ST962WN50

Wired PTAC Thermostat with Occupancy Sensor

ROOM

72

Auto   ❄ Auto   74 SET

User Manual

seasons®

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Support

HD Supply is here to help.

Online Chat

hdsupplysolutions.com

Email

customercare@hdsupply.com

Call

1-800-431-3000

HDPRO USN #

334676858

HDS Part #

364894

Important Safety Instructions

SAVE THESE INSTRUCTIONS

The applied nameplate is located at the bottom or rear of the product.

When using your thermostat equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury, including the following:

1. This product should be installed by a qualified technician.

2. Read and understand all instructions.

3. Follow all warnings and instructions marked on the product.

4. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

5. Do not expose the product to liquid or install this in wet areas such as bathroom, near a sink, near a swimming pool, or in a damp basement.

6. Do not install this product on an unstable surface.

7. This product should not be installed near or over a radiator or heat register, or in any area where proper ventilation is not provided.

8. This product should be operated only from the type of power source indicated on the marking label.

9. To reduce the risk of electric shock, do not disassemble this product. Opening or removing parts of the thermostat may expose you to dangerous voltages or other risks. Incorrect reassembling can cause electric shock.

10. Remove this product and refer servicing to an authorized service facility under the following conditions:

   a. If liquid has spilled onto the product.

   b. If the product has exposed to rain or water.

   c. If the product does not operate normally by following the operating instructions. Adjust only the controls that are covered by the operating instructions.

   d. If the product has been dropped resulting in physical damage.

   e. If the product exhibits a distinct change in performance.

11. Avoid using the thermostat during an electrical storm. There is a remote risk of electric shock.

12. The thermostat should be mounted at a height of less than 6 feet.

⚠ 📖 ⓘ CAUTION:

• Keep small metallic objects such as pins and staples away from the thermostat.

• Do not mix old and new batteries and Do not mix alkaline, standard (carbon-zinc) or rechargeable (ni-cad, ni-mh, etc.) batteries.

• Avoid using the battery in the following conditions:

   • High or low extreme temperature during use, storage or transportation.

   • Replacement of a battery with an incorrect type that can defeat a safeguard.

   • Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.

   • Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.

   • Extremely high temperature and/or extremely low air pressure that can result in an explosion or the leakage of flammable liquid or gas.

• Use 18~24 AWG only.

• For supply connections, use wires rated for 167°F (75°C) minimum.

FCC and IC Regulatory Statements

FCC Compliance Statement

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.

Warning: Changes or modifications to this unit not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant 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 in accordance with 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into 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.

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm during normal operation.

ISEDC Warning

This device complies with Innovation, Science, and Economic Development Canada license exempt RSS standard(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.

Operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

⚠ **WARNING**

- **INGESTION HAZARD:** This product contains a button cell or coin battery. **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.
- The product contains **Non-replaceable batteries**.
 Compatible battery type: CR1220
  Nominal battery voltage: 3V

⚠ **Cautions**

- The factory installed clock backup battery is not replaceable and rechargeable. There may be a risk of explosion if a wrong type of clock backup battery is used. Use only the factory installed non-replaceable battery (Compatible battery type CR1220, Nominal battery voltage 3V) and do NOT recharge the battery.

- Even used batteries may cause severe injury or death.

- Do not force discharge, recharge, disassemble, heat above 212°F (100°C) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.

- Call a local poison control center for treatment information.

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.

- Battery must be removed from the thermostat before it is scrapped.

- Thermostat must be disconnected from the supply mains when removing the battery.

- Battery is to be disposed of safely.

Installation and Wiring

Important Things to Know Before Installation

- This product should be installed by a qualified technician.
- Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.
- Electrical Hazard Caution: Turn OFF power to your HVAC system before installation. Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.
- Do not over-tighten the screws during mounting.
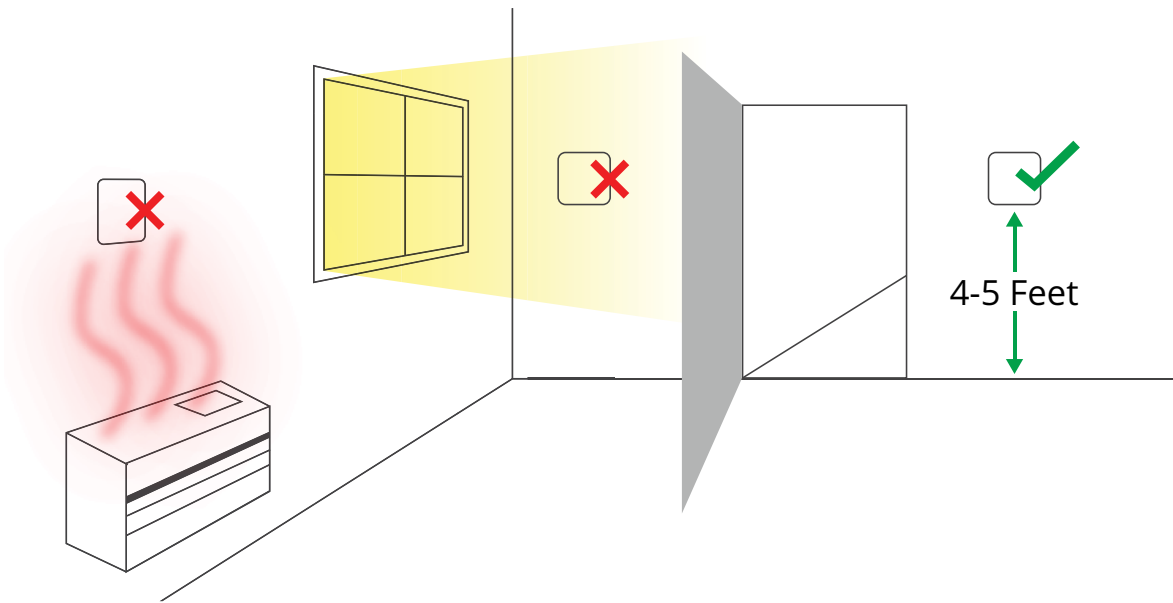
4-5 Feet

The thermostat **should be mounted:**

- Approximately 4 - 5 feet above the floor
- In a central location with average temperature and humidity
- On an interior wall that is easily accessible
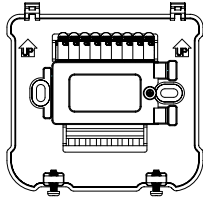- In a location with good air circulation

The thermostat **should not be mounted:**

- Where it is exposed to direct sunlight
- To a wall that contains concealed chimneys or pipes
- Where there is obstructed air flow such as in corners or behind doors
- Directly above or below an hot or cold air ducts
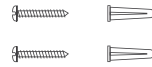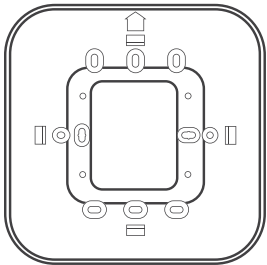- On an exterior wall

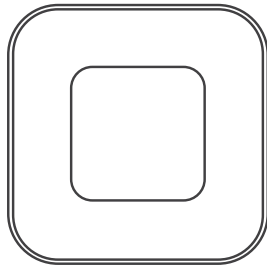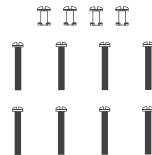# In the Box

Thermostat

Wall Plate

Wall Mount Screws & Anchors

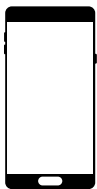Universal Deco Plate

Deco Plate Cover

T-Locks & Junction Box Screws

Required but Not Supplied

- Screwdriver set
- Drill and drill bits; 3/16" for drywall and 7/32" for plaster
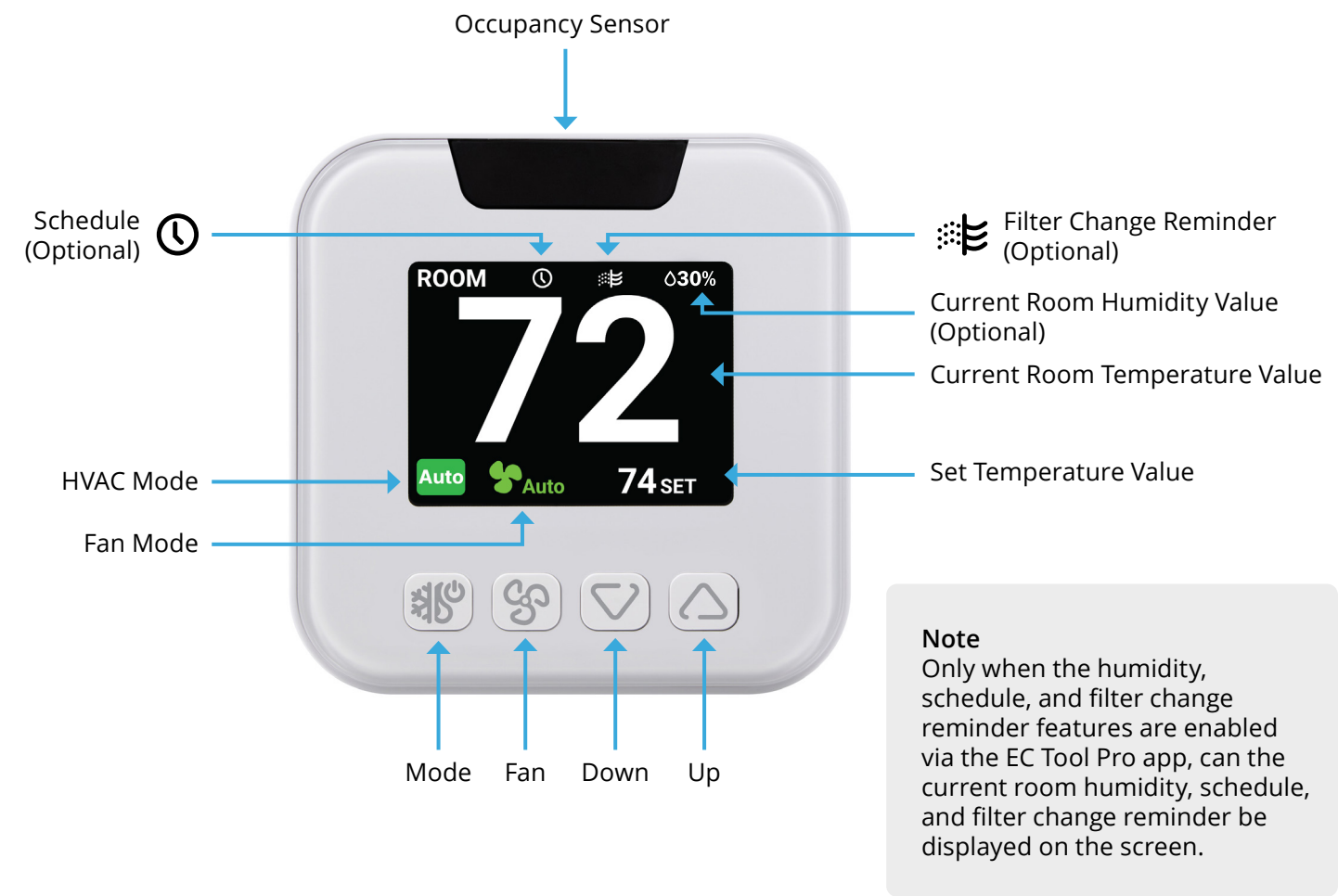- Pencil
- Level

Device Required for App

Smartphone with Bluetooth® feature

- iOS 15 or higher
- Android 12.0 or higher

Thermostat Layout

Occupancy Sensor

Schedule (Optional)

Filter Change Reminder (Optional)

Current Room Humidity Value (Optional)

Current Room Temperature Value

ROOM
72
Auto
Auto
74 SET

HVAC Mode

Fan Mode

Set Temperature Value

Mode   Fan   Down   Up

Note
Only when the humidity, schedule, and filter change reminder features are enabled via the EC Tool Pro app, can the current room humidity, schedule, and filter change reminder be displayed on the screen.

Specifications

Product Dimensions	3.9" x 3.9" x 1.1" (9.9cm x 9.9cm x 2.7cm)
Mounting Type	Surface Mount, Junction Box*
HVAC Systems	Seasons PTACs - Conventional or Heat Pump with Aux Heat
Power Requirements	Input: 24VAC~ 50/60Hz with "C" common wire Output: 1.5A Max @ 24V AC
Display	2.8" TFT (240 x 320, RGB)
Display Back Light	Configurable - Dimming or Off
Display Brightness	3 Levels
Number of Buttons	4 Hard Buttons

* A universal deco plate kit is required for junction box mounting.

Specifications

HVAC System Modes	Auto, Cool, Heat, and Off
Temperature Set Range	49°F-89°F / 9.5°C-31.5°C
Room Temperature Display Range	32°F-122°F / 0°C-50°C
Room Humidity Display Range	0%-95% RH (If the real room humidity rises above 95%, the thermostat screen will still show 95%.)
Terminal Connections	R, C, Y1, W1/AUX, W2/O/B, Y2/Gh, G/Gl
Max Stages Supported	PTAC Conventional: 1H1C 2 Speed Fan PTAC Heat Pump: 2H1C 2 Speed Fan
Recommended Wire	18~24 Gauge (Solid)
Disconnection Type	1.B
Rated Impulse Voltage	800V
Pollution Degree	2
Automation Cycle	50,000

Caractéristiques

Dimensions du produit	9,9cm x 9,9cm x 2,7cm (3,9" x 3,9" x 1,1")
Type de montage	Montage en surface, boîte de jonction*
Systèmes CVC	Climatiseurs de piscine Seasons - Pompes à chaleur conventionnelles ou avec chauffage auxiliaire
Besoin en énergie	Entrée : 24 V CA 50/60 Hz 3,0 A avec fil commun « C » Sortie : 1,5 A max à 24 V CA
Afficher	Écran TFT 2,8" (240 x 320, RVB)
Rétroéclairage de l'écran	Configurable - Atténuation ou arrêt
Luminosité de l'écran	3 niveaux
Nombre de boutons	4 Boutons durs

* Un kit de plaque décorative universelle est requis pour le montage de la boîte de jonction.

Caractéristiques

Modes du système CVC	Auto, refroidissement, chauffage et arrêt
Plage de réglage de la température	9,5°C-31,5°C / 49°F-89°F
Température ambiante Plage d'affichage	0°C-50°C / 32°F-122°F
Affichage de l'humidité ambiante Gamme	0%-95% RH (Si l'humidité réelle de la pièce dépasse 95 %, l'écran du thermostat affichera toujours 95 %.)
Connexions des terminaux	R, C, Y1, W1/AUX, W2/O/B, Y2/Gh, G/Gl
Niveau maximal pris en charge	PTAC Conventionnel : Ventilateur 1H1C 2 vitesses Pompe à chaleur PTAC : 2H1C, ventilateur à 2 vitesses
Fil recommandé	Calibre 18~24 (solide)
Type de déconnexion	1.B
Tension d'impulsion nominale	800V
Degré de pollution	2
Cycle d'automatisation	50,000

Installation and Wiring Processes

1. **Power off your PTAC**

   Disconnecting the power protects you and avoids damage. After disconnecting, adjust the set temperature to confirm the system is off.

2. **Confirm that your PTAC is set/configured to be controlled by a wired wall thermostat**

   When adding this thermostat to a Seasons branded PTAC, confirm that the PTAC's Dip Switches are in the correct position. This thermostat requires switch S3 to be in the UP/ON position and S9 to be in the Down/Off position to function properly.

   Note: The Dip Switch labels are located on the PCB, just below the switch assembly.
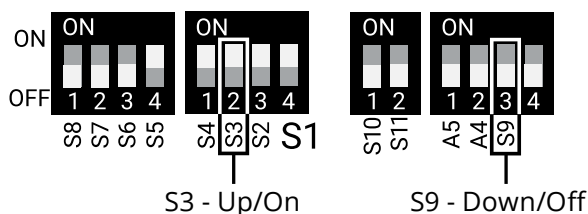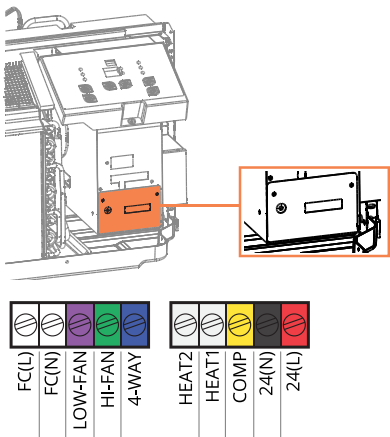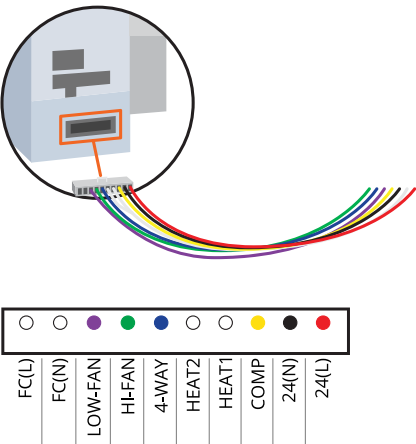
Installation and Wiring Processes

3. **Thermostat Wiring**

    Depending on your Seasons PTAC model, follow one of the two wiring modes described below. Thermostat wire colors may vary from what is displayed.

Mode A

Mode B

PTAC Terminal	Designation	Wall Plate Terminal PTAC-Conventional System	Wall Plate Terminal PTAC-Heat Pump System
FC (L)	Front Desk Control Terminal L	—	—
FC (N)	Front Desk Control Terminal N	—	—
LOW-FAN	Low-Fan Speed	Gl	Gl
HI-FAN	High-Fan Speed	Gh	Gh
4-WAY	4-Way Valve; Reverse Cycle (Energized in Heat) for Heat Pump Models	—	O/B
HEAT2	Electrical Heater 2	*	*
HEAT1	Electrical Heater 1	W1	Aux
COMP	Compressor	Y1	Y1
24V (N)	24VAC Terminal N (Neutral), Common	C	C
24V (L)	24VAC Terminal L	R	R

*Jump HEAT1/HEAT2 at PTAC Terminal or Mode B Wire Harness for 15k BTU PTACs with dual electric heaters.

Wiring Diagram
PTAC-Conventional System
1 Stage Cool, 1 Stage Heat, 2 Fan Speeds
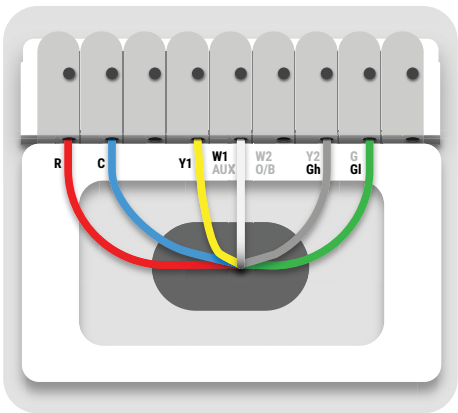
Wiring Diagram
PTAC-Heat Pump System
Aux Heat, 2 Fan Speeds
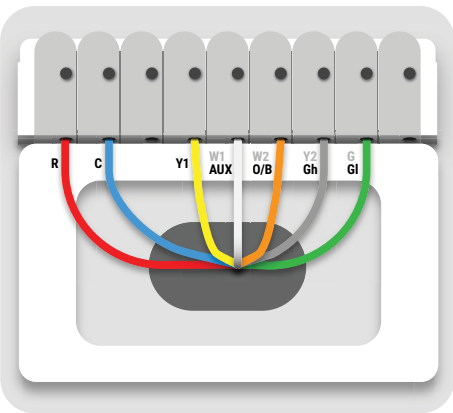
Installation and Wiring Processes

4. **Attach the wall plate**

    Wall Plate Mounting Option 1: Direct Wall Mounting

    Hold the wall plate up to the wall where you want the thermostat to be mounted. Make sure that the wire bundle aligns near the center of the wall plate. Verify the plate is level with a bubble level, then mark the screw positions through the screw holes in the wall plate.

    Using your marks as reference, drill 2 holes and install the provided wall anchors. If you will be using c-wire or 24vac adapter to power the thermostat, route the wires through the opening in the center of the wall plate, then secure it to the wall with the provided screws. The slots in the wall plate will help to compensate for any minor misalignment.
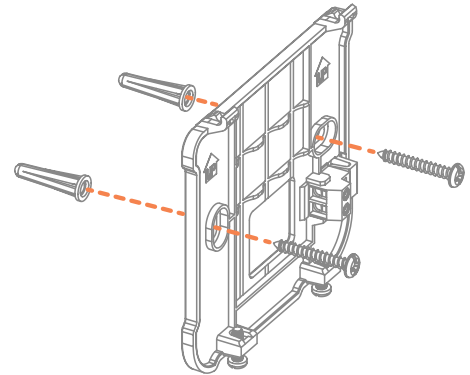
    Wall Plate Mounting Option 2: Direct Wall Mounting with Deco Plate Kit

    Hold the deco plate up to the wall where you want the thermostat to be mounted. Make sure that the wire bundle aligns near the center of the deco plate. Verify the plate is level with a bubble level, then mark the screw positions through the screw holes in the deco plate.

    1. Push the cover towards the deco plate until it clicks into place.

    2. Using your marks as reference, drill 2 holes and install the provided wall anchors. Route the wires through the opening in the center of the deco plate, then the wall plate.

    3. Align the screw holes and secure them to the wall with the provided screws. The slots in the wall plate will help to compensate for any minor misalignment.
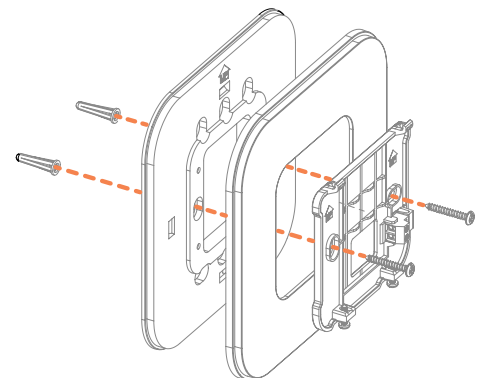
Installation and Wiring Processes

Wall Plate Mounting Option 3: Junction Box Mounting with Deco Plate Kit

1. Attach the deco plate to the junction box with the provided junction box screws.
2. Push the cover towards the deco plate until it clicks into place.
3. Attach the wall plate to the deco plate with the provided T locks.
4. Route the wires in the junction box through the openings in the centers of the deco plate and the wall plate.
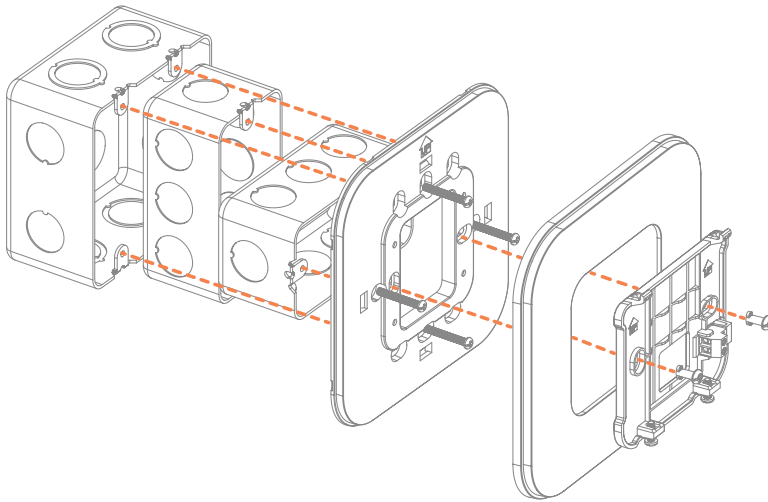
5. **Install thermostat batteries or connect wall plate power wires**

   Battery powered application: Install 3 x AA batteries into the rear housing of the thermostat.
   C-Wire/24VAC supply application: Route the 24V C (common) and R (load) wires through the center of the wall plate. Using a precision screw driver, connect the wires to the C and R terminals. Once connected, press down on the wires to ensure they are flush with the wall plate. Once wires are securely connected, press the wires down to ensure they are flush with the wall plate.

6. **Attach the thermostat**

   Swing the thermostat into position by engaging the lugs at the top of the wall plate before pushing it carefully home into its plug-in terminal block.

   Lock the thermostat into place by tightening the 2 Phillips screws located on the bottom edge of the thermostat.
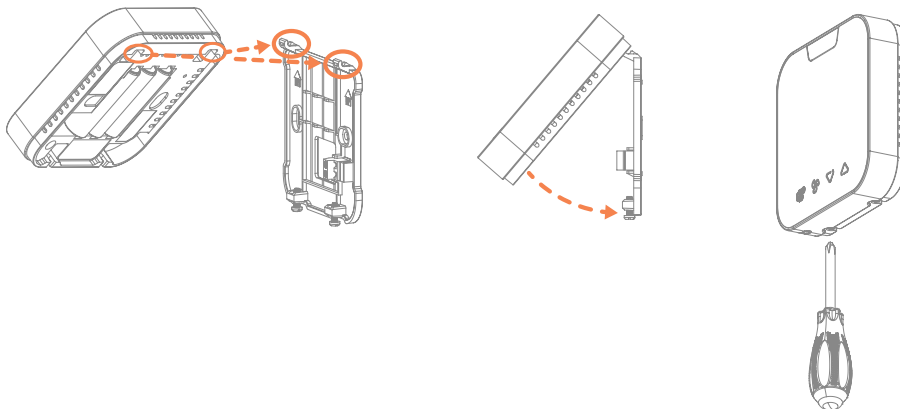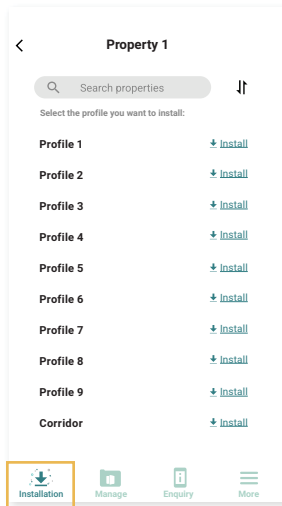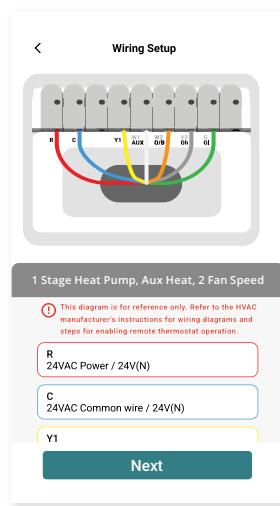
Installation and Wiring Processes

7. Switch the power back on

Restore power to your PTAC. When the thermostat powers up, install your saved profile from the EC Tool Pro app into the thermostat.

Tap Installation tab, then locate the profile you want to install.

Tap Next after previewing the wiring diagram.

Once you see the Connect Device screen in the app, move to the thermostat. Using Mode (⚙️), Up (△), and Down (▽) buttons, select System Settings > System Configuration > Adv. Config. via App > Bluetooth. Using the app, tap Scan QR Code, then use your camera to scan the QR code displayed by the thermostat. Enter the Bluetooth passkey that appears on the thermostat into the app, then tap Start to install the profile. Once the profile has been installed, you will see Success popup in the app and the thermostat. The thermostat will reboot upon completion and tap the Done button in the app. You can now test the thermostat.
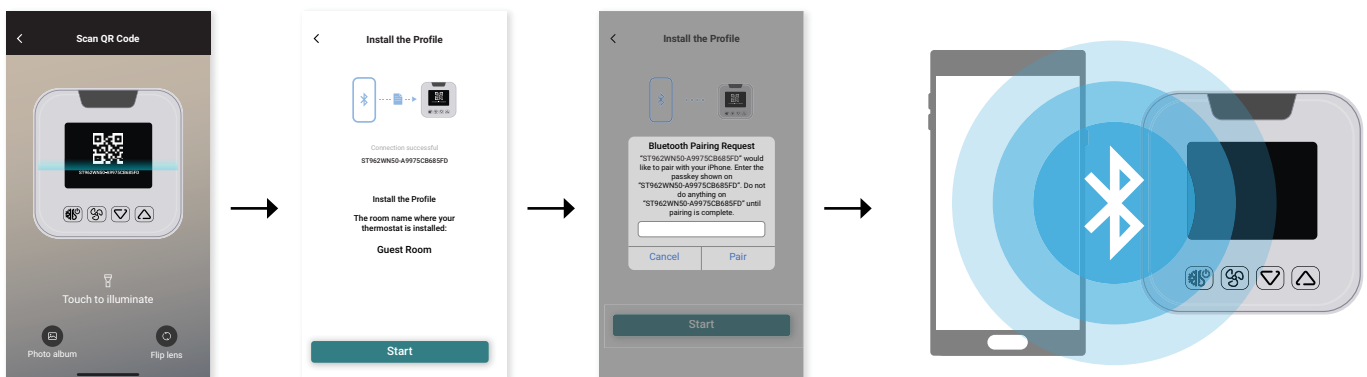
> **Note**
> For more information related to creating or managing your thermostat's profile, refer to the Configuration section of this manual.

Configuration

About the EC Tool Pro App

The EC Tool Pro app is an essential tool that will allow you to configure your ST962WN50 thermostat to control a variety of your Seasons PTAC. Once you have installed the app and completed custom profile, the app will guide you through the wiring configuration and allow you to quickly and securely transfer the profile from the app to your thermostat in seconds.

EC Tool Pro App
Scan the QR code or click the link of one of the App stores

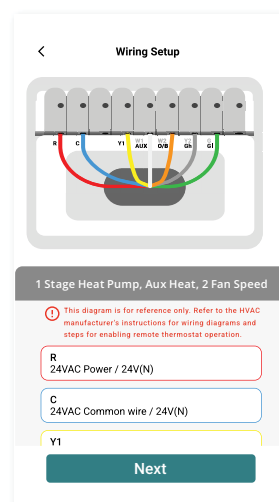## Setting up your thermostat is easy:

1. Get the app.

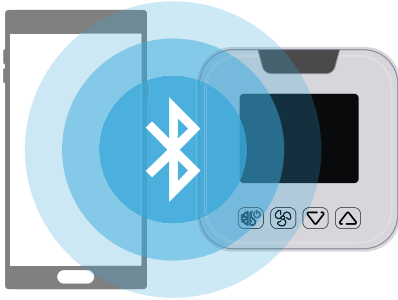2. Create a custom profile for your HVAC system.

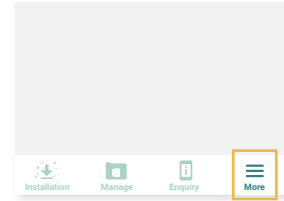3. Follow the in-app wiring instructions.

About the EC Tool Pro App

4. Install your profile on the thermostat via Bluetooth and take control of your HVAC system.

Check for More Information About the EC Tool Pro App

Tap More tab, then About the App to view the version number.

Create Your First Profile

The EC Tool Pro app organizes custom HVAC profiles by property name. When using the EC Tool Pro for the first time, it will be necessary to create a property name under which you will save all of the custom profiles for this property for future reference.
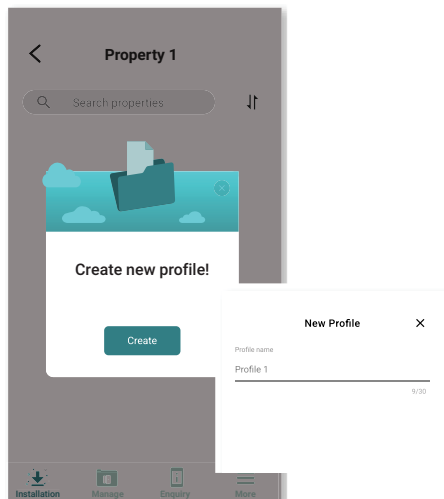
> **Note**
> When you visit the EC tool Pro app for the first time after this tool is installed on your smartphone, where no property or profile has been created, the message Create new property! will pop up.

1. Tap Create, then enter your property name (example Property 1) and tap Next.
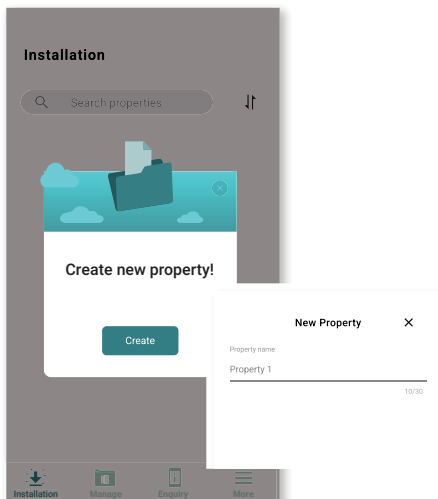
2. Tap Create when the message Create new profile! pops up. Enter your profile name and tap Next.

Note
1. Property/profile naming rule: Only numbers, letters and spaces up to 30 characters are allowed.
2. Each property name must be unique and not repeated.
3. Profile names can be duplicated, but must be unique within each property.