

PROSELECT
PSTSN11AWH Non
Programmable
Thermostat



PROSELECT PSTSN11AWH Non Programmable Thermostat Installation Guide

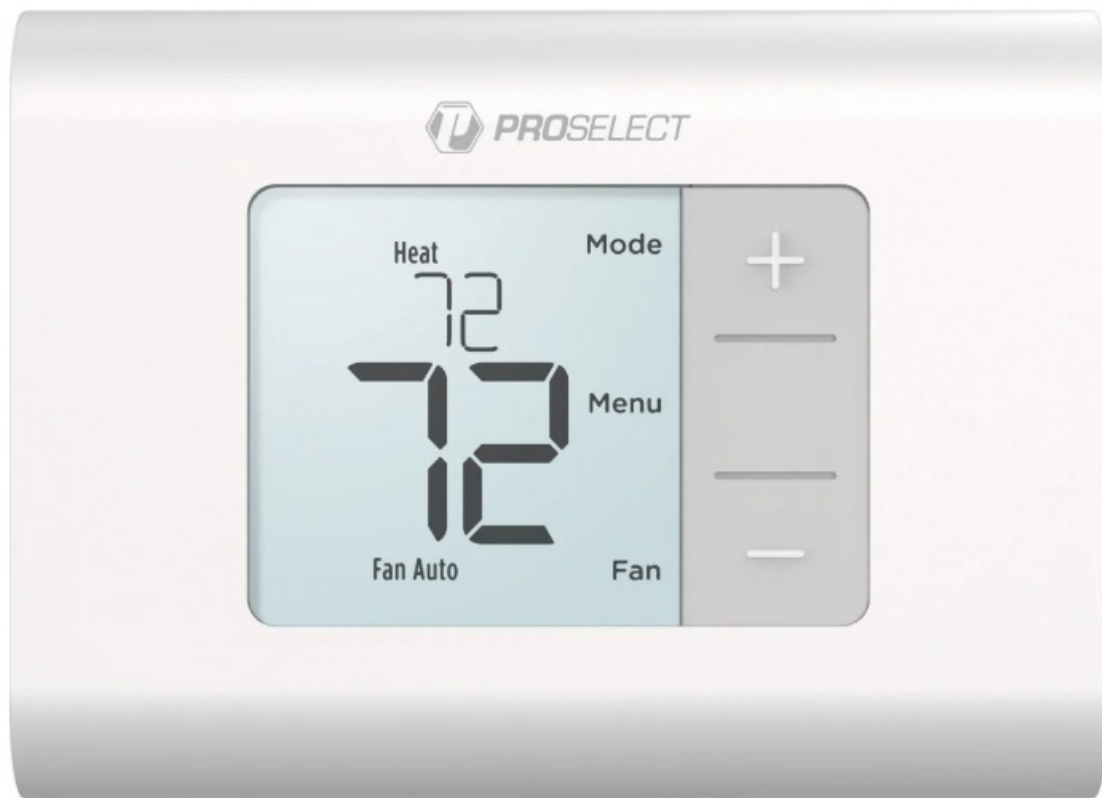
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PROSELECT PSTSN11AWH Non Programmable Thermostat

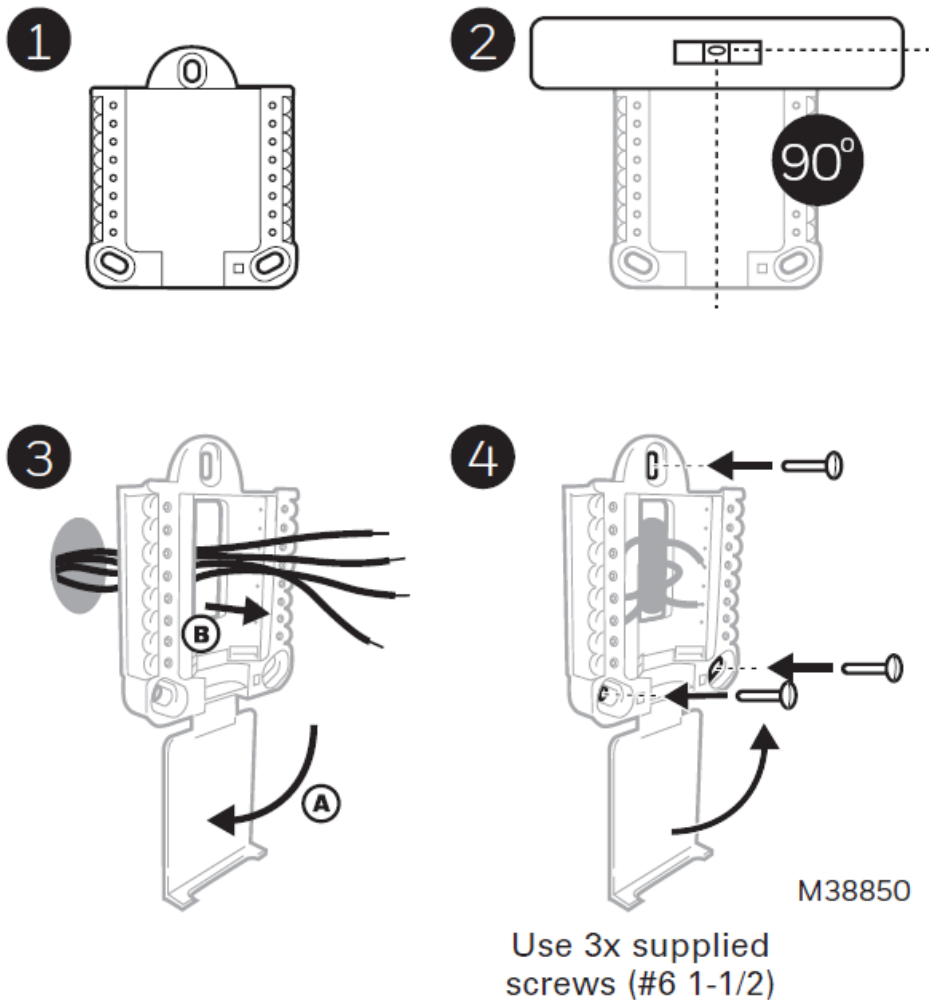


Package Includes

- Base Plate Mounting System
- Screws and Anchors
- 2 AA Batteries
- Thermostat Literature

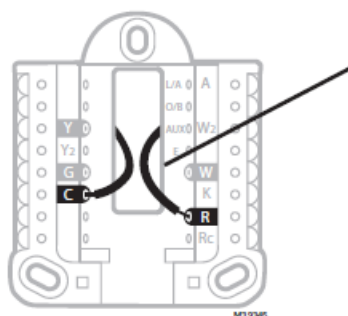
Base plate mounting system installation

1. Before starting, turn the power off at the breaker box or switch. Open the package to find the base plate. See Figure 1.
2. Position the base plate on the wall. Level and mark hole positions. See Figure 2.
Drill holes at marked positions, and then lightly tap supplied wall anchors into the wall using a hammer.
 - Drill 3/16" holes.
3. Pull the door open and insert the wires through the wiring hole of the base plate. See Figure 3.
4. Place the base plate over the wall anchors. Insert and tighten the supplied mounting screws. Do not over-tighten. Tighten until the base plate no longer moves. Close the door. See Figure 4.



Power options

- Insert R and C wires into designated terminals for primary AC power (C terminal is optional if batteries are installed, but it is recommended).
- Remove wires by depressing the terminal tabs.



Setting slider tabs

Set R Slider Tab.

- Use a 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, set the slider to the up position (1 wire).

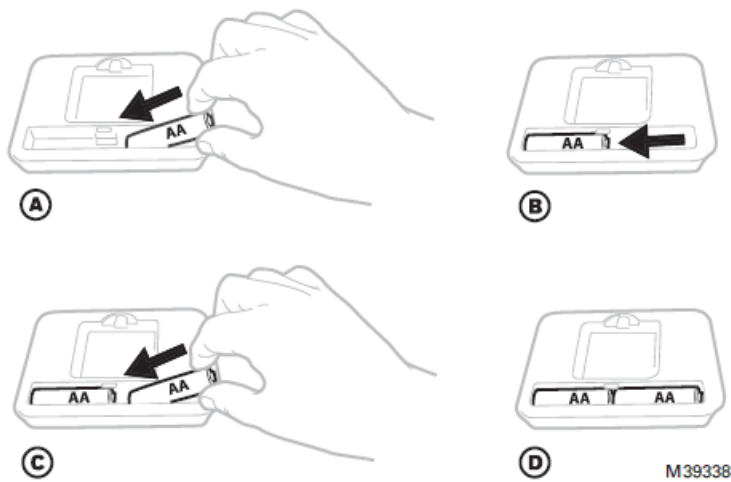
- If there is one wire connected to the R terminal and one wire connected to the Rc terminal, set the slider to the down position (2 wires).

Base plate wiring terminal designations

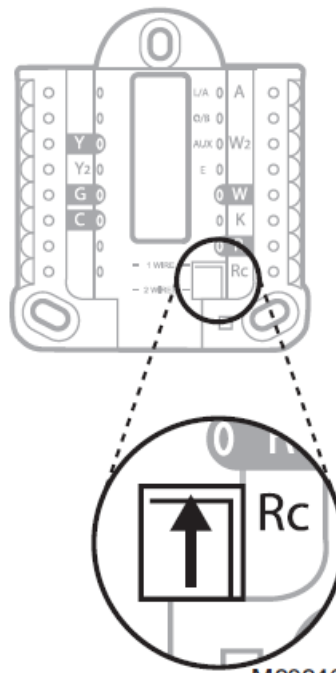
| | | | |
|-----------|--|-----------------|---------------------------------------|
| | | L/A - A | Not used |
| | | O/B | Changeover valve |
| Y | Compressor contactor (stage 1) | AUX - W2 | Auxiliary heat (PSTSN21AWH Only) |
| Y2 | Not used | E | Emergency heat (PSTSN21AWH Only) |
| G | Fan | W | Heat (stage 1) |
| C | 24VAC common. For 2 transformer systems, use common wire from cooling transformer. | K | Not Used |
| | | R | 24VAC power from heating transformer* |
| | | Rc | 24VAC power from cooling transformer* |

Note: Not all terminals may be used, depending on the system type that is being wired. The most commonly used terminals are shaded.

- Insert AA batteries for primary or backup power.



Base Plate Mounting System



R/Rc Slider Tab (built-in jumper)

A terminal can be jumped using the Slider Tab. See “Setting Slider Tabs” above.

Wiring conventional systems: forced air and Hydronics

- 1H/1C System (1 transformer)
- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- Y Compressor contactor
- C 24VAC common [3]
- W Heat
- G Fan

Heat-only System

- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- C 24VAC common [3]
- W Heat

Series 20 Zone Valve [5]

- R Series 20 valve terminal “R” [1]
- Rc [R+Rc joined by Slider Tab] [2]
- Y Series 20 valve terminal “W”
- C 24VAC common [3]
- W Series 20 valve terminal “B”

Heat-only System (power open zone valve) [5]

- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- W Valve
- C 24VAC common [3]

1H/1C System (2 transformers)

- R Power (heating transformer) [1]
- Rc Power (cooling transformer) [1]
- Y Compressor contactor
- C 24VAC common [3, 4]
- W Heat
- G Fan

Heat-only System with Fan

- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- C 24VAC common [3]
- W Heat
- G Fan

Cool-only System

- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- Y Compressor contactor
- C 24VAC common [3]
- G Fan

Wiring heat pump systems

1H/1C Heat Pump System

- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- Y Compressor contactor
- C 24VAC common [3]
- O/B Changeover valve [6]
- G Fan
- W Do not use this terminal for heat pump applications!

2H/1C Heat Pump System (PSTSN21AWH only)

- R Power [1]
- Rc [R+Rc joined by Slider Tab] [2]
- Y Compressor contactor
- C 24VAC common [3]
- O/B Changeover valve [6]
- G Fan
- AUX Auxiliary heat
- E Emergency heat
- W Do not use this terminal for heat pump applications!

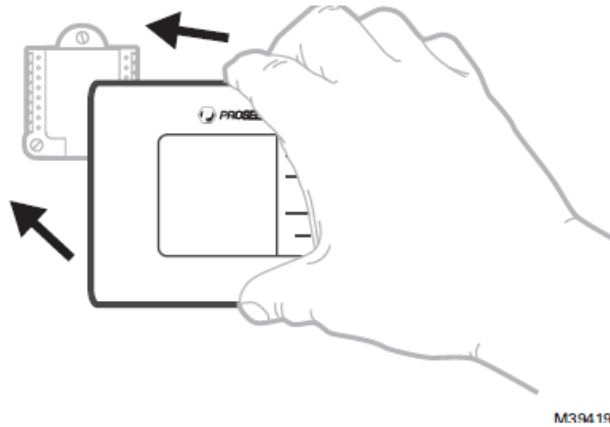
NOTES

Wire specifications: Use 18- to 22-gauge thermostat wire. Shielded cable is not required.

1. Power supply. Provide disconnect means and overload protection as required.
2. Move the R-Slider Tab on the base plate to the R setting. For more information, see “Setting slider tabs”
3. Optional 24VAC common connection.
4. A common connection must come from the cooling transformer.
5. In ISU set the Heat system type to Radiant Heat. Set the number of cool stages to 0.
6. In Installer Setup, set the changeover valve to O (for cool changeover) or B (for heat changeover).

Thermostat mounting

1. Push excess wire back into the wall opening.
2. Close the base plate door. It should remain closed without bulging.
3. Align the base plate with the thermostat, and push gently until the thermostat snaps in place.
4. Turn the power on at the breaker box or switch.

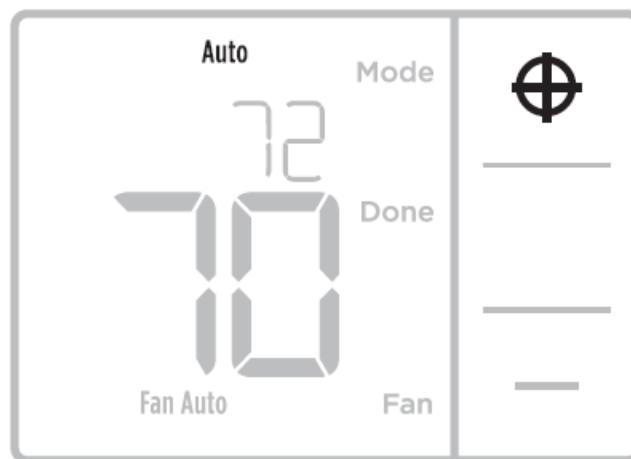


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System operation settings

1. Press Menu, and then press the Mode (+) button to cycle to the next available System mode.
2. Cycle through the modes until the desired System mode is displayed, and then press Done.

NOTE: Available System modes vary by model and system settings.

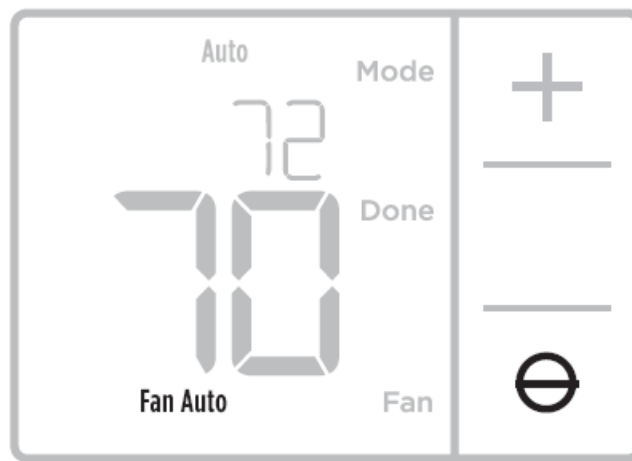


System modes

- Auto: The thermostat selects heating or cooling as needed.
- Heat: The thermostat controls only the heating system.
- Cool: The thermostat controls only the cooling system.
- Em heat (PSTSN21AWH only): For heat pumps with auxiliary heat.
- A thermostat controls auxiliary heat. A compressor is not used.
- Off: The heating and cooling system is off. A fan will still operate if the fan is set to On.

NOTE: Heat On/Cool On may flash for 5 minutes due to compressor protection.

Fan operation settings



1. Press Menu, and then press the Fan (-) button to cycle to the next available Fan mode.
2. Cycle through the modes until the desired Fan mode is displayed, then press Done.

NOTE: Available Fan modes vary with system settings.

Fan modes

- Auto: The fan runs only when the heating or cooling system is on.
- On: The fan is always on.

Installer setup (ISU)

NOTE: The thermostat enters the installer setup the first time it is powered up during installation. To re-enter the System Setup from the Home Screen, press and hold the Menu button for approximately 5 seconds.

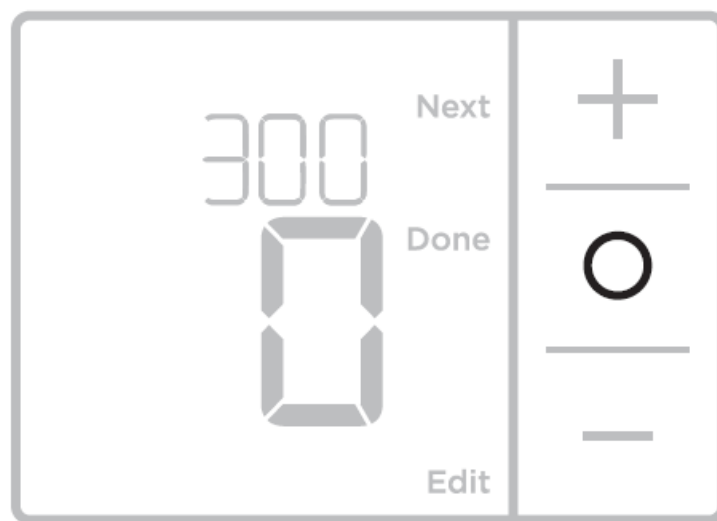
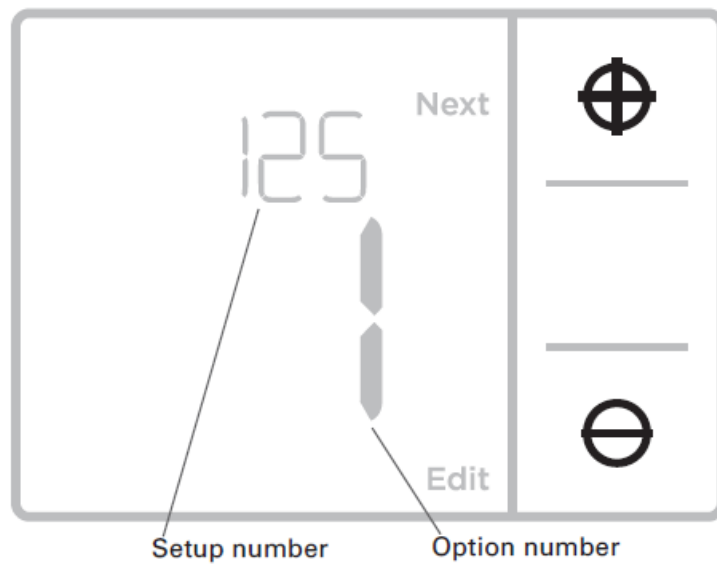
1. Select System Setup options.

Press Edit (-) to change values or select from available options. Then press Next (+) to save changes and advance to the next System Setup number.

See the “Installer setup (ISU)” chart for a full list of System Setup numbers and options.

Repeat until all of the System Setup options have been set, and then press Done. The thermostat will save and exit to the home screen.

2. Continue to “Installer setup (ISU)”.



Installer setup (ISU)

| ISU Setup Number and Description | Options (factory default in bold) |
|------------------------------------|---|
| 125 = Temperature Indication Scale | 0 = Fahrenheit 1 = Celsius |
| 200 = Heating System Type | 1 = Conventional Forced Air Heat 2 = Heat Pump 3 = Radiant Heat 5 = None (Cool Only) <i>Notes:</i> <ul style="list-style-type: none"> Default varies based on the model. This option selects the basic system type your thermostat will control. |

| | |
|---|---|
| 205 = Heating Equipment Type | <p><i>Conventional Forced Air Heat:</i></p> <p>1 = Standard Efficiency Gas Forced Air</p> <p>2 = High-Efficiency Gas Forced Air</p> <p>3 = Oil Forced Air</p> <p>4 = Electric Forced Air 5 = Hot Water Fan Coil</p> <p><i>Heat Pump:</i></p> <p><i>Note: ISU 205 is not shown when ISU 200 is set for a heat pump.</i></p> <p><i>Radiant Heat:</i></p> <p>9 = Hot Water Radiant Heat</p> <p>12 = Steam</p> <p><i>Note: This option selects the equipment type your thermostat will control. This feature is NOT displayed if feature 200 is set to Cool Only.</i></p> |
| 218 = Reversing Valve O/B | <p>0 = O (O/B in Cool)</p> <p>1 = B (O/B in Heat)</p> <p><i>Note: This option is only shown if ISU 200 is configured for a heat pump.</i></p> |
| 220 = Cool Stages / Compressor Stages (200=Conv / 200=HP) | <p>0, 1</p> <p><i>Note: Select how many Cool or Compressor stages of your equipment the thermostat will control. Set the value to 0 if you do not have Cool Stage/Compressor Stage.</i></p> |
| 221 = Heat Stages / Backup Heat Stages | <p>Heat Stages: 1</p> <p>Backup Heat Stages: 0, 1 (PSTSN21AWH Only)</p> <p><i>Note: Select how many Heat or Aux/E stages of your equipment the thermostat will control.</i></p> |
| 230 = Fan Control in Heat | <p>1 = Equipment Controls Fan</p> <p>2 = Thermostat Controls Fan</p> <p><i>Note: This ISU is only displayed if ISU 205 is set to Electric Forced Air or Fan Coil.</i></p> |

| | |
|---|--|
| 370 = Heating Cycle Rate (Stage 1) | <p>1 – 12</p> <p><i>Note: This ISU is only displayed when the Heat Stage is set to 1 stage. Cycle rate limits the maximum number of times the system can cycle in 1 hour measured at a 50% load. For example, when set to 3 CPH, at a 50% load, the most the system will cycle is 3 times per hour (10 minutes on, 10 minutes off). The system cycles less often when load conditions are less than or greater than a 50% load. The recommended (default) cycle</i></p> <p><i>rate settings are below for each heating equipment type: Standard Efficiency Gas Forced Air = 5 CPH; High-Efficiency Gas Forced Air = 3 CPH; Oil Forced Air = 5 CPH; Electric Forced Air = 9 CPH; Fan Coil = 3 CPH; Hot Water Radiant Heat = 3 CPH; Steam = 1 CPH.</i></p> |
| 375 = Heating Cycle Rate Auxiliary Heat (PSTSN21AWH only) | <p>1 – 12</p> |
| 387 = Compressor Protection | <p>0 = Off</p> <p>1 – 5 minutes</p> <p><i>Note: The thermostat has a built-in compressor protection (minimum off timer) that prevents the compressor from restarting too early after a</i></p> <p><i>shutdown. The minimum-off timer is activated after the compressor turns off. If there is a call during the</i></p> <p><i>minimum-off timer, the thermostat shows “Wait” in the display. This ISU is displayed if ISU 220 is set to at least 1 stage.</i></p> |

| ISU Setup Number and Description | Options (factory default in bold) |
|-----------------------------------|--|
| 430 = Minimum Cool Setpoint | 50 °F to 99 °F (50 °F) 10.0 °C to 37.0 °C (10.0 °C) <i>Note: The cool temperature cannot be set below this level.</i> |
| 431 = Maximum Heat Setpoint | 32 °F to 90 °F (90 °F) 0 °C to 32.0 °C (32 °C) <i>Note: The heat temperature cannot be set above this level.</i> |
| 1400 = Backlighting | 0 = On Demand 1 = Continuous <i>Note: Common wire needed for continuous.</i> |
| 1401 = Backlight Brightness | 1 – 5 <i>Note: Only displayed if continuous backlight is selected.</i> |
| 1420 = Temperature Display Offset | -3 °F to 3 °F (0 °F) -1.5 °C to 1.5 °C (0 °C) <i>Note: 0 °F = No difference in displayed temperature and the actual room temperature. The thermostat can display up to 3 °F (1.5 °C) lower or higher than the actual measured temperature.</i> |

NOTE: Once you have cycled through all of the System Setup numbers, press Done to save and exit to the home screen.

Setup Complete

- You have now finished installing and setting up your thermostat.

Specifications

- Temperature Setpoint Ranges:** Heat: 32 °F to 90 °F (0 °C to 32.0 °C) Cool: 50 °F to 99 °F (10.0 °C to 37.0 °C)
- Operating Ambient Temperature:** 32 °F to 102 °F (0 °C to 38.9 °C)
- Shipping Temperature:** -20 °F to 120 °F (-28.9 °C to 48.9 °C)
- Operating Relative Humidity:** 5% to 90% (non-condensing)
- Physical Dimensions in inches (mm) (H x W x D):** 3.86" H x 5.19" W x 1.08" D 98.24 mm H x 132 mm W x 27.5 mm D

Electrical Ratings

| Terminal | Voltage (50/60Hz) | Running Current |
|---|-------------------|-----------------|
| W Heating | 20-30 Vac | 0.02-1.0 A |
| W2 (Aux) Heating (PSTSN21AWH only) | 20-30 Vac | 0.02-1.0 A |
| E Emergency Heat (PSTSN21AWH only) | 20-30 Vac | 0.02-0.5 A |
| Y Compressor Stage 1 | 20-30 Vac | 0.02-1.0 A |
| G Fan | 20-30 Vac | 0.02-0.5 A |
| O/B Changeover | 20-30 Vac | 0.02-0.5 A |

Troubleshooting

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

Display is blank

- A thermostat can be powered by AA Alkaline batteries, with a common wire to C, or both. Verify that 24-volt power or AA batteries are good. Check the circuit breaker and reset if necessary.
- Check the circuit breaker and reset if necessary.
- Make sure the power switch for the heating & cooling system is on.
- Make sure the furnace door is closed securely.
- Make sure fresh AA alkaline batteries are correctly installed.

The heating or cooling system does not respond

- Press the Mode button to set system Heat Make sure the desired temperature is set higher than the inside temperature.
- Press the Mode button to set the system Cool Make sure the desired temperature is set lower than the inside temperature.
- Check the circuit breaker and reset if necessary.
- Make sure the power switch for the heating & cooling system is on.
- Make sure the furnace door is closed securely.
- Wait 5 minutes for the system to respond.

Temperature settings do not change

- Make sure heating and cooling temperatures are set to acceptable ranges:
- Heat: 32 °F to 90 °F (0 °C to 32.0 °C)
- Cool: 50 °F to 99 °F (10.0 °C to 37.0 °C)

“Cool On” or “Heat On” is flashing

- The compressor protection feature is engaged. Wait 5 minutes for the system to restart safely, without damage

to the compressor.

Aux heat runs in the cooling

- For heat pump systems, verify there is not a wire attached to the W terminal on the base plate.
- See “Wiring heat pump systems”

Cool runs with a call for heat

- For heat pump systems, verify there is not a wire attached to the W terminal on the base plate. See “Wiring heat pump systems”

CAUTION: ELECTRICAL HAZARD

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

CAUTION: EQUIPMENT DAMAGE HAZARD

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

CAUTION: MERCURY NOTICE

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

CAUTION: ELECTRONIC WASTE NOTICE

- The product and batteries 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.

FCC STATEMENT

FCC Compliance Statement (Part 15.19) (USA only)

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

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

FCC Warning (Part 15.21) (USA only)

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

FCC Interference Statement (Part 15.105 (b)) (USA only)

This equipment has been tested and found to comply with the limits for a Class B digital device, according to Part

15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used under the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

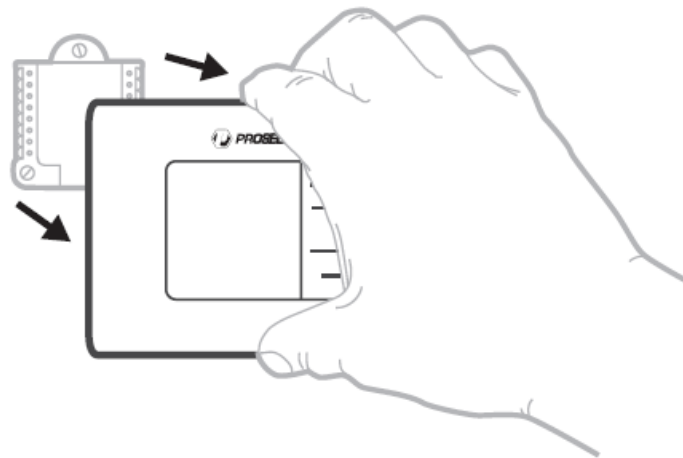
Thermostats

To comply with FCC and Industry Canada RF exposure limits for general population/ uncontrolled exposure, 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 co-located or operating in conjunction with any other antenna or transmitter.

RSS-GEN

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. Operation is subject to the following two conditions

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



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**Pull to remove the thermostat
from the base plate.**

Customer Assistance

- For assistance with this product, please contact PROSELECT® via
- owat@ferguson.com or 1-[800-221-3379](tel:800-221-3379).



Documents / Resources

| | |
|---|--|
|  | <p>PROSELECT PSTSN11AWH Non Programmable Thermostat [pdf] Installation Guide PSTSN11AWH, PSTSN11AWH Non Programmable Thermostat, Non Programmable Thermost at, Programmable Thermostat, Thermostat</p> |
|---|--|

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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