 1.1.4.0 or later (higher number) can work with ElitePRO S1000, S1100, and S1200 Thermostats. See the **RedLINK product compatibility** FAQ section for further details.

1. Mount the EIM near the HVAC equipment or on the equipment itself. Use screws and anchors as appropriate for the mounting surface.

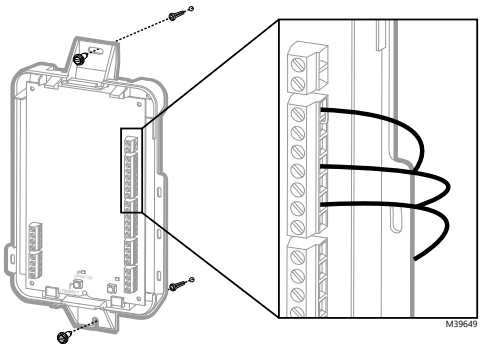
   > **NOTE:**
   > If multiple EIMs are used, it is recommended to mount them at least 2 feet apart to prevent interference.

2. To wire the EIM, strip 1/4" insulation, then insert wires (For wiring diagrams, see "EIM Wiring Diagrams" below)
   Use 18- to 22 gauge thermostat wire.

EIM4010 EIM (Equipment Interface module)



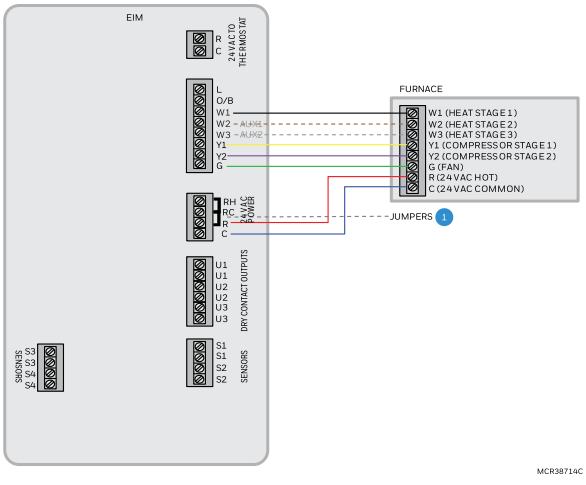
THM04R3000 EIM (Equipment Interface module)



Strip 1/4" insulation, then insert wires as shown above.

EIM Wiring Diagrams

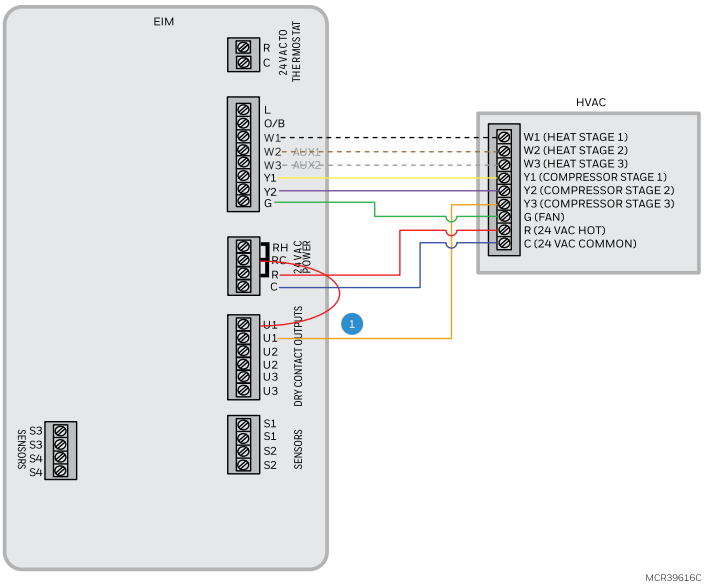
Typical wiring of a conventional system with up to 3 stage Heat and 2 stage Cool with one transformer



1 Remove jumper(s) if using separate transformers.

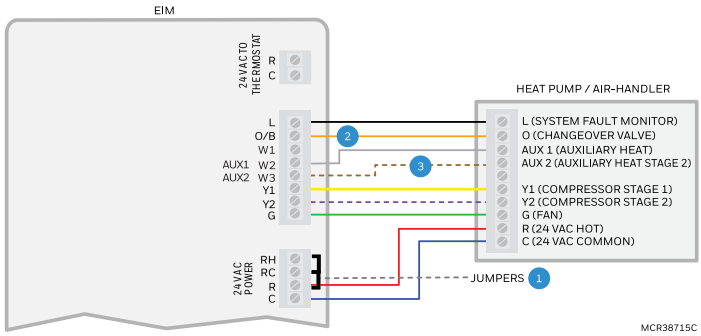
NOTE: See following pages for additional thermostat wiring guidelines for other system types, sensor wiring, IAQ Control, and other dry contact wiring options.

Wiring a third cool stage with EIM



1. Any set of U terminals (U1, U2, U3) can be assigned to control stage 3. Jumper the other U from that set to Rc as shown.

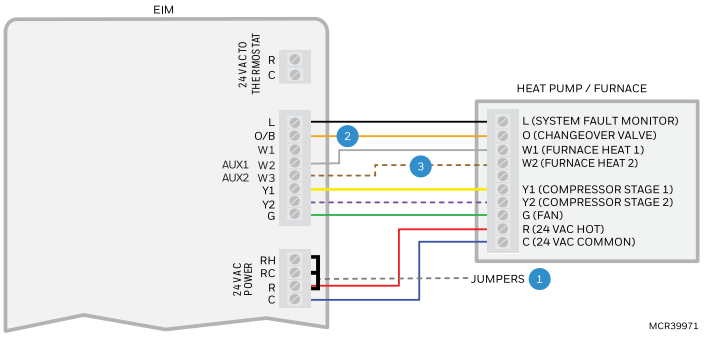
Typical wiring of a heat pump system with up to four-stage Heat and two-stage Cool with one transformer



1. Remove jumper(s) if using separate transformers.
2. The changeover valve will be labeled O if energized in cool or B if energized in heat.
3. The Auxiliary heat stage(s) are labeled differently on different heat pump air handlers. Most heat pumps applications only have one stage of auxiliary heat.

NOTE: See following pages for additional thermostat wiring guidelines for other system types, sensor wiring, IAQ Control, and other dry contact wiring options.

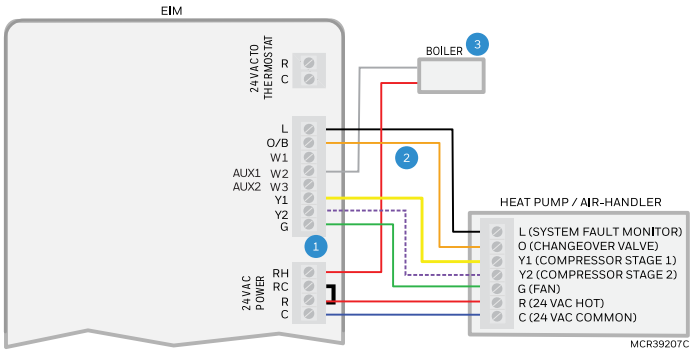
Typical wiring of a Dual Fuel heat pump system with 1 or 2-stage furnace and 1 or 2-stage heat pump



1. Remove jumper(s) if using separate transformers.
2. The changeover valve will be labeled O if energized in cool or B if energized in heat.
3. The Heat Pump and Furnace have separate boards, they are shown together here to simplify this diagram.

NOTE: See following pages for additional thermostat wiring guidelines for other system types, sensor wiring, IAQ Control, and other dry contact wiring options.

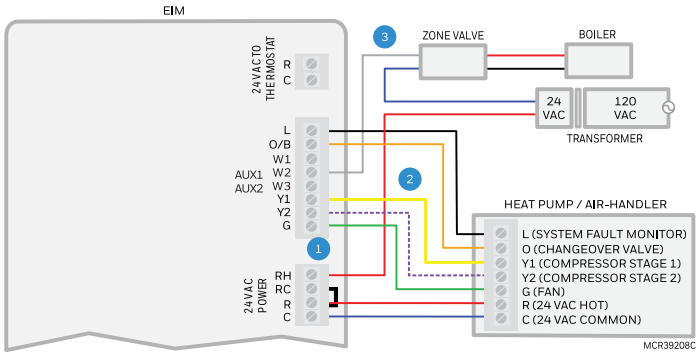
Typical wiring of a heat pump system with boiler backup



1. Remove jumper since the boiler has a separate transformer than the heat pump.
2. The changeover valve will be labeled O if energized in cool or B if energized in heat.
3. If using a hot water relay panel, the wires shown going to the boiler would instead wire to R and W on one of the zones of the panel.

NOTE: See following pages for additional thermostat wiring guidelines for other system types, sensor wiring, IAQ Control, and other dry contact wiring options.

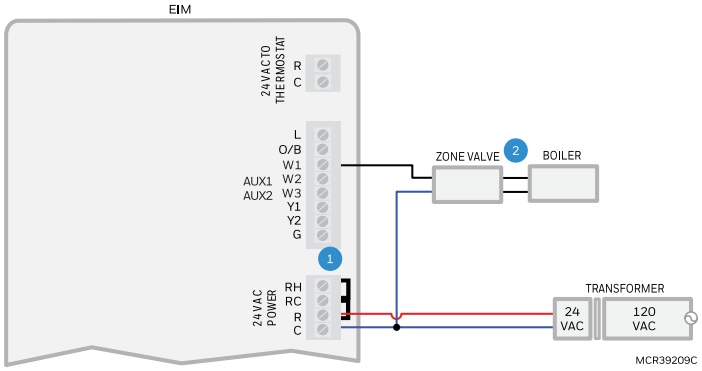
Typical wiring of a heat pump system with a zone valve for Backup Heat



1. Remove jumper since the valve is powered by a separate transformer than the heat pump.
2. The changeover valve will be labeled O if energized in cool or B if energized in heat.
3. The wires that power the valve are shown on the left side of the valve. The end-switch wires from the valves go to the boiler.

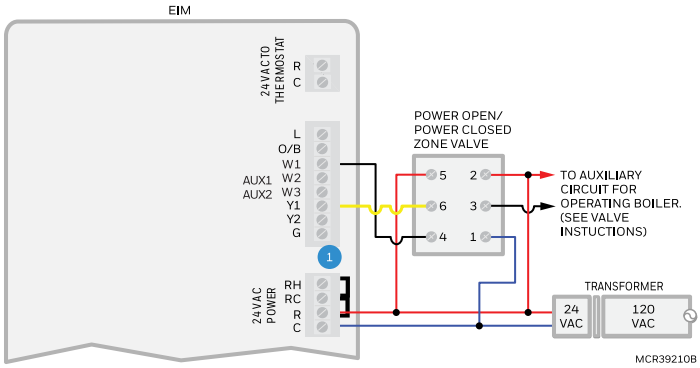
NOTE: See following pages for additional thermostat wiring guidelines for other system types, sensor wiring, IAQ Control, and other dry contact wiring options.

Typical wiring of a spring-closed, power-open zone valve with end-switch



1. If also controlling cooling with a separate transformer, remove RH at EIM. Valve transformer C would not wire to EIM. Cooling transformer wire to R and C with R to RC jumper installed.
2. The wires that power the valve are shown on the left side of the valve. The end-switch wires from the valves go to the boiler.
3. If using an AC112-01 or equivalent slab sensor, wire that to any of the 4 sets of S terminals on EIM and make sure the ISU Settings match the wiring.

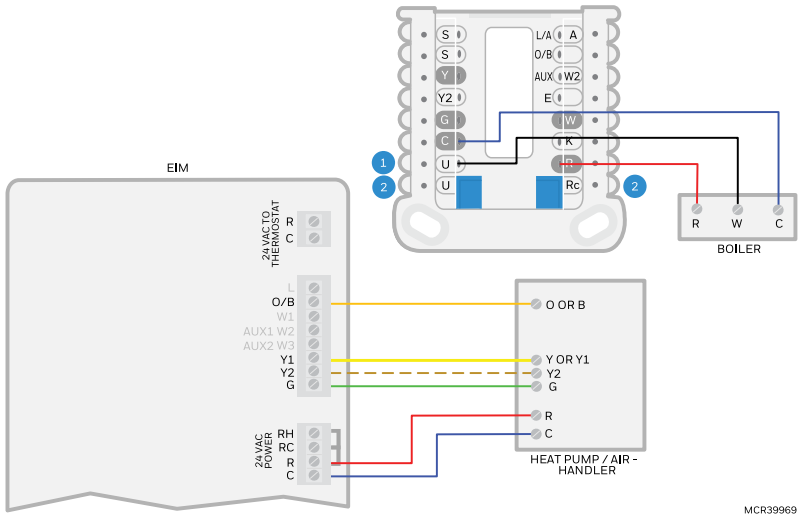
Typical wiring of a series 20, power-open/power-closed zone valve



1. If also controlling cooling with a separate transformer, remove RH Jumper wire the valve transformer to RH at EIM. Valve transformer C would not wire to EIM. Cooling transformer wire to R and C with R to RC jumper installed.
2. If using an AC112-01 or equivalent slab sensor, wire that to any of the 4 sets of S terminals on EIM and make sure the ISU Settings match the wiring.

NOTE: See following pages for additional thermostat wiring guidelines for other system types, sensor wiring, IAQ Control, and other dry contact wiring options.

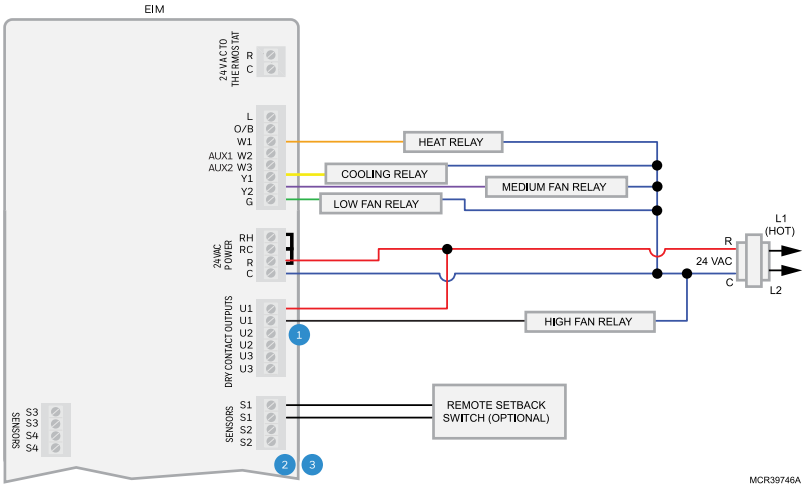
Thermostat wired to Boiler; Heat pump wired to EIM



1. For ISU 2170, set the backup heat to Thermostat U
2. U and R slider switches up when thermostat C comes from boiler. If thermostat 24 volts is from a separate transformer, set the U slider down, wire transformer to R and C and wire boiler to U and U.

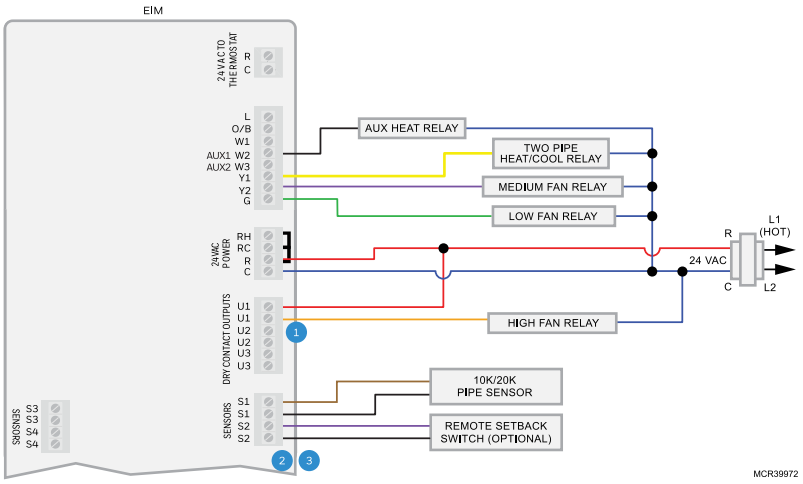
Fan Coil Unit Wiring Diagrams *with* EIM

Typical wiring of 4-pipe fan coil



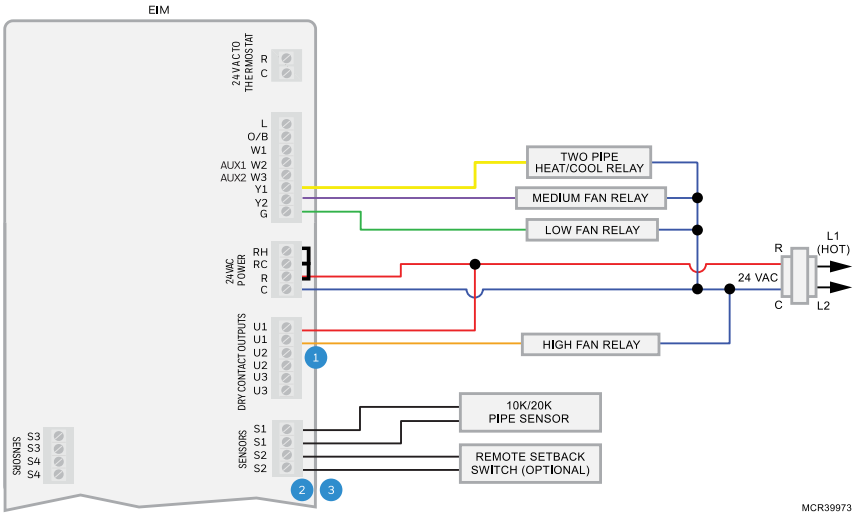
1. Any set of U contacts can be set to control high speed fan. One of those U contacts must be jumped to the fan coil transformer R as shown.
2. S terminals can be used for a wired indoor sensor or outdoor sensor.
3. If a remote setback switch is used, that switch wires to any set of S terminals at the EIM. Configure ISU settings 2240, 6010, 6020, 6030, & 6040 on the ElitePRO™ Series Thermostats for remote setback.

Typical wiring of 2-pipe fan coil <u>with</u> reheat using wired 10K/20K Heat/Cool changeover pipe sensor



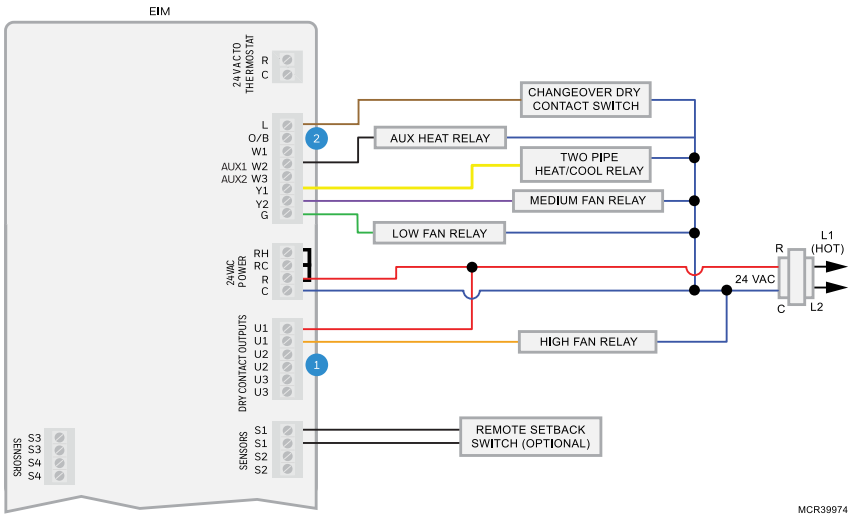
1. Any set of U contacts can be set to control high speed fan. One of those U contacts must be jumped to the fan coil transformer R as shown.
2. S terminals can be used for a 10K or 20K pipe sensor for Heat/Cool changeover.
3. If a remote setback switch is used, that switch wires to any set of S terminals at the EIM. Configure ISU settings 2240, 6010, 6020, 6030, & 6040 on the ElitePRO™ Series Thermostats for remote setback.

Typical wiring of 2-pipe fan coil without reheat using wired 10K/20K Heat/Cool changeover pipe sensor



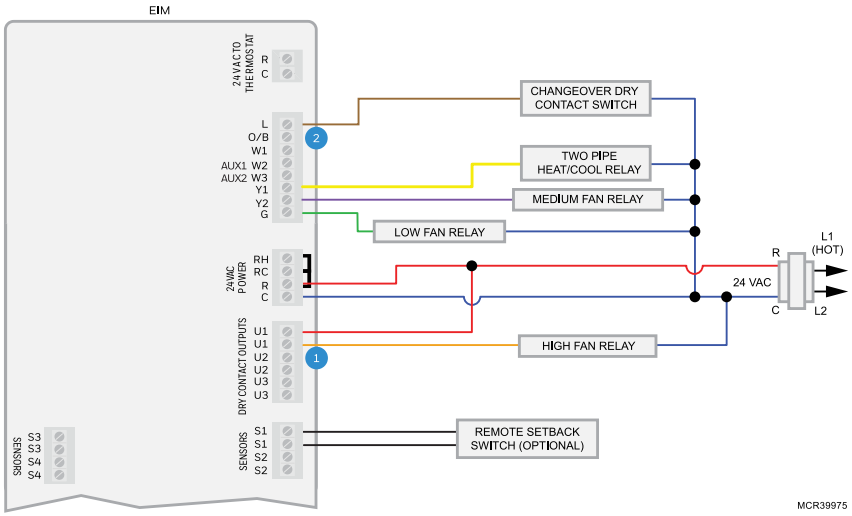
1. Any set of U contacts can be set to control high speed fan. One of those U contacts must be jumped to the fan coil transformer R as shown.
2. S terminals can be used for a 10K or 20K pipe sensor for Heat/Cool changeover.
3. If a remote setback switch is used, that switch wires to any set of S terminals at the EIM. Configure ISU settings 2240, 6010, 6020, 6030, & 6040 on the ElitePRO™ Series Thermostats for remote setback.

Typical wiring of 2 pipe fan coil with reheat using dry contact switch for heat/cool changeover



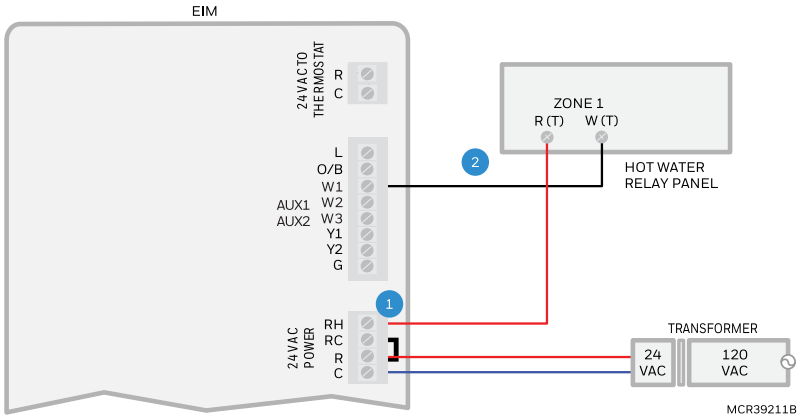
1. Any set of U contacts can be set to control high speed fan. One of those U contacts must be jumped to the fan coil transformer R as shown.
2. Wire the dry contact changeover switch to R at the fan coil unit and L at EIM as shown. ElitePRO™ Series Thermostats can be configured for the changeover switch to be normally open in Cool or Heat mode.

Typical wiring of 2 pipe fan coil without reheat using dry contact switch for Heat/Cool changeover



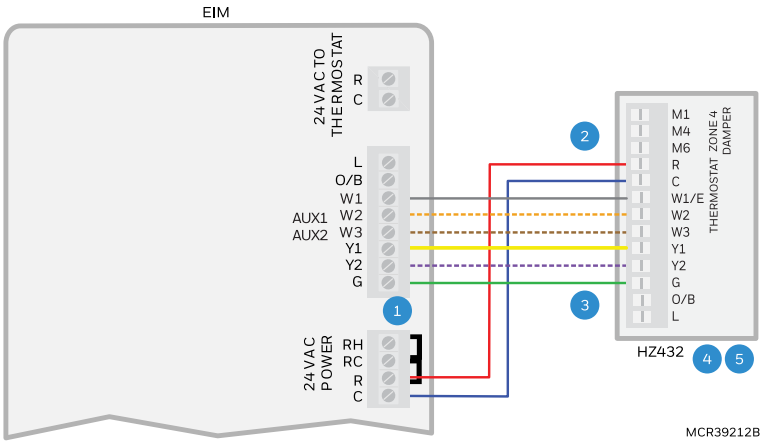
1. Any set of U contacts can be set to control high speed fan. One of those U contacts must be jumped to the fan coil transformer R as shown.
2. Wire the dry contact changeover switch to R at the fan coil unit and L at EIM as shown. ElitePRO™ Series Thermostats can be configured for the changeover switch to be normally open in Cool or Heat mode

Typical wiring EIM to a hot water relay panel



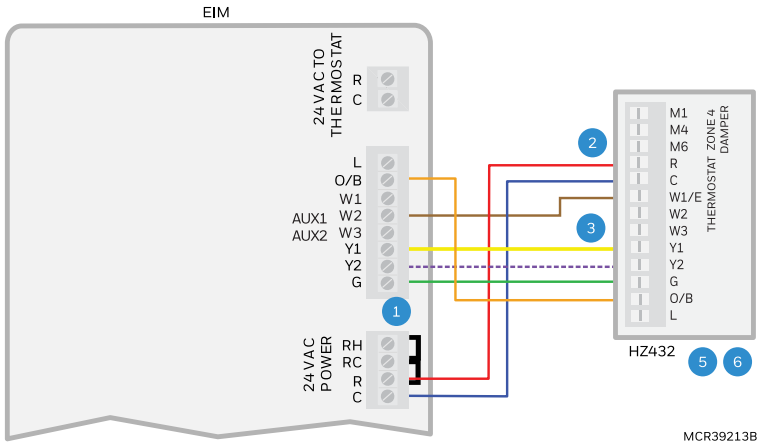
1. RH jumper removed. EIM powered by separate transformer.
2. If using an AC112-01 or equivalent slab sensor for the zone controlled by the thermostat, wire that to any of the 4 sets of S terminals on EIM and make sure the ISU settings math the wiring.

Typical wiring EIM to a Resideo TrueZONE forced air zone panel for conventional heat



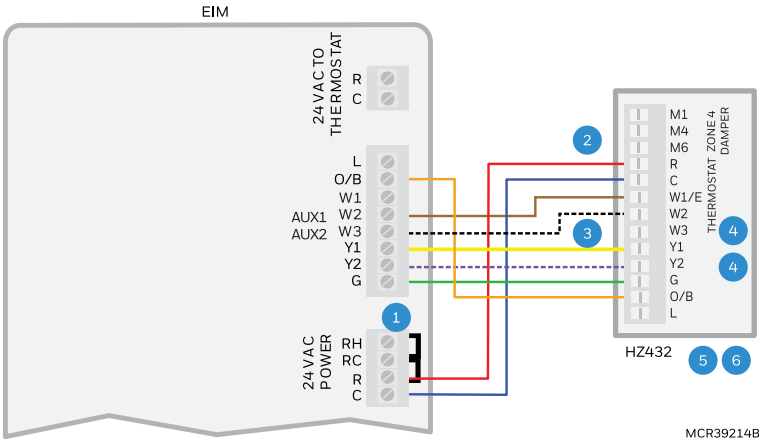
1. R to Rc jumper removed if EIM is powered by a separate transformer.
2. Zone 4 is shown in this drawing. The EIM can wire to any zone on the TrueZONE panel.
3. Dotted lines for Multistage only.
4. Wire the dampers, transformer and HVAC to zone panel as shown in zone panel installation guide.
5. It is not recommended to use a discharge sensor with the EIM on a zoned system. A discharge sensor can be wired to the zone panel for High and Low limit temperature protection.

Typical wiring EIM to a Resideo TrueZONE forced air zone panel for heat pump with electric Aux Heat application



1. R to Rc jumper removed if EIM is powered by a separate transformer.
2. Zone 4 is shown in this drawing. The EIM can wire to any zone on the TrueZONE panel.
3. Y2 is for 2 stage compressor only.
4. Add a jumper from W1/E to W3 at zone panel if Y2 is used. Add a jumper at zone panel from W1/E to W2 if Y2 is not used.
5. Wire the dampers, transformer and HVAC to zone panel as shown in zone panel installation guide.
6. It is not recommended to use a discharge sensor with the EIM on a zoned system. A discharge sensor can be wired to the zone panel for High and Low limit temperature protection.

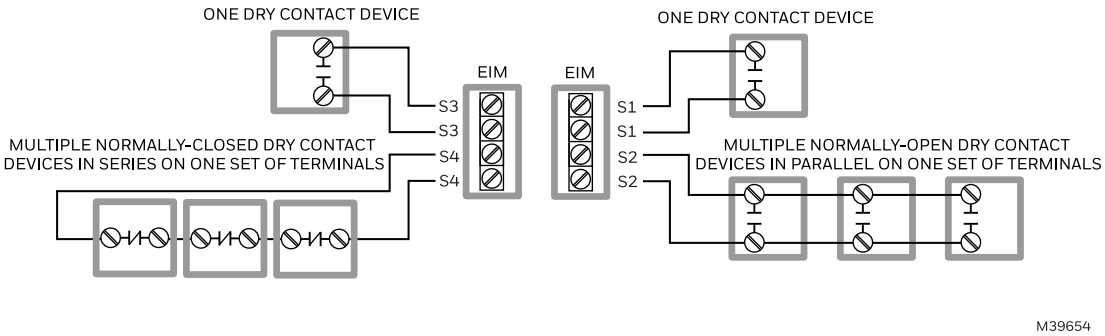
Typical wiring EIM to a Resideo TrueZONE forced air zone panel for dual fuel heat pump application



1. R to Rc jumper removed if EIM is powered by a separate transformer.
2. Zone 4 is shown in this drawing. The EIM can wire to any zone on the TrueZONE panel.
3. W2 is for 2 stage furnace only.
4. Y2 is for 2 stage compressor only.
5. Wire the dampers, transformer and HVAC to zone panel as shown in zone panel installation guide.
6. It is not recommended to use a discharge sensor with the EIM on a zoned system. A discharge sensor can be wired to the zone panel for High and Low limit temperature protection.

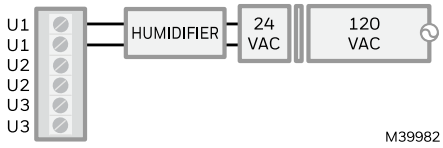
Wiring Dry Contact Alerts with EIM

Dry contact alerts

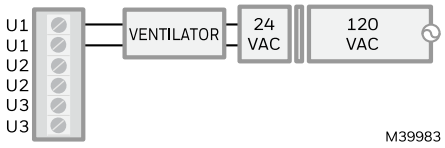


U terminals can be used for humidification, dehumidification or ventilation

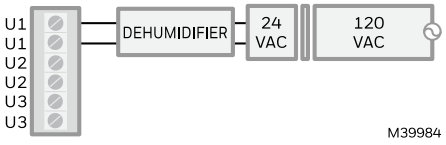
Typical hookup of humidifier with built-in transformer



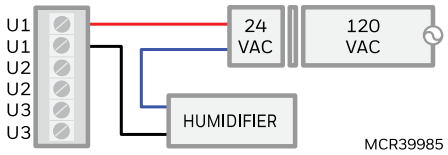
Typical hookup of ventilation with built-in transformer



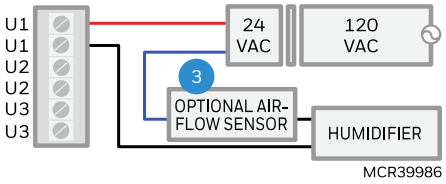
Typical hookup of whole house dehumidifier



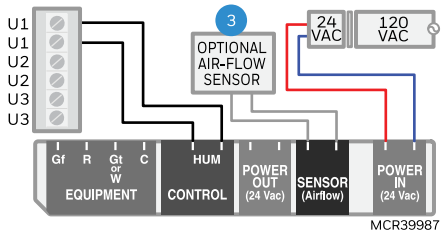
Typical hookup of a humidifier powered by a dedicated transformer



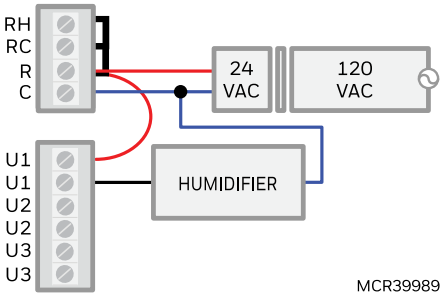
Typical hookup of a basic bypass humidifier powered by a dedicated transformer



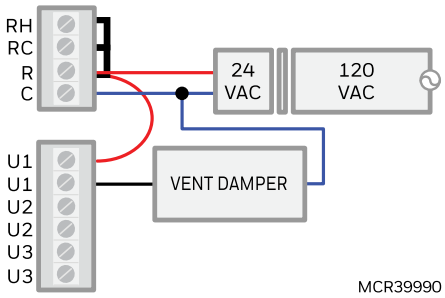
Typical hookup of an advanced bypass humidifier powered by a dedicated transformer



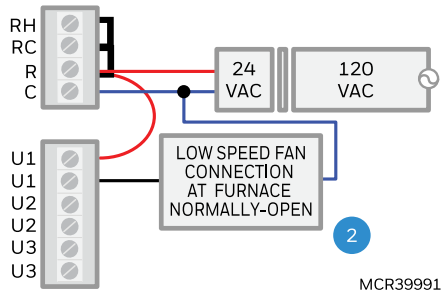
Typical hookup of humidifier powered by HVAC transformer



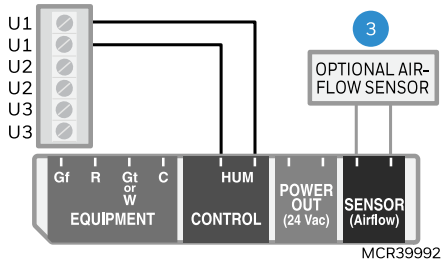
Typical hookup of vent damper powered by HVAC transformer



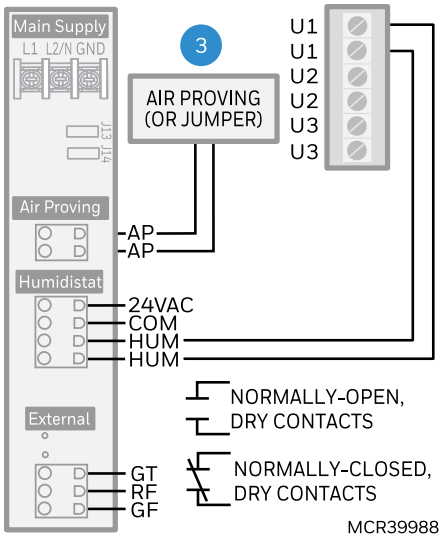
Typical hookup of variable speed blower for dehumidification in low speed



Typical hookup of an evaporative fan humidifier with built-in transformer.



Typical hookup of an HM750 steam humidifier

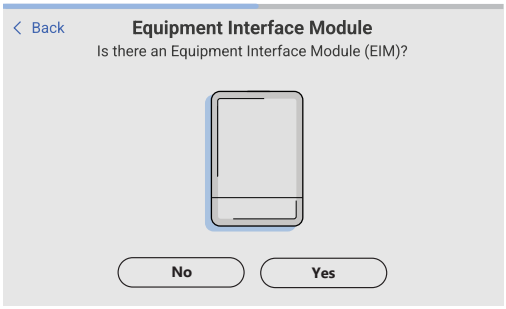


1. Any combination of relays (U1, U2, U3) can be used. They are set in the thermostat Installer Setup.
2. Wire the U relay to the low speed fan for dehumidification control at the equipment. The EIM relay can be set to normally open or normally closed in the thermostat Installer Setup.
3. An optional 50027910-001 Air-Flow switch (AFS) is recommended to ensure air-flow when the humidifier is running. If the AFS is used, set dip switch 1 to Off (Left). The ElitePRO™ Series Thermostats can be configured to only run the humidifier with a call for heat or fan, so the AFS would only be needed to ensure no water flow through the humidifier pad if there is a fan failure. The ElitePRO™ Series Thermostats can alternately be configured for a fan failure alert (ISU 6000, 6150 and 6160).

Linking the ElitePRO™ Series Thermostat to an EIM

1. When the ElitePRO S1000, S1100, and S1200 Thermostats are powered, follow the onscreen prompts. During setup, the thermostat will either prompt you to link to EIM or ask if you have an EIM. Follow the prompts to connect.

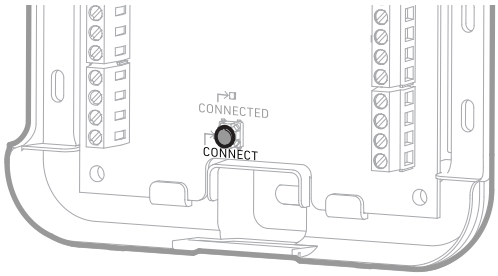
   See the **Redlink Compatibility FAQ** if you have questions.



MCR39690A

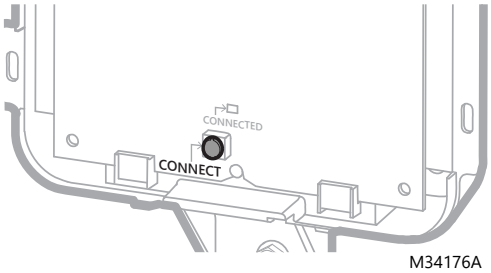
2. Touch and release the **CONNECT** button at the EIM when the thermostat prompts you. Make sure the "Connected" lights is flashing green. The EIM will continue to flash the connected light for 15 minutes and reset this timer every time a new Redlink 3.0 device is added.

EIM4010 EIM (Equipment Interface module)



M39876

THM04R3000 EIM (Equipment Interface module)

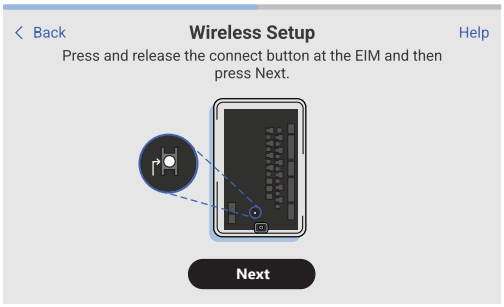


M34176A

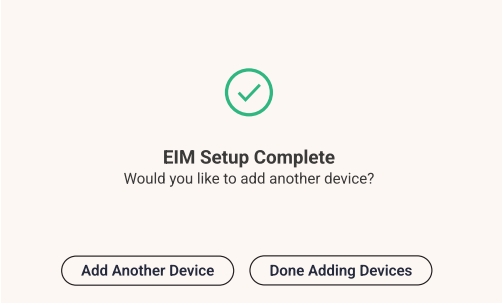
> **NOTE:**
> If the **CONNECTED** light does NOT flash green, another system may be in **Listening Mode**. Please exit Listening Mode on the other system and try again.

- Green Flashing: In Listening Mode. System is ready to add Redlink 3.0 devices.
- Green Steady: Redlink 3.0 devices are communicating.
- Red: Redlink 3.0 device(s) are not communicating. Check EIM and Redlink devices.

3. Return to the thermostat and touch **Next** (shown in the left image below).



MCR39691A



MCR39692

4. If adding additional Redlink 3.0 Accessories, select **Add Another Device** and follow the prompts on screen.

5. Install batteries in Redlink 3.0 accessories.
   - Wireless Outdoor Sensor Redlink 3.0 C7089R3013
   - Wireless Indoor Sensor (C7189R3010)
6. Connect each Redlink 3.0 accessory.

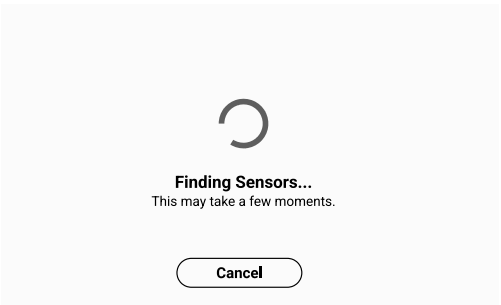
> **NOTE:**
> Make sure Redlink 3.0 accessories are at least 2 feet away from the thermostat (or EIM, if used) during the linking process.

7. While the “Connect Device” screen is displayed (Listening Mode), press and quickly release the **CONNECT** button on each new Redlink 3.0 accessory.
8. After a short delay (up to 20 seconds), check the thermostat to confirm the connection of each Redlink 3.0 accessory.

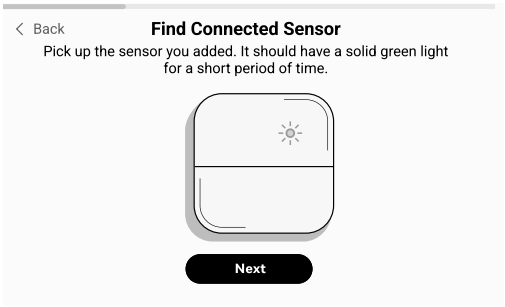
> **NOTE:**
> If adding a wireless indoor sensor or wireless outdoor sensor after the initial setup has been completed, go to **Menu** > **Devices and Sensors**, and select **Add**.

9. Follow the instructions on thermostat screen. After each Redlink 3.0 accessory is added and any follow up questions are set, the thermostat will ask if you want to add another device or are done adding devices.

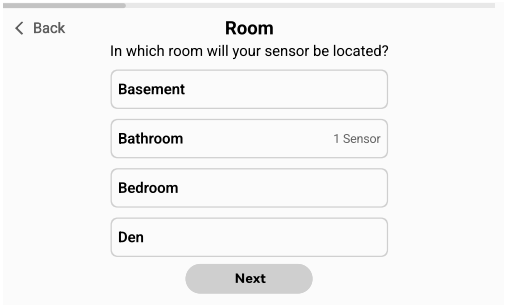
> **NOTE:**
> Examples of follow up questions and instructions for the wireless indoor sensor shown below.



M39710

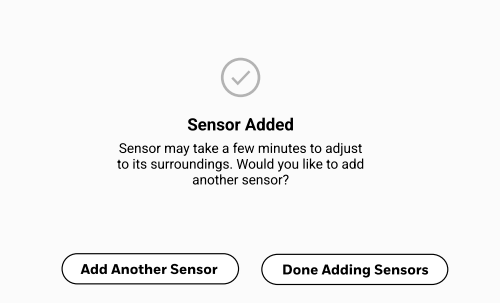


M39701



M39711

10. Once all Redlink 3.0 accessories have been added and you have completed the on-screen follow-up questions and instructions, the display will say “Setup Complete". Select **Done Adding Devices**.
11. The thermostat will guide you through doing the reset of the setup on device, or using the Resideo PRO app.



M39700

To Replace the Equipment Interface Module (EIM)

When you replace an EIM, you must reset the Redlink 3.0 accessories before connecting them to the new thermostat. Follow the instructions below:

At the Indoor Sensor or other Redlink 3.0 accessory:

Press and hold the **CONNECT** button on the accessory until the status light glows amber (hold for about 10 seconds). To reconnect the thermostat, go to Step 4.

At the thermostat:

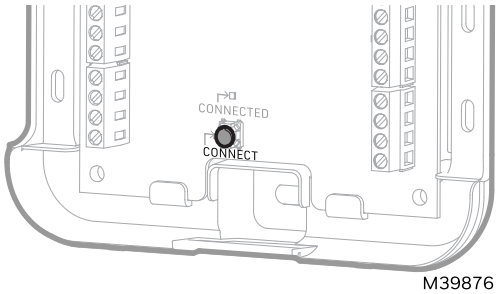
Go to **Installer Options,** choose **Reset,** then **Factory reset**. This will clear the EIM and any other Redlink 3.0 devices from the ElitePRO™ Series Thermostat as well as the system settings. After doing Factory Reset, follow thermostat prompts to link new EIM and configure system settings.

To replace an ElitePRO™ Series Thermostat connected to an EIM

Press and hold the **CONNECT** button on the EIM until the connect light turns amber approximately 10 seconds. This should clear the EIM from the thermostat and any Redlink 3.0 accessories. Then it is ready to be connected to a new ElitePRO™ Series Thermostat using the original setup process.

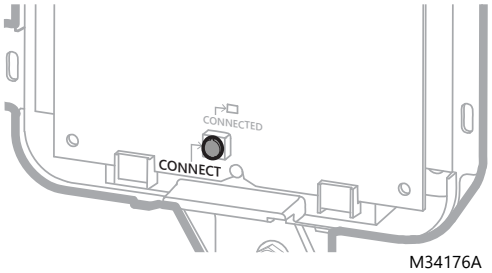
> **NOTE:**
> The new ElitePRO™ Series Thermostat will also guide you through the setup steps during initial setup when you choose that you have an EIM.

EIM4010 EIM (Equipment Interface module)



M39876

THM04R3000 EIM (Equipment Interface module)



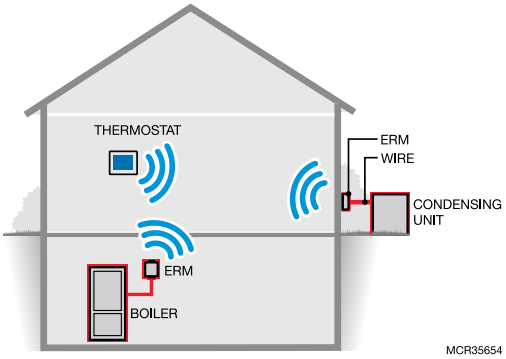
M34176A

Installing Equipment Remote Module (if used)

ERM4010 will be available in a future release.

About the ERM4010

- Wireless Redlink™ communication between condensing unit/ compressor or boiler and thermostat.
- Eliminates the need to run additional wires to your equipment, for example, during a heat pump upgrade.
- Suitable for outdoor use.
- Temperature sensor terminals for outdoor temp sensors or indoor freeze protection.
- LEDs for easy installation checkout.
- May reduce damage to homes since wiring/drilling is eliminated.

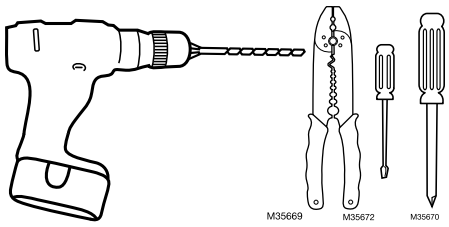


Installation Checklist

Materials Supplied

- ERM4010
- Wall Anchors (x2) and Mounting Screws (x2)
- Extra Cover Screw (optional)
- Installation Guide

Tools Needed (not supplied)



- Drill
- Nut Driver Attachment for Drill
- Wire Stripper
- Small Flathead Screwdriver
- Phillips Screwdriver
- 120/240 VAC to 24 VAC transformer and outdoor enclosure (not needed if there are two wires from indoor unit to outdoor unit)

Installation

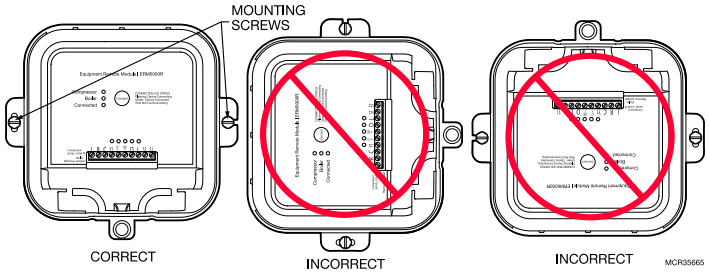
IMPORTANT:

- The ERM is not compatible with Multi-Zone systems.
- If your location has metal siding, the ERM's signal may be affected. If there is no communication or poor signal strength, consider a different location.
- An ElitePRO Redlink thermostat will only allow one of the following configurations:
  1. Enrolled with a single boiler configured ERM;
  2. Enrolled with a single compressor configured ERM;
  3. Enrolled with a single boiler-configured ERM and enrolled with a single compressor-configured ERM.

Mounting

1. Use two screws and wall anchors to attach the ERM to the exterior wall near the compressor. The location should be **at least 3 feet above ground** and **oriented with the two wire exits facing downward**.

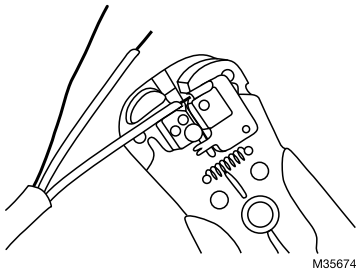
   Mounting orientation



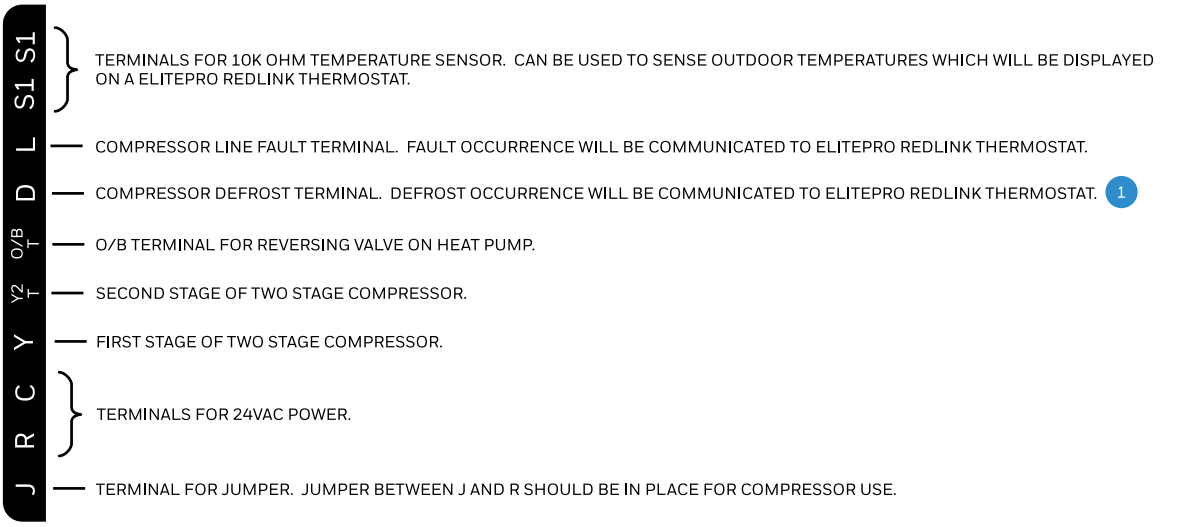
   If mounting on lap siding, allow space for the cover to be removed.

Wiring

2. Make sure power to compressor/boiler is off.
3. Remove the front cover by loosening the cover screw and lifting up from the bottom of the ERM.
4. Remove 3 to 4 inches of the cable's outer sheathing, then remove 3/8 to 1/2 inch of insulation from each wire.



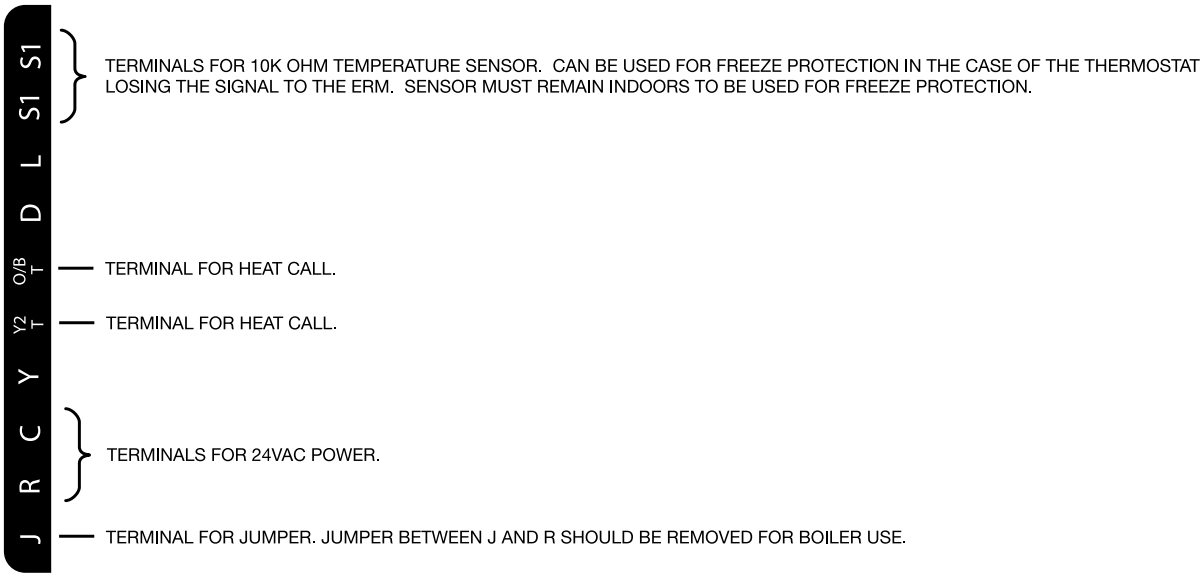
TERMINAL DESIGNATIONS FOR COMPRESSOR



1 THE "D" TERMINAL OPERATES AS AN INPUT FOR DEFROST. ACTIVE INPUT ON "D" TERMINAL WILL POWER AUX1. IF "D" TO AUX1 IS NOT DESIRED, DO NOT CONNECT "D" TERMINAL TO THE ERM5220R. THIS FEATURE IS ONLY ACTIVE WHEN THE ERM4010 IS CONFIGURED FOR USE WITH A COMPRESSOR

MCR39932

TERMINAL DESIGNATIONS FOR BOILER



NOTE: ERM WILL NOT SUPPORT SERIES 20 OPERATION. WHEN CONFIGURED AS A BOILER, THE Y RELAY SHALL BE OFF AT ALL TIMES.

M35656B

5. **For compressor applications:**

   Leave the jumper between terminals J and R in place.

   For boiler applications:

   Remove the jumper between terminals J and R.

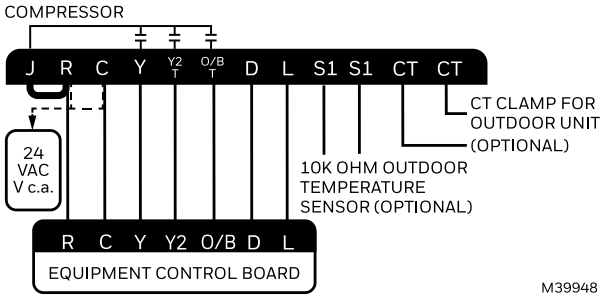
MCR35657A

6. **For compressors and boilers:**

   Connect a 24 VAC power source to the R and C terminals on the ERM.

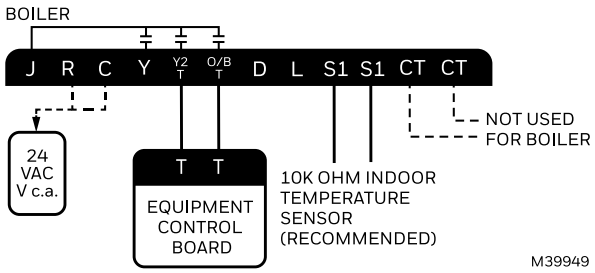
7. Connect terminals from the ERM to the appropriate terminals on the compressor/boiler control board.

   Compressor



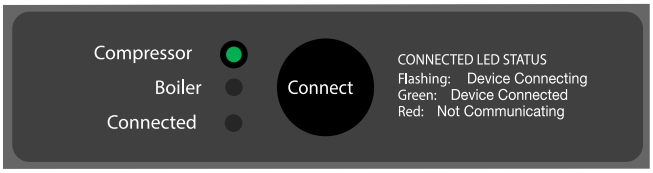
   Jumper J to R as shown above.

   Boiler

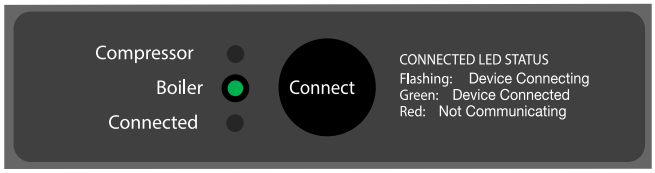


   Remove J to R jumper as shown above.

   Once power is connected, the "Compressor" (or "Boiler") LED should illuminate green.



OR



8. **For compressors and boilers:**

   Put the thermostat in pairing mode.

   New thermostat installation: When going through initial setup, the thermostat will ask "**Is there an Equipment Interface module (EIM)?**". This refers to an EIM, not an ERM. The next screen asks if you have any Redlink devices. The ERM is a Redlink device, so select "add device", and then follow the on screen instructions.

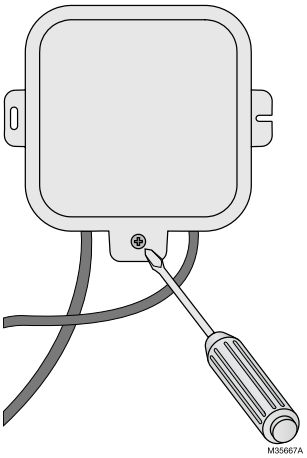
   Existing thermostat installation: Select **MENU** > **DEVICES AND SENSORS** > **ADD** and then follow the on screen instructions.

9. Once the thermostat prompts you to do so, press and quickly release the "**Connect**" button on the ERM.

   When the ERM is connected to the system, the ERM's "**Connected**" LED will be solid green and the thermostat will show "**ERM**" in the DEVICES AND SENSORS menu.

OR

10. Attach cover and secure with bottom screw.



Checkout

1. Restore power to the HVAC equipment and thermostat.
2. Go to the "Installer Test" on page 139 and turn on the heating or cooling equipment. (you could also do so from homescreen, but installer test will bypass any compressor protection delays).
3. Observe the ERM is running the heating/cooling equipment as expected.
4. Suspend the call for heat/cooling when the installer test is complete and touch “home” to return to the homescreen.

Redlink™ accessories

Compatible Redlink 3.0 accessories

> **NOTE:** S1000, S1100 & S1200 ElitePRO thermostats are compatible with Redlink 3.0 wireless accessories.

Wireless Indoor Sensor

C7189R3010 (Sensor 1-pack)
C7189R3010-2 (Sensor 2-pack)
C7189R3002-2 (Sensor 2-pack)

Up to 20 wireless indoor sensors can be used per thermostat). Increase your content and profit per job by including Redlink 3.0 wireless indoor temperature, humidity, and PIR sensors that meet your customers comfort and convenience needs. The sensors can detect which rooms in the home are occupied. The S1000, S1100, and S1200 models also have an on-board radar sensor in the thermostat. The user can select the priority of the sensors and/or thermostat based on where motion is detected or by scheduling. They can be used in combination for temperature averaging or individually. Some S1200 kits include a sensor in box with the thermostat.

Equipment Interface module

EIM4010 — Latest version of EIM
THM04R3000 — Previous version of EIM *

The EIM is installed in the equipment room and communicates wirelessly to the thermostat. Make equipment upgrades easy by wiring extra heat/cool stages to EIM rather than running those wires to the thermostat location. 24 VAC at R and C needed to power thermostat. The EIM has 3 sets of U contacts which allows additional control of humidifier, dehumidifier and ventilator. Some S1200 kits include an EIM in box with the thermostat.

* ElitePRO S1000, S1100, and S1200 Thermostats are backward compatible with EIM THM04R3000 using firmware 1.1.4.0 or later (higher number). This will be the firmware on THM04R3000 EIM from factory with date code 2337 or higher.
This firmware is automatically updated OTA when the EIM had been used with a T10+ thermostats which had been connected to WiFi and the app. However there is not a way to update the firmware otherwise.

Equipment Remote module

ERM4010 (This accessory will be available in a future release)

The ERM4010 can be used at the outdoor unit or for a boiler. The ERM requires 24 volts at R and C. This can be from 2 wires run to the indoor unit or from a transformer in an enclosure at the outdoor unit. This allows upgrade to multistage or heat pump without running new wires from outdoor unit to indoor unit. When used for applications with a boiler and forced air, the ERM can be in the boiler room and thermostat or EIM can wire to the air-handler.

ANT4010 (This accessory will be available in a future release)

Optional external sensor for use with the EIM4010 when the signal at the EIM4010 is impeded (for example, when mounted inside a rooftop unit).

Wireless Outdoor Temperature and Humidity Sensor (C7089R3013)

The ElitePRO can use outdoor temperature for different applications including:

- Lockouts of heat pump on low outdoor temperature.
- Lockout of auxiliary heat on high outdoor temperature.
- Frost protection to adjust the humidity setting when cold outside to prevent frost or condensation on windows.
- Optional lockouts of ventilation on high outdoor temperature, low outdoor temperature or high outdoor dew point.

> **NOTE:**
> The ElitePRO models can alternately use Internet weather for these lockouts.

Other Redlink accessories (may not be compatible)

C7189R2002 or C7189R2002-2: The ElitePRO™ Series Thermostats are not compatible with the C7189R2002 or C7189R2002-2 Redlink 3.0 wireless indoor sensor. These sensors are no longer in production but customers may still see them on shelves. The C7189R3002-2 and C7189R3010-2 are the current Redlink 3.0 wireless indoor sensors.

C7189R1004: The ElitePRO™ Series Thermostats are not compatible with the C7189R1004 Redlink 2.0 wireless indoor sensor.

Other wireless outdoor sensors: ElitePRO S1000, S1100, and S1200 Thermostats are not compatible with the C7089R1013 Redlink 2.0 wireless outdoor sensor.

Other EIMs: ElitePRO™ Series Thermostats are not compatible with other EIMs such as the THM5421R or THM5320R models which do not support Redlink 3.0.

Other ERMs: ElitePRO™ Series Thermostats are not compatible with the ERM5220R1018 Redlink 2.0 ERM.

Redlink Zone Panels: ElitePRO™ Series Thermostats cannot wirelessly communicate to the HZ322 or HZ432 Redlink zone panels via a THM4000R adapter. ElitePRO™ Series Thermostats can wire to the zone connections on these panels, or a separate EIM can be used for each thermostat and the EIM can wire to the corresponding zone on the zone panel.

Miscellaneous: The ElitePRO™ Series Thermostats are not compatible with other Redlink 1.0 or 2.0 accessories such as the REM5000R (PCC), REM1000R (Exit/Entry remote), or HVC20A (Vent boost).

What is Redlink?

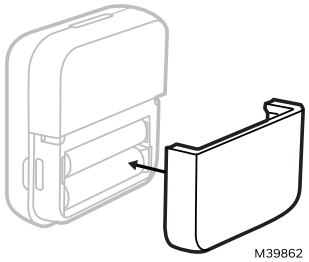
For detailed information, visit https://www.resideo.com/us/en/pro/redlink/.

Sensor Installation

Wireless Indoor Sensor Installation

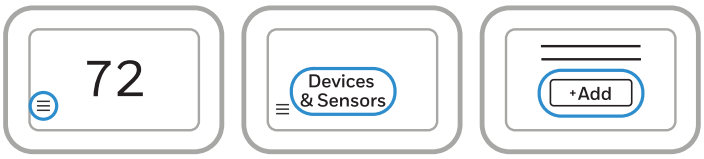
C7189R3010 Wireless Indoor Sensor

1. Remove cover from base and Insert (2) AAA Alkaline batteries in the sensor.



2. At the thermostat, select **Menu**.
3. Tap **Devices & Sensors**.
4. Tap **Add**.

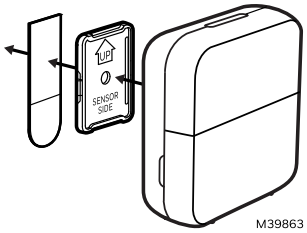
   Follow the on-screen instructions.



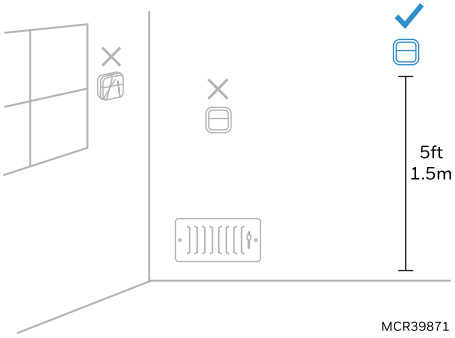
5. Snap the sensor onto the wall-plate.
6. Adhere the included command strip to the wall-plate. Then adhere the sensor to the wall. Level sensor for appearance.

Placement Tips

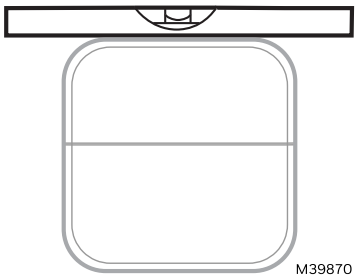
- DO place about 5 feet above the floor.
- DO place on inside walls.
- DON’T place behind furniture or doors.
- DON’T place in direct sunlight.
- DON’T place above air vents.



Placing the indoor sensor



Leveling the indoor sensor



These sensors can be linked to the thermostat when doing the initial Installer setup or at a later date.

- During initial installer setup, the thermostat will offer setup options under “Redlink Devices” for “Add device” or “Set up later”.
- To add a sensor after initial setup has been done, select the **Menu** icon, then **Devices & Sensors**, then **Add**.
  - The display screen will walk you through linking and naming the sensor.

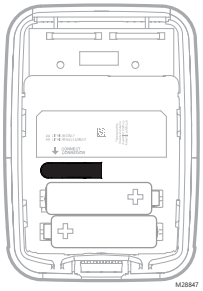
Wireless Outdoor Sensor Installation

C7089R3013 Wireless Outdoor Sensor

The C7089R3013 wireless outdoor temperature & humidity sensor can be used with up to eight ElitePRO™ Series Thermostats. The wireless outdoor sensor can be used for heat pump compressor lockouts, Aux Heat lockouts, humidity frost protection, and ventilation lockouts. Alternately, Internet weather could be used for these lockouts. A wired outdoor sensor can be used for all outdoor lockouts other than High Dewpoint Lockout for ventilation.

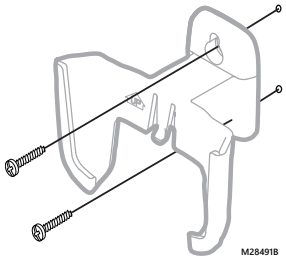
Connecting Wireless Outdoor Sensor

When the ElitePRO™ Series Thermostat is in the wireless setup mode and prompts you to do so, press and quickly release the **CONNECT** button on the Wireless Outdoor Sensor. After a short delay (up to 15 seconds), the thermostat will display “Wireless Outdoor Sensor Added.”

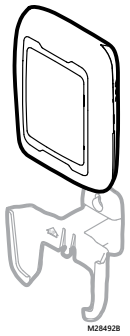


Mount Outdoor Sensor

1. Mount the sensor on a vertical exterior wall, at least 6 inches below any overhang. Choose a location protected from direct sunlight.



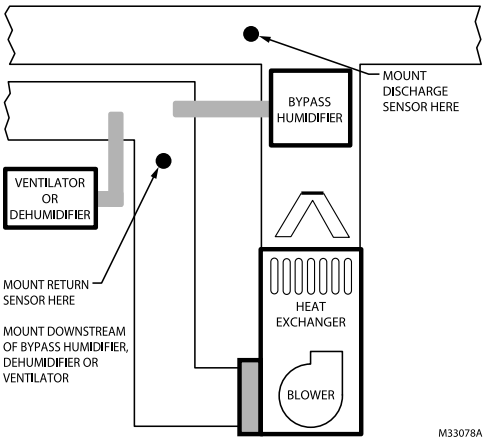
2. Place sensor securely in bracket, facing away.



Selecting *Optional C7735A1000* Return Air Temperature Sensor Mounting Location

> **NOTE:**
> When the return sensor is used with an ElitePRO™ Series Thermostat & EIM, If there's a communication loss with the thermostat, the backup algorithm will turn on heating stages if the return air temperature is < 56.0°F and run until the return air temperature reaches 58°F. The backup algorithm will turn on cooling stages if the return air temperature is > 88.0°F and run until the return air temperature reaches 86°

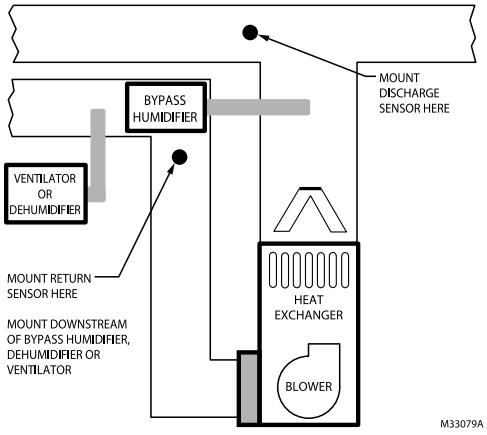
Install the Return Air Temperature Sensor on the return duct in a location where the air is mixed well. Mount the Return Air Temperature Sensor downstream of a Bypass Humidifier, Dehumidifier or Ventilator.



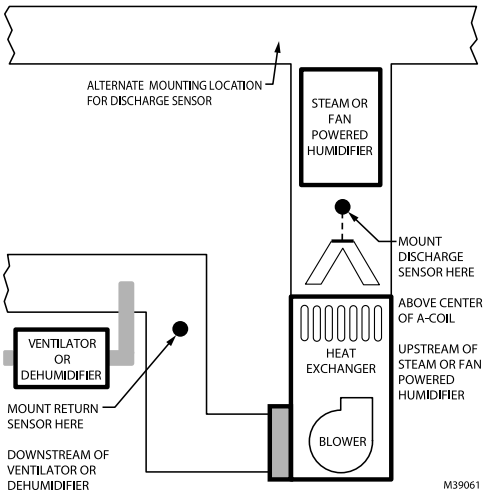
Selecting *Optional C7735A1000* Discharge Air Temperature Sensor Mounting Location

> **NOTE:**
> When the discharge sensor is used with an ElitePRO™ Series Thermostat to shut off the cool call and run the fan if the A-Coil drops below the low limit setting in ISU 5110. Optional settings are OFF, 5°F to 65°F (-15°C to 18.5°C). Additionally, when a discharge and return sensor are used, the ElitePRO™ Series Thermostat will show these temperatures and the delta in the installer test mode when testing the heat and cool stages.

1. Mount the Discharge Air Temperature Sensor on the supply duct in a location where the air is mixed well. Mount the Discharge Air Temperature Sensor out of sight of the A-Coil/Heat Exchanger when possible.
2. When possible, mount the Discharge Air Temperature Sensor upstream of a Steam Humidifier, a Fan Powered Humidifier or a Dehumidifier that is ducted to the supply.

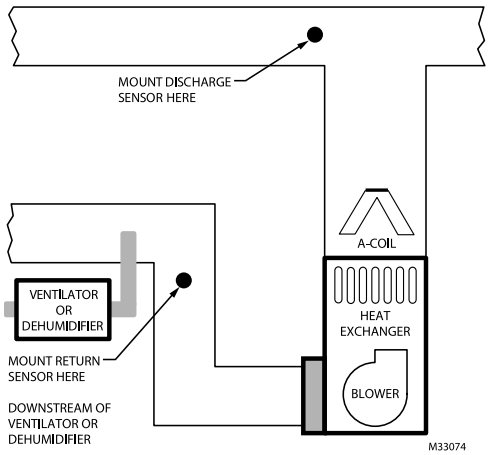


Discharge Air Temperature Sensor Mounting Location

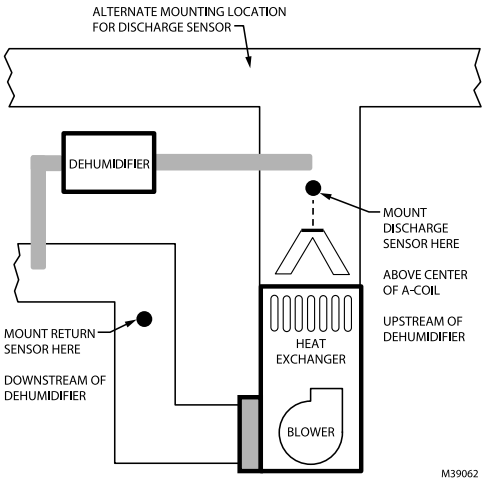


Alternate Discharge Air Temperature Sensor Mounting Location

3. Resideo does not recommend wiring a discharge sensor to the EIM in a zoned system. A discharge air sensor can be wired to a Resideo TrueZONE panel and the panel will do the high/low limit protection for the system.
4. If space does not allow a Discharge Air Temperature Sensor upstream of a Steam Humidifier or Fan Powered Humidifier, mount the Discharge Air Temperature Sensor downstream of the Humidifier.



Mounting Discharge Air Sensor Downstream

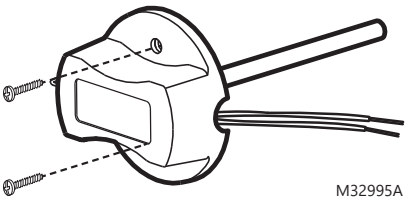


Alternate Mounting of Discharge Air Sensor Downstream

Installing *Optional C7735A1000* Discharge and/or Return Air Temperature Sensors

Use the following steps to mount the Discharge/Return Air Sensors:

1. Attach plastic cover to the sensor probe.
2. Drill 1/4-inch hole for the sensor probe and mount it to the ductwork with enclosed screws (see illustration below).
3. Connect wires to S1, S2, S3, or S4 terminals at the EIM or S terminals at ElitePRO™ Series Thermostat when EIM is not used.
4. Configure the ElitePRO™ Series Thermostat for discharge and/or return sensor.



M32995A

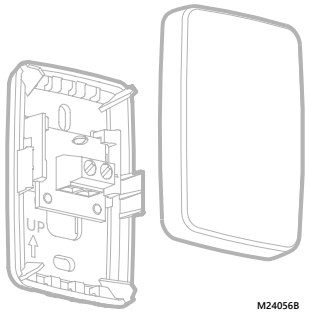
Installing Wired Indoor Sensor

C7189U1005 (10K) Wired Indoor Sensor

ISU setting 5000.

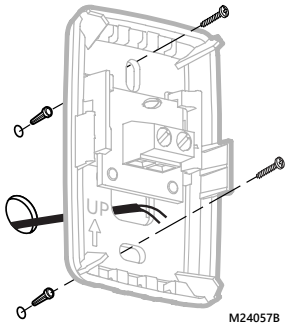
Use the following steps to mount the sensor:

1. Remove the cover from the remote sensor.



M24056B

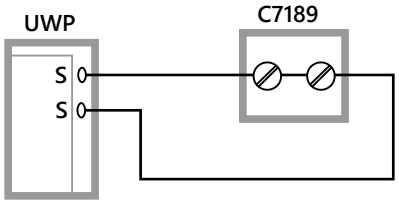
2. Pull wires through wire hole.
3. Position wallplate on wall, level and mark screw hole positions with pencil.
4. Drill holes at marked positions, then tap in supplied wall anchors.
5. Place wall plate over anchors, insert and tighten mounting screws.



M24057B

6. Replace the cover on the remote sensor.

Wiring 1 C7189U1005 sensor (10k ohm) for temperature control. Select 10K in the Installer Setup (ISU 5030) when using C7189U1005 sensor(s).

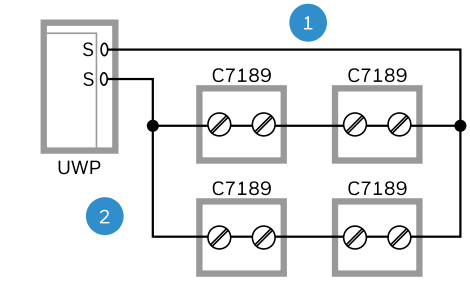


NOTE: IF EIM IS USED, WIRE TO ANY OF THE AVAILABLE SETS OF S (S1, S2, S3, S4)

M39063

Wiring 4 C7189U1005 sensors (10k ohm) for temperature averaging network. Select 10K in the Installer Setup (ISU 5030) when using C7189U1005 sensor(s).

If EIM is used, wire to any of the available sets of S (S1, S2, S3, S4).



1 THE NUMBER OF C7189U SENSORS MUST BE A SQUARE NUMBER (1, 4, 9, 16, ETC.)

2 IF EIM IS USED, WIRE TO ANY OF THE AVAILABLE SETS OF S (S1, S2, S3, S4)

MCR39064

> **NOTE:**
> If EIM is used, wire to any of the available sets of S (S1, S2, S3, S4).

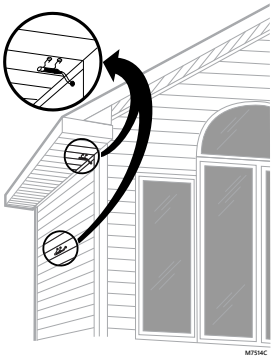
Installing Wired Outdoor Sensor

See ISU 1060 "Outdoor Temperature" on page 71 for correct thermostat configuration.

Follow instructions included with C7089U1006 wired outdoor sensor.

> **CAUTION**
> A wired sensor cannot be wired to multiple controls (for example, two thermostats, a thermostat and zone panel, etc.). Doing so will cause operational issues, since the thermostat, zone panel or other control outputs voltage through the sensor to get a resistance reading and wiring the sensor to multiple devices will cause feedback. On the ElitePRO, this can result in a highly inaccurate indoor temperature reading, even if the thermostat is configured for a wired outdoor sensor instead of an indoor one.

Location and Mounting



Mount the sensor where:

- there is good air circulation.
- it can measure true outdoor ambient temperature.

- surface is flat.
- wire distance between C7089U and thermostat is less than 200 feet.

Do not mount the sensor:

- In direct sunlight.
- Where hot or cold air blows on the sensor. Discharge line from an outdoor compressor unit, vent or fan causes inaccurate temperature readings.
- Where snow, ice or debris can cover it.

Use the following steps to mount the sensor:

1. Remove the sensor from the mounting clip.
2. Mark the area on the location selected for mounting the sensor mounting clip.
3. Mount the clip.

> **CAUTION**
>
> **ELECTRICAL INTERFERENCE (NOISE) HAZARD**
> **Can cause erratic system operation.**
> Keep wiring at least one foot away from large inductive loads such as motors, line starters, lighting ballasts and large power distribution panels.
> Use shielded cable to reduce interference when rerouting is not possible.

Floor/Slab Sensor

The ElitePRO™ Series Thermostat can be used with an AC112-01 or equivalent floor/slab sensor to control the ambient air temperature or floor temperature or both. You can choose among the following temperature control modes.

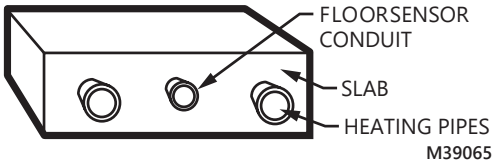
- **A mode**: Controls and displays the ambient air temperature only.
- **F mode**: Controls and displays the floor temperature only using an external floor temperature sensor. This control mode is suitable for areas such as bathrooms where floor temperature could be scheduled to be warm only during occupied, morning and evening periods.
  - (Floor temperature is indicated by “FLR” above the floor temperature reading. Floor temperature reading could also be displayed in the Thermostat MENU/ TEMPERATURES)
- **AF mode**: Controls and displays the ambient air temperature as well as maintains the floor temperature within desired floor temperature limits using an external floor temperature sensor. Setting the minimum and maximum floor temperature limits is a way to enhance comfort and to protect the floor covering at the same time..

> **NOTE:**
> To set the thermostat temperature control mode, go to "Installer Setup (ISU)" on page 69 and see settings (1055 & 5120-5170).

Floor/slab sensor wiring shown on following page.

Floor Temperature Sensor Installation

ElitePRO™ Series Thermostats are compatible with the AC112-01, 10K ohm floor temperature sensor or equivalent: A 10K ohm TekMar slab sensor could be used in place of the AC112-01 Floor sensor



The floor temperature sensor needs to be installed mid way between the piping to ensure proper temperature reading (not over or right next to piping). Example: For a 12” pipe spacing install the sensor 6” away from the piping and ensure the sensor is vertically centered.

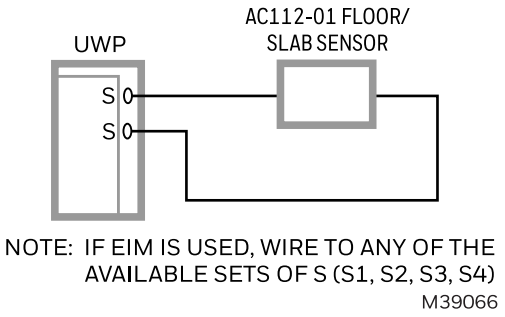
We recommend installing the floor temperature sensor inside of min. 0.5’’ PEX pipe. This simplifies future sensor replacement, if required.

In a small room, position the sensor in the center of the floor. In larger rooms, ensure the sensor is at least 7 feet from the wall.

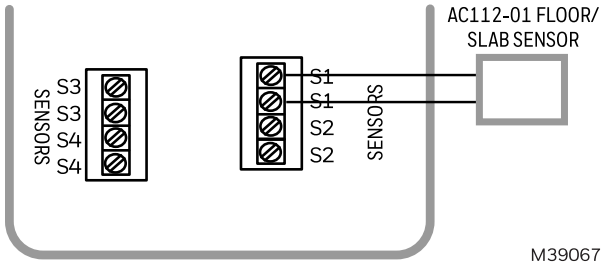
Recommended Floor Temperatures Settings

Recommended maximum floor temperature is 90 °F (32 °C) for most floor covering types except wood. Suggested maximum floor temperature for wood floor is 85 °F (29.5 °C). Freeze protection temperature for garages and basements is suggested to be set between 41 °F to 45 °F (5 °C to 7.2 °C).

See ISU settings (1055, 3250, and 5120-5170)



Floor/Slab sensor wiring to UWP



Floor/Slab sensor wiring to EIM

If EIM is not used, wire the floor sensor to the S terminal on the UWP. If EIM is used, the thermostat allows you to select any of the four sets of S terminals on the EIM OR the S terminals on the thermostat. Make sure the floor/slab sensor settings match the wiring configuration. See "Installer Setup Options (ISU)" on page 70 (1055, 3250, and 5120-5170).

IMPORTANT:

Erratic temperature readings from a sensor can occur as a result of any of the wiring practices described below. Avoid these practices to assure correct operation. Use shielded cable to reduce interference if rerouting of sensor wiring is not possible.

- Be sure wires have a cable separate from the thermostat cable.
- Do not route temperature sensor wiring with building power wiring, next to control contacts or near light dimming circuits, electric motors or welding equipment.
- Avoid poor wiring connections.
- Avoid intermittent or missing building earth ground.

Installer Setup (ISU)

The following topics are for setting up through the ElitePRO™ Series Thermostat. If using the Resideo Pro App, follow the onscreen instructions on your smart device.

See "Resideo Pro App" on page 180 for additional information on using the Resideo Pro app and using templates.

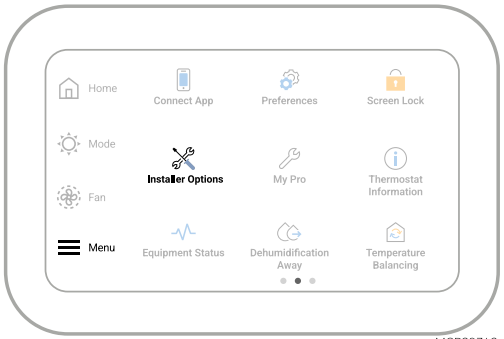
New Installation

1. After the thermostat has powered up, the display will ask you a few basic questions about the application, prompt you to link to an EIM and any Redlink 3.0 accessories if used. After doing that, you can use the App to set the rest of the settings or continue to do so on the thermostat.
2. After selecting the correct option for each setting, Touch **NEXT** at the bottom of the display to advance to the next option.
3. To see a list of all setup parameters, go to "Installer Setup Options (ISU)" on the next page. The thermostat displays the ISU name, options and a brief description.
4. To finish setup and save your settings, touch **DONE**.

Revising Settings

If this is not a new installation and you want to access the Installer setup to change settings:

1. Touch the Menu icon (in the lower left of display).
2. Select **Thermostat Information**.
3. Write down the date code from that screen. Then touch **BACK** to go to previous screen.
4. Select **Installer Options** and enter date code.
5. Select **Installer Setup**.
6. After selecting the correct option for each setting, Touch **NEXT** at the bottom of the display to advance to the next option.
7. To finish setup and save your settings, touch **DONE**.



MCR39742

Installer Setup Options (ISU)

> **NOTE:**
> Firmware updates occur periodically which may allow for additional ISU settings or options in an ISU setting. If your thermostat does not have a setting shown in the chart, the firmware will update automatically once the thermostat has been registered to the app. Once registered the OTA update typically will happen within 15 minutes.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
1000	Language	What language would you like to use?	• English • Francais • Español		ISU number not displayed during initial setup
1010	Application	What type of installation will this thermostat be used for?	• Residential • Commercial		
None shown	Room	In what type of room will this thermostat be installed?	• Bedroom • Living space • Area • Unit name **or** Other	Options shown vary for Residential or light commercial	Only shown during initial setup
1030	Home Screen	Would you like the device name displayed on the home screen?	• No • Yes	1010 = Commercial	
No ISU number	**Redlink Devices?** The thermostat will walk the installer through adding Redlink Devices. This includes the EIM, and Redlink wireless sensors if used. ElitePRO S900 models do not support Redlink and will not show this setting.				
No ISU number	**Setup using app?** The thermostats asks installer if they want to do setup using the app or on the thermostat. Using the Resideo PRO app allows the installer to use a template with the settings they saved from a previous installation of an ElitePRO thermostats.				

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
1050	Temperature Format	Which temperature scale would you like to use?	• Fahrenheit • Celsius		
1055	Floor sensor	Floor sensor	• No **or** • Wired		**IMPORTANT:** If wired is selected, be sure to assign this to S terminals in ISU 5120
1060	Outdoor Temperature	Outdoor Temperature	• None • Wired • Wireless* • Internet (***Wireless** automatically selected if sensor added during setup)	Wireless only shown if C7089R3013 has been linked to thermostat during setup.	
2000	System Type	System Type	• Conventional Forced Air Heat • Heat Pump • Radiant Heat • Fan Coil • Other • None (Cool only) • PTAC *		* The PTAC option is not available when the ElitePRO™ Series Thermostat is used with an EIM.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2010	Equipment type	Equipment type	• Standard Efficiency Gas Forced Air • High Efficiency Gas Forced Air • Oil Forced Air • Electric Forced Air • Hot Water Fan Coil	2000 = Conventional Forced Air Heat	
		Equipment type	• Air to Air Heat Pump • Geothermal Heat Pump	2000 set to Heat Pump	ISU 2010 not shown when ISU 2000 = PTAC
		Equipment type	• Gravity **or** • Other	2000 = other	
		Equipment type	• Hot water radiant heat • Hot water radiant floor heat • Steam	2000 set to Radiant Heat	
		Equipment type	• Hot water fan coil • 2-pipe • 4-pipe	2000 = fan coil	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2054	Fan coil	Changeover sensor	• None • Dry contact • 10K • 20K	2010 = 2-pipe	Method for thermostat to determine if pipe is hot or cold. The **2-pipe FCU wiring diagrams** show how this should be wired to the thermostat or EIM
2055	Fan coil	Changeover sensor setup	• Dry contact open in Cool • Dry contact open in Heat	2054 = dry contact	
2056	Fan coil	Changeover wiring assignment	• None • Thermostat S1 • EIM S1-S4	2054 = 10K or 20K	
2060	Reversing Valve	Reversing Valve	• O (O/B on Cool) **or** • B (O/B on Heat)	2000 set to Heat Pump or PTAC	**IMPORTANT:** System setup is critical. If you are unsure of this setting, trace the O/B wire from thermostat to the equipment to verify the configuration. O/B wire goes to: • O at heat pump, ISU 2060 needs to be set to O (O/B on cool). • B at heat pump, ISU 2060 needs to be set to B (O/B on heat).

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2070	Equipment stages	Cool stages	• 0-4 stages	2000 set to other than Heat Pump	3-4 only shown when an assignable terminal is available. U1-U3 on EIM, U at UWP. L at UWP for S1000, S1100 and S1200. Only 1 cool stage for 2-pipe/4-pipe fan coil unit.
		Heat stages	• 1-3		When EIM is not used, this is W3. Without EIM, the 3rd stage is only shown when an assignable terminal is available. U at UWP. L at UWP for S1000, S1100 and S1200.
		Radiant Heat Stages	• 1 if 1055 = Yes • 1 or 2 if 1055 = No and 2000 = Radiant	1055 set to **Wired** or 2000 = Radiant Heat	
		Compressor Stages	• 1 • 2	2000 set to Heat Pump	
		Fan Coil Heat Stages	• 1 • 2 • 3	2010 = Hot Water Fan Coil	* Available stages may vary depending on what L or U are used for without EIM or what U1-U3 are used for with EIM
		Electric Forced Air Heat Stages	• 1 • 2 • 3	2010 = Electric Forced Air	* Available stages may vary depending on what L or U are used for without EIM or what U1-U3 are used for with EIM
		Fan coil stages	• 1	2010 = 2-pipe or 4-pipe fan coil unit	
		Backup Heat Stages	• 0 • 1 • 2*	2000 set to Heat Pump or 2-Pipe Fan Coil,	* Available stages may vary depending on what L or U are used for without EIM or what U1-U3 are used for with EIM

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2080	Terminal assignment	What terminals are wired to cool stage 3?	• U or L* on UWP when EIM isn't used • U1-U3 if EIM **is** used	2070 = 3 or 4 Cool stages	See "Wiring Diagrams" on page 29 for cool stage 3-4 wiring. During setup you can assign which terminals are used for cool stages 3-4. * Options vary based on which terminals are available. Thermostat L option only for S1000, S1100 and S1200 models.
2090	Terminal assignment	What terminals are wired to cool stage 4?	• U or L* on UWP when EIM isn't used • U1-U3 if EIM **is** used	2070 = 4 Cool stages	
2100	Terminal Assignment	What Terminals are Wired to Heat - Stage 3? What Terminals are Wired to Fan Coil Heat - Stage 3? if ISU 2010: Heating Equipment Type = Hot Water Fan Coil What Terminals are Wired to Radiant Heat - Stage 3? if ISU 2010: Heating Equipment Type = Hot Water Radiant Heat OR Hot Water Radiant Floor Heat	• None • Thermostat L* • Thermostat U	Configured for 3 heat stages	If EIM is used, this is not asked and the stage 3 heat wires to W3 on EIM. * Options vary based on which terminals are available. Thermostat L option only for S1000, S1100 and S1200 models.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2105	Fan Control	Fan stages	• 1 - 3	2010 = 2-pipe, 4-pipe Fan Coil, or PTAC	*During setup, The ElitePRO™ Series Thermostat instructs where to wire this to. There are also wiring diagrams in this file. If only 2 fan speeds are used, ISU 2106 will say **High Speed** rather than **Medium Speed**. ** Options vary based on which terminals are available. Thermostat L option only for S1000, S1100 and S1200 models.
2106	Fan Coil	Medium * Fan Speed Wiring Assignment	• None • Y2 • EIM Y2	2105 = 2 - 3	
2107	Fan Coil	High * Fan Speed Wiring Assignment	• None • Thermostat L** • Thermostat U1 • EIM U1 • EIM U2 • EIM U3	2105 = 3	
2110	Fan Control	Fan Operation in Heat	• Equipment Controls fan • Thermostat controls fan	2010 = Electric Forced Air, Hot water fan coil, or other,	
2130	Backup heat stages	Backup heat stages	• 0 • 1 • 2	2000 = **Radiant** and 2120 = other than **None**	
2150	Backup Heat operation	Backup Heat operation	• **NOT Allowed** to Run with Fan Coil Heat • **Allowed** to Run with Fan Coil Heat	2010 = Electric forced air or Hot Water Fan Coil or other and 2130 = other than 0	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2160	Fan Control	Backup Heat Fan Control	• No fan • Equipment controls fan • Thermostat controls fan	If (ISU 2010: Heating Equipment Type = Hot Water Radiant Heat or Hot Water Radiant Floor Heat or Steam or Other AND ISU 2120: Backup Heat Type = Hot Water Fan Coil or Electric Forced Air or Other AND ISU 2110: Fan Operation in Heat = No Fan) OR (ISU 2120: Backup Heat Type = Hot Water Fan Coil or Electric Forced Air or Other AND ISU 2150: Backup Heat Operation = Not Allowed to Run with <Heating Equipment Type>)	

<table>
<tr><th>ISU #</th><th>Heading</th><th>Question</th><th>Options</th><th>Contingent previous setting?</th><th>Notes</th></tr>
<tr><td>2170</td><td>Terminal Assignment</td><td>What terminals are wired to Stage 1 backup heat?</td><td>• Thermostat AUX
• Thermostat U
• Thermostat L
• EIM AUX 1</td><td colspan="2" rowspan="2">Options available depend on thermostat firmware version and whether an EIM is used. The default for backup heat stage 1 is Thermostat AUX when EIM is not used and EIM AUX 1 when EIM is used. The default for backup heat stage 2 is EIM AUX 2 when EIM is used. This setting is available for unique applications such as:
• A heat pump with boiler backup when EIM is not used and installing an isolation relay is not desired.
• A heat pump with boiler backup when thermostat wires go to boiler location but not heat pump location.
• Stage 2 backup heat needed and EIM is not being used.
NOTE:
When an EIM is used, Aux 1 terminal is always energized with a call for backup heat stage 1 and Aux 2 terminal is always energized with a call for backup heat stage 2. If the backup heat stage is wired/configured to thermostat U or L. We would not expect a wire to the EIM Aux 1 or Aux 2 so this should not matter.</td></tr>
<tr><td>2171</td><td>Terminal Assignment</td><td>What terminals are wired to stage 2 backup heat (when two backup heat stages are selected)</td><td>• Thermostat U
• Thermostat L
• EIM AUX 2</td></tr>
<tr><td>2175</td><td>Backup Heat</td><td>Aux/E Terminal Control</td><td>• Drive Aux and E together
• Aux and E independent</td><td>2070 Backup Heat stages = 1*</td><td>*Not an option when EIM is used or if set for 2 backup heat stages or if 2170 is not set to Aux.</td></tr>
</table>

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2180	Backup Heat	Backup Heat Type	• None • Electric Forced Air • Standard Efficiency Gas Forced Air • High Efficiency Gas Forced Air • Oil Forced Air • Hot Water Fan Coil • Hot Water Radiant Heat • Other	2000 set to Heat Pump and 2070 Backup Heat Stages set to 1 or 2.	
2185	Emergency Heat	Emergency Heat Type	• Electric Forced Air • Standard Efficiency Gas Forced Air • High Efficiency Gas Forced Air • Oil Forced Air • Hot Water Fan Coil • Hot Water Radiant Heat • Other	2175 = independent	*Not an option when EIM is used.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2190	External Fossil Fuel Kit	External Fossil Fuel Kit	• Thermostat Controls Backup Heat • External Fossil Fuel Kit Controls Backup Heat	2000 = heat pump, 2180 = Gas or oil forced air	
2200	Backup Heat Operation	Backup Heat Operation	• NOT Allowed to Run with Heat Pump • Allowed to Run with Heat Pump	2180 set for Hot Water or Other	
2205	Emergency Heat Operation	Emergency Heat Operation	• NOT Allowed to Run with Heat Pump • Allowed to Run with Heat Pump	2150 set for Hot Water or Other	*Not an option when EIM is used.
2210	Fan Control	Aux backup heat fan control	• No fan • Equipment controls fan • Thermostat controls fan	ISU 2180: Backup Heat Type = Other AND ISU 2190: External Fossil Fuel Kit = Thermostat Controls Backup Heat	
2215	Fan Control	Emergency heat fan control	• No fan • Equipment controls fan • Thermostat controls fan	ISU 2185: Emergency Heat Type = Hot Water Fan Coil OR ISU 2185: Emergency Heat Type = Other	
2216	Economizer/ Time of Day	Economizer / Time of Day	• None • Economizer • Time of Day	1010 = Light Commercial	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2217	Economizer	What terminals are wired to the Economizer output?	• U on UWP when EIM isn't used • U1-U3 if EIM is used	2216 = Economizer	See wiring diagrams for Economizer
2218	Time of Day	What terminals are wired to the Time of Day output?	• U on UWP when EIM isn't used • U1-U3 if EIM is used	2216 = Time of Day	See wiring diagrams for Time of Day
2220	L Terminal alert	What is the L Terminal used for?*	• None • Economizer Failure indication • Heat Pump Fault indication	Options shown if ISU 2000 = heat pump **or** 2216= Economizer. If 2054 = Dry Contact, then 2220 is not shown	* There are uses for L on the thermostat beyond the options listed here. It can be set to trigger remote setback or used with an aquastat for cool/heat changeover on a 2-pipe fan coil. S1000, S1100 and S1200 models allow you to use L for an extra heat or cool stage or to control a humidifier, dehumidifier or ventilator. Once L has been assigned, the other options for this terminal will not be shown in the ISU settings.
2230	Control mode	Control Mode	• Air and Floor • Air only • Floor only	1055 set to **Wired**	No Floor only option if there is a Cool stage or Backup Heat stage.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
2240	Occupancy sensing	Remote Setback	• None • Thermostat L terminal * • Wireless Sensor(s) • Internal Sensor • Wireless Sensors and Internal Sensor • Dry contact *	* Thermostat L terminal shown when no EIM is enrolled, Dry Contact shown when EIM is enrolled.	See "Remote Setback (Occupancy Setback / Occupancy Sensor)" on page 167 • See the remote setback section for wiring if L or dry contact is selected. • C7189R3002 or C7189R3010 wireless sensors required for “Wireless sensor(s)" option. • S900 has limited options since it does not have onboard radar sensor and cannot be used with wireless sensors or an EIM.
3000	Changeover	Changeover	• Manual • Automatic	Any system with at least 1 Heat stage and 1 Cool stage	See **Auto Changeover Operation** for Details.
3015	Auto Changeover Differential		0-5F (0.00 to 2.50C)	3000= auto	
3020	Staging control	Finish with high cool stage	• No • Yes	At least 2 cool/compressor stages	
3021	Staging control	Finish with high heat stage	• No • Yes	At least 2 heat stages	
3030	Staging control	Cool differential stage 2	• Comfort • 1.0°F /.50°C • 1.5°F /.75°C • 2.0°F /1.00°C • 2.5°F /1.25°C • 3.0°F /1.50°C • 3.5°F /1.75°C	2070 set to at least 2 cool/compressor stages	Options for stage 3 and 4 differential are limited by the setting for the previous cool stage differential setting
		Cool differential stage 3		2070 set to at least 3 cool stages	
		Cool differential stage 4		2070 set to 4 cool stages	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3050	Staging control	Radiant heat differential	• Comfort • 1.0°F /.50°C • 1.5°F /.75°C • 2.0°F /1.00°C • 2.5°F /1.25°C • 3.0°F /1.50°C • 3.5°F /1.75°C	There are 2 stages of radiant heat selected for 2070.	
		Heat Differentials	• Stage 2: • Comfort • 1.0°F - 3.5°F	2000 = Conventional Forced air + 2070 = 2 or 3	
			• Stage 3: • Comfort • 1.5°F to 4.0°F	2000 = Conventional Forced air + 2070 = 3	
3060	Staging control	Compressor Heat Differential Stage 2	• Comfort • 1.0°F /.50°C • 1.5°F /.75°C • 2.0°F /1.00°C • 2.5°F /1.25°C • 3.0°F /1.50°C • 3.5°F /1.75°C	2000 = Heat Pump and 2070 Compressor stages = 2	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3080	Staging control	Backup Heat differentials	Stage 1: • Comfort* • 2.0°F to 15°F (1.00°C to 7.5°C)	Radiant heat with 1 or 2 backup heat stages	*If 2 stages of backup heat. The 2nd backup stage is forced to be at least .5 degrees higher than first stage Backup Heat.
			Stage 2: • Comfort* • 2.5°F to 15.5°F (1.25°C to 7.75°C)	Radiant heat with 2 backup heat stages	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3090	Staging control	Backup Heat differentials	Stage 1: • Comfort* • 2.0°F to 15°F (1.00°C to 7.5°C)	Heat pump of FCU with 1 or 2 backup heat stages	*Comfort setting not available for Dual Fuel. See section on Backup heat differentials, Upstage Timer, and Holdoff Timer. For an FCU, the thermostat will automatically switch to Em Heat mode and run the backup heat if the thermostat had been in heat mode and pipe sensor detects pipe is no longer in the heat temperature threshold. If you ***don't*** want to switch to the backup heat when that pipe is warm, set a high Differential setting and set the timers to the maximum settings.
			Stage 2: • Comfort* • 2.5°F to 15.5°F (1.25°C to 7.75°C)	Heat pump selected with 2 Backup Heat stages	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3110	Staging control	Backup heat upstage timer	• **Off** • 30 minutes • 45 minutes • 60 minutes • 75 minutes • 90 minutes • 2 hours • 3 hours • 4 hours • 5 hours • 6 hours • 8 hours • 10 hours • 12 hours • 14 hours • 16 hours	If configured for an auxiliary head stage.	
		Backup Heat holdoff timer	• Auto • 15 minutes • 30 minutes • 45 minutes • 60 minutes • 75 minutes • 90 minutes • 105 minutes • 120 minutes	Upstage timer set to other than "**Off**".	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3120	Equipment Lockouts	Compressor Lockout/Balance point	• Off • -15°F to 50°F (-26.0°C to 15.5°C)	Configured for heat pump with an Aux Heat stage	
		Backup Heat Lockout	• Off • 5°F to 65°F (-15°C to 18.5°C)		
3125	Equipment Lockouts	Fan Lockout after cool call ends	• Off • 5-120 minutes in 5 minute increments	2070 = at least 1 cool/compressor stage	This feature is desired by some customers in humid regions who want to restrict the fan when the coil is wet after a coolling call ends.
3130	Cycle rates	Radiant heat cycle rate (stage 1)	1-12	At least one radiant heat stage	
		Radiant heat cycle rate (stage 2)	1-12	Two radiant heat stages	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3140	Cycle rates	Cool Cycles Per hour	Stage 1: • Settings 1-6	2000 = other than heat pump. 2070 = 1 - 4	
			Stage 2: • Settings 1-6	2000 = other than heat pump. 2070 = 2 - 4	
			Stage 3: • Settings 1-6	2070 = 3 - 4	
			Stage 4: • Settings 1-6	2070 = 4	
		Compressor Cycles Per Hour	Stage 1: • Settings 1-6	2000 = heat pump	
			Stage 2: • Settings 1-6	2000 = heat pump, 2070 = 2	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3150	Cycle rates	Radiant Heat cycles per hour	Stage 1 • Settings 1-12	At least 1 Radiant Heat stage	
			Stage 2 • Settings 1-12	2 Radiant Heat stages	
		Heat Cycles per hour	Stage 1 • Settings 1-12	2000 = Conventional Forced Air, or Other	
			Stage 2 • Settings 1-12	2000 = Conventional Forced Air and 2070 = 2-3 heat stages	
			Stage 3 • Settings 1-12	2000 = Conventional Forced Air and 2070 = 3 heat stages	
3160	Cycle rates	Backup heat cycles per hour (Stage 1)	Settings 1-12	At least 1 Backup Heat stage selected	
		Backup heat cycles per hour (Stage 2)	Settings 1-12	2 Backup Heat stages selected	
3240	Temperature Control	Minimum Compressor or Fan Coil Off Time	Settings: • Off • 1-5 minutes in 1-minute increments		
3250	Temperature Control	Minimum non-compressor on time	• Off • 2 minutes • 5 minutes	2000 = Radiant Heat	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3260	Temperature Control	Extended fan run time in cool	• **Off** • 30 seconds • 60 seconds • 90 seconds • 2 minutes • 3 minutes • 4 minutes • 5 minutes • 6 minutes • 7 minutes • 8 minutes • 9 minutes • 10 minutes • 11 minutes • 12 minutes • 13 minutes • 14 minutes • 15 minutes	At least 1 cool stage	
		Extended fan run time in heat		At least 1 heat stage	
3300	Temperature Control	Temperature Balancing	• Off • On		See "Temperature balancing" on page 138
3310	Temperature Control	Temperature Balancing Room Delta	• 0.5°F to 10°F in .5°F increments (.25°C to 5°C in 2.5°C increments)		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
3320	Fan Control	Fan Modes Allowed	• Auto • Multiple Speeds • Auto and Multiple Speeds	2105 = 2 or 3	For settings and options: See "Fan Coil Unit and PTAC Settings and Operation" on page 165.
3325	Fan Control	Start Fan on the Highest Stage	• Off • On	2105 = 2 or 3	
3340	Fan Control	Fan reset to Auto Mode timer	• Off • 2 hours • 4 hours	2010 = 2-pipe or 4-pipe	
4010	Fan Control	Pre-Occupancy Purge Duration	• Off • 1 hour • 2 hours • 3 hours	1010 = Light Commercial	Run fan prior to occupied period
4020	Type of Override	Type of Override	• Standard • Initiate Occupancy	1010 = Light Commercial	See description in "Commercial Features" on page 173
4030	Override Duration	Override Duration	• No limit • 1 – 12 hours in 1 hour increments	1010 = Light Commercial	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
4050	Temperature Control	Minimum Heat Recovery Ramp Rate	• Off, • 1 to 20°F/hr (in 1°F Increments) • 1.0 to 10.5°C/hr (in 0.5°C Increments)	1010 = light commercial. 1060 (Outdoor Temperature) must be set to other than “None”, to see the outdoor temp settings for 4050-4080. If set to “Wired”, 5050 must also be set to other than “None”	**Off:** The heating system will begin recovery at the time that is scheduled. When a Minimum Recovery Ramp Rate is set, the thermostat will begin recovery early to ensure the temperature is reached at the scheduled time. Set a Minimum Recovery Ramp Rate based on the rate that the heating system can recover at for a cold day in your region. Default setting is 5° F / hour. If an outdoor sensor is installed, set an Outdoor Temperature that is representative of a cold day in your region to be associated with the Minimum Recovery Ramp Rate. The thermostat will begin recovery at the optimal time based on a calculated ramp rate, allowing the system to recover on time and save energy during changing outdoor conditions. During recovery, the setpoint changes at a rate in degrees per hour depending on the outdoor temperature. If there is no outdoor sensor, the Minimum Recovery Ramp Rate is used
		Outdoor Temperature used with Minimum Heat Recovery Ramp Rate	• Off • -20 to 100°F (-29.0 to 38.0°C),		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
4060	Temperature Control	Maximum Heat Recovery Ramp Rate	• Off, • 1 to 20°F/hr (in 1°F Increments) 1.0 to 10.5°C/hr (in 0.5°C Increments)	1010 = light commercial. 1060 (Outdoor Temperature) must be set to other than “None”, to see the outdoor temp settings for 4050-4080. If set to “Wired”, 5050 must also be set to other than “None”	**Off:** The heating system will begin recovery at the time that is scheduled. When a Maximum Recovery Ramp Rate is set, the thermostat will begin recovery early to ensure the temperature is reached at the scheduled time. Set a Maximum Recovery Ramp Rate based on the rate that the heating system can recover at for a mild day in your region. Default setting is 8° F / hour. Set an Outdoor Temperature that is representative of a mild day in your region to be associated with the Maximum Recovery Ramp Rate. The thermostat will begin recovery at the optimal time based on a calculated ramp rate, allowing the system to recover on time and save energy during changing outdoor conditions. During recovery, the setpoint changes at a rate in degrees per hour depending on the outdoor temperature.
		Outdoor Temperature used with Maximum Heat Recovery Ramp Rate	• Off • -20 to 100°F (-29.0 to 38.0°C),		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
4070	Temperature Control	Minimum cool Recovery Ramp Rate	• Off, • 1 to 20°F/hr (in 1°F Increments) • 1.0 to 10.5°C/hr (in 0.5°C Increments)	1010 = light commercial. 1060 (Outdoor Temperature) must be set to other than “None”, to see the outdoor temp settings for 4050-4080. If set to “Wired”, 5050 must also be set to other than “None”	**Off:** The cooling system will begin recovery at the time that is scheduled. When a Minimum Recovery Ramp Rate is set, the thermostat will begin recovery early to ensure the temperature is reached at the scheduled time. Set a Minimum Recovery Ramp Rate based on the rate that the cooling system can recover at for a hot day in your region. Default setting is 3° F / hour. If an outdoor sensor is installed, set an Outdoor Temperature that is representative of a hot day in your region to be associated with the Minimum Recovery Ramp Rate. The thermostat will begin recovery at the optimal time based on a calculated ramp rate, allowing the system to recover on time and save energy during changing outdoor conditions. During recovery, the setpoint changes at a rate in degrees per hour depending on the outdoor temperature. If there is no outdoor sensor, the Minimum Recovery Ramp Rate is used.
		Outdoor Temperature used with Minimum cool Recovery Ramp Rate	• -20°F through 120°F in 1 degree F increments		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
4080	Temperature Control	Maximum cool Recovery Ramp Rate	• Off, • 1 to 20°F/hr (in 1°F Increments) • 1.0 to 10.5°C/hr (in 0.5°C Increments)	1010 = light commercial. 1060 (Outdoor Temperature) must be set to other than “None”, to see the outdoor temp settings for 4050-4080. If set to “Wired”, 5050 must also be set to other than “None”	**Off:** The cooling system will begin recovery at the time that is scheduled. When a Maximum Recovery Ramp Rate is set, the thermostat will begin recovery early to ensure the temperature is reached at the scheduled time. Set a Maximum Recovery Ramp Rate based on the rate that the cooling system can recover at for a mild day in your region. Default setting is 6° F / hour. Set an Outdoor Temperature that is representative of a mild day in your region to be associated with the Maximum Recovery Ramp Rate. The thermostat will begin recovery at the optimal time based on a calculated ramp rate, allowing the system to recover on time and save energy during changing outdoor conditions. During recovery, the setpoint changes at a rate in degrees per hour depending on the outdoor temperature.
		Outdoor Temperature used with Maximum cool Recovery Ramp Rate	• Off • -20 to 100°F (-29.0 to 38.0°C)		
4090	Temperature Control	Adaptive Intelligent Recovery	• No • Yes		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
4100	Temperature Limits	Temperature range stops	Minimum cool setpoint; 50F-99F (10C-37C)	At least 1 stage of cool	There is a correlation between these settings. For example, if minimum cool is set to 50F, minimum heat cannot be set above 40F
			Maximum cool setpoint; 90F-99F (32C-37C)	At least 1 stage of cool	
			Minimum heat setpoint; 40F-50F (4.5C-10C)	At least 1 stage of Heat	
			Maximum heat setpoint; 40F-90F (4.5 - 32.0C)	At least 1 stage of Heat	
4110	Keypad Lockout	Keypad Lockout	Unlocked, Partially Locked, Fully Locked		
4150	Alert Settings	High Indoor temperature Alert	Off, 32 to 99°F in 1°F increment Off, 0.0 to 37.0°C in 0.5°C increment		These are not restrictions for temperature settings. Those are in ISU 4100. These are high and low indoor temperature and humidity ranges which will generate an alert message on display and in app.
		Low Indoor temperature Alert	Off, 31 to 98°F in 1°F increment Off, -0.5 to 36.5°C in 0.5°C increment		
4154		High Indoor humidity Alert	Off, 6 to 99% rH		
		Low Indoor humidity Alert	Off, 5 to 98% rH		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
5000	Sensors	What sensors are WIRED to your system?	• Indoor Air Temperature • Outdoor Air Temperature • Return Air Temperature • Discharge Air Temperature • Floor Temperature • Fan Coil Changeover Temperature	**Floor sensor** only shown here if 1055 is set to **Wired**. **Fan Coil Changeover Temperature** only shown if 2054 = 10k or 20k	
5020	Sensors	What Terminals are Wired to the Indoor Temperature Sensor?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	5000 has Indoor Sensor selected	Options depend on whether EIM is used.
5030	Sensors	Indoor Temperature Sensor Type	• 10K • 20K	5000 has Indoor Sensor selected	
5040	Sensors	Which Sensors will be used for TEMPERATURE Control? (Multiple sensors are averaged)	• Thermostat • Indoor sensor (remote)	5000 set for Wired Indoor Sensor	This setting does not pertain to wireless indoor sensors.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
5050	Sensors	What Terminals are Wired to the Outdoor Air Temperature Sensor?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	1060 set to Wired	Options depend on whether EIM is used.
5070	Sensors	What Terminals are Wired to the Return Air Temperature Sensor?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	5000 has Return Sensor selected	Options depend on whether EIM is used.
5080	Sensors	Return Temperature Sensor Type	• 10K • 20K	5000 has Return sensor selected	
5090	Sensors	What Terminals are Wired to the Discharge Air Temperature Sensor?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	5000 has Discharge Sensor selected	Options depend on whether EIM is used.
5100	Sensors	Discharge Temperature Sensor Type	• 10K • 20K	5000 has Discharge Sensor selected	
5110	Sensors	A-Coil Low Temperature Cutoff	• Off, • 5°F to 65°F (-15°C to 18.5°C)	At least 1 cool stage	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
5120	Sensors	What Terminals are Wired to the Floor Temperature Sensor?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	1055 set to “Wired”	Options depend on whether EIM is used.
5150	Floor Temperature Limits	Minimum Limit	Minimum Limit = 40°F-89°F (4.5°C to 31.5°C)	ISU 2230 = Air and Floor	Top range affected by Maximum limit setting
		Maximum Limit	Maximum Limit = 50°F-99°F (10.0°C to 37.0°C)		Bottom range affected by Minimum limit setting
5160	Floor Economy Mode	Floor Economy Mode	• Yes • No	5000 has Floor Sensor selected	If enabled, Low Floor Temperature Limit (ISU 5150) will be disabled during Away and Sleep period. This ISU is only displayed if Temperature Control Mode (ISU 2230) is set to AF mode.
5170	Freeze Protection	Freeze Protection	• Off • 40°F-50°F (4.5°C to 10°C) (Off only available for non-radiant systems)	Cannot be below minimum setting in 5150 (if used).	The thermostat operates the heat whenever the room temperature falls below that limit, even when the system is set to off. Default setting is Off (disabled) for non-radiant systems and 40°F (4.5°C) for radiant systems. Freeze protection temperature cannot be set above ISU 5150 minimum setting.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
5200	Changeover Setup	Temperature Thresholds	• Cooling Threshold 50°F-72°F (10°C to 22°C) • Heating Threshold 75°F-90°F (24°C to 32°C)	5000 = Fan coil changeover	See "Fan Coil Unit and PTAC Settings and Operation" on page 165.
6000	Dry Contacts	Select the Dry Contacts in the System	• Remote Setback • Full Drain Pan Alert • Dirty Filter Alert • Water Leak Alert • System Shutdown Alert • Service Needed Alert • Fan Failure Alert		Dry contact alerts are shown on the thermostat. If the thermostat is part of Pro IQ services, the message will also be shown in the pro software and the homeowner's app. See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6005	Custom Dry Contact alerts	Select Custom Dry Contact alerts	• Custom Alert 1 • Custom Alert 2 • Custom Alert 3 • Custom Alert 4		Dry contact alerts are shown on the thermostat. If the thermostat is part of Pro IQ services, the message will also be shown in the pro software and the homeowner's app. See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
6010	Dry Contacts	What terminals are wired to the Remote Setback Dry Contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 = Remote Setback	See "Remote Setback (Occupancy Setback / Occupancy Sensor)" on page 167
6020	Dry Contacts	Remote Setback Dry Contact Setup	• Normally Open when Occupied • Normally Closed when Occupied	6010 assigned a set of S terminals	
6030	Dry Contacts	Remote Setback Time Delayed from Occupied to Unoccupied	0 Minutes to 30 Minutes in 5 minute increments	2240 set to Dry contacts or Wireless sensor(s)	
6040	Dry Contacts	Remote Setback – Standby Cool Setpoint	72°F - 90°F (22.0° - 32.0°C)		
		Remote Setback – Standby Heat Setpoint	50°F - 70°F (10.0° - 21.0°C)		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
6050	Dry Contacts	What terminals are wired to the Full Drain Pan Alert dry contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 has full drain pan selected	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6060	Dry Contacts	Full Drain Pan Alert dry contact setup	• Normally open • Normally closed	6000 has full drain pan selected	
6065	Dry Contacts	Full Drain Pan Alert dry contact actions	Check box for each: • System Shutdown • Heat Lockout • Cool Lockout • Turn On Fan	6000 has Full Drain Pan selected	
6070	Dry Contacts	What terminals are wired to the Dirty Filter Alert dry contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 has Dirty Filter Alert selected	
6080	Dry Contacts	Dirty Filter Alert dry contact setup	• Normally open • Normally closed		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
6090	Dry Contacts	What terminals are wired to the Water Leak Alert dry contacts?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 has water leak selected	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6100	Dry Contacts	Water Leak Alert dry contact setup	• Normally open • Normally closed	6000 has water leak selected	
6110	Dry Contacts	What terminals are wired to the System Shutdown Alert dry contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 has system shut down alert selected	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6120	Dry Contacts	System shut down alert dry contact setup	• Normally open • Normally closed		
6130	Dry Contacts	What terminals are wired to the Service Needed Alert dry contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 has Service Needed Alert selected	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6140	Dry Contacts	Service Needed Alert dry contact setup	• Normally open • Normally closed		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
6150	Dry Contacts	What terminals are wired to the Fan Failure Alert dry contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6000 has Fan Failure Alert selected	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6160	Dry Contacts	Fan Failure Alert dry contact setup	• Normally open • Normally closed		
6190	Dry Contacts	What terminals are wired to the custom alert 1 dry contact?	• None • Thermostat S1 • EIM S1 • EIM S2 • EIM S3 • EIM S4	6005 has custom alert 1 selected	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6200	Dry Contacts	Custom alert 1 dry contact setup	• Normally open • Normally closed		
6210	Dry Contacts	Custom Alert 1 Name	Type in the alert name		
6215	Dry Contacts	Show custom alert 1 message	• Yes • No		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
6220	Dry Contacts	Custom Alert 1 Message	Type in the message displayed when this alert is active	6215 set to Yes	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6230	Dry Contacts	Custom alert 1 actions	• None • Lock out Heat • Lock out Cool • Activate fan • Activate custom U terminal	6005 has custom alert 1 selected	
6240	Dry Contacts	What terminals are wired to custom U contact?	• None • Thermostat U • UIM U1 • EIM U2 • EIM U3	6230 has custom U terminal selected	When the switch wired to the S for Dry Contact Alert activates, the custom U contacts will change state to activate or shut off whatever is wired to those terminals
6250	Dry Contacts	Custom U dry contact name	Type in the name of whatever the custom **U** Dry Contact is controlling		
6260	Dry Contacts	Custom U dry contact setup	• Normally open • Normally closed		
6300 - 6370	These are duplicate settings to 6190-6260 but for Dry Contact Alert 2 (if selected)			6005 has custom Dry Contact Alert 2 selected	
6400 - 6470	These are duplicate settings to 6190-6260 but for Dry Contact Alert 3 (if selected)			6005 has custom Dry Contact Alert 3 selected	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
6500-6570	These are duplicate settings to 6190-6260 but for Dry Contact Alert 4 (if selected)			6005 has custom Dry Contact Alert 4 selected	
6600	Dry contacts	Cool Lockout Delay Time	• Off • 5-60 minutes in 5 minute increments	6230, 6340, 6440, or 6540 set to lock out cool	See "Dry Contact Alerts (ISU 6000 - 6220)" on page 170 for operation details
6610	Dry contacts	Cool lockout maximum indoor temperature	• None • 80°F - 99°F (27°C to 37°C)		
6620	Dry contacts	Heat Lockout Delay Time	• Off • 5-60 minutes in 5 minute increments	6230, 6340, 6440, or 6540 set to lock out Heat	
6630	Dry contacts	Heat lockout minimum indoor temperature	• None • 40°F - 60°F (4°C to 15°C)		
6640	Dry contacts	Minimum Off Time	• Off • 1-5 minutes	6230, 6340, 6440, or 6540 set to lock out Heat or Cool	
7000	Filtration	Filter type	• None • Electronic air cleaner • Media		
7020	Filtration	Number of air filters	• 0 • 1 • 2	7000 = media	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
7110	Filtration	Replacement reminders	Air Filter 1 settings and Air Filter 2 settings: • Off • 10 **Run time days** • 20 Run time days • 30 Run time days • 45 Run time days • 60 Run time days • 90 Run time days • 120 Run time days • 150 Run time days • 30 **Calendar days** • 45 Calendar days • 60 Calendar days • 75 Calendar days • 3 **Calendar months** • 4 Calendar months • 5 Calendar months • 6 Calendar months • 9 Calendar months • 12 Calendar months • 15 Calendar months	7020 = 1 or 2	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
7120	Filtration	Electronic Air Cleaner Reminders	Clean cells, options: • Off • 6-12 calendar months	7000 = electric	
			Clean Pre-filters, options: • Off • 6-12 calendar months		
			Replace Post-filters, options: • Off • 6-12 calendar months		
8000	Humidification	What type of humidifier do you have?	• None • Steam • Bypass or Fan powered	U contacts available (or thermostat L on some models)	
8010	Humidification	What sensors will be used for Humidification control	• Thermostat • Wireless sensors	8000 = other than None and Wireless sensor(s) are connected to thermostat	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
8030	Humidification	What terminals are wired to the humidifier?	• None • Thermostat U • Thermostat L • UIM U1 • EIM U2 • EIM U3	8000 = other than "none".	Thermostat L option on S1000, S1100 and S1200 models only.
8050	Humidification	Humidification Window Protection	• Off • On	1060 and 8000 = other than "none".	See "Window Protection" on page 148 for more details
8060	Humidification	System modes allowing humidification	• Heat • Cool • Off	1600 is other than "none".	8000 = other than "None". (Cool option only when discharge sensor selected ISU 5000)
8070	Humidification	Humidification control	• Humidify Only when heat is on • Humidify Only when fan is on • Humidify on demand: Thermostat controls fan • Humidify on demand: Humidifier controls fan	8000 set to other than **None**	
8080	Humidification	Humidifier Lockout	• Humidifier allowed when Cool is running • Humidifier **not allowed** when Cool is running	8060 set to Cool	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
8095	Humidification	Humidifier Lockouts Dry Contacts	• Full Drain Pan • Water leak • Custom Alerts 1 - 4	8000 = steam, by-pass or fan powered, and 6000 = full drain pan or water leak, *OR* 6005 is set for custom Dry Contact Alert	This will lock out the humidifier when the associated Dry Contact Alert is active
8100	Humidification	Humidifier Pad replacement reminder	• Off • 6 or 12 calendar months	Not shown if 8000 = none or steam	
8100	Humidification	Clean tank/Water Filter replacement Reminder	• Off • 60 or 90 run time days • 6 or 12 calendar months	8000 = steam	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
9000	Dehumidification	What type of dehumidification equipment do you have?	**Residential:** • None • A/C with Low speed fan • A/C with High speed fan • Whole House Dehumidifier **Commercial:** • None • A/C with Low speed fan • A/C with High speed fan • Hot Gas Bypass • Dehumidifier	A/C with low speed fan, Dehumidifier/Whole House Dehumidifier and Hot Gas Bypass only shown if U contacts available (or thermostat L on some models)	
9005	Dehumidification	Dehumidification Fan speed priority	• Low speed fan with Cool stage 1 only • Low speed fan Always • Selectable by user	9000 = A/C with Low Speed Fan	
9010	Dehumidification	What sensors will be used for Dehumidification control	• Thermostat • Wireless sensors	9000 = other than "none".	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
9040	Dehumidification	What terminals are wired to the dehumidification equipment?	• None • Thermostat U • Thermostat L • EIM U1 • EIM U2 • EIM U3	9000 = other than "none" or "A/C with High Speed Fan"	Thermostat L option on S1000, S1100 and S1200 models only.
9050	Dehumidification	Dehumidification Equipment Setup	• Normally Open • Normally Closed	9000 = Low Speed Fan **or** Hot Gas Bypass	
9070	Dehumidification	Dehumidification - Overcooling Limit	• 0°F (0°C) • 1°F (0.5°C) • 2°F (1.0°C) • 3°F (1.5°C)	9000 = A/C with High or Low Speed Fan	If Celsius is selected in ISU 1050, the Celsius temperatures seen in the Options column at left are presented.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
9080	Dehumidification	Control Method	• Basic • Minimum on Time • High Humidity Comfort Reset • High Humidity Comfort Reset w/ Minimum On Time • Reheat • Reheat with Minimum On Time	ISU 1010 = commercial and 9000 = AC with high speed fan, AC with low speed fan, or Hot gas bypass.	
9090	Dehumidification	Dehumidification Minimum On Time	• 0 minutes • 5 minutes to 15 minutes in 1 minute increments	9080 = other than **Basic**	
9100	Dehumidification	High Humidity Comfort Reset Setting	0°F - 5°F in 1°F increments 0°F - 2.5°C in 0.5°C increments.	9080 = one of the **Comfort Reset** settings	
9120	Dehumidification	System modes allowing dehumidification	• Heat • Off • Cool	9000 - Whole House Dehumidifier	
9130	Dehumidification	Dehumidifier Fan Control	• Thermostat Controls Fan • Dehumidifier Controls Fan	9000 - Whole House Dehumidifier	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
9140	Dehumidification	Dehumidifier Lockout	• Dehumidifier Allowed when Cool is Running • Dehumidifier Not Allowed when Cool is Running	9000 - Whole House Dehumidifier	
9145	Dehumidification	Dehumidifier lockout dry contact	Custom Alert 1 - Custom Alert 4 (options depend on 6005 settings)	ISU 6005 is set for a custom dry contact alert	If enabled, the dehumidifier will lock out whenever the selected Dry Contact Alert is active
9180	Dehumidification	Dehumidification - Away mode	• Not Allowed • Allowed		
9190	Dehumidification	Dehumidification Away mode Fan Control	• On • Automatic • Circulate	9180 = allowed	
9200	Dehumidification	Dehumidification Away mode low limit temperature setting	70°F to 80°F in 1°F increments. 21.0 to 26.5°C in 0.5°C or 1.0°C increments (depends on rounding)	9180 = allowed	The dehumidification Away mode setting can restrict this
		Dehumidification Away Mode Temperature Setting	70°F to 99°F (21.0°C to 37.0°C)	9180 = allowed	The dehumidification Away mode Low Limit setting can restrict this
		Dehumidification Away Mode Dehumidification Setting	40% - 70%	9180 = allowed	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
9210	Dehumidification	Dehumidifier Filter replacement reminder	• Off • 30 Calendar **Days** • 60 Calendar Days • 3 Calendar **Months** • 4 Calendar Months • 5 Calendar Months • 6 Calendar Months • 7 Calendar Months • 8 Calendar Months • 9 Calendar Months • 10 Calendar Months • 11 Calendar Months • 12 Calendar Months		
10000	Ventilation	Ventilation Type	• None • ERV/HRV • Passive (Fan Only) • Fresh Air Damper	ERV/HRV or Damper needs available U or L contacts. **Passive Fan** is not an option for Radiant Heat Only.	

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
10005	Ventilation	Ventilator Model number	Other model • VNT5070E1000 • VNT5200E1000 • VNT5150E2000 • VNT5150H2000 • VNT5200E2000 • VNT5200H2000	ISU 10000 set to ERV/ HRV	See "Ventilation" on page 153.
10020	Ventilation	What terminals are wired to the ventilation equipment?	• None • Thermostat L • EIM U1 • EIM U2 • EIM U3	10000 = other than "none".	Thermostat L option on S1000, S1100 and S1200 models only.
10050	Ventilation	Ventilation control method	• ASHRAE • Percent on Time	10000 = ERV/HRV or Fresh Air Damper	
10060	Ventilation	Ventilation Fan control	• Thermostat controls fan • Equipment controls fan	10000 = ERV/HRV or Fresh Air Damper	
10065	Ventilation	Turn on ventilation dry contacts	• Custom Alert 1 - Custom Alert 4 (options depend on 6005 settings)	ISU 1000 set for ventilation, 6005 is set for a custom dry contact alert and ISU 10145 isn't selected for the same custom alert.	If enabled, the ventilator will come on whenever the selected Dry Contact Alert is active

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
10090	Ventilation	Ventilation House Size	Number of Bedrooms 1-6	10050 = ASHRAE	
			Size of house: • 1000 -5000 square feet if display set to Fahrenheit • 90-460 square meters if set to Celsius	10050 = ASHRAE	
10100	Ventilation	Enter Equipment Ventilation Rate	• 30 - 350 CFM if display set to Fahrenheit • 850 - 9900 LPM if set to Celsius	10050 = ASHRAE	Fixed setting and not adjustable if any model except "Other" is selected for 10005. This setting also indicates whether or not you meet ASHRAE standards if ISU 10050 = ASHRAE based on ISU 10090 settings
10120	Ventilation	Ventilation Percent On Time	10% - 100% (30% default)	10150 = % On Time	
10125	Ventilation	Ventilation Priority	• Lockouts are priority • ASHRAE is priority	10050 = ASHRAE	When "Ashrae is Priority" is selected, the lockouts will only be allowed if the ventilator can make up the run time needed. For example, a lockout during high outdoor temperature may only need to lockout the ventilator for a few hours during the hottest time of the day. If the ventilator is sized to be able to still meet requirements before and after the lockout, then the lockout will happen.

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
10130	Ventilation	Outdoor condition lockouts	Low Temperature = off, -20F to 40F (off, -29.0 - 4.5C)	10000 = ERV/HRV or Fesh air damper and 1060 (outdoor temperature) = other than "None"	
			High Temperature = off, 80F to 110F (off, 26.5C-43,5C)		
			High Dew point = off, 65F - 85F (Off, 18.5C-29.5C)	1060 = Internet or Wireless	
10140	Ventilation	Lockout Ventilation on Humidification or dehumidification calls	Off or On	8000 set for humidifier and/or 9000 set for dehumidifier	
10145	Ventilation	Ventilation lockout dry contacts	• Custom Alert 1 - • Custom Alert 4 (options depend on 6005 settings)	ISU 1000 set for ventilator, 6005 is set for a custom dry contact alert and ISU 10065 isn't selected for the same custom alert.	If enabled, the ventilator will be locked out whenever the selected Dry Contact Alert is active
10150	Ventilation	Ventilation Control	• Ventilation always allowed • Ventilation not allowed in sleep mode		
10160	Ventilation	Ventilate on high indoor humidity	• Off • On (Heat mode only)	8000 set for humidifier and 10000 set for ventilator	

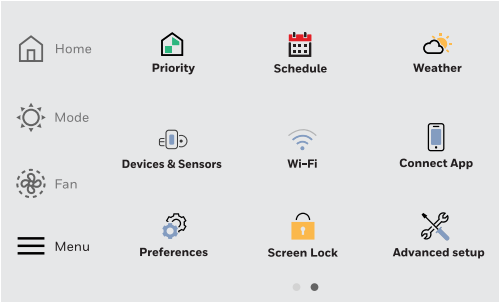
ISU #	Heading	Question	Options	Contingent previous setting?	Notes
10170	Ventilation	Ventilation Reminders	Clean core = Off, 3, 6, 9, 12, calendar months	Core only shown if 10000 = ERV/HRV. Filter reminder always shown.	
			Clean filter = Off, 3, 6, 9, 12, calendar months		
10200	Ventilation	Ventilate on High Carbon Dioxide (CO2)	• Yes • No	10000 = ERV/HRV or Fresh Air Damper	When enabled, if CO2 levels detected are high, the thermostat will run ventilator and blower fan. Available on models with air quality monitoring only.
11000	UV Devices	Number of UV Devices	0, 1, 2		
11050	UV Devices	UV Bulb Replacement Reminders	Replace UV Bulb 1 = Off, 6, 12, 24 calendar months	11000 = 1 or 2	
			Replace UV Bulb 2 = Off, 6, 12, 24 calendar months	11000 = 2	
14010	Clock Format	Clock Format	• 12 hour clock • 24 hour clock		
14015	Daylight Savings Time	Daylight Savings Time	• Off • On		

ISU #	Heading	Question	Options	Contingent previous setting?	Notes
14020	Display Offsets	Indoor Display Offsets	**Indoor Temperature:** (-3 to 3) in 1F increment (-1.5 to 1.5) in 0.5C increment.		The display offset is applied to the Home screen, not the Priority screen. This offset is not associated with any individual sensor.
			Indoor Humidity: -12% to 12% RH		
14030	Display Offsets	Outdoor Display Offsets	**Outdoor Temperature:** (-3 to 3) in 1F increment (-1.5 to 1.5) in 0.5C increment.		ElitePRO™ Series Thermostat Linked to C7089R3013 wireless outdoor sensor
			Outdoor Humidity: -12% to 12% RH		
14050	Indoor humidity	Show indoor humidity on home screen	• Show • Hide		If set to control a humidifier or dehumidifier, the ElitePRO™ Series Thermostat will still show the indoor humidity reading under the Humidity and Dehumidity setting screens
14051	VOC Display	Display VOC Level?	• Show • Hide		Disable these settings if you do not want the thermostat to do Air Quality monitoring and Alerts. S900 & S1000 models can not do Air Quality monitoring and will not have these settings. Not seeing these settings? See the note at the **top of this chart**.
14052	CO2 Display	Show Estimated CO2?	• Show • Hide		

WiFi Setup and Troubleshooting

During the initial installation, after the Installer setup, the thermostat will prompt you to set up WiFi and guide you through the steps. If you are setting up WiFi after the initial installation has already been done, follow the steps below:

1. On the thermostat, touch the **Menu** icon in the lower-left corner of the display.



Changing the Wi-Fi network or removing the thermostat from a network:

1. Select **WiFi**.
2. There is a slider labeled “Enable **WiFi**”. Make sure this is set to the right.
3. Touch **Choose Network**.
4. After a brief delay, the thermostat should show the available networks. Choose your home network from the list.
5. If this is a secure network, it should prompt you to “Enter WiFi password”. After a brief delay the display should show “Success! Your thermostat successfully connected to the network.” Touch the **OK** button.

> **NOTE:**
> **If you did not successfully connect to the network:**
>
> 1. The homeowner should Download the First Alert App from the App store or Google Play. If the installer did the setup with Resideo Pro app and sent them an invite with the email they use for this account, that thermostat will show in their app. If not, they will need to choose to add a device and follow on-screen steps.

Connect to a Hidden WiFi Network

1. Touch **MENU**, then **WiFi**.
2. Touch **Other**.
3. Enter the network name.
4. Select the appropriate network security setting, then touch Select.
5. Enter the WiFi network password.

Unsuccessful WiFi Connection

If you are unsuccessful in connecting the thermostat to the WiFi network, you will see a Connection Failed screen. Here are three specific reasons the connection might be unsuccessful.

Invalid Password

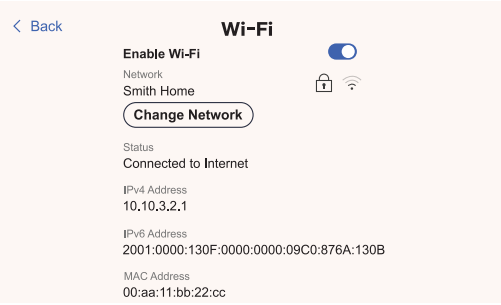
The password you entered is invalid. Check that you have the right password and try again.

No IP Address

The thermostat was unable to obtain an IP address from the router. Verify the router is correctly set up to automatically assign IP addresses. This connection can take several minutes. If there is still no connection, remove the thermostat from the wall plate for 10 seconds, then snap it back into place.

No Internet Link

The thermostat connected to the WiFi network but was unable to establish a connection to the internet. Check the router settings and try again. Make sure the Ethernet cable is plugged into the router and try rebooting the router if necessary.



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WiFi and App FAQs & Troubleshooting:

Q: Will the thermostat still work if the WiFi connection is lost?

A: Yes, you can still manually adjust the temperature at the thermostat. However, some features such as location-based temperature control (Auto-Away using geofencing technology) can only be managed through the First Alert App and will not function without a WiFi connection. The thermostat will automatically reconnect to WiFi once the network is restored.

Q: Is there a way to extend the strength of my WiFi signal?

A: The range (distance) of your WiFi signal is determined by your router. Try moving your router closer to the location of the thermostat, or use a router with a stronger signal range.

Q: There's an alert that says "WiFi signal lost" - what should I do?

A: Cycle power to the thermostat. This can be done with the switch on the side of the furnace, at the furnace breaker or by removing the thermostat from wall plate and then reattaching after 10 seconds or more. Wait 5 minutes for the thermostat to reconnect or select an alternate network (if you have one) in the First Alert App configuration menu. If the thermostat isn't able to reconnect, you'll need to troubleshoot the router to determine the cause.

Q: The thermostat or app is showing "Datasync". What should I do?

A: Remove the thermostat from wall plate, wait 30 seconds, then reattach it. If the issue persists, unregister and re-register the thermostat by deleting the thermostat from the app, then tap **Add new device** to reconnect it. In the unlikely event that this doesn't resolve the issue, connect the thermostat to a hotspot or alternate network for 24 hours, then perform a WiFi reset and reconnect it to your home network.

First Alert account and app questions

Q: Why haven't I received an account activation email?

A: If you haven't received an activation email within 5 minutes, check your Spam folder for a message from customer-service@resideo.com. If you don't see it, tap **Resend** to have the activation email sent again. If you still don't receive it, please contact the Technical Support team at 1-800-633-3991.

Q: Can I set up my thermostat with multiple users?

A: Yes. To add users, log into the First Alert App and tap the menu icon in the upper left corner. Select **Users**, tap **Invite Users** and type in the email addresses of the people you'd like to invite. If they already have a First Alert account set up, the thermostat and its location will automatically be added to their account. If they don't have an account, they'll receive an email prompting them to download the First Alert App and create a new account.

Q: Can I set up location-based temperature control with multiple users?

A: Yes. Location-based temperature control (Auto-Away / geofence technology) will activate based on the last person who leaves and the first person to return. Each user will need to create their own First Alert account with a login ID and password. Two users should not share the same account. Each user will then need to enable location-based temperature control.

Q: Why doesn't a change I made in the app show up on the thermostat?

A: There may be a short delay when you make temperature and settings changes in the First Alert App. Wait a few minutes, and if you still don't see your changes on the thermostat, make sure the thermostat is still connected to WiFi and restart your First Alert App.

Set Time and Date

> **NOTE:**
> If Wi-Fi is connected, the thermostat will automatically set the time and date using internet sync. Manual adjustments will not be available while connected.

To check or adjust time and date settings:

1. Touch **MENU** on the thermostat.
2. Select **Preferences > Date & Time**.

If Wi-Fi is not enabled, you will be able to set the time and date manually.

System Mode and Fan Settings

Setting the System Mode

- Touch **Mode**.
- Touch desired option.
  - **Heat**: Controls only the heating system.
  - **Cool**: Controls only the cooling system.
  - **Off**: Heating/cooling systems are off.
  - **Auto**: Selects heating or cooling depending on the indoor temperature.
  - **Em Heat** (heat pumps with Aux. Heat): Controls emergency heat. Compressor is locked out.

> **NOTE:**
> Mode settings may vary, depending on how your system type and installer settings.

Setting the Fan

> **NOTE:**
> Fan setting not available for all system types.

- Touch **Fan**.
- Choose **On**, **Auto**, or **Circulate**:
  - **Auto** setting only runs the fan with the heating or cooling system.*
  - **On** setting runs the fan continuously.
  - **Circ** setting runs the fan approx 33% of the time to ensure air circulation.

* The fan may also run with the humidifier, dehumidifier, or ventilator.

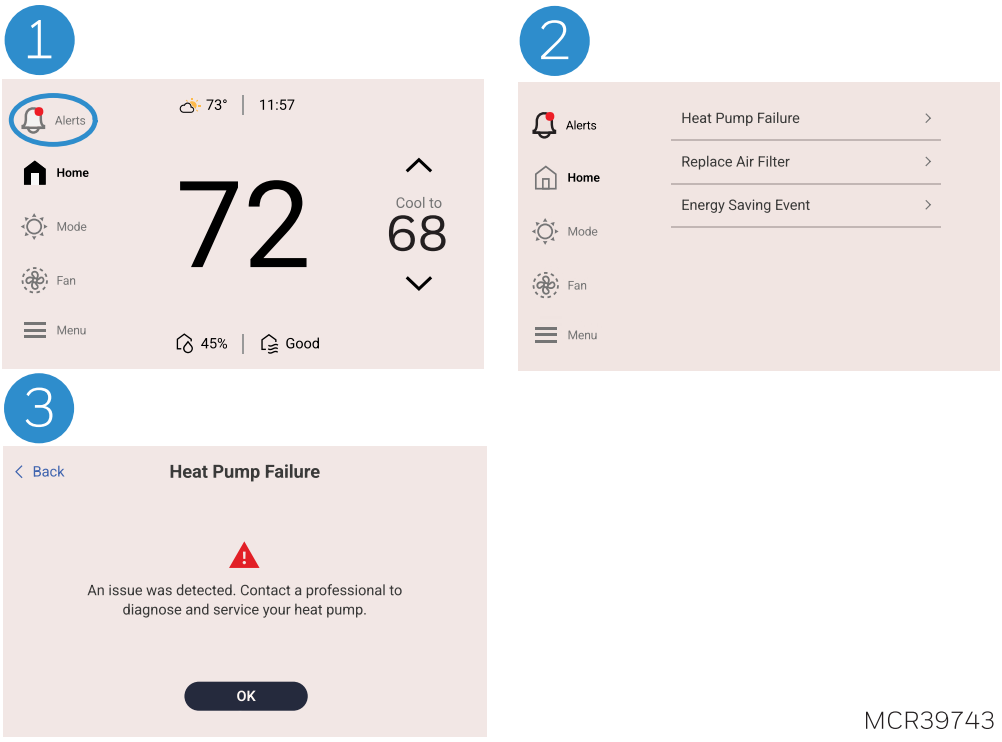
> **NOTE:**
> On certain models, additional fan speed options may appear—such as High and Low, or High, Medium, and Low—depending on your system type.

Programming the Fan

You can set the fan to On, Auto, or Circ for each program when using time-based scheduling.

Alerts and Reminders

1. The Alerts icon will appear in the upper left of the active home screen when there is an active alert or notification. Touch the **ALERTS** icon to view active Alerts & Reminders.
2. Touch the alert or reminder heading to see more information about the alert.
3. Acknowledge the alert or reminder. Reminders will allow you to reset the timer. Less critical Alerts and notifications may allow options to snooze or dismiss.



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IAQ Reminders

You can set up IAQ reminders in the thermostat to remind users when filters, pads, bulbs, etc. need cleaning or replacement. The available reminders vary based on the ISU settings. For example, if the thermostat is configured to control a flow through humidifier, it will have the humidifier pad reminder but not the humidifier tank reminder:

- Air Filter 1
- Air Filter 2
- Electronic Air Cleaner Pre-Filter
- Electronic Air Cleaner Post-Filter
- Humidifier Tank/Water Filter
- Humidifier Pad
- Dehumidifier Filter
- Ventilator Core
- Ventilator Filter
- UV Bulb 1
- UV Bulb 2

Reminders that are displayed under preferences will change based on the IAQ equipment installed. Reminders for equipment that is already set up can be set using the steps below. Reminders for IAQ equipment that is not yet set up must be turned on from the Installer setup.

> **NOTE:**
> Air Filter, Humidifier Pad, Dehumidifier Filter, and Ventilator Filter are displayed under **Preferences > Reminder Settings** even if they have not been set up. Humidifier Pad is not displayed if a steam humidifier has been installed.

To access or adjust the reminder settings

- Select the **Menu** icon.
- Scroll to and select **Preferences > Reminder Settings**.
- Select the reminder you want to set from the list (shown above).
- Touch ▲ or ▼ to set timer length. Ranges, increments and units will change based on the reminder.
- Touch **Save** to save the reminder.
- Touch **Reset Timer** when you have completed the recommended maintenance or you can extend the timer setting to turn off the alert and remind you later to do the recommended maintenance.
- Repeat these steps for all reminders you want to set

> **NOTE:**
> When set for run time days, the thermostat tracks the amount of time the fan has run and compares that time against the number of run time days selected. Fan run time is counted when there is a call for forced air heating, cooling, or fan.

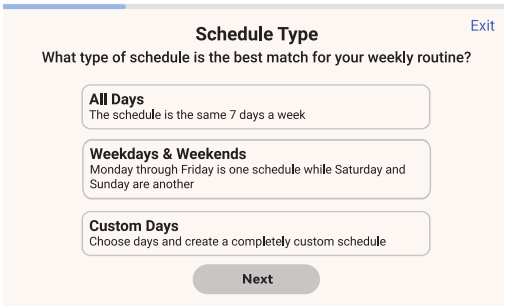
Scheduling and Auto-Away

Setting a Schedule On the Thermostat

Touch the **Menu** icon at the bottom of the home screen display. Then touch **Schedule**.

Residential

- The schedule menu lets you group days or set days individually.
- After choosing the schedule type, Touch the period you wish to edit (Wake, Away, Home or Sleep)



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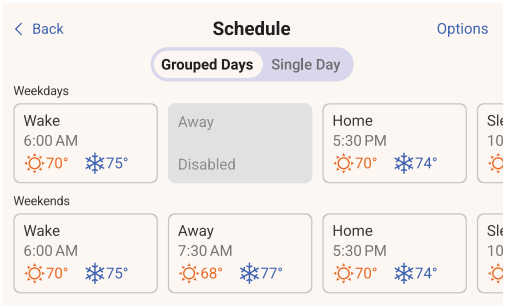

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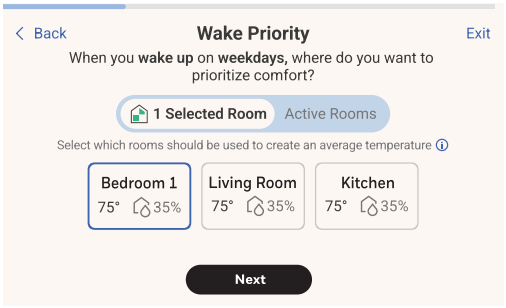
- Touch **Time** to edit the time for that schedule period.
- Touch **Priority** to select which sensors will be used for that period. (S900 does not have this setting)
- Touch **Temperature** to set the Heat and Cool setpoints for that period.
- Touch **Fan** to select Fan On, Auto, or Circulate for that period



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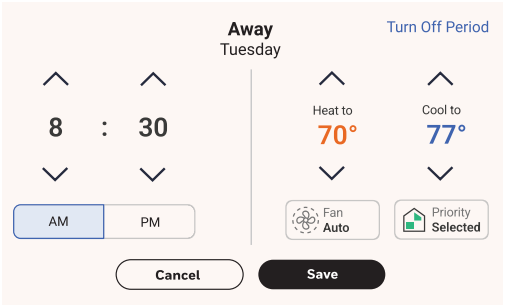
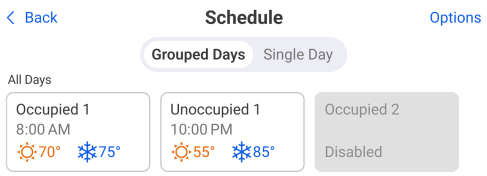


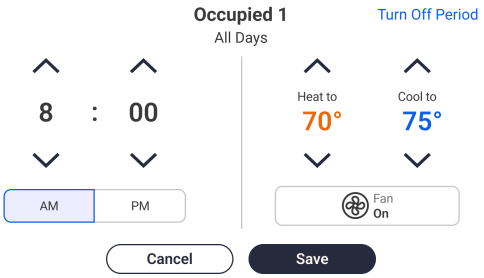
MCR39735

Commercial

- The schedule menu lets you group days or set days individually.
- After choosing the schedule type, Touch the period you wish to edit (Occupied or Unoccupied)



- Touch Time to edit the time for that schedule period.
- Touch Temperature to set the Heat and Cool setpoints for that period.



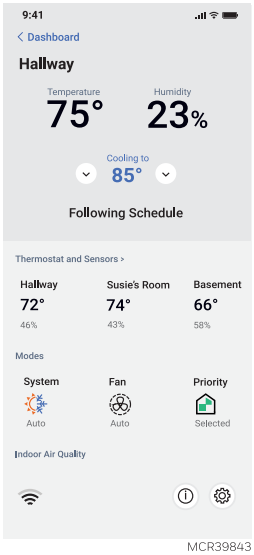
> **NOTE:**
> When set for commercial, the thermostat runs the fan continuously throughout the occupied schedule period.

Scheduling Through the App and Auto-Away (App images are subject to change)

Flexible scheduling: You can choose to use location-based temperature control (Auto-Away / geofence technology), time-based scheduling, or use a combination of both to make sure your home is always comfortable.

- **Location-based temperature control:** Using Auto-Away/Geofencing technology, the thermostat will automatically use your smartphone's location, which can save energy when you leave and make your home comfortable by the time you return.
- **Smart scheduling:** Adds a Sleep period to location-based temperature control.
- **Time-based scheduling:** You can program a schedule where every day is different, a schedule where weekdays and weekends are different, or a schedule where every day is the same. There are four adjustable periods per day: Wake, Away, Home, and Sleep.
- **No schedule:** You can also choose not to set a schedule and adjust the thermostat manually.
- **Sensor Priority:** Select which sensors are used for each program period or when used manually.

1. In the First Alert App, select the thermostat you wish to schedule. Touch the **Calendar** icon in the lower right of the display.
2. Select **Grouped Days** for all days the same or **Single day** if you want some days to be scheduled different than others.



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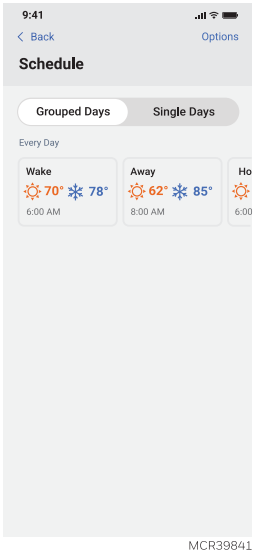
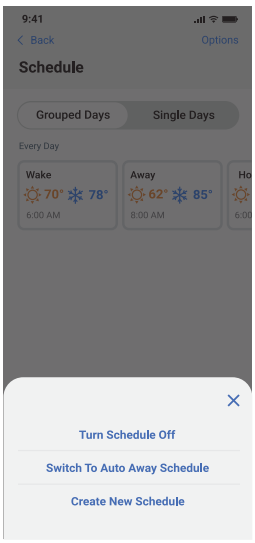


MCR39841

3. Select **Options** to turn schedule off, create a new time-based schedule, or switch to Auto-Away/Geofencing.
4. Set priority sensor(s) for each program :



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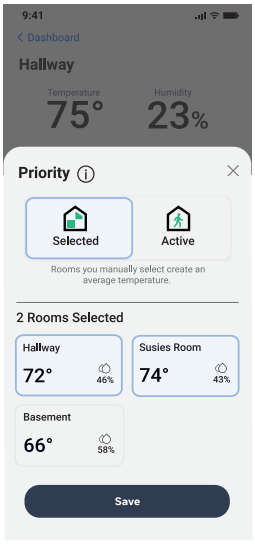


MCR39844

Location-Based Scheduling

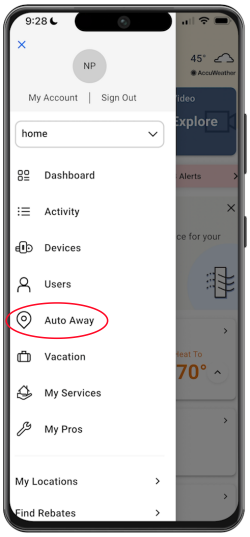
When location-based temperature control is used, the thermostat active home screen display will show **Using Home settings**, **Using Away settings**, or **Using Sleep settings** below the room temperature.

If you manually change the temperature when location-based temperature control is active, the new temperature will remain in effect until you cross the geofence.

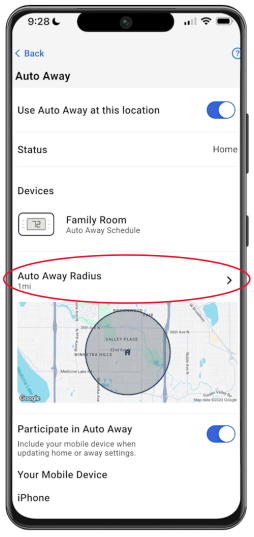
> **NOTE:**
> To utilize Auto-Away (Geofencing), set the schedule through the app.

Auto-Away Scheduling

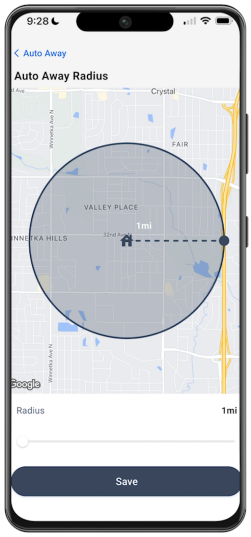
1. Select Auto Away.



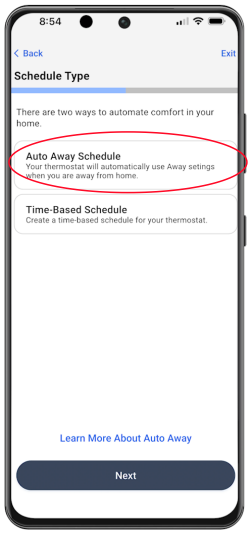
2. Set Auto Away Radius.



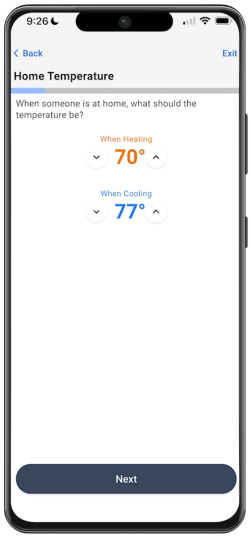
3. Drag edge of radius to expand.
This determines how far away from the home all occupants phones should be to trigger away settings.



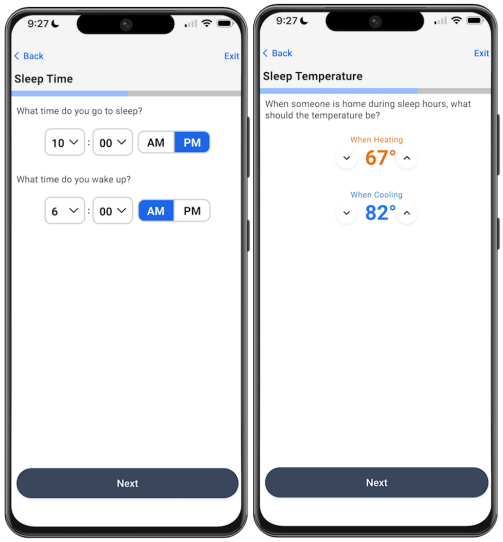
4. Set Auto Away Schedule.



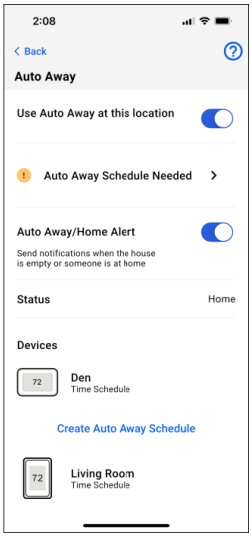
5. Set Home and Away Settings.

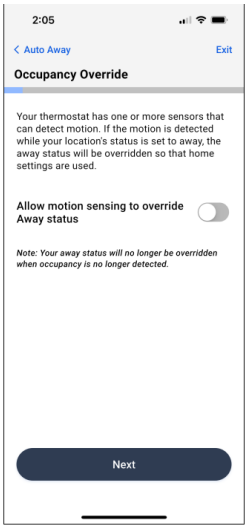


6. Set the Sleep Period Time and Temperatures.



When the thermostat is set for auto away, the user can enable motion sensing to override the away status for thermostats that have an onboard radar sensor and/or are used with wireless indoor sensors. See below.





Schedule Override on Device

With thermostat in **Heat**, **Cool**, **Auto**, or **Em Heat** mode, touch the up or down arrow to change the set-point. If thermostat is in **Auto** mode, select either the **Heat** or **Cool** set-point you wish to adjust.

If scheduling is enabled, you'll see **Hold until [time]** at the bottom of the screen — touch this option.

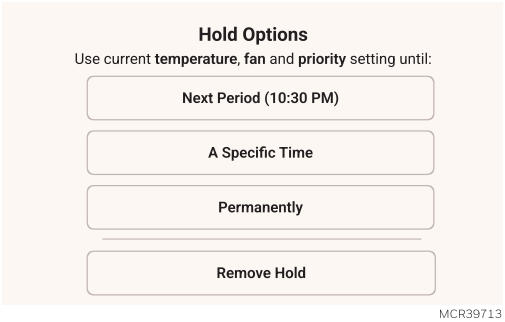
The display will show: ***"Use current temperature, fan, and comfort priority settings until..."***

Options are:

- Next Period
- A Specific Time
- Permanently
- Remove hold

Choose the appropriate option. If you chose **A Specific time**, select the time you want to hold to.

Touch **Save** to return to Home screen.



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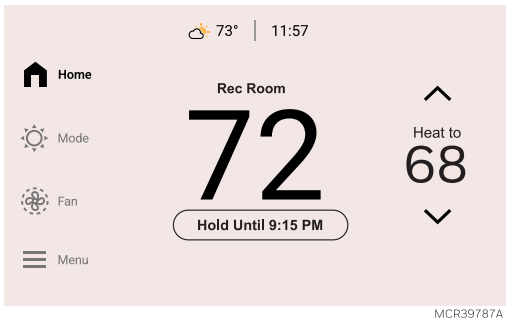

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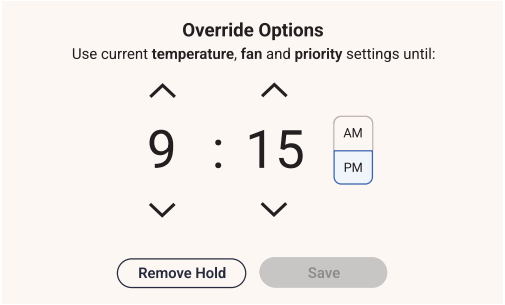

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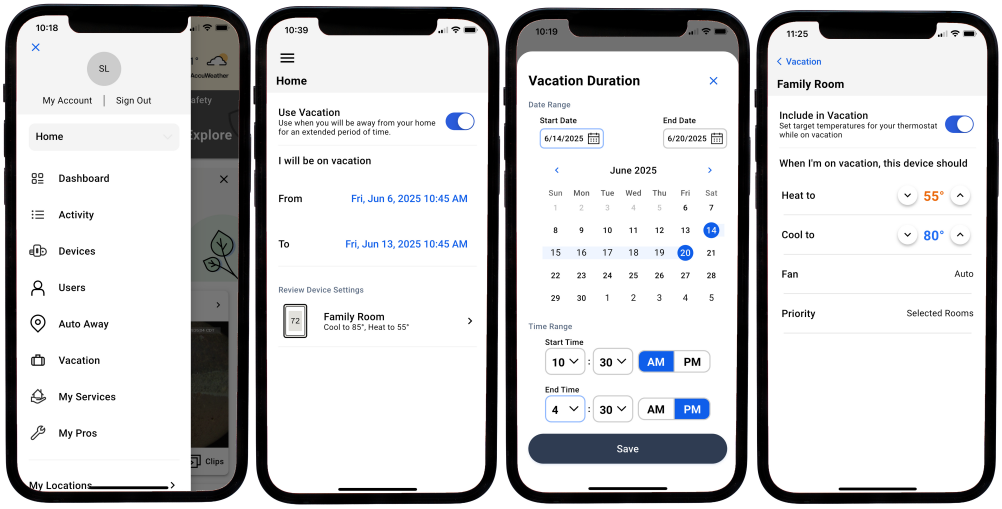
Vacation Hold

Set a vacation hold time on the First Alert app and the home thermostat(s) will save you money while on vacation.



Fan Scheduling

If scheduling is used, there is a fan setting associated with each schedule period.

Example: the Sleep schedule period may be set to fan auto. If you change the fan setting from the home screen during an earlier period, the setting will go back to auto at the sleep schedule period.

If you want to change the fan setting and have the new setting be permanent, then make the change to the fan setting in the schedule settings for each period rather than from the home screen.

Main Menu

From Home Screen, touch the **Menu** at bottom left of the display. (If this is not shown at home screen, touch screen to wake display first).

Main Menu Options

WiFi

See "WiFi Setup and Troubleshooting" on page 121 for more information

Schedule

- Create new schedule – (Set a time-based schedule).
- Turn Off Schedule.

> **NOTE:**
> To enable Auto-Away / Geofencing, use the First Alert App.

See "Scheduling and Auto-Away" on page 127 for more information.

Connect App

See "Using the First Alert App" on page 159 for more information.

Screen Lock

See "Screen Lock setting" on page 160 for more information.

Preferences

Preference menu options let you select how the thermostat displays information or responds to certain situations.

To access the Preferences menu:

- Touch **Menu**.
- Scroll to and select **Preferences**.
- Select an option and follow prompts.
- After any changes, touch **Save** to save your settings.

Preferences Options

- Date & Time
- Display
- Reminder settings
- Adaptive Recovery
- Fallback Room (if wireless sensors are used)
- Temperature Limits
- Freeze Protection
- Audio (when using Doorbell Integration)

Display Settings

- Idle Screen (See "Idle Screen" on page 144)
  - Choose Idle Screen color and Style
- Idle Screen Behavior (S900 doesn't have an onboard radar sensor and will not show this)
  - Transition on detection
  - Transition on Tap
- Temperature Units
  - Farenheit
  - Celsius
- Language
  - English
  - Francais
  - Español
- Feels Like Temperature (Takes humidity in account to optimize comfort. See "Feels like Temperature" on page 162)
  - On
  - Off
- App Change Behavior (Light up when temperature change is made by app)
  - On
  - Off
- Indoor Display Offsets
  - Temperature -3°F to 3°F or -1.5°C to 1.5°C
  - Humidity 12% RH to 12% RH
- Clean Screen
  - Timer where display will not change settings when being cleaned.

Reminder Settings (Settings shown vary based on Setup settings)

- Air Filter 1
- Air Filter 2
- Electronic Air Cleaner Pre-Filter
- Electronic Air Cleaner Post-Filter
- Humidifier Tank/Water Filter
- Humidifier Pad
- Dehumidifier Filter
- Ventilator Core
- Ventilator Filter
- UV Bulb 1
- UV Bulb 2

Adaptive Recovery

- On
- Off

Fallback room

- Thermostat
- The name of each wireless sensor used is shown below thermostat

Air Quality

See "Indoor Air Quality Control and Monitoring" on page 147 for more information

Devices and Sensors (S900 doesn't have this setting)

- Add a wireless indoor or outdoor sensor.
- Identify a wireless indoor or outdoor sensor.
- Thermostat:
  - Model
  - Temperature & humidity readings
  - Motion detected status
  - WiFi network
  - MAC ID
  - IPV54 address
  - Change room name
- Equipment Interface Module:
  - Firmware version
  - Wireless signal strength
- Indoor Air Sensor:
  - Firmware version
  - Battery strength
  - Wireless signal strength
  - Temperature and Humidity readings
  - Options:
    - Rename sensor (select Room name).
    - Use motion (Allows you to choose not to allow motion to be used from a one or more sensors when "active rooms" is selected in the priority menu.
    - Motion Sensitivity (HIGH = Triggered when very little motion is detected, MEDIUM = triggered when a moderate amount of motion is detected, LOW = triggered only when a lot of motion is detected).
    - Delete (Removes that sensor from the thermostat).
    - Blink lights (Will make the light on the indoor sensor you selected blink to help identify which sensor is matched with each name in the sensor menu.)

- Outdoor Air Sensor:
  - Firmware version
  - Battery strength
  - Wireless signal strength
  - Temperature and Humidity readings
  - Delete (this option is only shown in the "Devices & Sensors" menu when accessed via "Installer Options" menu).

Thermostat Information

- MAC Address
- IP Address
- Date Code
- Firmware Version
- Model Number
- Build Date

Equipment Status

- System mode
- Heat stages (on or off)
- Cool stages (on or off)
- Fan on or off (May show fan speed on some systems)
- IAQ (Hum, Dehum, or Vent) on or off
- Equipment status can also provide details for why equipment is running or off. Example, fan may be running due to the fan setting, or temperature balancing, or a dry contact alert, etc.

Matter

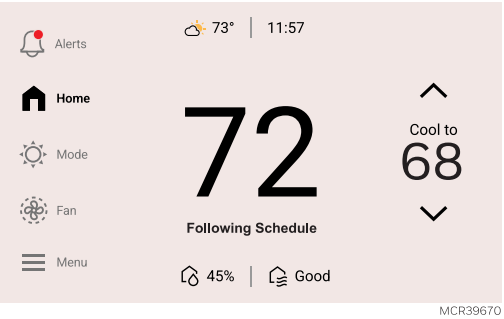
See "Matter Setup" on page 5 for more information

Installer Options

See "Installer Options" on page 139 for more information

Notifications

Only displayed when there are active alerts/notifications. Touch **Alerts** to see details.



Priority

If wireless indoor temperature/humidity/motion sensors are used, select which sensors are used for temperature control. Choose **ACTIVE ROOMS** (Rooms with sensors detecting motion) or **SELECTED ROOMS** (Manually select which sensors to use).

Weather

Shown if connected to WiFi and the app, & ISU 1060 = Internet, displays weather forecast for up to 10 hours in 2 hour increments.

Temperatures

Shown if configured for a floor/slab sensor in ISU 1055. Shows the temperature reading and settings for Floor sensor.

Humidification

- View current indoor humidity level & setting.
- View humidifier status (humidifying, idle, off).
- Change humidity setting.
- Options turn on or off humidifier control, change window protection setting.

Dehumidification

- View current indoor Dehumidity level & setting.
- View dehumidifier status (dehumidifying, idle, off).
- Change Dehumidity setting.
- Options turn on or off dehumidifier control, adjust high speed fan priority setting.

Ventilation

- View or change mode (Auto or Off).
- Timed ventilation 180 minutes max.
- Options lockout settings for Sleep, High Outdoor Temperature, Low Outdoor Temperature, High Outdoor Dew Point

If ISU 10005 = VNT5070E1000, VNT5200E1000, VNT5150E2000, VNT5150H2000, VNT5200E2000 or VNT5200H2000, the ventilation menu will show the CFM and wattage of the ventilator while ventilator is running if a ventilator model starting with VNT was selected during setup.

Temperature balancing (Shown if ISU 3310 is enabled)

- Auto or Off.

When set to auto, you can adjust the Room delta setting from **..**5°F to 10°F in .5°F increments (.25°C to 5°C in .25°C increments). This will allow the ElitePRO™ Series Thermostat to run the fan if the temperature between sensors selected under **Options** in the **Temperature balancing** menu.

Dehumidification Away Mode

If ISU 9180 is set for dehumidification away mode, then this menu displays the dehumidification Away mode status and settings.

My Pro

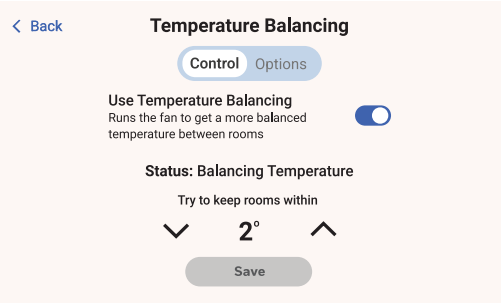
- Logo (If Pro linked their logo to Pro IQ Services)
- Company Name
- Phone Number
- Email
- Dealer Message
- Device Model Number
- Device Date Code

Temperature balancing

If at least one wireless sensor is used, and ISU 3300 is enabled, the temperature balancing feature will run the system fan if the selected rooms have a temperature variation that exceeds the delta setting in ISU 3310.

When this feature is enabled you can select “Temperature balancing” under menu and select auto or off. When auto is selected you can:

- Adjust the Room Delta setting (number of degrees difference between the selected sensors required to energize the system fan)
- Open the options menu and select the sensors used or disable this feature during the sleep period.



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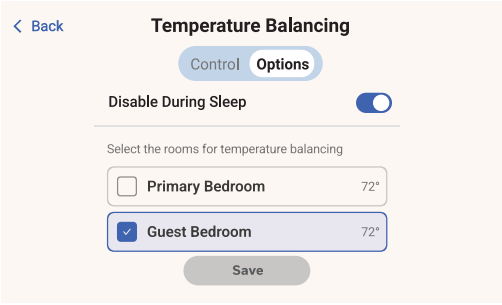

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Installer Options

To access the Installer options menu:

1. Touch the **Menu** icon on the bottom left of display
2. Select **Thermostat Information**.
3. Write down the date code from that screen. Then touch the left arrow at top of display to go to previous screen.
4. Under menu select **Installer Options** and enter date code.

Installer Options Menu

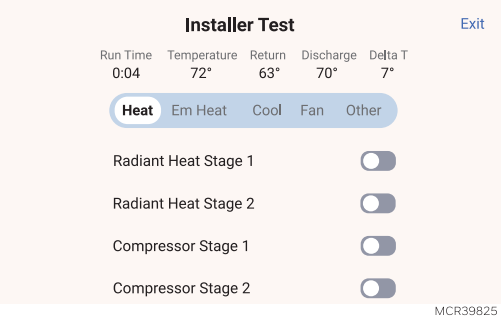
Installer Setup

Setup thermostat. See "Installer Setup Options (ISU)" on page 70.

Installer Test

While running equipment in test mode a timer indicates the run time during the test. Equipment automatically shuts off after 30 minutes if the installer does not end a test before that time.

- **Heat:** Select Heat stage(s) to test
- **Em heat:** Test Emergency Heat. (For heat pumps with backup heat only)
- **Cool:** Select Cool stage(s) to test
- **Fan:** Turn fan on or off. If multiple fan speeds, test each speed.
- **Other**
  - Test humidifier
  - Test Dehumidifier
  - Test Ventilator



If discharge and return sensors (RATS & DATS) are used with ElitePRO™ Series Thermostats and EIM, the display shows these readings and the delta during installer test.

Devices & Sensors

See "Devices and Sensors (S900 doesn't have this setting)" on page 135.

Thermostat Information:

See "Thermostat Information" on page 136.

Equipment Interface Module:

- Firmware version
- Wireless signal strength

Indoor Air Sensor:

- Firmware version
- Battery strength
- Wireless signal strength
- Temperature and Humidity readings
- ***Options***:
  - **Rename sensor** (select Room name)
  - **Use Motion** (Offers the option of **not using** motion sensing from one or more sensors when Active Rooms is selected in the priority menu.)
  - **Motion Sensitivity** (HIGH = Triggered when very little motion is detected, MEDIUM = triggered when a moderate amount of motion is detected, LOW = triggered only when a lot of motion is detected).
  - **Delete** (Removes that sensor from the thermostat).
  - **Blink lights** (Will make the light on the indoor sensor you selected blink to help identify which sensor is matched with each name in the sensor menu.)

Outdoor Air Sensor:

- Firmware version
- Battery strength
- Wireless signal strength
- Temperature and Humidity readings
- Delete (option only shown in the "Devices & Sensors" menu when accessed via "Installer options" menu).

Reset

- Reset Schedule
- Delete all Devices (Redlink Accessories)
- Reset Matter
- Reset WiFi (removes thermostat from network)
- Factory Reset (this returns the thermostat to the state it was in prior to installation)

Getting the Most from the ElitePRO™ Series Thermostats

Multiple programming options that fit your lifestyle:

1. **Location-Based scheduling (Auto Away)**– The thermostat uses your smartphone's location to know when you're away, and saves you energy. Through geofence technology, it senses your return and helps make you comfortable upon arrival. You can always manually change your preset Home and Away temperature either on the thermostat or on the First Alert app.
2. **Smart scheduling** – Use a combination of geofencing and time scheduling to fit your busy, active lifestyle.
3. **Time-Based scheduling** – Program your thermostat for one week; each day (each day is a different schedule); Mon-Fri, Sat, Sun; or Mon-Fri, Sat-Sun. All days with four adjustable periods per day.

Smart Alerts. Push notifications remind you of filter changes and warn you of extreme indoor temperatures.

Adaptive Recovery. Learns your heating and cooling system to deliver the optimal temperature at the right time.

Auto Change From Heat to Cool. Automatically determine if your home needs heating or cooling to provide maximum comfort.

Highlights

Wireless indoor sensors

Use wireless indoor sensors with S1000, S1100, or S1200 thermostats. Sensors detect temperature, humidity, and PIR. Up to 20 sensors with a 200 foot range.

Prioritize rooms when using wireless indoor sensors (S1000, S1100, or S1200 models)

Prioritize a specific room or multiple rooms, or let comfort follow your move using built-in motion detection.

Control on the Go

Adjust your thermostat from anywhere using your tablet or smart phone.

Save Energy

With Auto Away, you can save money on the most expensive part of your energy bill while you're away.

Simple Installation

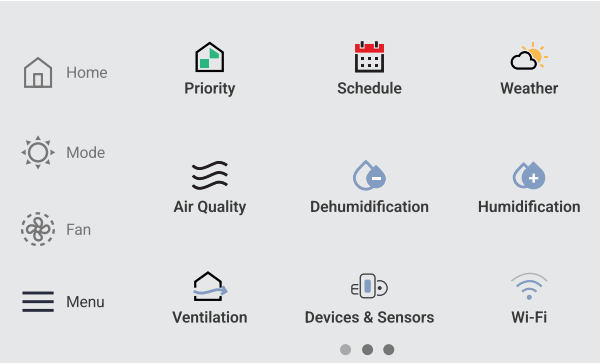
The thermostat automatically programs itself. Just answer a few simple questions and you'll be up and running in no time.

Know Your Home Is Safe

Get customizable alerts on your mobile device when the basement is so cold a pipe could burst, or if the baby's room is getting too hot.

Matter Setup

1. Touch **Menu** icon at the bottom left of the home screen.



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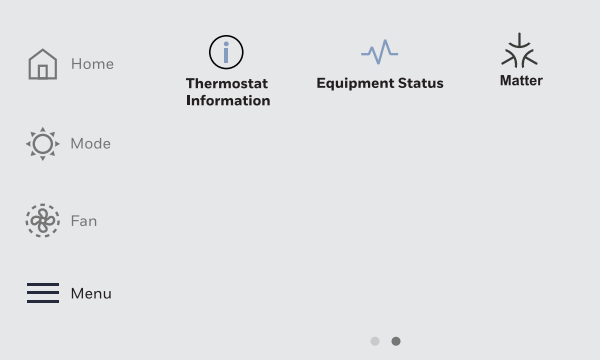
2. Scroll to and select **Matter**.



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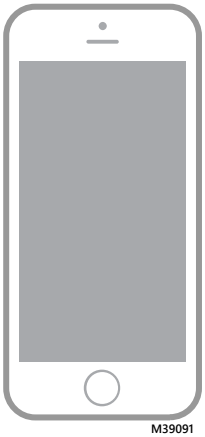
3. Use the smart phone connect to Matter enabled devices by scanning the QR code shown on your thermostat.
4. Follow the instructions on your phone.



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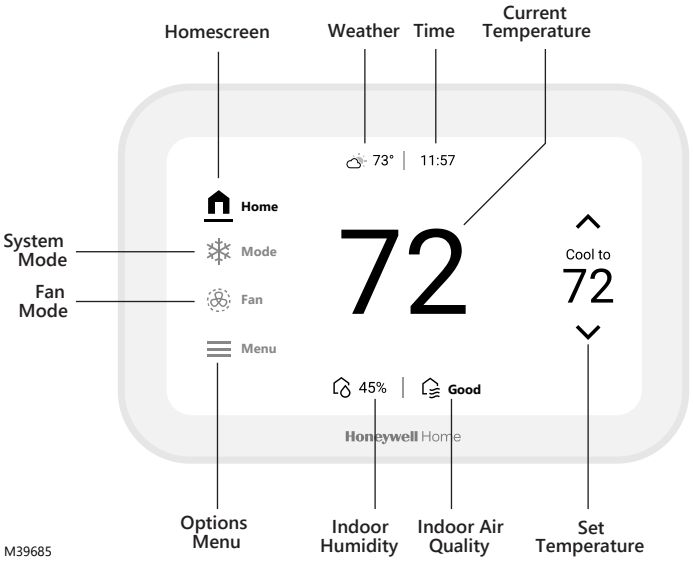
Using Your Thermostat

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

> **NOTE:**
> "Indoor Air Quality Control and Monitoring" on page 147 may not be shown.



Using Priority (S1000, S1100, or S1200 with wireless sensors)

When wireless indoor sensors are used, the Priority setting creates an average temperature in your home based on specific rooms. This allows you to prioritize comfort where you want it. To access Priority, touch **Menu** > **Priority**. There are two options to choose from: Selected Rooms and Active Rooms.

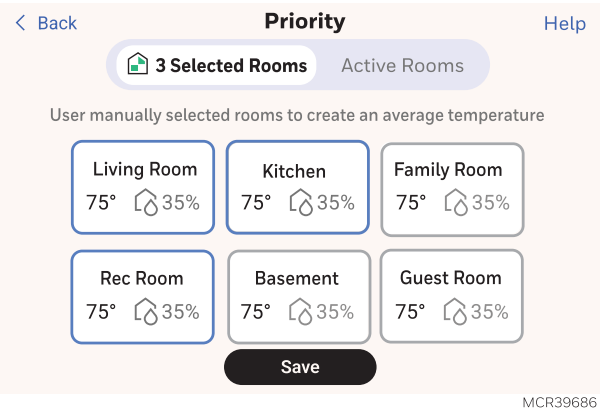
Selecting Sensors

The temperature reading displayed on the home screen is from the sensor or sensors that are being used for temperature control. You can change which sensors are being used for control by selecting menu-priority. From the home screen, touch **Menu** icon at the bottom left of the display and select **Priority**.

Priority Screen

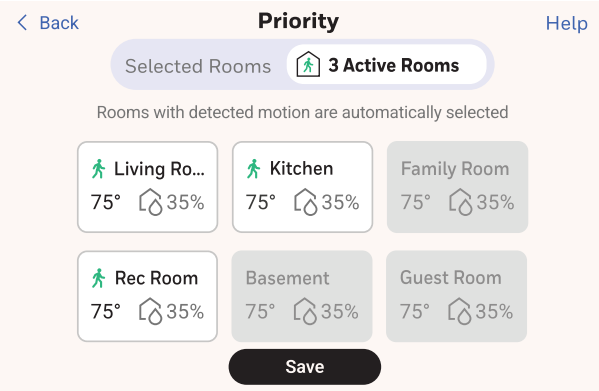
Selected Rooms

When set to “Selected rooms” you may select one or more rooms to read the wireless indoor sensor information from. When multiple sensors are selected, the temperature is averaged.



Active Rooms

When set to “Active rooms” the thermostat controls temperature based on the reading from the thermostat and/or indoor sensors that detect motion.



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IAQ Reminders

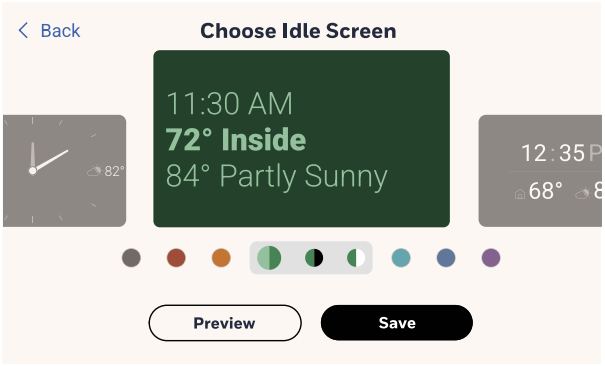
You can set up IAQ reminders in the thermostat to remind users when filters, pads, bulbs, etc. need cleaning or replacement. The available reminders vary based on the ISU settings. For example, if the thermostat is configured to control a flow through humidifier, it will have the humidifier pad reminder but not the humidifier tank reminder.

See "IAQ Reminders" on page 125 for more information.

Idle Screen

The ElitePRO™ Series Thermostat allows you to select the screen color and appearance. Select **Menu > Preferences > Display > Idle Screen**.

Some of the Idle Screen options are as follows:



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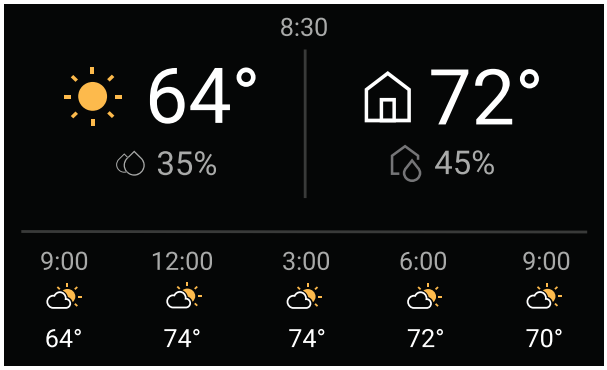

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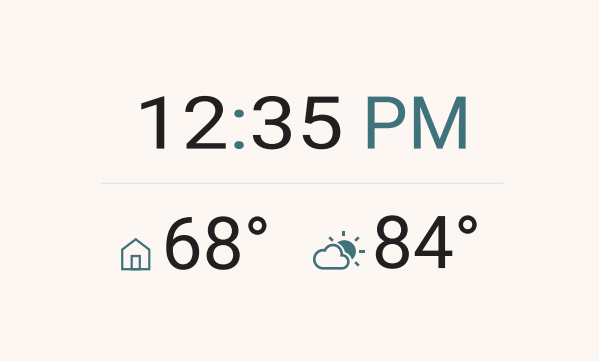

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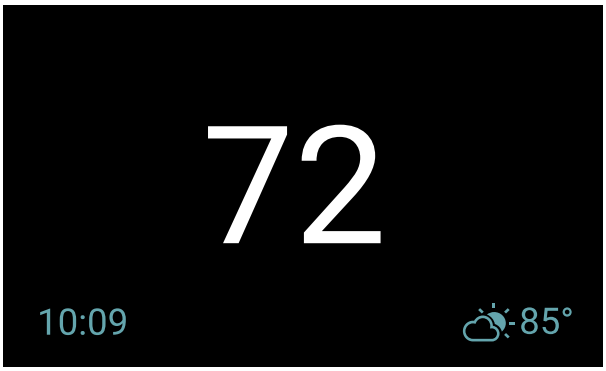

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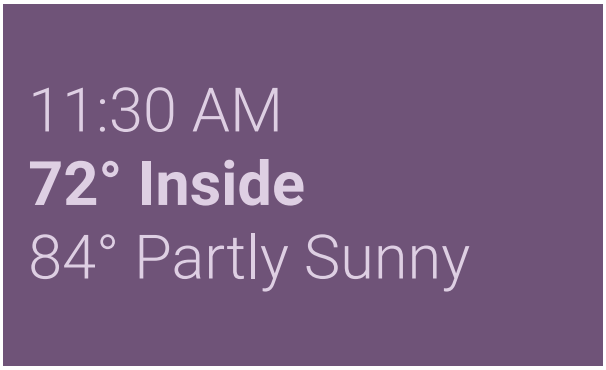

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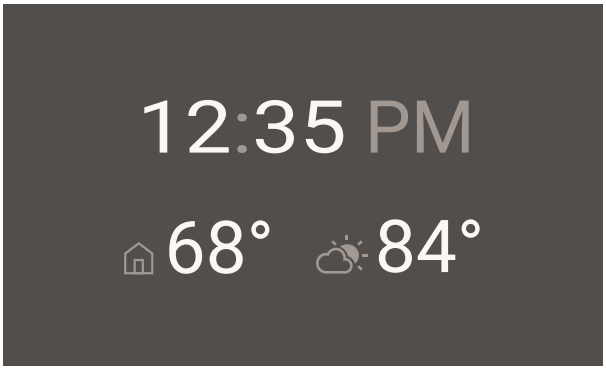

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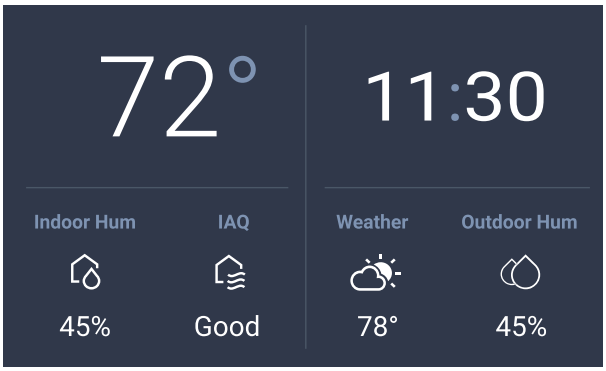

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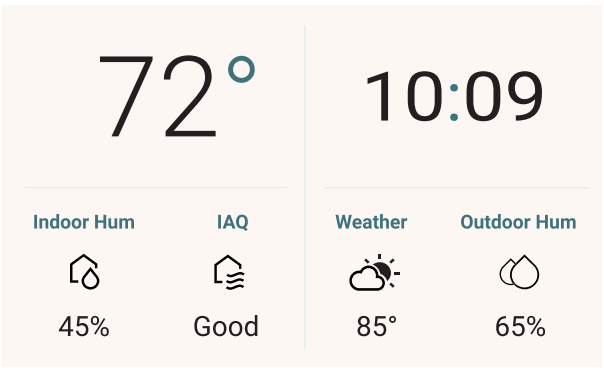

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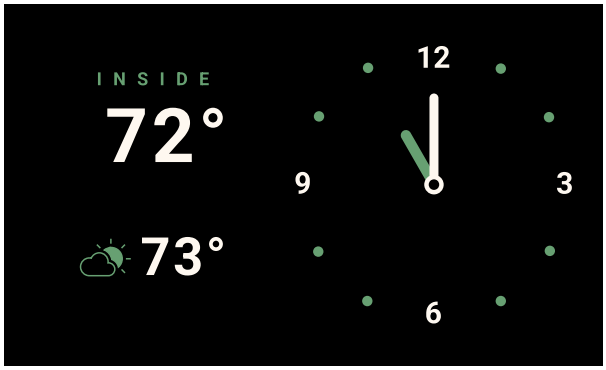

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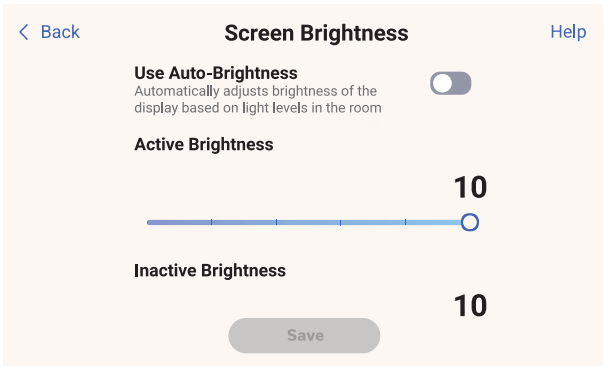
Screen Brightness

There are two settings that can be used by customers who do not want the thermostat display to illuminate a dark room at night: "Auto Brightness" and "Active Brightness".



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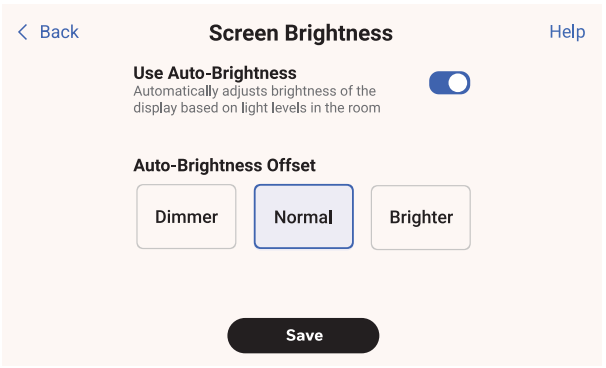


MCR39824

Fallback Room (S1000, S1100, or S1200 with wireless sensors)

Under the preferences menu you can select which Room(s) are used if either:

- The thermostat is set for active rooms and none of the sensors detect activity.
- The selected sensors (active rooms or selected rooms) lose communication to thermostat (sensor failure, dead batteries, etc.)

If the fallback sensor is also not communicating, the thermostat sensor will be used unless the installer had selected “**NEVER USE THERMOSTAT**”.

If you select **Fallback Room** then **Options**, you can select **Never use thermostat**. This would be done if the thermostat was mounted in a utility room or other location that is not sensing the space temperature in an area it is controlling.

Indoor Air Quality Control and Monitoring

Humidification

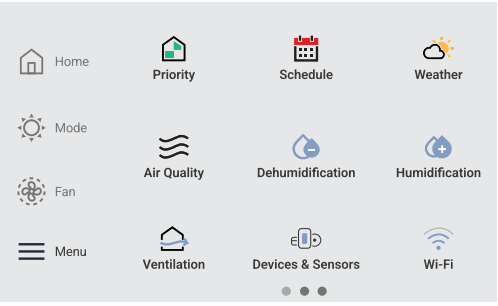
The thermostat reads the indoor humidity level and allows the user to set a humidification setting with or without window protection. The humidifier settings are shown in the ISU chart from ISU 8000 to ISU 8100.

Set up Humidification

1. Select the Humidifier Type at ISU 8000. Based on the humidifier type you select, the thermostat defaults to the most commonly used settings for that humidifier type. For example, a Bypass or Fan Powered humidifier will default ISU 8070 to “Humidify Only when Heat is On”.
   A Steam humidifier will default ISU 8070 to “Humidify on Demand; Thermostat Controls Fan".
2. Set Window Protection setting (ISU 8050).
   Outdoor sensor temperature (Sensor or Internet weather) is required for Window Protection (ISU 1060).
3. Select the system mode(s) to allow humidification (ISU 8060). Options are Heat and off. Heat includes Heat, Emergency Heat and Auto. If the system is in Auto mode, the thermostat will allow humidification if the last call was for heat. If a discharge air sensor is used, there will also be an option to humidify in cool mode. The discharge sensor monitors the air temperature to ensure that the air in the duct is warm enough to not cause condensation when humidifying. Humidifying in cool mode might be desired in certain hot dry climates.
4. Select from one of the Humidification Control Options (ISU 8070).
   - Hum when Heat is On
     - The thermostat turns on the humidifier only if the heat is currently running and humidification is needed.
   - Hum when Fan is On
     - The thermostat turns on the humidifier only if the fan is currently running and humidification is needed.
   - Tstat Controls Fan
     - The thermostat turns on the humidifier and the fan when humidification is needed.
   - Hum Controls Fan
     - The thermostat turns on the humidifier when humidification is needed and the humidifier controls the fan.

Control Humidification Level (If thermostat has been wired and setup to control a humidifier)

1. Touch **MENU** and select **Humidification**.



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Use the slider bar to select the desired humidity level. Typically this will be a setting between 35 to 55% RH.

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2. Touch **Save** to save your settings.
3. If frost or condensation appears on the windows due to too much humidity, enable **Window Protection** and adjust the level.

Window Protection

Window Protection limits the amount of humidity to prevent frost or condensation on windows. To use Window protection, the ElitePRO™ Series Thermostat must know outdoor temperature from an outdoor sensor or the First Alert App.

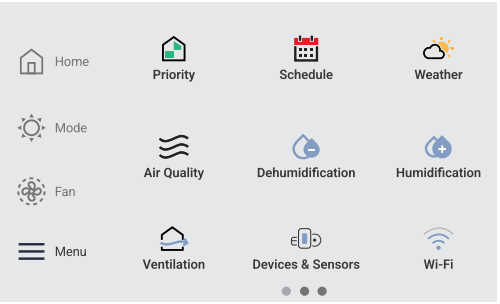
The thermostat prevents frost or condensation on windows by not allowing the humidifier to run above a certain level. To prevent frost or condensation, the thermostat may turn off the humidifier before the humidity setting is reached.

You can adjust the Window Protection setting by touching **MENU**, then select **Humidification** > **Options** > **Window Protection Level**. Window Protection is set on a scale from 1-10. A setting of 10 represents poorly insulated windows and a setting of 1 represents well insulated windows. A higher number automatically reduces the humidity to help prevent frost or condensation on your windows. Use a lower number if indoor air seems too dry. To prevent frost/condensation on your windows during cold outdoor temperatures, poorly insulated windows require a higher Window Protection setting, which will limit how much your humidifier can run. After you set the Window Protection setting, check for frost/condensation on your windows in the morning. If frost/condensation is present, adjust the Window Protection setting to the next higher number and check for frost/condensation on your windows the next morning.

Continue to adjust the Window Protection setting to a higher number until frost/condensation is no longer present. If Window Protection is turned Off, the thermostat controls the humidity level to the user's desired humidity setting. Frost or condensation may appear on windows.

Dehumidification: Residential

The thermostat reads the indoor humidity level and allows the user to set a dehumidification setting. The thermostat controls the humidity level using the cooling system or a whole house dehumidifier.



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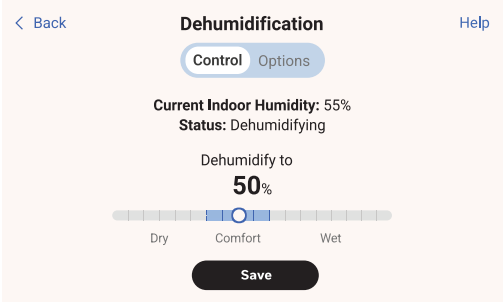

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Dehumidification Using the Cooling System

When set for **A/C with Low Speed Fan**, **A/C with High Speed Fan** or **Reheat**, an over-cooling limit can be set from 0 °F to 3 °F (ISU 9070). The thermostat uses the cooling system to reduce humidity by lowering the temperature as much as 3 °F below the current cool set point until the desired humidity level is reached.

If set for **A/C with Low Speed Fan**, configure the U or L contacts as **Normally Open** or **Normally Closed** (ISU 9050) and wire to the Low Speed Fan terminal on the equipment. For example, if the U or L contacts are normally closed, they will open when the thermostat calls for dehumidification.

If humidification and dehumidification are both set up to operate in the system mode (Off), the thermostat will automatically enforce a 15% deadband between the humidification and dehumidification settings. The thermostat will automatically switch between humidification and dehumidification to maintain the desired humidity level.

Dehumidification Overcooling Limit (ISU 9070):

This option uses the cooling system to lower the temperature up to 3° F below the current cool set point until the desired humidity is reached. The Dehum Over-Cooling Limit range is from 0° to 3° F if set for low-speed fan and 1° to 3° F if set for high-speed fan.

Set up Dehumidification With Cooling System

Some screens shown in this section may not appear on the thermostat, depending on how you set up dehumidification.

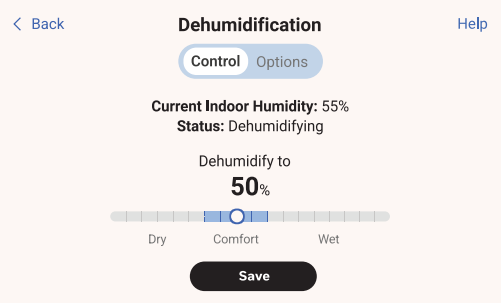
1. Select the **Dehumidification Equipment** in ISU 9000.
2. Select which terminals the dehumidifier equipment is wired to in ISU 9040.
3. Select whether the U or L terminals are Normally Open or Normally Closed (ISU 9050).
   - Normally Open – contacts are normally open and will close during a call for dehumidification
   - Normally Closed – contacts are normally closed and will open during a call for dehumidification.
4. Set the Over-cooling Limit (ISU 9070).
   Options:
   - 0 °F to 3 °F (A/C with Low Speed Fan)
   - 1 °F to 3 °F (A/C with High Speed Fan)

Dehumidification Fan Speed Priority (See ISU 9005)

If the house has circulation issues to certain parts of the house when running in low speed, this feature will allow the thermostat to use the high speed fan more often so that the conditioned air has better circulation within the home.

- **Low Speed Fan with Cool Stage 1 Only** when the thermostat is set to humidify with low speed fan, and humidity is high, and cooling is running at stage 1, always run with the low speed fan. When cooling goes to stage 2, it ramps up to high speed fan.
- **Low Speed Fan Always** Regardless of which cooling stage is active, the thermostat will exclusively use the low speed fan when dehumidifying.
- **User Selectable** The homeowner can set the high speed fan priority based on their comfort level (reachable via **Menu** > **Dehumidification** > **Options** > **High speed fan**) If set to 10, the thermostat will always use the high speed fan and never switch into low speed mode operation. If set to 0, the thermostat will only use the low speed fan and never switch to the high speed fan when the humidity level is above the Dehumidification

setting.



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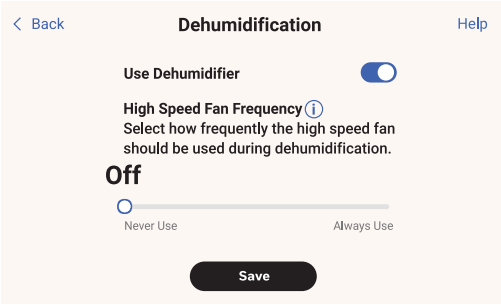

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Dehumidification Using a Whole House Dehumidifier

The Whole House Dehumidifier option requires a dedicated unit for dehumidification. The thermostat can be set to control dehumidification in all modes (Heat, Off, Cool [ISU 9120]). **Set up Dehumidification With Whole House Dehumidifier** (Some screens shown in this section may not appear on the thermostat, depending on how you set up dehumidification.)

1. Select the Dehumidification Equipment in ISU 9000.
2. Select the system mode(s) to allow dehumidification ISU 9120.

> **NOTE:**
> Heat includes Heat, Emergency Heat and Auto. If the system is in Auto mode, the thermostat will allow dehumidification if the last call was for heat. Cool includes Cool and Auto. If the system is in Auto mode, the thermostat will allow dehumidification if the last call was for cool.

3. Set Dehumidifier Fan Control settings ISU 9130.
   - **Tstat Controls Fan** Thermostat turns on the dehumidifier and the fan when dehumidification is needed.
   - **Equip Controls Fan** Thermostat turns on the dehumidifier when dehumidification is needed. The fan is controlled by the equipment.
4. Set the desired lockout option.

Dehumidification Away Mode

See ISU settings 9180-9200.

If configured for dehumidification away mode by the installing pro, your system can be set to control indoor climate while your home is vacant during the humid season. Before you leave, touch **MENU**, then select Dehumidification Away Mode. Temperature and humidity will be kept at levels that protect your home and possessions. When you return, touch **Stop** to resume normal operation.

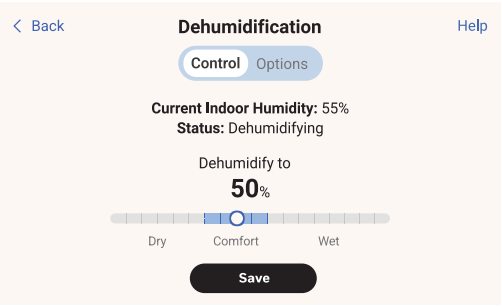
Set up Dehumidification Away Mode

1. Select Allowed at ISU 9180.
2. Set Fan Control settings at ISU 9190.
   - **On:** Fan is always on.
   - **Automatic:** Fan runs only when cooling system is on.
   - **Circulate:** Fan runs randomly, about 35% of the Time.
3. Set temperature and dehumidification settings at ISU 9200

- **Low Limit Temperature Setting** If the cooling system is used to control humidity while Dehumidification Away Mode is active, the thermostat allows the cooling system to lower the indoor air to the Low Limit Temperature Setting to reach the Dehumidification Setting.
- **Temperature Setting**
  The temperature maintained while Dehumidification Away Mode is active and the desired humidity level is satisfied.
- **Dehumidification Setting**
  The desired humidity level while Dehumidification Away Mode is active.

Control Dehumidification Level (If thermostat has been setup to control a dehumidifier or AC with High Speed fan)

1. Touch **MENU** and select **Dehumidification**.
2. Use the slider to adjust the desired Dehumidification level. Typically this will be a setting below 65% RH.



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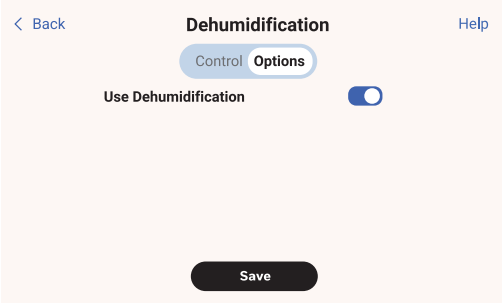
3. Touch options if you want to enable/disable the dehumidifier.



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   When disabled, the display will show off when viewing the dehumidifier setting screen.

4. Touch **Save** to save your settings.

> **NOTE:**
> If your air conditioner is used to control humidity, the temperature may drop up to 3° F below your temperature setting until humidity reaches the desired level.

> **NOTE:**
> If humidification and dehumidification are setup to operate in the same system mode (Off) the thermostat will automatically enforce a 15% deadband between the humidification and dehumidification settings. The thermostat will automatically switch between humidification and dehumidification to maintain the desired humidity level.

AC with High Speed Fan

If the thermostat was set to "**AC with High Speed Fan**" in setup #9000, the thermostat will run the cooling below the cool setting when humidity is high. The maximum over-cooling is 3 degrees, but it may over-cool to a lesser degree depending on how far above the dehumidity setting the RH level in the home is.

Dehumidification: Commercial

The thermostat reads the indoor humidity level and allows the user to set a dehumidification setting. The thermostat controls the humidity level using the cooling system or a dehumidifier.

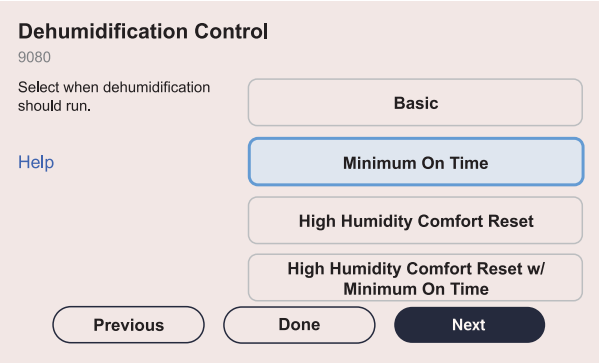
If humidification and dehumidification are set up to operate in the same system mode (Heat, Cool, Off) and you are sensing humidity from one location, the thermostat will automatically enforce a 15% deadband between the humidification and dehumidification settings. The thermostat will automatically switch between humidification and dehumidification to maintain the desired humidity level.

If humidification and dehumidification are set up to operate in the same system mode (Heat, Cool, Off) and you are sensing humidity from two different locations using a remote wireless indoor sensor (for example, main level and crawl space), the thermostat will allow humidification and dehumidification to operate at the same time, and there is no deadband between humidification and dehumidification settings.

Dehumidification Equipment Options: (ISU 9000)

- A/C with Low Speed Fan
- A/C with High Speed Fan
- Hot Gas Bypass
- Dehumidifier

> **NOTE:**
> **Hot Gas Bypass**: During a call for dehumidification, the cooling capacity will be used to remove more latent heat than sensible heat. The operation of Hot Gas Bypass varies by equipment. For more details, contact the equipment manufacturer.



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Basic: This option uses the cooling system to reach the desired humidity level. Minimum On Time, High Humidity Comfort Reset and Reheat are not used with this method. This setting is commonly used if your dehumidification equipment is Hot Gas Bypass.

Minimum On Time (ISU 9090): This option ensures that the compressor runs long enough to effectively reduce humidity when the cooling equipment is cycled on. The compressor will run for the minimum "on time" you set until the desired humidity level is reached.

High Humidity Comfort Reset (ISU 9100): This option uses the cooling system to lower the temperature up to 5° F below the current cool set-point until the desired humidity is reached. The high humidity comfort range is from 1° to 5° F.

High Humidity Comfort Reset with Minimum On Time (ISU 9090 and 9100): This method uses both options above to reduce humidity while maintaining a comfortable temperature.

Reheat (ISU 9080): This option allows heating to run during dehumidification to help maintain a comfortable temperature. If only cooling stage 1 is used, during the “off” cycle, both cooling and heating run at the same time as needed to dehumidify without over-cooling. This option cannot be used in the Heat mode. This option is effective only if using a system with the A-Coil located before the heating coil (heat exchanger). This feature requires a conventional forced air heating system (gas, oil, or electric) in the application.

> **NOTE:**
> - Reheat can be used on heat pump applications that have a forced air backup heat source (gas, oil, or electric). The thermostat will turn on the first stage of Forced Air Backup Heat during Reheat.
> - Reheat can be used on systems where the A-Coil is located after the heating coil (heat exchanger), but it is not effective at removing humidity.

Reheat with Minimum On Time (ISU 9080 and 9090): This method uses both Reheat and Minimum On Time options above to reach the desired humidity level.

If set for A/C with Low Speed Fan, configure the assigned set of U contacts as Normally Open or Normally Closed (ISU 9050) and wire to the Low Speed Fan terminal on the equipment. For example, if the U terminals are normally closed, it will open when the thermostat calls for dehumidification. See "Indoor Air Quality Control and Monitoring" on page 147.

> **NOTE:**
> The thermostat will not lower the fan speed when the second stage of cooling is on.

Ventilation

The thermostat can be set for the following ventilation types: (ISU 10000)

- ERV/HRV
- Passive (Fan Only)
- Fresh Air Damper
- Economizer (The Economizer settings are in a different section and used only when the ElitePRO™ Series Thermostat is set for commercial application)

Ventilation Control Methods (ISU 10050)

Ventilation can be setup to meet either ASHRAE or Percent On Time settings. To meet these settings, the thermostat will ventilate during calls for Heat, Cool and Fan. If the required ventilation has not been achieved for ASHRAE or Percent On Time, the thermostat will force the ventilation equipment on.

ASHRAE

The thermostat operates ventilation equipment to meet the ASHRAE 62.2 ventilation standard based on CFM, number of bedrooms, and square footage of the house.
ASHRAE 62.2 can only be met if the ventilation equipment is running. If the ventilation equipment is off for any reason (outdoor ventilation lockouts, set up to turn Off during Sleep period, turned off by user, etc.), ASHRAE 62.2 is not met during those times. See ISU 10125 to select a Ventilation Priority.

Percent On Time

The thermostat operates ventilation equipment based on a percentage entered in the installer setup (ISU 10120). For example if Percent On Time is set to 50%, the ventilation equipment will run at random times during a 1 hour period until it reaches a 50% run time (approximately 30 minutes). Default setting is 30%. Range is 10% to 100% in 10% increments.

Ventilation Fan Control (ISU 10060)

- Tstat Controls Fan
  - The thermostat turns on the ventilator and the fan when ventilation is needed.
- Equip Controls Fan
  - The thermostat turns on the ventilator when ventilation is needed. The fan is controlled by the equipment.

Ventilation Priority (ISU 10125) Lockouts are Priority

The thermostat places a priority on lockouts versus the ASHRAE 62.2 ventilation standard. The thermostat will not run ventilation during the following lockout conditions (if configured) unless you manually call for ventilation:

- Lockout Ventilation during Outdoor Conditions (ISU 10130)
- Lockout Ventilation during “Sleep” program periods.

> **NOTE:**
> This option is set by the user on the Ventilation screen. From Home touch **Menu** > **Ventilation** > **Options** > **Disable During Sleep**.

- Turn on ventilation due to a custom Dry Contact Alert setting. This is if someone set ISU 6005 for a custom Dry Contact Alert and set ISU 10065 to turn on the ventilator.
- Lockout ventilation due to a custom Dry Contact Alert setting. This is if someone set ISU 6005 for a custom Dry Contact Alert and set ISU 10145 to lock out the ventilator.

Opposite actions cannot be selected for the same custom dry contact (Ex. user cannot select both to Turn Ventilation On and Lockout Ventilation for the Custom Dry Contact 1).

If opposite actions are triggered at the same time due to different custom dry contacts (example, Dry Contact Alert 1 set to turn on ventilator and custom dry contact 2 set to lock out ventilator), Lockout Ventilation has priority over Turn Ventilation On.

ASHRAE is Priority

ASHRAE requires additional ventilation following a long off cycle. The thermostat meets the ASHRAE 62.2 ventilation standard by running additional ventilation when outdoor conditions are favorable. If ASHRAE cannot be met when outdoor conditions are favorable, the thermostat will override the outdoor lockouts and run ventilation. When using this option, it is recommended to increase the rate (CFM) of the ventilation equipment to meet the ASHRAE 62.2 ventilation standard in a shorter run time.

> **NOTE:**
> The ability to lock out ventilation during the “Sleep” program periods is not an option when you select ASHRAE is Priority.

Ventilation — Outdoor Condition Lockouts (ISU 10130)

Ventilation will not operate when outdoor conditions exceed the lockout settings unless you manually call for ventilation or Ventilation Priority (ISU 10125) is set to ASHRAE is Priority and ventilation is needed to meet ASHRAE. Lockouts can prevent ventilation during extreme weather conditions to keep humid, hot, and cold air out of the home.

> **NOTE:**
> This feature requires outdoor sensor for outdoor temperature limits, or Internet connection for temperature and humidity lockouts.

Options are:

- Ventilation Low Temperature Lockout Set-point (Off, -20° to 40° F)
- Ventilation High Temperature Lockout Set-point (Off, 80° to 110° F)
- Ventilation High Dew point Lockout Set-point (Off, 65° to 85° F)

Refer to the information below if you need assistance setting the High Dew point Lockout.

- Higher than 80: Extremely uncomfortable
- 75 to 80: Very uncomfortable
- 70 to 74: Quite uncomfortable
- 65 to 69: Somewhat uncomfortable
- Ventilate On High Indoor Humidity (ISU 10160)

If set to ventilate on high indoor humidity, the ventilator turns on to remove excess humidity if the indoor humidity is 10% above the humidification setting. The thermostat must be in the Heat mode to ventilate on high indoor humidity. If frost control is used, then the ventilation setting will adjust to stay approx. 10% RH above the humidity setting.

- Ventilate on high CO2 (ISU 10200). If selected, the ventilator will run when estimated CO2 levels exceed 2000 PPM. Once the ventilator has turned out based on CO2 levels it will continue to ventilate until estimated CO2 level drops to approximately 1900 PPM (unless additional ventilation is required based on either the Ashrae or % on time settings).

Control Ventilation Level

1. Touch **MENU**, and select Ventilation. You can check or change the ventilation mode.
   Mode:
   - **Auto:** Ventilation runs to follow either Ashrae requirements or % on time requirements programmed by the installer.
   - **Off:** Ventilation remains off unless turned on using the timer.
   - **Timer:** To temporarily turn the ventilator on, use the up arrow to set the number of minutes you want the ventilator to run (0-180 minutes). To cancel a temporary setting, touch "**Cancel Timed Ventilation**".
2. Touch **Save** to save your settings.

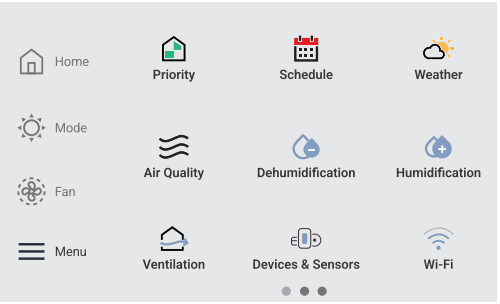
The display will show whether the ventilator is currently running under "**Equipment status**".

Lockout During Sleep:

Under the ventilation menu, touch **Options**". Select or deselect **Disable During Sleep**. Touch the back arrow in upper left of display to return to previous screen.

Indoor Air Quality Monitoring (S1100 and S1200 only)

M39670



MCR39669

MCR39705

The S1100 and S1200 ElitePRO Thermostat monitors for estimated Carbon Dioxide (CO2), Volatile Organic Compounds (VOCs), and Humidity. A general air quality level is shown under the temperature reading from the home screen. More detailed readings are shown when Air Quality is selected from the menu. Air Quality is rated as Great, Good, Fair, Poor and Very Poor. A Poor or Very Poor reading doesn't necessarily mean that the air quality presents a hazard. The S1100 and S1200 ElitePRO Thermostat is not a substitute for a dedicated CO2 or VOC sensor and only measures the room in which the thermostat is installed. Alerts at the S1100 and S1200 ElitePRO Thermostat thermostat are for awareness only.

> **NOTE:**
> Some application environments may regularly generate Air Quality alerts from expected conditions such as the natural vapors from carpets and other materials in new construction homes. So in certain cases the Air Quality monitoring is disabled and not shown to the home owner.

Carbon Dioxide (CO2)

Carbon dioxide is produced by breathing and from any gas (combustion) appliance such as a gas furnace, gas stove top and/or oven, etc.

Volatile Organic Compounds (VOCs)

VOCs are chemicals that can come from common household items like paint, cleaners, and furniture. While it's normal to have some VOCs present in the air, it's good to keep spaces ventilated.

Solutions for poor Indoor Air Quality:

Carbon Dioxide (CO2):

Carbon dioxide is produced by breathing and from any gas (combustion) appliance such as a gas furnace, gas stove top and/or oven, etc. If CO2 is high, it is most likely indicating insufficient ventilation for the number of people in the space. Running the exhaust fan while cooking or opening windows can help in some cases, however if outdoor air quality is poor due to conditions such as forest fires, outdoor barbeques, burning leaves, a window over the vent of a running dryer, etc. then opening a window may be the cause of the poor air quality

indoors. If the indoor CO2 is regularly high, Honeywell Home offers whole home ventilation solutions. In most cases proper ventilator will greatly reduce the CO2 levels in a home. These products are sold and installed by HVAC pros. The ElitePRO™ Series Thermostat can control a whole home ventilator.

Volatile Organic Compounds (VOCs):

VOCs are chemicals that can come from common household items like paint, cleaners, and furniture. While it's normal to have some VOCs present in the air, it's good to keep spaces ventilated. Running the exhaust fan while cooking and opening a window when outdoor air quality is good will help improve air quality. Honeywell Home offers whole home ventilation solutions. In most cases proper ventilator will greatly reduce the VOC levels in a home. These products are sold and installed by HVAC pros. The ElitePRO™ Series ThermostatElitePRO™ Series Thermostat can control a whole home ventilator.

Humidity:

The ElitePRO™ Series ThermostatElitePRO™ Series Thermostat detects the humidity level at the thermostat and/or wireless indoor sensors. The ElitePRO™ Series ThermostatElitePRO™ Series Thermostat can control a humidifier or dehumidifier to maintain more comfortable levels of indoor humidity. These products are sold and installed by HVAC pros.

Disabling Air Quality Monitoring on Thermostat:

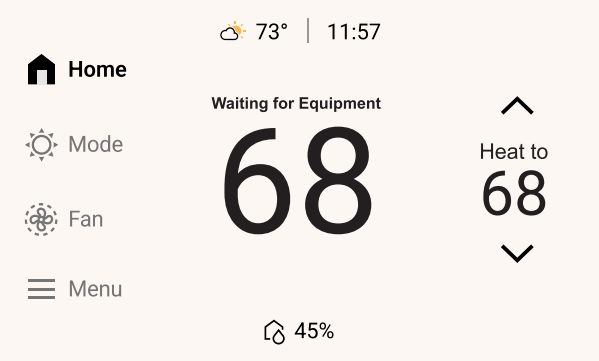
If you wish to disable the indoor air quality monitoring, see ISU 14051 and 14052.

Disable push notifications and email notifications:

The homeowner can disable push notifications and email notifications through the First Alert app. In the app, select the thermostat. Select the Gear icon in lower right. Select Alert management. Scroll down to the Carbon Dioxide and VOC alert options. Adjust those settings as desired.

Waiting for Equipment

Damage can occur if your system's compressor is restarted too soon after shutdown. The **Built-in Compressor Protection** feature forces the compressor to wait for a few minutes before restarting. During the wait time, the display will show the message "Waiting For Equipment" above the room temperature reading. When the safe wait time has elapsed, the message disappears, and the thermostat will indicate a call for heat.



MCR39901

Battery Replacement

Indoor Sensor

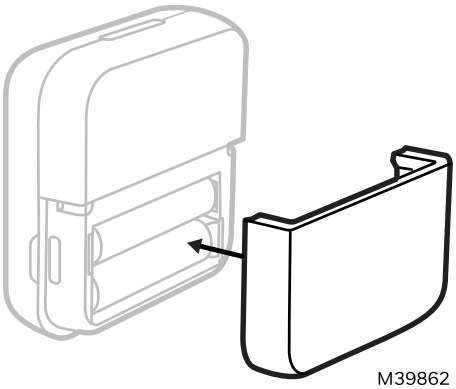
Replace batteries in your indoor sensor when a warning appears on the thermostat screen, about 60 days before batteries are depleted.

When the sensor status light begins flashing red, battery power is critically low and will be depleted within 2–3 weeks. During normal operation, the status light remains off.

To replace the batteries:

- Remove the sensor from wall plate.
- Install **2 fresh AAA alkaline** batteries. If the status light flashes green, batteries are good; if it flashes red, you must use fresh batteries.
- Attach sensor to wall plate.

The sensor will restore communication with the thermostat a few seconds after new batteries are installed.

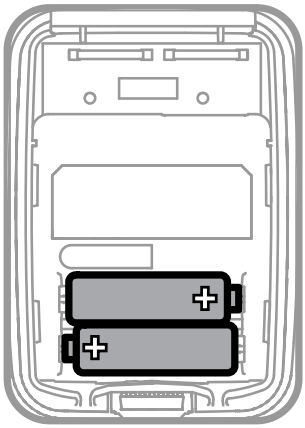


M39862

Outdoor Sensor

Replace the batteries in your outdoor sensor when a warning appears on the thermostat screen, typically about two months before the batteries are depleted. The outdoor sensor requires **2 fresh AA lithium** batteries.

After installing new batteries, the outdoor sensor will restore communication with the wireless network within a few seconds.



M32937A

Using the First Alert App

> **NOTE:**
> The First Alert app is used by the customer to control the thermostat

The First Alert App by Resideo is used by the customer to control and manage the thermostat after installation. During setup, the installer may guide the customer through connecting the thermostat to the app to enable remote control and monitoring.

Once connected, the customer can use the app to adjust settings, receive alerts, and manage the thermostat from their mobile device.

For more information, visit: info.honeywellhome.com/first-alert-app

Key App features

Device Control

Allows the customer to adjust temperature settings and system modes remotely using their mobile device.

Smart Home Integration

Supports integration with compatible smart home platforms for expanded control.

Connected Device Management

The app allows the customer to manage multiple compatible Resideo devices from one interface.

Professional Support

Customers can connect with their professional through the app to help coordinate service, support, and system upgrades.

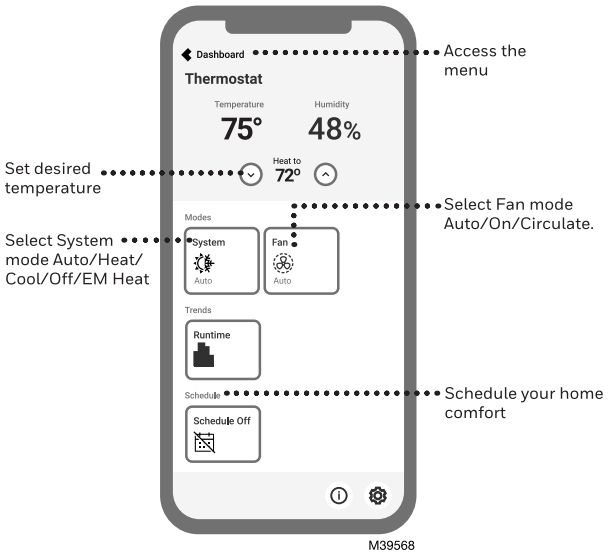
> **NOTE:**
> The First Alert App is regularly enhanced and the screen display may differ from that shown.

Setting Up the App

Scan to download the First Alert App

To add the thermostat to the app, select **MENU > Connect to App** and follow the instructions to connect.

Using the App



- Scheduling through the app and Auto-Away
- Connecting to a Video Doorbell

Advanced Features

Cleaning the Thermostat Screen

When you select the Clean Screen option, the screen is locked to prevent accidental changes to the thermostat while you clean the screen.

1. Touch **MENU**.
2. Scroll to and select **Preferences**.
3. Select **Display**.
4. Select **Clean Screen**.
   A prompt asks if you want to clean the screen for 30 seconds.
5. Touch **Yes**. A countdown timer displays elapsed time until the screen is reactivated.

> **NOTE:**
> Do NOT spray any liquid directly on the thermostat. Spray liquids onto cloth, then use the damp cloth to clean the screen. Use water or household glass cleaner. Avoid abrasive cleansers.

Screen Lock setting

You can adjust security options to prevent unauthorized changes to system settings.

1. Touch **MENU**.
2. Scroll to and select **Screen Lock**.

Screen Lock mode options

- **Unlocked:** Full access allowed.
- **Partially locked:** Only temperature can be changed.
- **Fully locked:** No access allowed.

There is an option in the **SCREEN LOCK** menu to require a passcode to change the Screen Lock setting. If you choose this option, the thermostat will provide a passcode. Make sure to save this.

Viewing Dealer information

Check dealer information if you need to contact your installer for maintenance, repairs, or upgrades.

1. Touch **MENU**.
2. Scroll down and select **My Pro**.

> **NOTE:**
> This information is only shown if the installer is using Pro IQ services (See Pro-IQ™ Services and Pro Portal for more information).

Auto Changeover Operation

Auto changeover is available if the thermostat is configured for at least 1 Heat stage and 1 Cool stage, and ISU 3000 is set to "**Auto**".

When configured this way, you can select "**Auto**" as one of the options under "**System mode**".

ISU 3015 is the auto changeover differential setting. It can be set from 0-5 °F (0-2.5 °C). When in auto mode, the customer can always set the Heat and Cool set point to the same temperature, regardless of the differential setting although most customer prefer to have a cool set point that is at least 3 degrees above the Heat set point. When 0 is selected, we enforce a 1.5°F differential behind the scenes to ensure the heat doesn't come on after cooling shuts off or vice-versa.

The differential is the minimum number of degrees the temperature needs to rise or fall before switching from Heat to Cool while in auto changeover mode. Example: With a differential of 3, if heat and cool were both set for 70, and heat had been used last, the temperature would need to rise at least 3 degrees above the heat set point before the thermostat would turn on cooling. Then it would run cooling down to set point and cycle cooling on and off to maintain set point. The temperature would then need to drop at least 3 degrees below the cool set point before heat could come on.

If the AC is used for dehumidification then we enforce an additional temp drop below the over-cooling amount, (ISU 9070) prior to switching back to heat.

Em Heat and Auxiliary Heat Operation

Auxiliary Heat:

Auxiliary Heat runs as backup to the heat pump. It runs with the heat pump when:

- The thermostat is set to Heat mode.
- The Backup Heat is set to electric (ISU 2180).
- Load conditions determine Backup Heat is needed.

The heat pump could be locked out when in Heat mode by the balance point setting (ISU 3120) or if the backup heat is gas or oil and backup heat differential (ISU 3090) or upstage timer (ISU 3110) are used.

Emergency Heat:

Emergency Heat runs when you manually switch the thermostat to the Em Heat mode. When the thermostat is in Emergency Heat mode, the heat pump is locked out.

Emergency Heat mode is only available when the thermostat is set to control a heat pump or PTAC plus one or more Backup Heat stages.

From the home screen touch **Mode**. You can set the thermostat to Heat, Off, Cool, Emergency Heat, or Auto. (Auto mode may not be available based on installer settings.)

When the thermostat is set to Em Heat mode, the heat pump is locked out and the Backup Heat is used to maintain the heat set point.

If ISU 2175 is set to "Drive aux and E together", then with a call for emergency heat or auxiliary heat, both E and AUX terminals are energized. Typically the backup heat is wired to Aux and E is unused when set this way. ISU 2175 is only available when there is a single auxiliary heat stage.

If ISU 2175 is set to "Aux and E independent", then with a call for emergency heat, the E terminal is energized and the Aux terminal is not. The wire to Aux controls a heat source that runs as backup heat to the heat pump when the mode is set to "Heat". The wire to E controls a heat source that runs independent of the heat pump when mode is set to Em Heat. In most cases, the heat pump uses the same heat source for auxiliary heat and em heat.

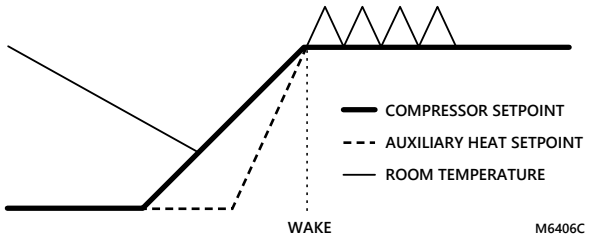
Dual fuel systems (Heat pump with gas or oil furnace backup) cannot run the heat pump and furnace at the same time or it can damage the coil.If the thermostat is set for "Thermostat controls backup heat" in ISU 2190 then the thermostat will never run the heat pump and furnace together. If 2190 is set to "External Fossil Fuel Kit Controls Backup Heat" then the thermostat may energize the heat pump and backup at the same time, when load conditions are high and the external fossil fuel kit will ensure that it locks out the heat pump when it runs the furnace.

Adaptive Recovery (Sometimes called “Adaptive Intelligent Recovery”)

Over time, the thermostat learns how long it takes your system to reach your programmed temperature setting.

The thermostat turns on the heating/cooling system early and assures that the programmed temperature setting is reached at the programmed time regardless of weather conditions. For example, if the Wake program period is set to 6:00 am with a heat setting of 70 degrees, the heat will turn on before 6:00 am, so the temperature is 70 degrees at 6:00 am. The thermostat displays "**In Recovery**" above the indoor temperature when it turns the system on early.

Adaptive Recovery calculates the recovery ramp based on how far the room temperature is away from the temperature setting, previous equipment performance and weather history, allowing the thermostat to start recovery at the optimal time so it can reach the programmed temperature setting at the programmed time. The thermostat uses two recovery ramps when set up to control a heat pump system; one ramp for the compressor and one ramp for the auxiliary heat. Once the room temperature intersects the compressor ramp, the compressor turns on until the set point is reached. If the room temperature does not rise quickly enough and intersects the second ramp, the auxiliary heat turns on. It takes about one week for the thermostat to adjust to weather conditions, equipment performance and construction of the home. If the temperature setting is reached too early or too late, the ramp is adjusted for the next day's recovery. See figure below:



If you prefer not to use this feature, touch **Menu** > **Preferences** > **Adaptive Recovery** and select **Off**. Then the thermostat will not start heating or cooling in advance of the comfort schedule time.

> **NOTE:**
> When ElitePRO™ Series Thermostat is set for commercial application it has settings for heat and cool recovery ramps rather than Adaptive Recovery and these are only adjustable by the installer.

Feels like Temperature

“Feels Like Temperature” is a setting which takes the indoor temperature and relative humidity, as well as outdoor temperature into account so that you can optimize comfort. For example, when the relative humidity is very high, 70°F feels much warmer than it does when the relative humidity is very low. For this reason, when Feels Like Temperature is enabled, the display may show a warmer temperature reading than other thermostats do when relative humidity is high.

If you prefer not to use this feature, it can be disabled in **Menu** > **Preferences** > **Display** > **Feels Like Temperature**.

> **NOTE:** Feels Like Temperature can only be enabled when the thermostat knows the outdoor temperature from the app, a wireless outdoor sensor, or a wired outdoor sensor.

P + I Control

A conventional mechanical or electronic thermostat does not control temperature precisely at set point. Typically there is an offset (Differential) in the control point as the system load changes. Many factors contribute to offset including the switch differential, thermal lag, overshoot, cycle rates and system load.

The ElitePRO™ Series Thermostat however, works much differently than a conventional mechanical or electronic thermostat when Differential is set to comfort. Differential is always set to comfort and not adjustable when controlling a 2 stage furnace or 2 stage heat pump without Aux Heat. The proprietary algorithm in the thermostat eliminates the factors causing offset (Differential). This makes temperature control more accurate than the conventional mechanical or electronic thermostat. The temperature control algorithm is called proportional plus integral (P + I) control.

The thermostat sensor or indoor sensor senses the current space temperature. The proportional error is calculated by comparing the sensed temperature to the set point temperature. The deviation from the set point is the proportional error.

The thermostat also determines integral error, which is a deviation based on the length of error time (how long the sensed room temperature has been away from the set point temperature). The sum of the two errors is the (P + I) error.

The cycle rate used to reach and maintain the set point temperature is computed using the P + I control algorithm. The addition of the integral error is what differentiates the thermostat from many other mechanical and electronic thermostats.

Heat Differential

For stage 2 of conventional systems or 2 stage heat pump without Aux Heat

The thermostat will use the stage of heating as needed to keep the indoor temperature within 1 °F (0.5 °C) degree of the set point. The thermostat turns on stage 2 when the capacity on stage 1 reaches 90%.

Heat pumps with electric Aux Heat when Differential is set to “Comfort”

The thermostat will use the stage of heating as needed to keep the indoor temperature within 1 °F (0.5 °C) degree of the set point. The thermostat turns on Aux Heat when the capacity on highest compressor stage has reaches 90%.

Heat pumps with electric Aux Heat when Differential is set to 2°F or higher (2 °F to 15 °F adjustable)

If the indoor temperature drops to the Differential amount while the highest compressor stage is running the thermostat will continue to run the heat pump stages and also energize the Aux Heat.

For example, if the Backup Heat Differential is set to 2 °F (1.0 °C), the indoor temperature must be 2 °F (1.0 °C) below the set point before the backup heat turns on. When a manual temperature change is made, there will typically be a delay before the thermostat brings on the backup heat, regardless of the upstage timer settings. When Differential is set to other than Comfort, the upstage timer and Holdoff timer settings are also available.

Dual Fuel heat pumps with gas or oil Backup Heat

If the thermostat is configured to control dual fuel, the Differential cannot be set to Comfort. It will default to 2 °F and can be adjusted from 2 °F to 15 °F.

If the indoor temperature drops to the Differential amount while the highest compressor stage is running the thermostat will end the call for the heat pump stages and run the fossil fuel heat stage.

For example, if the Backup Heat Differential is set to 2 °F (1.0 °C), the indoor temperature must be 2 °F (1.0 °C) below the set point before the thermostat will shut down the heat pump and run the fossil fuel heat.

When a manual temperature change is made, there will typically be a delay before the thermostat brings on the Backup Heat, regardless of the upstage timer settings.

Upstage Timer

The **Upstage** timer setting is only available when:

- The thermostat is configured for a heat pump with an aux heat stage (electric of fossil fuel)..

Backup Heat **Upstage** Timer options are Off, 30 minutes to 16 hours. Default is Off. If the differential is set to "COMFORT" then the upstage timer is limited to 30-60 minutes.

The upstage timer allows***** the Aux Heat to run when the highest heat pump stage has run for longer than the timer setting during a steady state condition. Steady state means the thermostat is cycling to maintain set point.

Manually raising the set point or a scheduled set point change will not trigger the upstage timer. In those conditions the thermostat will not use Backup Heat unless a different condition triggers the thermostat to run the Backup Heat (Differential, balance point, or manually switching the thermostat to Em Heat mode).

**Differential and upstage timer are designed to restrict the auxiliary heat for customers who are energy conscious. The aux heat does not necessarily run after the timer has expired even in a steady state condition. Once the timer expires in steady state the thermostat calculates whether or not to run the aux heat based on the load capacity of the highest heat pump stage.*

If the heat pump struggles to maintain set point, we would suggest one of the following steps:

1. Verify the heat pump is operating as expected.
2. Set a balance point. If a balance point is already used but the heat pump cannot handle the load even when operating correctly, the installer may need to raise this setting.
3. For heat pump with electric backup heat, set the Differential to “Comfort”, this uses the backup heat more aggressively.

Holdoff Timer

The Backup Heat **Holdoff** Timer is available for any system with 2 heating types, the Backup Heat Differential is set to 2 °F (1.0 °C) or higher, and backup heat upstage timer is set to 30 minutes or more. Unlike the upstage timer, the holdoff timer can be activated by a temperature set point change (not limited to steady state). The holdoff timer starts when the highest stage of the previous equipment type turns on. The out-of-box setting is “Auto” and the thermostat will hold off the use of backup heat as long as possible when the set point is changed. If this is changed to a setting other than Auto, then the auxiliary heat will be FORCED to turn on after this time is met.

Programmed Recovery

If the primary heat is making progress as expected, backup heat will not be used to reach the set point of the next program period. Backup heat is always restricted during a programmed recovery when the Adaptive Intelligent Recovery feature is used. See note below.

> **NOTE:**
> During a programmed recovery, the thermostat waits to turn on the backup heat depending on system performance, load conditions and how many degrees the temperature set point is changed. Backup heat will be used ONLY when the temperature is not rising quickly enough to reach the set point in a reasonable time. Upstage timer for heat pump with aux heat applications is only used in steady state (cycling to maintain set point). The thermostat will not run the aux heat during a programmed recovery unless one of the following conditions occurs:

1. Differential is set for comfort and thermostat calculates that the heat pump cannot effectively handle the load conditions.
2. Differential is set to 2 °F to 15 °F and indoor temperature drops while the highest stage of heat pump is running.
3. Outdoor temperature drops below the balance point setting (if used).
4. Thermostat is manually switched to em heat mode.

Finish with High Heat stage and/or Finish with High Cool stage

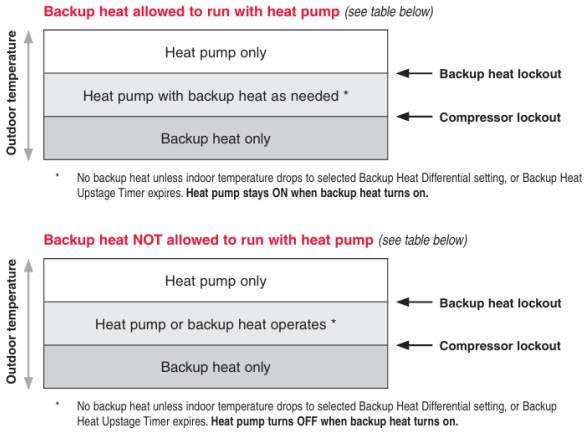
These settings allow the installer to keep the high stage of the equipment running until the desired set point is reached. This setting is recommended for Geothermal Heat Pumps to allow the loop to rest.

When set to no (default), the thermostat cycles the stages based on load conditions and the cycle rate setting for these stages.

- “Finish with High Cool Stage” is ISU 3020.
- “Finish with High Heat Stage” is ISU 3021.
- Set to **Yes** to turn on these features. The default is No.

Heat Pump and Backup Heat Lockout Operation

Outdoor temperature lockouts are optional. See Installer Setup options (ISU 3120).



Fan Coil Unit and PTAC Settings and Operation

ElitePRO™ Series Thermostats can be configured to control a 2-pipe fan coil or a 4-pipe fan coil.

Hot water fan coil - A hot water fan coil requires that the thermostat energize W to move hot water through a coil that is inside the HVAC supply ducting and then turn on the blower fan to blow air over the hot coil and deliver it to the space. The ElitePRO™ Series Thermostat energizes a single blower speed, wired to G for these systems.

4-pipe fan coil - A 4-pipe fan coil requires that the thermostat energize W to move hot water through a hot water coil or energize Y to move cold water through a cold water coil. Then the thermostat turns on the blower fan to blow air over the hot coil and deliver it to the space. Most 4-pipe fan coil units have multiple fan speeds. The low speed fan is wired to G. The medium speed fan is wired to Y. The high speed fan (if used) is wired to U. There are other special fan coil unit settings which can vary for different systems. These settings are covered in the Fan Coil Unit section.

2-pipe fan coil - A 2-pipe fan coil energizes the same terminal (Y) to move hot water through a coil as it does to move cold water through a coil. Therefore, a thermostat that controls a 2-pipe fan coil needs to know whether the pipe is hot or cold. When it senses that the pipe is hot, the thermostat automatically switches to heat mode.

When it senses that the pipe is cold, the thermostat automatically switches to cool mode. If there is an emergency heat stage, the user can manually switch the thermostat to emergency heat mode when the pipe temperature is below the heat threshold setting. In that case, the thermostat energizes the Aux to run the backup heat.

The ElitePRO™ Series Thermostat has different options for how to perform the changeover from heat to cool based on pipe temperature.

- The ElitePRO™ Series Thermostat can be used with a 10K or 20K sensor
- The ElitePRO™ Series Thermostat can be used with a dry contact switch (such as an aquastat) to switch from heat mode to cool mode based on pipe temperature. The wiring diagrams for the fan coil unit section show how to wire the dry contact switch or wired sensor for this purpose. The ISU section shows the configuration settings.

When running heat or cooling, the ElitePRO™ Series Thermostat turns on the blower fan to blow air over the coil and deliver the conditioned air to the space. Most PTAC units have multiple fan speeds. The low speed fan is wired to **G**. The second speed fan is wired to **Y2**. On a system with 2 fan speeds Y2 is the high speed. On a system with 3 fan speeds Y2 is the medium speed. The third speed fan (if used) is wired to **U**. If U is used for a third fan speed, that will be the high speed. There are other special fan coil unit settings which can vary for different systems covered in this section.

PTAC - A PTAC operates the same as a heat pump except that it has multiple fan speed settings. If there is an emergency heat stage, the user can manually switch the thermostat to emergency heat mode. When in heat mode the thermostat can also energizes the Aux to run the backup heat

When running heat or cooling, the ElitePRO™ Series Thermostat turns on the blower fan to blow air over the coil and deliver the conditioned air to the space. Most PTAC units have multiple fan speeds. The low speed fan is wired to **G**. The second speed fan is wired to **Y2**. On a system with 2 fan speeds Y2 is the high speed. On a system with 3 fan speeds Y2 is the medium speed. The third speed fan (if used) is wired to **U**. If U is used for a third fan speed, that will be the high speed.

Fan Sequence Operations

(ISU 2105, 2106, 2107)

ISUs 2105 – 2107 are used to select the number of fan speeds controlled on a fan coil unit or PTAC system and assign (or be instructed) where these speeds are wired to.

(ISU 3320)

ISU 3320 allows the installer to select how the fan speed is controlled when the thermostat is controlling a fan coil unit or PTAC with multiple fan speeds. The options are **Auto**, **Multiple Speeds**, or **All Allowed**. When ISU 3320 is set for Auto, the thermostat uses the fan ramping algorithm to control the fan speed with a call for heat or cooling. The fan will be off with no call for heat or cooling. If ISU 3320 is set to Multiple Speeds, the user may select Lo, Med, or Hi from the fan menu. The thermostat will continuously run at the speed selected. If ISU 3320 is set to All Allowed, the user may select Auto, Lo, Med, or Hi from the fan menu. When Auto is selected, the fan runs only during heat or cool calls and the fan speed at which it runs is based on the control algorithm. If set to Lo, Med, or Hi, it will continuously run at the speed selected both in Idle and with a call for Heat or Cool.

(ISU 3325)

ISU 3325 allows the installer to select whether the fan always starts at the highest speed when there is a call for Heat or Cool. Some systems require this to ensure that the fan starts correctly. If enabled, the fan will start at the highest speed. If set to a speed other than High, the thermostat will then reduce the fan speed to the one selected in the fan settings or control to the correct speed based on the control algorithm if it is set to AUTO.

(ISU 3340)

ISU 3340 allows the installer to select whether the fan will reset to the Auto mode after a time delay when the user makes the setting Lo, Med, or Hi. The options are **Off**, **2 hours** or **4 hours**. If set to Off, the thermostat will run at the fan speed selected by the user indefinitely until the fan speed is changed manually.

(ISU 4010)

ISU 4010 allows the installer to determine if a pre-occupancy purge is used. This option applies to any light commercial application that has a fan and is using a schedule. This setting determines if the fan should run prior to the Occupied schedule, and if so how far in advance. If a system with multiple fan speeds is used, this option will run the fan at the highest speed during this time.

Remote Setback (Occupancy Setback / Occupancy Sensor)

The ElitePRO™ Series Thermostat allows you to use **Remote Setback** (sometimes referred to as **Occupancy sensing** or **Occupancy setback**). This energy-saving feature can be enabled using the internal motion sensor on select ElitePRO™ Series Thermostats, one or more wireless indoor sensors, or with an occupancy sensor that opens or closes a dry-contact switch.

During occupied periods, the occupancy sensor tells the thermostat to switch to **STANDBY** (Setback settings) when no one is in the room. If someone is in the room, the sensor follows the settings of the Occupied period. The occupancy sensor is ignored during unoccupied periods. If someone is in the room, the sensor follows the schedule settings set by the installer or a manual override setting (if not locked out by installer/property manager).

To use the feature for energy savings when a room is unoccupied, but no regular Occupied schedule has been set:

The installer can access the Schedule menu and disable any scheduled period except **Occupied 1 (Commercial)** or **Wake (Residential)**. In this way, the thermostat will have an Occupied schedule setting to which it can default when occupancy is detected.

ISU settings 2240, 6020, 6030 & 6040 are related to occupancy sensing. If an occupancy sensor opens or closes a switch when occupancy is detected, that switch is wired to **R** at HVAC and **L** at the thermostat when an EIM is not used. If an EIM **is** used, the switch is wired to S1, S2, S3, or S4 terminals.

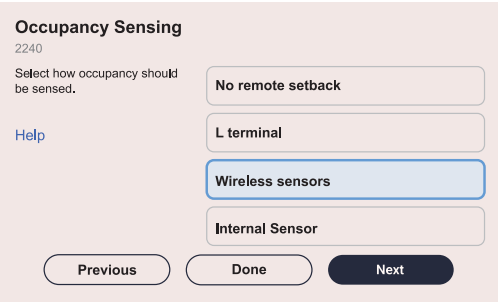
A Remote Setback Time Delay (ISU 6030) can be set to force the thermostat to wait before it switches from occupied settings to the standby settings. This allows the room to stay comfortable if the room is unoccupied for a short period of time. When set to 0 minutes, the thermostat will switch from occupied settings to the standby settings immediately when the room is unoccupied.

Hotel Card Reader:

Some Fan Coil Unit thermostats used in hotels use a remote setback triggered by a room key card holder. If the guest inserts the key card into the holder while in the room, the thermostat will switch to Occupied temperature settings. When using an EIM, the wires from the card reader go to the S contacts on the EIM. If the EIM is not used, one of these wires goes to R at HVAC and the other wire goes to L at thermostat/UWP. See the wiring diagrams.

Set Up Remote Setback

1. Select a remote setback option in ISU 2240 (see Figure below). Select ElitePRO thermostats and wireless indoor sensors have a built-in motion sensor. The “Dry Contact” or “L Terminal” settings require an external occupancy sensor which opens or closes a switch when occupancy is detected.



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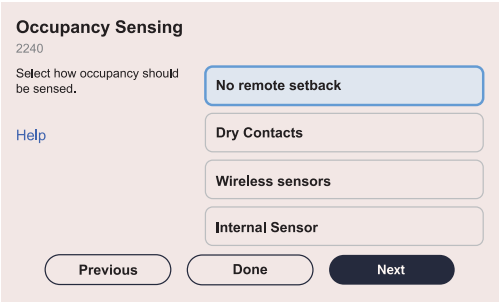

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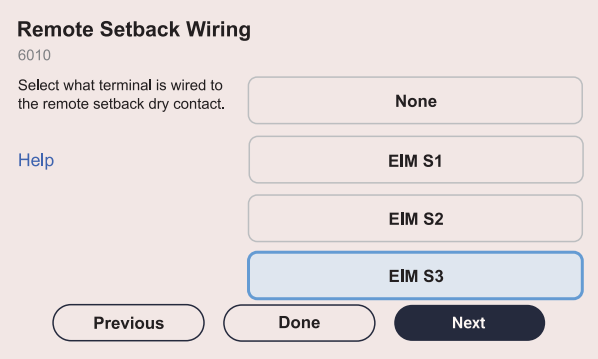
Left image shows options when EIM is used, Right image shows options when EIM is not used. For Either option, you can scroll down to select “Wireless and Internal Sensor” not shown in images.

2. If a dry contact is used to initiate Remote Setback and an EIM is used, **6010** is used to assign the Occupancy Sensor to a set of **S contacts** on the EIM.



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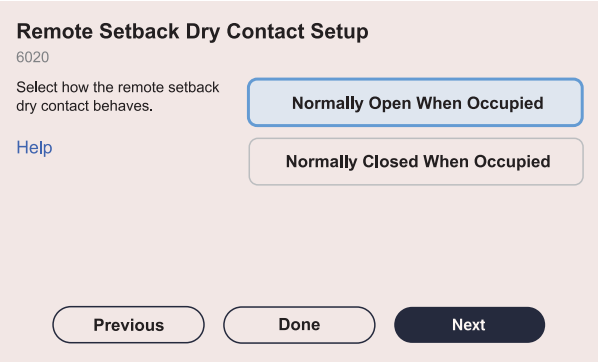
3. The setting below is shown if either **Dry Contacts** or **L Terminal** is selected for 2240. Select **Normally Open when Occupied** or **Normally Closed when Occupied**, based on the type of dry contact device installed.

> NOTE:
> - **Normally Open when Occupied**: The Dry Contact device is open when the room is occupied and will close when the room is unoccupied.
> - **Normally Closed when Occupied**: The Dry Contact device is closed when the room is occupied and will open when the room is unoccupied.



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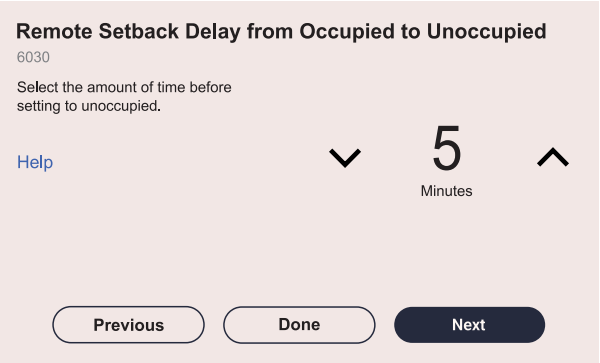
4. ISU 6030 is shown unless **No Remote Setback** is selected for ISU 2240. Select a Remote Setback ***Time Delay***. The Remote Setback Time Delay forces the thermostat to wait before switching from Occupied settings to the Standby settings.

> **NOTE:**
> When using wireless sensors and/or the internal radar sensor, the time delay set for ISU 6030 does not start countdown immediately after the room becomes vacant. The thermostat uses an occupancy algorithm based of motion events detected within a specific timeframe. Typically, the delay will be at least 10 minutes after the last detected occupancy event, plus the time configured in ISU 6030. After the timeout, the thermostat will switch from using the occupied heat/cool settings to the standby settings in ISU 6040.



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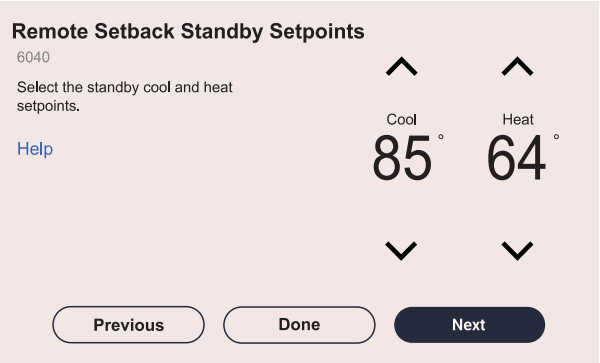
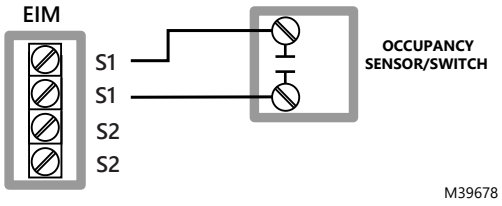
5. Select the Standby settings that you wish to maintain when the occupancy sensor detects that the room is unoccupied.



MCR39804

Remote Setback using a Dry contact switch on an ElitePRO™ Series Thermostat with EIM



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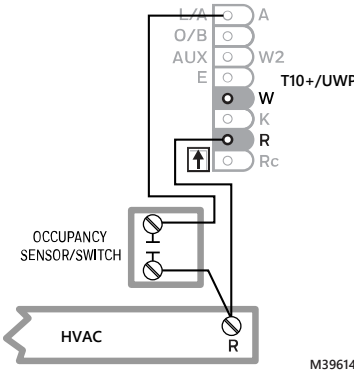
EIM S Terminal wiring for Occupancy Sensor

> **NOTE:**
> Occupancy sensor/switch can be wire to any of the 4 sets of S terminals on the EIM (S1, S2, S3 or S4). Configure ISU Settings 2240, 6010, 6020, 6030, and 6040 on the ElitePRO™ Series Thermostat for Remote Setback.

Remote Setback using a Dry contact switch on a ElitePRO™ Series Thermostat Without EIM

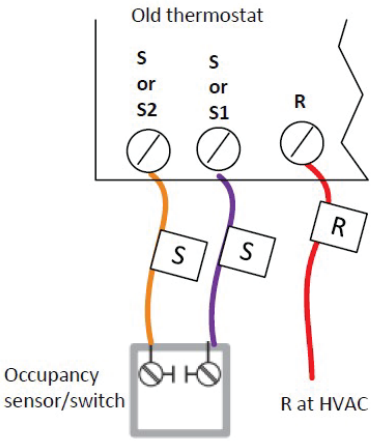


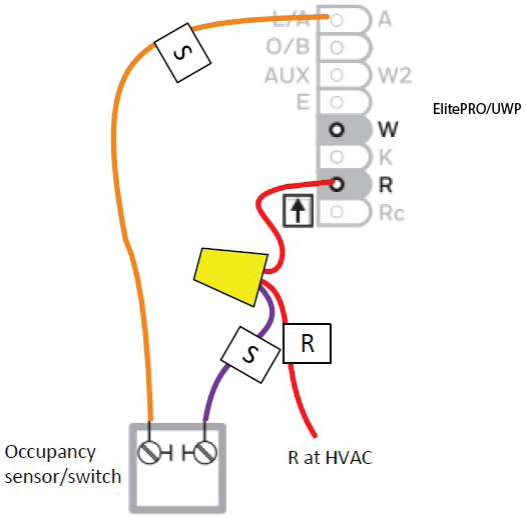
Hotel Card Reader retrofit

If wires going to S and S on a previous thermostat went to a card reader or other dry-contact occupancy sensor, they can be wired to the ElitePRO™ Series Thermostat or EIM as shown in the diagrams below.

A 10K/20K **cannot** be wired to L or R as shown below. A 10K/20K sensor wires to a set of S terminals at either EIM or ElitePRO™ Series Thermostat/UWP.

In retrofit installations: If the ElitePRO™ Series Thermostat is used without EIM, you can pig-tail one of the existing wires to R at the thermostat. Polarity does not matter when re-wiring to R and L at UWP. Then follow the following ISU settings.



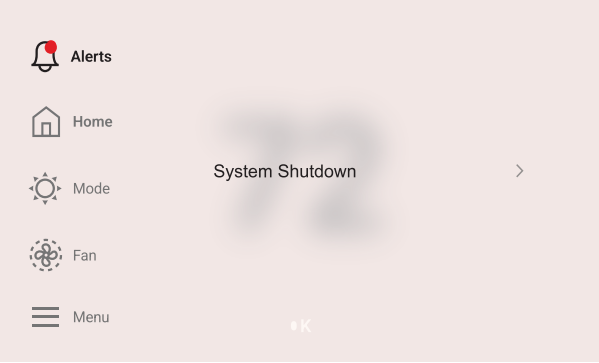


> **NOTE:**
> These wiring diagrams do not show the rest of the system wiring, which will vary. See "Wiring an ElitePRO™ Series Thermostat without EIM" on page 29 for system wiring not shown here.

Dry Contact Alerts (ISU 6000 - 6220)

A Dry Contact device such as a wet switch can be connected to the S terminals at the UWP or S1, S2, S3, or S4 terminals at the Equipment Interface Module. When the dry contact device detects a problem, the thermostat displays an alert on the home screen along with the dealer information.

If the thermostat is part of Pro IQ services, the message will also be shown in the pro software and the homeowner's app.



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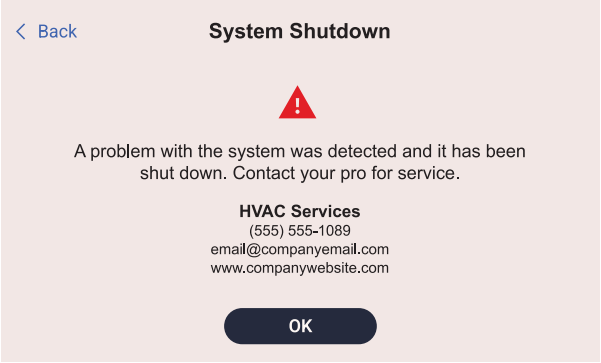

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When the user touches the alert for more info, the Notification screen is displayed, prompting them to contact their dealer.

The following Dry Contact Alerts are available for the ElitePRO™ Series Thermostat:

Full Drain Pan Alert

When the dry contact device detects that the condensate drain pan is full, the thermostat provides an alert to the user.

> **NOTE:**
> When a Full Drain Pan Alert is selected, there is a follow up setting asking if you want to shut off the system when this alert is active or just send the alert message.

Dirty Filter Alert

When the dry contact device detects a dirty air filter (pressure drop across the filter), the thermostat provides an alert to the user to replace the filter.

Water Leak Alert

When the dry contact device detects a water leak, the thermostat provides an alert to the user.

> **NOTE:**
> When a full Water Leak Alert is selected, and the ElitePRO™ Series Thermostat is configured to control a humidifier there is a follow up setting asking if you want to shut off the humidifier when this alert is active or just send the alert message.

System Shutdown Alert

When the dry contact device detects a critical problem with the system, the thermostat alerts the user that the system was shut down. When the dry contact device detects a problem with the system (for example, smoke detection), the thermostat will not call for heating, cooling, fan or IAQ equipment until the dry contact is deactivated or the feature is no longer configured at the thermostat.

Service Needed Alert

When the dry contact device detects an issue that requires service, the thermostat provides an alert to the user.

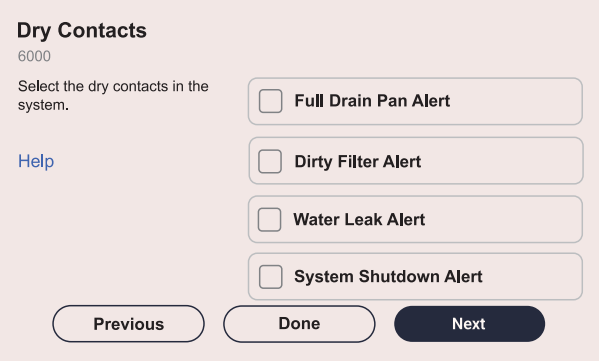
Fan Failure Alert

The Fan Failure Alert protects the equipment when there is no airflow. When the dry contact device (for example, sail switch) detects no airflow for 5 minutes after a call for forced air heat, cool or fan, the thermostat alerts the user that the system was shut down due to a lack of airflow. The thermostat will call for the fan and lock out all other equipment until the dry contact device senses air flow again or the feature is no longer configured at the thermostat.

Custom Alert

Allows the dealer to enter a custom alert to be displayed when a dry contact device is activated. For example, a float switch can detect when your sump pump is not working.

Dry Contact Setup Example



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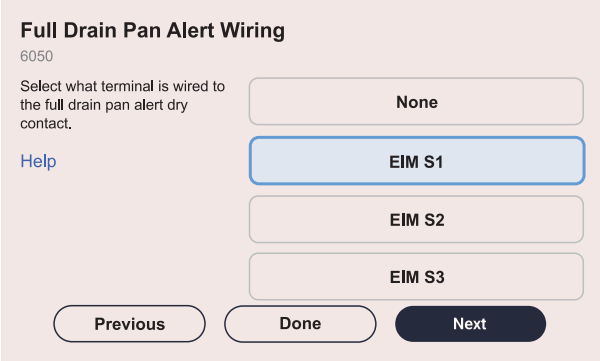

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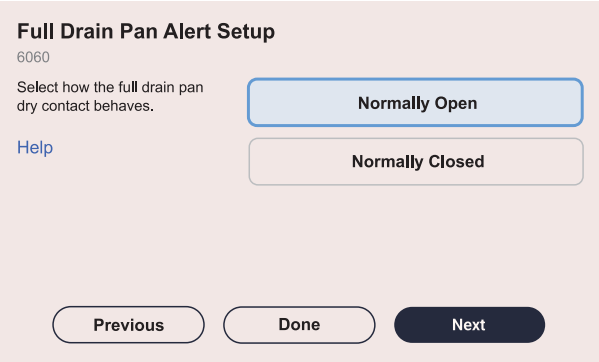

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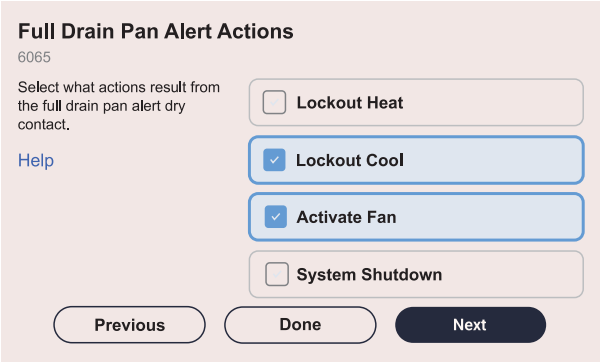

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Custom Alerts 1 through 4

Allows the dealer to enter a custom alert to be displayed when a dry contact device is activated. For example, a float switch can detect when your sump pump is not working.

When Custom Alert 1 through Custom Alert 4 is selected in ISU 6005, the ElitePRO™ Series Thermostat asks you to name the alert and then gives options for additional settings related to the alert. These settings are:

- **Which set of S terminals on the UWP or EIM the Dry Contact Alert is wired to (ISU 6190).**
  - There are S terminals on the UWP and four (4) sets of S terminals on the EIM. If a set of S terminals is already configured for use by a different Dry Contact Alert (or sensor), it will not be configurable.
- **Whether the switch wired to these terminals is normally open or closed (ISU 6200).**
  - The switch wired to the S terminals could either be open in normal (not alert) conditions or closed.
- **Enter the Dry Contact Alert name (ISU 6210).**
- **Whether there is an alert message displayed when the alert is active (ISU 6215).**
  - In most cases, the installer would want an alert message to appear on the ElitePRO™ Series Thermostat if there was a Dry Contact Alert active. However, the installer may be using the “alert” to do some other action (like running a ventilator when a sensor is reading high CO2). This may be normal operation and they may not wish to show an alert.
- **Lock Out Heat or Lock Out Cool (ISU 6230)**

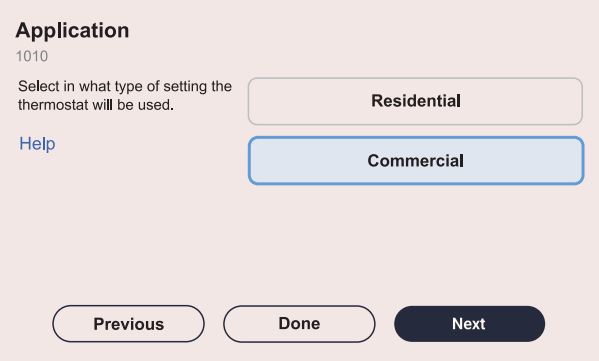
- If the installer chose to lock out heat or cool on a custom Dry Contact Alert condition, the thermostat will then ask if: "You want a delay before the lockout (ISU 6600 or 6620). For example, if someone was using a door sensor to lock out cooling, you wouldn't want to short cycle the cooling every time someone enters or exits. But if the door is left open for a certain length of time, you may wish to shut down the heat or cooling." Or, "If you still want a maximum temperature for cool (ISU 6610) or minimum indoor temperature for heat (ISU 6630). Example: If someone had a heat lockout configured when the window was open, they left the window open, and the indoor temperature dropped to 40°F, you probably still want the heat to run because the danger of pipes freezing overrides the inefficient use of heating with a window open"

- **Activate Fan (ISU 6230)**
  - If selected, this setting turns on the fan when the selected custom Dry Contact Alert (custom dry contact 1 through 4) is active.
- **Activate Custom U terminal (ISUs 6230, 6240, 6250, 6260)**
  - If you choose to activate a custom U terminal during a custom alert, the ElitePRO™ Series Thermostat will ask you to name the U terminals used. That way the ElitePRO™ Series Thermostat equipment status menu can show what is being turned on or locked out. For example, you could wire a shut off valve to the U contacts and the status would then show "Shut off valve energized" under equipment status.
- **Humidifier Lockout (ISU 8095)**
  - If the ElitePRO™ Series Thermostat is set for a custom Dry Contact Alert and to control a humidifier, you can choose to lock out the humidifier during a custom Dry Contact Alert (the Water Leak Alert option also offers this setting).
- **Dehumidifier Lockout (ISU 9145)**
  - If the ElitePRO™ Series Thermostat is set for a custom Dry Contact Alert and to control a dehumidifier, you can choose to lock out the dehumidifier during a custom Dry Contact Alert.
- **Turn On Ventilator (ISU 10065)**
  - If the ElitePRO™ Series Thermostat is set for a custom Dry Contact Alert and to control a ventilator, you can choose to turn on the ventilator during a custom Dry Contact Alert.
- **Lockout Ventilator (ISU 10140)**
  - If the ElitePRO™ Series Thermostat is set for a custom Dry Contact Alert and to control a ventilator, you can choose to lock out the ventilator during a custom Dry Contact Alert.

Commercial Features

The ElitePRO™ Series Thermostat can be set up for residential or light commercial applications (ISU 1010). When the thermostat is set up for Commercial, the thermostat meets Commercial Code, Title 24 and provides the following features:

- Commercial language (Occupied and Unoccupied)
- Temporary override (permanent hold is not allowed)
- Temporary override duration is limited to the amount set by the installer
- Adjustable ramp rates
- Initiate occupancy
- Displays name on home screen
- Remote setback using an occupancy sensor
- Economizer or Time of Day output
- Pre-occupancy purge
- Additional dehumidification control options



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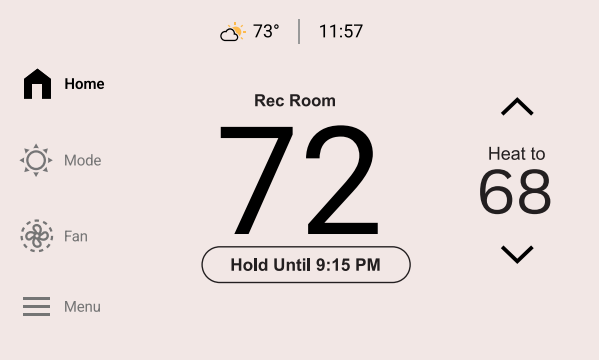
Overriding Schedules

Commercial Use

Touch ▲ or ▼ to adjust the temperature. It will be maintained until the hold time you set.



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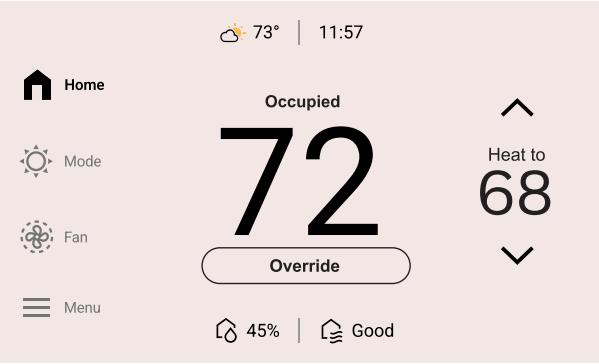
- To change the hold time, touch **Hold Until**. Then use the arrow buttons to change hold time. This time can be adjusted up to the maximum time set by the installer.
- Touch Override to use a pre-set occupied temperature if a person uses the room during an unoccupied period. The new temperature will be maintained for 1 hour and can be adjusted up to the maximum time set by the installer.



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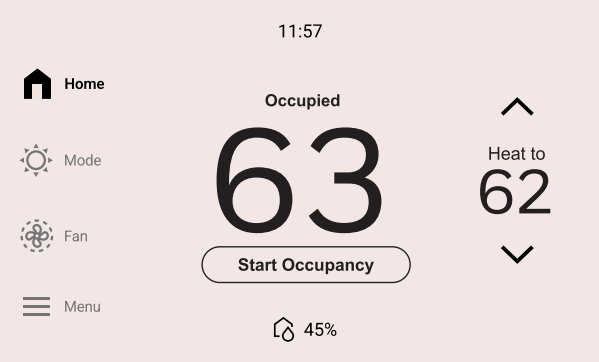
The programmed schedule will resume when the override timer expires. Touch **Cancel Hold** at any time to resume the program schedule.

Initiating Occupancy Mode (Commercial Use)

This feature keeps temperature at an energy-saving level after the thermostat transitions from an **Unoccupied** schedule period to an **Occupied** schedule period until someone touches **Start occupancy**. When you arrive, touch the button to maintain a comfortable temperature while the room is occupied. This feature might be used in a school room that isn't occupied every day.



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Touch the ▲ or ▼ buttons to set the temperature or the **Hold Until** time. The temperature is maintained until the time you set. Temperature returns to an energy saving level after the timer expires, or the **Occupied** period ends.

This feature is available only when programmed by the installer in ISU 4020 & 4030.

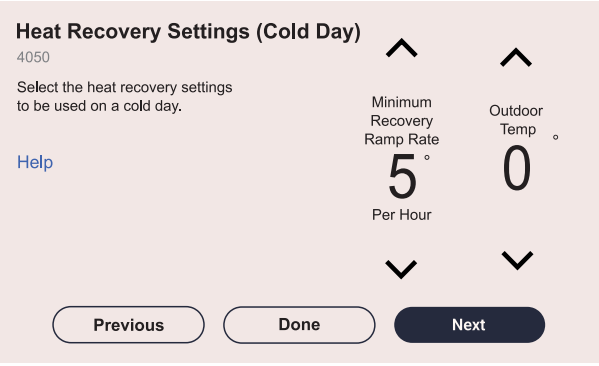
Ramp Rates

When the ramp rate is set to Off, the thermostat begins recovery at the scheduled time.

When a ramp rate is set, recovery begins early to reach the setpoint by the program time. Based on your recovery ramp setting and how far the thermostat is set back, the thermostat determines how early to turn on the system.

If the ElitePRO™ Series Thermostat is set to use a wired sensor, wireless sensor, or **Internet for outdoor temperature** (ISU 1060), you can set outdoor temperatures for mild, cold and hot days in your region. By setting these outdoor temperatures, the thermostat will automatically adjust the ramp rate based on outdoor conditions. This allows the thermostat to save energy by starting recovery at the optimum time as outdoor conditions change.

> **NOTE:**
> The thermostat uses an adjustable ramp rate when the thermostat is set up for Commercial. This allows the thermostat to recover on time during changing conditions (occupancy changes, temperature overrides, load conditions, opening/closing of doors, etc.) which are common in commercial applications.



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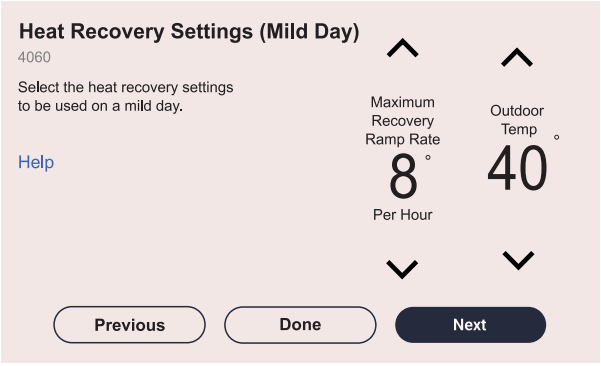

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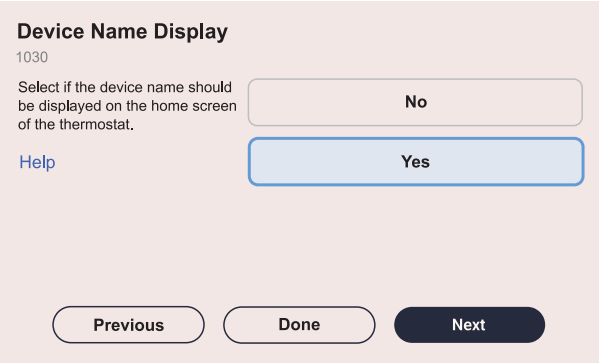
Custom Names

The thermostat location (name) can be displayed on the home screen. See the name “OFFICE”. This is useful when multiple thermostats are mounted in a manager’s office or equipment room, to quickly identify which thermostat controls a specific zone or area.



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When configured for Commercial application, the ElitePRO™ Series Thermostat will ask you to select the room where it is installed during initial setup. If you select **Yes** for ISU 1030, this is the name that will be displayed on the home screen. To change the name after setup is complete, go to **Installer Options** > **Devices** and **Sensors-Thermostat**. Then select **Change Room**. You may choose a pre-selected room name or choose **Other-Add-Room** to enter a custom name.

Economizer and Time of Day (TOD) Operation

Economizer

The thermostat can control an *Economizer* module to provide ventilation during occupied periods and free cooling when outdoor conditions are favorable. In some climates the cooling system may run several hours when it may not be required to maintain indoor comfort. When outdoor conditions are favorable, ventilation with outdoor air can achieve the same level of comfort at lower cost.

The thermostat works with the Jade W7212 Economizer Module for conventional systems and the Jade W7213 and W7214 Economizer Modules for heat pump systems.

Economizer Operation		
Thermostat Mode	**Equipment Operation**	**U Contacts**
Occupied	Heat/Cool running *	Closed
Occupied temporarily	Heat/Cool running *	
Occupied	Heat/Cool NOT running *	
Occupied temporarily	Heat/Cool NOT running *	
Pre-occupancy purge	Fan running	
Unoccupied	Cooling system running	
Unoccupied temporarily	Cooling system running	
Standby	Cooling system running	
Unoccupied	Cooling system NOT running	Open
Unoccupied temporarily	Cooling system NOT running	

Economizer Operation		
Thermostat Mode	**Equipment Operation**	**U Contacts**
Standby	Cooling system NOT running	Closed
Non-programmable	Fan running	
Non-programmable	Fan NOT running	Open

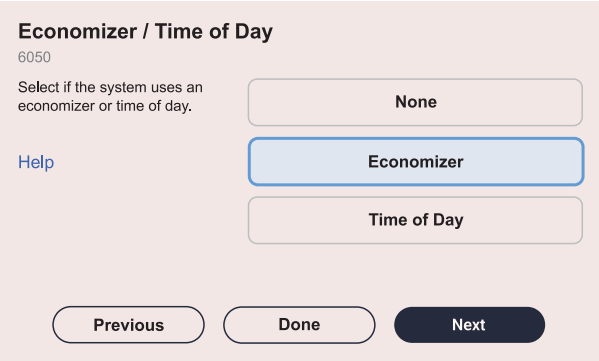
* Fan (G) always energized during Occupied & Occupied Temporary modes.

Time of Day (TOD)

The ElitePRO™ Series Thermostat can be set up for a Time of Day output in the installer setup. This output is commonly used to control lighting panels, turning them on for occupied periods and off for unoccupied periods.

TOD Operation	
Thermostat Mode	**U Contacts**
Occupied	Closed
Occupied temporarily	
Temperature overrides	
Unoccupied	Open
Unoccupied temporarily	
Standby	
Non-programmable	

The Economizer Module and Time of Day output connect to the U terminal at the thermostat or EIM and are set up at **ISU 6050 and 2217, 2220**.



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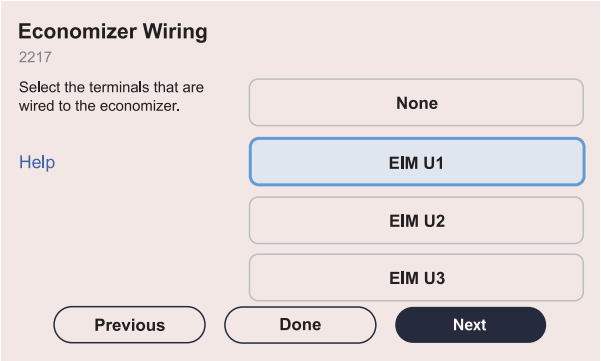

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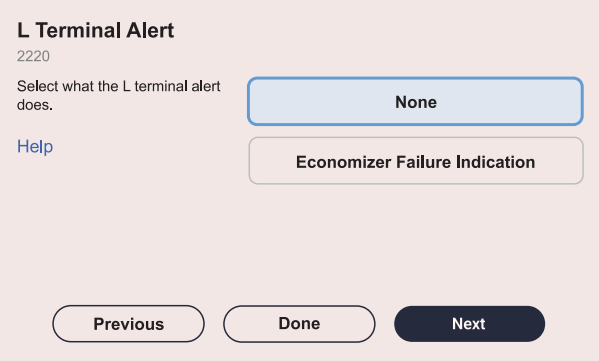
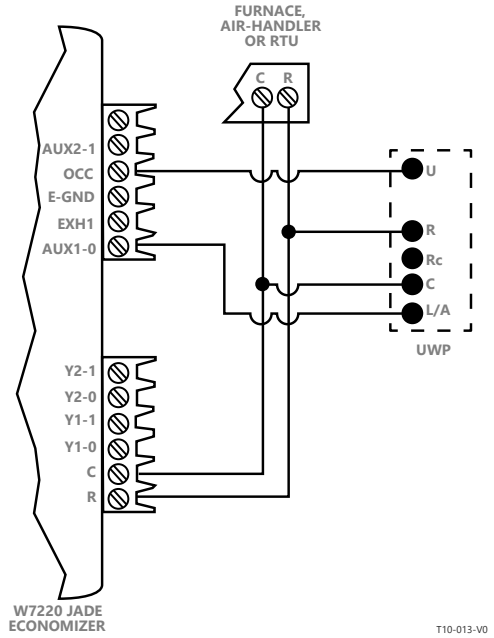


MCR39793

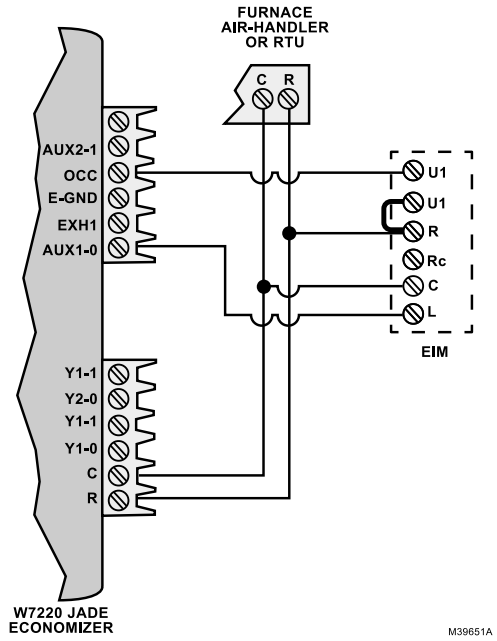
Economizer control using ElitePRO™ Series Thermostat without EIM



NOTE:

- **U** Slider tab must be in **up** position on UWP.
- **L/A** only used if economizer fault indication on thermostat is needed

Economizer control using ElitePRO™ Series Thermostat with EIM

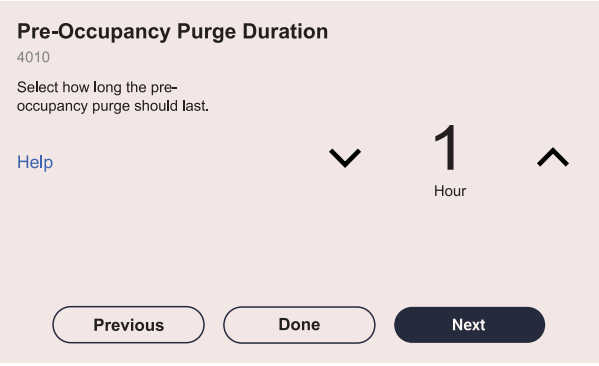


NOTE:

- Any set of **U** contacts can be used (selected in **ISU 2217**). Jump the unused **U** from the selected set to **R** on the EIM as shown.
- **L** only used if Economizer fault indication is needed on the ElitePRO™ Series Thermostat.

Pre-Occupancy Purge

“The ElitePRO™ Series Thermostat can be set up for Pre-Occupancy Purge in the installer setup (ISU 4010). When setup for Pre-Occupancy Purge, the thermostat runs the fan 1 to 3 hours before each occupied period to provide a comfortable workplace upon arrival. Options are Off and 1 to 3 hours.



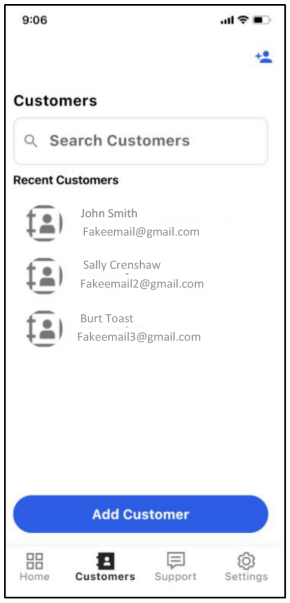
Resideo Pro App

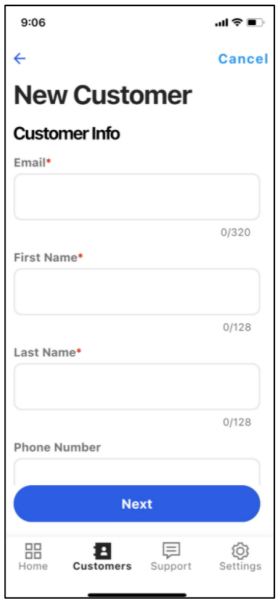
The Resideo Pro app allows the installer to:

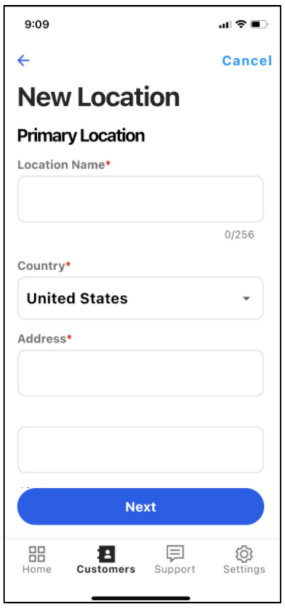
- Configure the thermostat and add the customer to create a record of the device, customer and location.
- One touch configuration with ISU Templates.
- Friction-free hand-off to homeowner so they can complete registration of their device and connect it to WiFi.

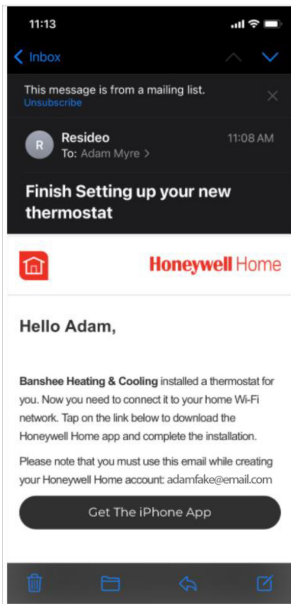
Steps

1. After powering the thermostat, follow the on-screen directions until it asks if you want to do setup on device or using the app. Select **Using the app**.
2. Open the Resideo Pro App. If you do not already have the Resideo Pro app, download the app and create your account.
3. Select **Customers**.
   If the thermostat installed is for an existing customer choose them from the list. If it is a new customer, select “Add customer”.
   Once you have finished adding the customer information below, the app will send an email to the customer inviting them to download the app if they don’t already have the app or to connect the thermostat to WiFi if they already have the app and the thermostat wasn’t added to WiFi by the installer.









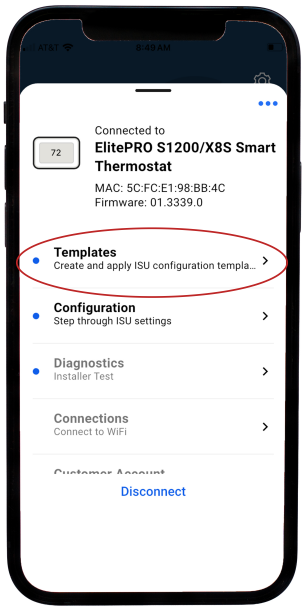
Using or saving Templates for Set up

- You need to be an owner / Admin to set up Templates in the Resideo Pro app.
- You can give admin access to your lead technicians if desired via Pro Portal.
- Any technician added by the company admin can apply one of the saved templates to ElitePRO thermostats during setup.

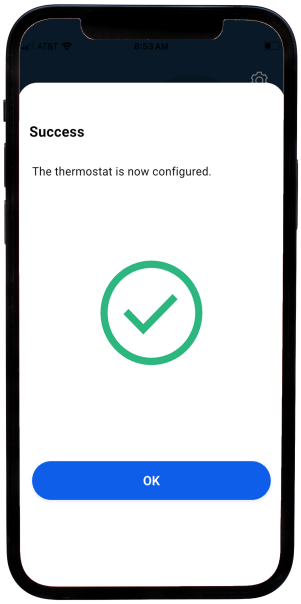
Apply a Template

To apply a Template, use the Resideo Pro app to connect to the Resideo Smart thermostat via Bluetooth when the thermostat prompts you to setup on thermostat or with the app.

1. Select **Templates** in the dashboard.



2. Select the template you wish to apply to the thermostat.*
3. Review the summary screen if needed. Then touch **Apply** in the app screen.
4. Once complete, the app shows “Success, the thermostat is now configured”. Select **OK**.



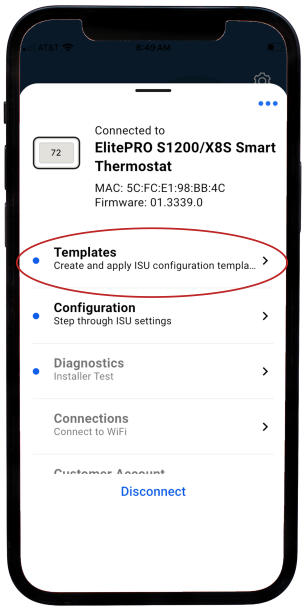
* If no templates have been saved by your company’s admin, then there will not be any templates to select here. The company’s admin will also see an option to “Add new Template” at the bottom of the Templates screen”

> **NOTE:**
> - Modifications can be made to the ISU settings after applying the template if needed. Just touch Configuration on app to do so.
> - You can create up to 50 different templates.
> - If you want to review the saved Templates, you can do so by going to **Tools** and selecting **Templates**.
> - Here you can edit the name or description of a template. Or delete a template that is no longer needed.

Create New Templates

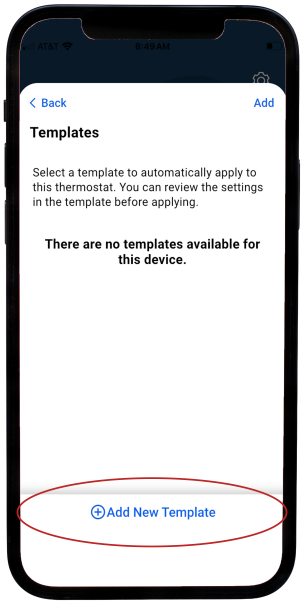
To create a Template, use the Resideo Pro app to connect to the Resideo Smart thermostat via Bluetooth when the thermostat prompts you to setup on thermostat or with the app.

1. Select **Templates** in the dashboard.

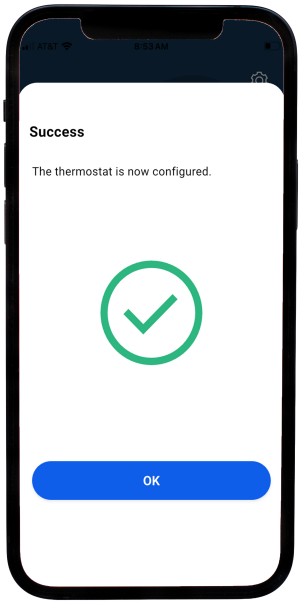


2. Choose **Add new Template** at the bottom of that screen. Or select one of the templates if there are already any saved.

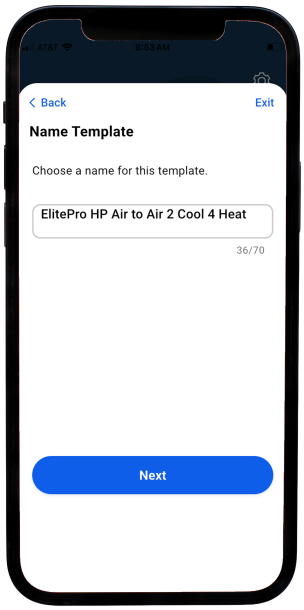
> **NOTE:**
> If you do not have admin permission, you will not see the option to **Add new Template.**



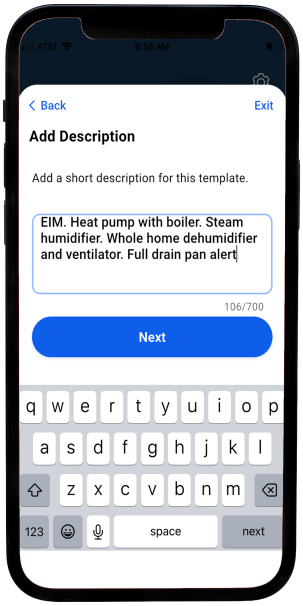
3. When creating a new template, follow the prompts to choose the ISU settings.
4. Once complete, the app shows “Success, the thermostat is now configured”. Select **OK**.



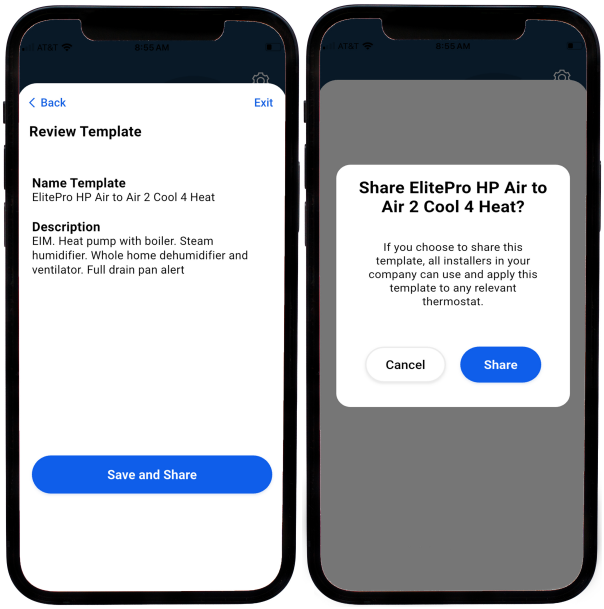
5. Name the template. The app defaults a name for the template, but you can modify that name as needed.



6. The app then asks you to add a description of the template.

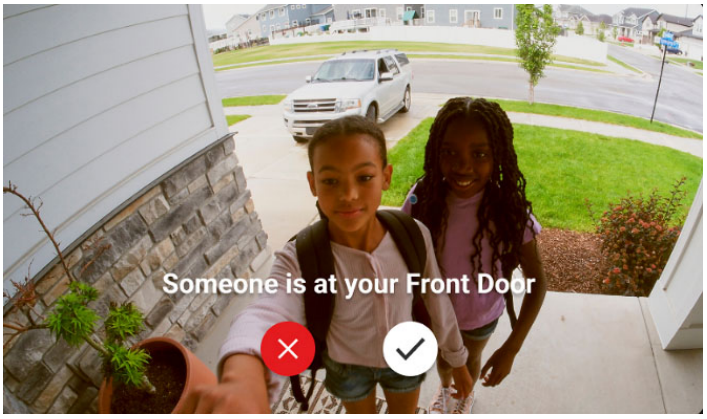


7. Review the Template, then select **Save and Share**.



8. By doing so, all of the employees in your company have access to this template to apply to their Resideo Smart thermostat installations.

Connecting a Video Doorbell (S1200 only)

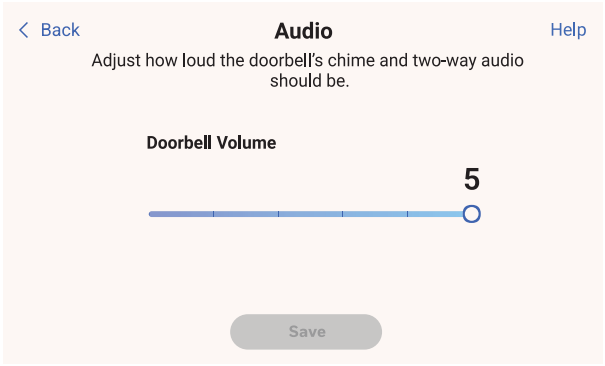


View video from compatible video doorbells. To connect your video doorbell use the First Alert App.

> **NOTE:**
> Video Doorbell Integration is only supported on the following models: THX1200W5, YTHX1200W5, THX1200B6, YTHX1200B6, YTHX1200W7, YTHX1200B8, THX1200W7S, THX1200B8S

Adjusting the Chime and Two-Way Audio Volume

To access the doorbell audio adjustments touch **Menu** > **Preferences** > **Doorbell Volume**.



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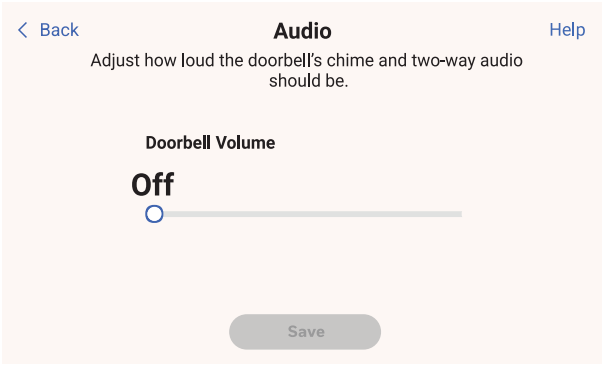

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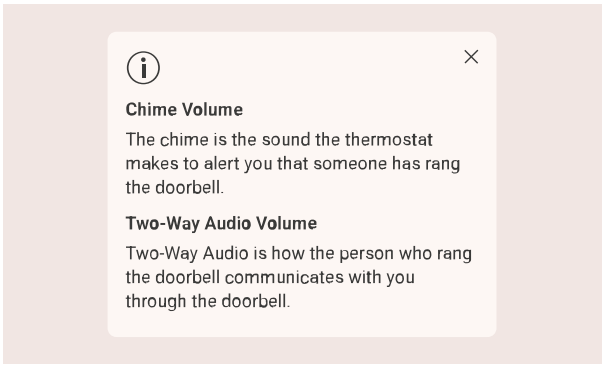

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Multiple doorbells to one thermostat or Multiple thermostats to one doorbell

If pairing multiple First Alert VX1 or Ring Doorbell Cameras in a location with multiple thermostats, individual doorbells can be linked to individual thermostats.

If a single doorbell is linked to multiple thermostats, both thermostats will receive the notification.

If multiple doorbells are linked to a single thermostat and a doorbell is pressed while the thermostat is already streaming from a different doorbell, the second doorbell will be ignored until the initial stream ends.

There is no maximum number of pairings. The limiting factor is network bandwidth.

FAQ's

WiFi connection questions

See "WiFi Setup and Troubleshooting" on page 121.

Software and security questions

Q: How can I be sure my thermostat is running the most up-to-date firmware?

A: When your thermostat is connected to WiFi, it will automatically receive over-the-air firmware updates from the First Alert App. These firmware updates contain things such as new features as well as security upgrades. Keep your thermostat connected to WiFi to ensure it receives these updates.

Q: How can I prevent a cybercriminal from making unauthorized changes to my thermostat?

A: If a cybercriminal gains access to your First Alert app, they can tamper with the settings of the products on that app, or remove those products from your account and add them to a different account. Make sure you select a password that meets the recommendations for complexity and save it in a secure location that others cannot access.

Other questions

Q: How can I remove the ElitePRO™ Series Thermostat from my WiFi network and App?

A: If you want to replace your ElitePRO™ Series Thermostat, or if you're moving out of your home and leaving the thermostat behind, you'll first want to clear out the personal settings that are stored on the thermostat. (Even when disconnected from power, the thermostat will keep your settings and home router information in memory.) We recommend resetting the thermostat's WiFi and Matter® settings (if previously connected).

Q: Is there a motion sensor in the thermostat?

A: The ElitePRO™ Series Thermostats have an on-board motion sensor in the thermostat. Additionally up to 20 C7189R3010 wireless indoor temperature, humidity, and motion sensors can be used with any of the ElitePRO™ Series Thermostats.

Q: What happens if "Active rooms" is used and no motion is detected in any of the rooms with sensors?

A: If the thermostat is set to control by active rooms, and no motion is detected, the sensor in the thermostat is used and the remote sensors are excluded. Most people schedule the sleep period to use "Selected sensors" rather than "active sensors" and choose the bedrooms for the sleep schedule.

The ElitePRO™ Series Thermostats have a setting for "Fallback sensor" which would be used rather than the thermostat if selected.

Q: When using active rooms, how long are those rooms considered "Active" after motion has last been detected?

A: The sensor has an occupancy algorithm based on how many motion events it sees within a certain timeframe. This was set up so that if someone briefly walks through a room, the sensor will tell the thermostat that the room is "occupied" for 10 minutes. If someone is in a room longer, then the timeout will be increased automatically.

Sensors communicate directly with the thermostat via Honeywell Home Redlink 3.0 technology. After sensing motion, the communication should take less than 3 seconds to assign the room priority, depending on battery and signal strength.

Q: How do the wireless indoor sensors detects motion.

A: The sensors use a Passive Infrared Sensor (PIR) detector.

Q: How does motion-based priority work with multiple people in the house?

A: If the thermostat's priority is set to 'Active Rooms', then any room that detects motion will become prioritized. The average of those rooms' temperatures will be monitored so that the thermostat can adjust to your preferred temperature setpoint. If one of the sensors no longer detects people in that room, that sensor will adjust after a period of time, using the algorithm based on motion events that it sees within a certain time frame.

Q: What's the range of detection on the motion sensor?

A: There are many factors that can affect this (height, body size, layers of clothing, temperature of clothing, angle, etc.). The typical range of our sensor is up to 20 feet.

Q: Are the ElitePRO™ Series ThermostatsUL and ULC listed or CSA listed?

A: UL, ULC, & CSA ratings are not required for low-voltage rated controls such as the ElitePRO™ Series Thermostats. UL rating is required for devices supplied by 50 volts or higher.

Q: Which Redlink Products do ElitePRO™ Series Thermostats work with? (Redlink compability)

A: ElitePRO S1000, S1100, and S1200 Redlink thermostats work with Redlink 3.0 accessories.

See "Redlink™ accessories" on page 59 for more details.

Q: What does "Warming Sen" mean on the thermostat display?

A: This message indicates that the thermostat is warming up its Indoor Air Quality (IAQ) sensor. It usually appears briefly after the thermostat is powered on.

Q: What should I do if my thermostat indicates poor indoor air quality?

A: See "Indoor Air Quality Monitoring (S1100 and S1200 only)" on page 156 for solutions.

Q: What does it mean when my thermostat shows "Calculating" in the Indoor Air Quality screen?

A: The thermostat will display "calculating" after initial installation or after a power-up to ensure the sensors are getting an accurate sampling of the air before showing the VOCs or estimated Carbon Dioxide. This may take several minutes.

Q: How can I keep the display from lighting up?

A: There are several options that control the display brightness and when the screen lights up. In some cases, you may not want the display to light up when motion is detected (for example, if thermostat is installed in an infant's bedroom). **Menu** > **Preferences** > **Display** has options including:

- **Idle screen behavior:** Determines whether the display transitions to the active screen when motion is detected or when the screen is tapped.
- **Screen brightness:** Allows customer to adjust the brightness setting for both active and idle screens.
- **App change behavior:** Lets you choose whether the display transitions to the active screen when a change is made through the app, or remains on the idle screen.

Q: What do the A2L regulations require of furnaces and air handlers?

A: For information about A2L regulations under the American Innovation and Manufacturing Act of 2020, including refrigerant leak detection requirements and how they relate to Honeywell Home thermostats and zone panels. See the document available at: https://digitalassets.resideo.com/damroot/Original/10017/33-00723.pdf.

Q: Why does the display go to the Honeywell Home startup screen?

A: It is normal that the thermostat will go to the startup screen where it shows "Honeywell Home" and then returns to the idle screen after a short delay if there has been a power outage or if there has been an over-the-air firmware update. Either of these should be a very infrequent occurrence. If you notice this is happening

regularly, there may be an issue with your equipment. Example: a limit may be tripping due to poor airflow.

If the issue happens regularly, we would recommend replacing the furnace filter and having an HVAC pro service the unit if the issue persists.

> **NOTE:**
> A thermostat that uses batteries, or does not have a premium display, may have been masking this type of system issue, however if a limit is regularly cutting power to the thermostat your system will likely have reduced performance and could be susceptible to damage.

Troubleshooting and Support

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

Display Behavior Is Not As Expected

Display is blank:

- Check circuit breaker and reset if necessary.
- Make sure power switch for heating & cooling system is on.
- Make sure furnace door is closed securely.
- Make sure the C wire is connected.

Cannot change temperature setpoint:

- Verify the thermostat is set to the correct mode. Touch **Mode** to change mode setting.
- If the display indicates "**Setting locked**" when you touch the up or down arrow, you can unlock the screen by selecting **Menu** > **Screen lock**.
- The thermostat may be preventing you from changing the set-point above or below a certain setting because of minimum and maximum settings. **Menu** > **Preferences** > **Temperature limits**.
- Default minimum and maximum settings:
  - 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)

Weather menu isn't displayed:

This menu is only shown when the thermostat is connected to WiFi and the app. If WiFi connection is lost, the thermostat will not show that option until connection is restored.

Display doesn't show indoor humidity:

The ElitePRO™ Series Thermostat has an ISU setting to not display indoor humidity (ISU 14050).

Display temperature is inaccurate (reads too high or low)

There are different reasons that the room temperature reading on the thermostat may be reading higher or lower than expected.

- "Feels Like Temperature" is a setting that can make the indoor temperature reading show a few degrees warmer when relative humidity is high. See "Feels like Temperature" on page 162.
- Indoor display offsets can be set to make the display read up to 3 degrees higher or lower than the sensor reading or +/- 12% RH from the humidity sensor reading. See "Indoor Display Offsets" on page 134.
- If one or more wireless sensors is used, the thermostat can be set to measure temperature at the thermostat, a wireless sensor, or an average reading. See "Priority" on page 137.
- If a sensor is wired to the S terminals on UWP, feedback on that sensor can cause display accuracy issues. Even if the thermostat is set to a wired outdoor sensor, if that sensor is wired in parallel to another thermostat or zone panel or getting feedback some other way, this can drastically affect the indoor temperature reading.

Menu options are not shown

When Menu is selected, the display shows menu options and allows the user to scroll left or right to see additional options. Some options may not be shown if the thermostat is not set to support those settings such

as humidification. If the display is set for a lockout, many of the menu options are not shown. Select **MENU** > **SCREEN LOCK** to view lockout status. The lockout status should only be changed by the thermostat owner and there may be an option to require a password in order to unlock the screen.

Thermostat is losing time:

If the ElitePRO™ Series Thermostat is used with Matter without registering the thermostat to the First Alert App, it may lose time. We recommend registering the thermostat to the First Alert App, even when controlling it through Matter.

Heating or Cooling Issues

Heat runs with thermostat in cool or off mode:

Does the display show “Freeze Protection active”? If so, the installer set the thermostat for a freeze protection temperature that maintains a minimum temperature even when the thermostat is set to off or cool. This feature will generate an alert message if the temperature drops below the freeze protection setting.

In addition to the Freeze protection setting, when used for an radiant floor heat system, there are settings for minimum and maximum floor temperature.

Verify the following settings:

- ISU 5170 is Freeze protection
- ISU 5150 are the minimum and maximum floor temperature settings (only shown when ISU 1055 set for wired floor sensor)

Aux heat runs in cooling:

- For heat pump systems, verify there is not a wire attached to W on the UWP. If there are separate wires to W and O/B the thermostat is mis-wired.

Cool runs with a call for heat:

- Verify that the O/B wire is making a good connection and verify the changeover valve setting is correct for the heat pump used (ISU 2060).

Heat doesn’t come on:

When in the heat or emergency heat mode and not calling for heat, the display shows “heat to”.

When calling for heat or emergency heat the display shows “heating to”.

If display is showing “**WAITING FOR EQUIPMENT**” above the room temperature it is in a delay mode to protect the equipment. If the delay lasts longer than 5 minutes, see "WAITING FOR EQUIPMENT stuck in display" on the next page.

If display is ***not*** showing “**WAITING FOR EQUIPMENT**”, verify the thermostat is set to Heat, Em Heat, or Auto mode and verify that the heat setpoint is above room temperature. Does the display indicate “Heating to” (rather than "heat to") above the set point?

If “**HEATING TO**” is displayed, and heat does not come on after a short delay, have the installer verify wiring connections and R/Rc slider switch on UWP are good.

If “**HEAT TO**” (rather than "HEATING TO") is displayed above the setpoint, but heat set point is above room temperature, go to EQUIPMENT STATUS and see if any reason is given for why heat is not running.

Check for any active alerts. The ElitePRO® Series Thermostat can be set to lock out heating during active alerts. A custom Dry Contact Alert set to lock out cooling could have been snoozed (or set to not display alert message by installer) but equipment status would show the cooling as “Idle (Dry contact lockout)”.

Cooling doesn't come on:

When in the cool mode and not calling for cooling, the display shows "cool to".

When calling for cooling the display shows "cooling to".

If display is showing "**WAITING FOR EQUIPMENT**" above the room temperature it is in a delay mode to protect the equipment. If the delay lasts longer than 5 minutes, see "WAITING FOR EQUIPMENT stuck in display" below.

If display is ***not*** showing "**WAITING FOR EQUIPMENT**", verify the thermostat is set to cool, or Auto mode and verify that the cool setpoint is below room temperature. Does the display indicate "cooling to" (rather than "cool to") above the set point?

If "**COOLING TO**" is displayed, and heat does not come on after a short delay, verify the wire connections, R/Rc slider jumper on UWP (or R, Rh, and Rc jumpers if an EIM is used). If those variables check out, your HVAC contractor can call Tech Support to verify configuration and for further troubleshooting.

If "**COOL TO**" (rather than "COOLING TO") is displayed above the setpoint, but cool set point is below room temperature, go to EQUIPMENT STATUS and see if any reason is given for why cooling is not running.

Check for any active alerts. The ElitePRO® Series Thermostat can be set to lock out heating during active alerts. A custom Dry Contact Alert set to lock out cooling could have been snoozed (or set to not display alert message by installer) but equipment status would show the cooling as "Idle (Dry contact lockout)".

WAITING FOR EQUIPMENT stuck in display

If display shows "**WAITING FOR EQUIPMENT**" then the thermostat is holding off running the heating or cooling to prevent short cycling or because of a lockout condition. The short cycling delay should last 5 minutes at most, but an alert lockout will keep that equipment locked out until the alert condition is resolved. The short cycling delay most commonly would occur on start up, after a power loss, or if someone adjust setpoint within 5 minutes of equipment shutting off.

If you time this and it shows "**WAITING FOR EQUIPMENT**" for longer than 5 minutes.

- See if there are any active alerts. The ElitePRO® Series Thermostat can be set to lock out the heat during certain alerts. A custom Dry Contact Alert set to lock out heat and/or cooling could have been snoozed (or set to not display alert message by installer). In some cases, the equipment status would indicate why the heat or cool is off (Example: it may show "Idle (Dry contact lockout)".
- It is possible there is an intermittently power loss to the thermostat. As a test the installer could remove all wires besides R and C from UWP (or EIM if the ElitePRO® Series Thermostat is linked to an EIM) and then test the heat or cooling. If the thermostat then indicates a call for heat or cooling within 5 minutes, a shorted wire or high equipment draw could be interrupting power to the thermostat momentarily at the start of a heat or cooling call.

Cooling runs below set point:

Verify the cooling is running while cool set point is above the room temperature reading on the display. If so, verify the thermostat is deliberately running cooling. When doing so, the display shows "**Cooling to**" (rather than "*COOL* TO"). Also, menu equipment status will show if the thermostat is trying to run cooling or not.

- **If the display shows "Cooling to" and a setting that is above the room temperature reading** it is likely the ElitePRO™ Series Thermostat has been set to over-cool when humidity is high. If that display shows a status of "DEHUMIDIFYING" select "OPTIONS" and deselect "USE DEHUMIDIFICATION". Then go back to the home screen and see if the cool call ends. The ElitePRO™ Series Thermostat can run the cooling up to 3 degrees below the cool set point if configured to use the air conditioner for dehumidification.

  See "AC with High Speed Fan" on page 152. If over-cooling is not desired, go to the dehumidification menu and turn dehumidification off.

- If display shows “COOL TO” over setpoint, and the cooling is running, something is wrong. **Turn off the power to the cooling equipment and call a professional for assistance**.

Heat runs when room temperature reading is above the heat setpoint:

- If the thermostat is not in heat mode, see “Heat runs with thermostat in cool or off mode”.
- If the thermostat is in heat or emergency heat mode, verify whether the display indicates a call for heat.

If display shows “HEAT TO” over setpoint, the heat should not be running.

If the display shows “HEATING TO” over setpoint, the thermostat is trying to run the heating.

Display shows **HEAT TO** and heat is running.

The thermostat is not trying to run the heating at this time. Look for wiring shorts, wires connected to the wrong terminal, or incorrect system settings in the ISU settings. If display shows “HEAT TO” over setpoint, and the heat is running, something is wrong. **Turn off the power to the heating equipment and call a professional for assistance**.

Display shows **HEATING TO** and heat is running.

The thermostat is trying to run the heating at this time. It is unusual that the thermostat would run heat if the room temperature reading is above the setpoint in thermostat display. Check equipment status.

Does the display indicate “Freeze Protection Active” above the room temperature?

In addition to the Freeze protection setting, when used for an radiant floor heat system, there are settings for minimum and maximum floor temperature.

Verify the following settings:

- ISU 5170 is Freeze protection
- ISU 5150 are the minimum and maximum floor temperature settings (only shown when ISU 1055 set for wired floor sensor)

Fan Issues

Fan will not run when expected

If the thermostat is set to control a heat-only system such as a boiler, there will not be a fan setting. **Menu** > **Equipment Status** will show the fan state.

For forced air heating or cooling, check equipment status. This will show the fan state. If it says “**Idle (Fan Lockout)**”, then the installer configured the thermostat to lock out fan at the end of a call for cooling for anywhere from 5 to 90 minutes (ISU 3125). This is set up for some homes in very humid regions where running the fan at the end of a cool call can blow air over a wet coil and re-introduce humid air back into the space.

The ElitePRO™ Series Thermostat can have the fan set to on, auto, or circ for each schedule period. For some systems, there may alternately be fan settings of low, medium, and high. See "Fan Scheduling" on page 132.

If the EQUIPMENT STATUS screen shows Low, Medium, or High after “on”, the thermostat is set to control a PTAC or fan coil unit with multiple fan speeds. Low will energize G, medium will energize Y2. High will energize either Y2 if set for 2 fan speeds or whatever the installer assigned as the high speed when set to control 3 fan speeds. If U is used for high speed fan at the thermostat, this must be wired to the upper U and the switch must be up. If high speed fan is assigned to U1, U2, or U3 at EIM, the unused U from that set must be jumped to Rc. G is not energized if the thermostat is running the fan in medium or high speed.

If the EQUIPMENT STATUS screen shows the fan is on but the blower fan is not running, call the Pro installer to troubleshoot the issue.

Fan is running unexpectedly

- The thermostat have different settings that might have turned on the fan. Check **Menu** > **Equipment Status** to see what the thermostat indicates it is running.
- The thermostat could be set to run the fan with a call for ventilation, humidification, or dehumidification.
- The thermostat will also run the fan with a call for cooling and in forced air heat systems the fan will also run with a call for heat (but this may or may not be controlled by the thermostat depending on the system type settings).
- There are ISU settings for extended fan run in heat or cool mode (ISU 3260) which can be set for up to 15 minutes.
- Additionally, the thermostat has a “TEMPERATURE BALANCING” option to run the fan to average hot spots and cool spots if a remote sensor is used. This would have been configured by the installer in the ISU. To see if this is being used, go to menu and look for TEMPERATURE BALANCING. If that option appears, select it and see if it is currently active.
- The thermostat can have the fan set to on, auto, or circ for each schedule period. For some systems, there may alternately be fan settings of low, medium, and high. See "Fan Scheduling" on page 132.
- If the thermostat doesn’t indicate the fan is on under the EQUIPMENT STATUS menu, it is possible something else in the system is controlling the fan such as a separate control for a humidifier, dehumidifier or ventilator.

Fan mode changes by itself

See the "Fan is running unexpectedly" above or "Fan will not run when expected" on the previous page.

Redlink Wireless Issues

I cannot link my ElitePRO™ Series Thermostat to the EIM:

There are different Redlink EIMs. Verify that you have compatible thermostat and EIM.

- The EIM used with ElitePRO S1000, S1100, and S1200 Thermostats is EIM4010, but it will also work with the THM04R3000 EIM which goes with the T10+, however when used with the THM04R* model, the ElitePRO™ Series Thermostat will not support the 3.0 ERM (outdoor module) or some additional settings that T10+ did not support.

> **NOTE:**
> * THM04R3000 EIM with Firmware 1.1.4 or later (higher). This will be the firmware on THM04R3000 EIM from factory with date code 2337 or higher. THM04R3000 EIMs made prior to this would have received an OTA firmware update if they had been used with T10+ thermostat that had been registered to the app.

- Verify that the switch on the EIM4010 is set to the correct position. If you are not using an ANT4010 external antenna, set the switch to “Internal Antenna”. If the switch is set to “External Antenna” when no external antenna is attached, the EIM4010 may still pair and communicate with the thermostat. However, it will not use the same internal Redlink antenna diversity as it does when the switch is set correctly, and communication will not be as robust.
- If the ElitePRO™ Series Thermostat had already been configured without an EIM, you need to do a factory reset of the thermostat to get to the initial screen that allows you to choose to use it with an EIM. Then follow the instructions on ElitePRO™ Series Thermostat display.
- If issue persists, see "Redlink communication issues" on the next page.

There is no option to not use the ElitePRO thermostat with an EIM

The ElitePRO thermostats sold in kits with an EIM do not have any onboard relays other than U. They must be linked to an EIM. There thermostats are also offered separate from the kit as a replacement but the box will indicate they must be used with an EIM. See the chart in "Model Numbers" on page 6.

I cannot link my ElitePRO™ Series Thermostat to the wireless outdoor sensor:

Verify that you have the correct outdoor sensor for the ElitePRO™ Series Thermostat. The C7089R3013 is the Redlink 3.0 wireless sensor that is compatible with the ElitePRO™ Series Thermostats. The C7089R1013 is the older Redlink 2.0 sensor and is not compatible with ElitePRO™ Series Thermostats.

- See "Wireless Outdoor Sensor Installation" on page 62.

Active Rooms is selected but one or more of my sensors doesn't register activity:

Go to **Menu** > **Priority**. Verify active rooms is selected. View the status of the sensor(s) in question in that screen. If there is not an indication of occupancy by that sensor (green person next to sensor name) move in front of the sensor. If that doesn't change the status of the sensor:

- Verify the sensor you are testing is the one you see in the display. To do so, go to **Devices and Sensors** and select the sensor name.
- Verify the **Use Motion** slider is set to Enabled.

If so, select **OPTIONS/BLINK LIGHTS**. Go back to the sensor and verify it has a blinking light.

If not, check the other sensors in the home to see if the sensors were placed in the wrong rooms.

I cannot link my ElitePRO™ Series Thermostat to a wireless indoor sensor:

Verify that you have a compatible indoor sensor for the ElitePRO™ Series Thermostat. (See "Redlink™ accessories" on page 59).

If you have verified the sensor is a compatible model, move the sensor to the same room as the thermostat but keep at least 2 feet away and see if you can get the sensor to link.

Verify you have not exceeded the maximum number of indoor sensors for that thermostat (20 indoor sensors maximum).

See "Wireless Indoor Sensor Installation" on page 61.

Redlink communication issues

In most cases Redlink thermostats connect to an EIM and Redlink Accessories and experience no communication issues even in very large homes. If the home has a lot of metal or concrete in the walls/floors between Redlink devices, this can impede the signal. In those cases, the connection will most likely fail at the time of installation. If the thermostat successfully connects to the Redlink accessory, you can touch **Menu** > **Devices and Sensors**. Then select the Redlink device you want to check the signal strength for.

A good signal is >/= -90 dBm. (Since this is shown as a negative value -80 dBm is > (greater than) -90 dBm).

> **NOTE:**
> If multiple EIMs are used, it is recommended to mount them at least 2 feet apart to prevent interference.

If you are not able to get the thermostat to connect with a Redlink accessory:

1. Verify compatibility. See "Q: Which Redlink Products do ElitePRO™ Series Thermostats work with? (Redlink compability)" on page 188.
2. If possible, relocate the accessory closer to the thermostat and test again. This is easy to do with wireless sensors but may be difficult to do with an EIM or ERM.
3. If the EIM is in a metal box (Rooftop unit), you can use an antenna to extend the signal. Some installers will install an EIM in the rooftop unit and the antenna will drop down from there through the roof to a location with better wireless signal. The EIM4010 can use the external antenna, the THM04R EIM cannot.

4. High EMF's could interfere with wireless signals including Redlink. EMF's can interrupt or shorten the wireless communication between Redlink components. A digital, 3 axis EMF meter can be used to locate and work around EMF interference in mechanical rooms or other places where a contractor may need to install a Redlink component. The most common sources of EMF interference found in residential and light commercial buildings are electrical breaker panels, motors, large fans, compressors, transformers and other electrical components.

   EMF's tend to lose strength and dissipate within a very short distance from their source. This is why understanding the Redlink signal travel direction is important so that the EMF interference can be bypassed.

   For example, placing the EIM on the correct side of a breaker panel may mean the difference between the signal connecting to the Redlink components or not.

5. Only one EIM (host) can be in enrollment mode at a time. If an EIM is in enrollment and you press connect on a second EIM, the light on the second EIM will not flash and it will not enter enrollment mode.

Wi-Fi and app-related issues:

See "WiFi Setup and Troubleshooting" on page 121.

Customer Assistance

Call Resideo Customer Care toll-free at **1-800-633-3991**.

5-year limited warranty

For Warranty information go to **resideo.info/US-Warranty-THERMOSTAT**

Regulatory

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,
2. This device must accept any interference received, including interference that may cause undesired operation.

47 CFR § 15.21

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)

For additional FCC information for this product, see https://customer.resideo.com/en-US/support/residential/codes-and-standards/FCC15105/Pages/default.aspx

IC REGULATIONS

RSS-GEN

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license 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.

RF Exposure Statement: FCC and IC Regulations

Warning:

The antenna(s) used for these transmitters must be installed to provide a separation distance of at least 20 cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter. Operations in the bands 5150-5250 MHz and 5250-5350 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

⚠ WARNING

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.

IMPORTANT:

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 negative consequences for the environment and human health.

IFT Regulations

This device operation is subject to the following two conditions:

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

resideo

Resideo Technologies, Inc.
Scottsdale, AZ 85254
1-480-573-5340
www.resideo.com

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33-00762-01 3/26