



## **E-SMART THERMOSTAT W960**

**Thermostat and Controller Operation  
(with TSTAT default profile ver.)**

## **FCC Caution:**

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

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.

## **Avertissement de la FCC :**

Les changements ou modifications non expressément approuvés par la partie responsable de la conformité peuvent annuler le droit à l'utilisateur d'utiliser l'équipement.

Cet appareil est conforme à l'article 15 des règlements de la FCC. Son fonctionnement est soumis aux deux conditions suivantes : (1) Cet appareil ne doit pas causer d'interférences nuisibles, et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant causer un fonctionnement indésirable.

## **IMPORTANT NOTE:**

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.

### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

# REMARQUE IMPORTANTE :

Remarque : Cet équipement a été testé et déclaré conforme aux limites d'un appareil numérique de classe B, conformément à l'article 15 des règlements de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l'énergie de fréquence radio et, s'il n'est pas installé et utilisé conformément aux instructions, peut causer des interférences nuisibles aux communications radio. Cependant, il n'y a aucune garantie que des interférences ne se produiront pas dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception de la radio ou du téléviseur, ce qui peut être déterminé en éteignant et en allumant l'équipement, l'utilisateur est encouragé à essayer de corriger les interférences par une ou plusieurs des mesures suivantes :

- Réorientez ou déplacez l'antenne de réception.
- Augmentez la distance entre l'équipement et le récepteur.
- Connectez l'équipement à une prise sur un circuit différent de celui auquel le récepteur est connecté.
- Consultez le revendeur ou un technicien radio/TV expérimenté pour obtenir de l'aide.

## Déclaration d'exposition aux radiations de la FCC :

Cet équipement est conforme aux limites d'exposition aux radiations de la FCC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

## ISED Warning

This device complies with Innovation, Science, and Economic Development Canada licence-exempt RSS standard(s). 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.

## Avertissement de l'ISED

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device is compliance with RF exposure guidelines, users can obtain Canadian information on RF exposure and compliance. The minimum distance from body to use the device is 20cm.

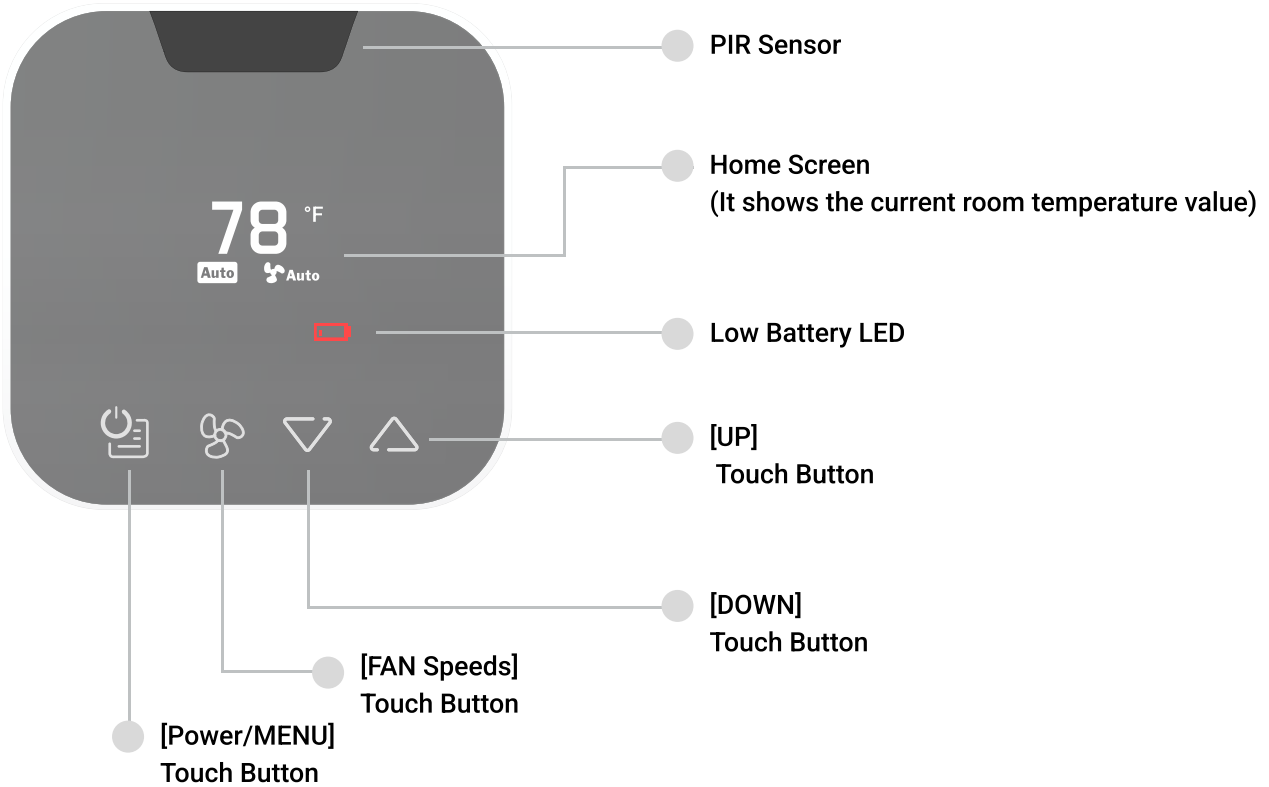
Le présent appareil est conforme Après examen de ce matériel aux conformité ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radiofréquences et la conformité and compliance d'acquérir les informations correspondantes. La distance minimale du corps à utiliser le dispositif est de 20cm.



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# 1. Thermostat Operation







## Turn On the Screen

Touch any key on the screen (e.g. , , , ) to turn on the screen.



## Confirm Selected Option/ Get Into Main Menu

Press  button.

## Fan Setting

Press  button to enter the fan setting. To select different fan speeds, you may press  button multiple times to cycle through fan speeds or you may press ,  button to change.

## Temperature Setting

Press  or  to adjust the set temperature.

Press  to confirm or 3s timeout.

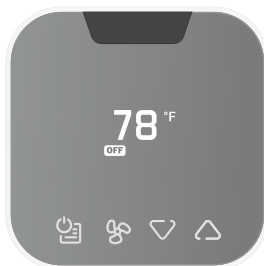
A tick  will show on the screen if the option has been selected.

## Power OFF the System

Press and hold  for **3 seconds** in home screen to power off the system.




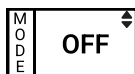
The thermostat will display "OFF" mode in home screen if the system is power off.






Or press  to get into main menu...



1. Press  to select main menu option: "Mode"



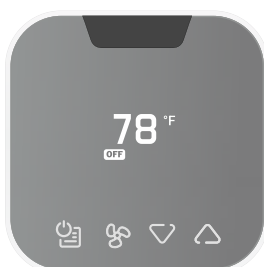
2. Press ,  to select "OFF" mode in sub menu to power off the system

Press  to confirm the selected option or wait for 3s timeout



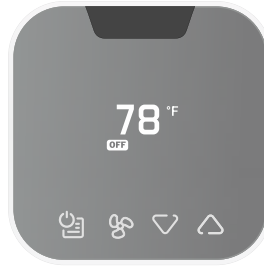
3. If you confirmed the option, the thermostat will show a tick. Wait for 2 seconds, the screen will go back to home screen.

The thermostat will display "OFF" mode in home screen.




## Power ON the System

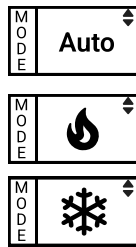
When the thermostat is in "OFF" mode:






To power on the system, press  to get into main menu:



1. Press  to select main menu option: "Mode"



2. Press ,  to select other mode in sub menu to power on the system

Press  to confirm the selected option or wait for 3s timeout



3. If you confirmed the option, the thermostat will show a tick. Wait for 2 seconds, the screen will go back to home screen.

The thermostat will display the mode option has selected in home screen.





## Other Operation in "OFF" Mode

When the thermostat is in "OFF" mode:



### A Faster way to power On the system

Press  or  Key, the thermostat will power on the system and entering the "Auto" mode.




Press  or  to adjust the temperature



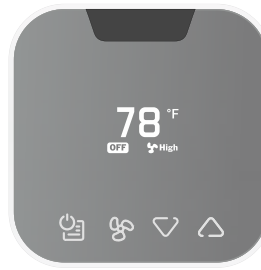
Change to "Auto" mode from "OFF" mode

### Turn on the fan when it is "OFF" mode

Press  Key during "OFF" mode, can turn on the fan and change to different fan options. The options are "Fan High", "Fan Low" and "Fan Off".



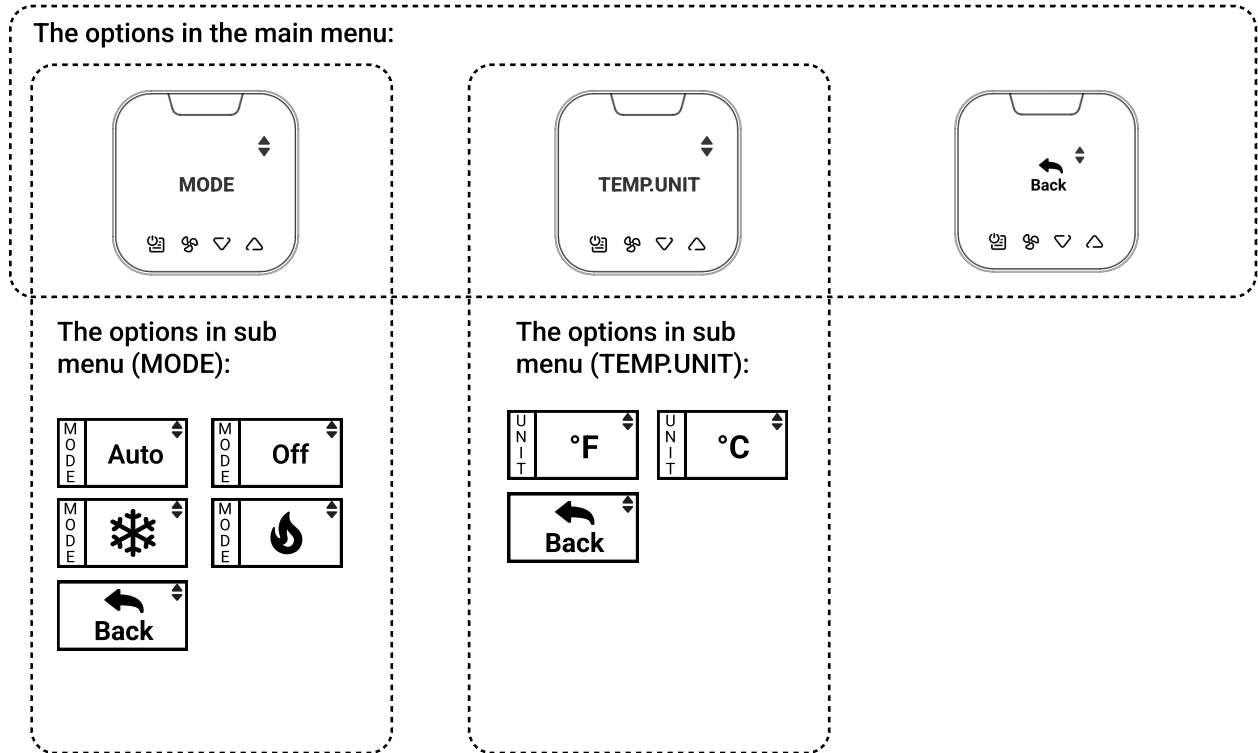
Press 



Fan turned on in "OFF" mode

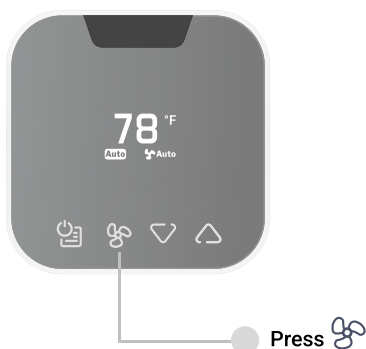
## Main Menu (MODE, TEMP.UNIT)

Press  to get into main menu.

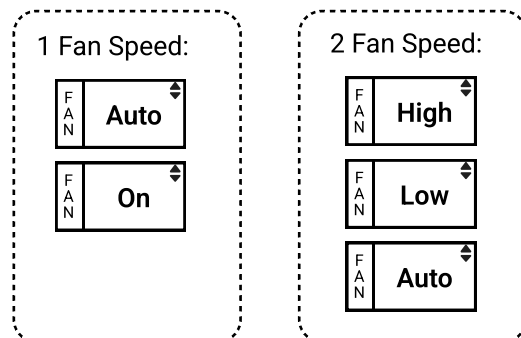


## Menu (FAN)

Press  to get into "Fan" menu.

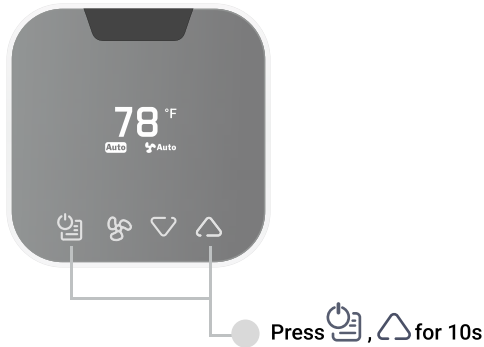


The options in the "Fan" menu:



## Restore Profile Setting



Press and hold  and  button for 10 seconds.

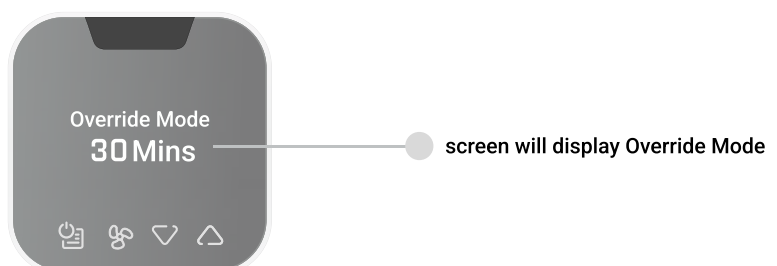
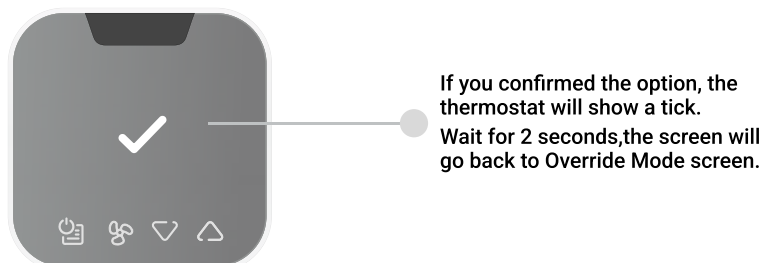
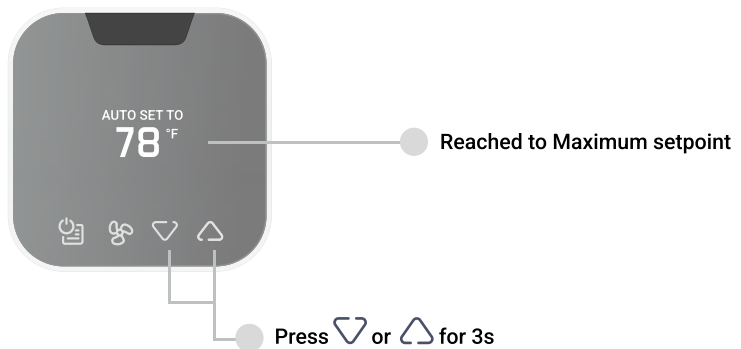


The prompt Restore profile setting will appear on the thermostat.

3 seconds timeout, then the thermostat will reset to the profile setting.

## Override Temperature Setpoint

After release button when reach to maximum or minimum heating/cooling/auto setpoint, press and hold  or  Key for 3s.



## Low Battery Alert Indicator



When the AAA battery power is low, the Low Battery Alert LED indicator turns on and **flashes red slowly** on the remaining two months of its battery life with 24 months.

When the AAA battery power is extremely low, the Low Battery Alert LED indicator **flashes red fast** on the remaining 2 days of its battery life with 24 months. The display of thermostat will be turned off.

If no  battery LED displays, the thermostat is in normal operation.

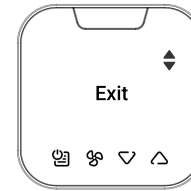
# Engineering Mode

Enter Engineering mode menu by pressing and holding , ,  for 10s.

The options in the 1st level menu:



"Tour" is the demo for you to try out.



Menu options of "System Setting":

System Configuration

Menu options of "System configuration":

Adv. Config via App

Std. Config via TSTAT

Other Setup

Back

Registration

Menu options of "Registration":

Register Device

Deregister Device

Back

About This Unit

Menu options of "About This Unit":

About Thermostat

About Controller

Back

PIN Code

Menu options of "PIN Code":

Display Pin Code

Back

Room Name

Menu options of "Room Name":

Display room name

Back

Back

“System Configuration” menu:

System Configuration

Menu options of “System Configuration”:

Adv. Config via App

Menu options of “Adv. Config via App”:

Plug cable for setup

Std. Config via TSTAT

Menu options of “Std. Config via TSTAT”:

Conventional System

Heat Pump System

Back

Other Setup

Menu options of “Other Setup”:

Date Time

Occupancy Sensor

Back

Back

“About This Unit” menu:

About This Unit

Menu options of “About This Unit”:

About Thermostat

Menu options of “About Thermostat”:

About Version no.

About Serial no.

Zigbee Mac Adress

Back

About Controller

Menu options of “About Controller”:

Controller Version no.

Controller Serial no.

Controller Zigbee Mac Adress

Controller Wifi Mac Adress

Back

Back

"Other Setup" menu :

Other Setup

Menu options of "Other Setup":

Date Time

Menu options of "Date Time":

Set Date Time

Display Date Time

Back

Occupancy Sensor

Menu options of "Occupancy Sensor":

If time has **not been set** through the menu "Time"...

Pls set the time

If time has **been set** through the menu "Time"...

Sensor On

Sensor Off

Display Sensor Status

Back

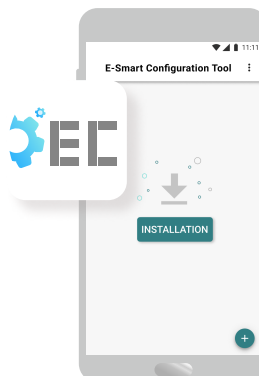
Back

## Real Time Clock

The thermostat will implement the real time clock with right location that synchronized with atomic clock time on your phone after doing the configuration with the EC Tool App.



**Step1:**  
Set to the right location that synchronized with atomic clock time on the phone before you do configuration.



**Step2:**  
Do the configuration by using EC Tool App.

### NOTE:

When the controller and thermostat **are both powered off**, the real time clock data will be lost. The thermostat will display "Call for service E03".



To update the time clock, please do the configuration with the EC Tool app. Or set time on thermostat in Engineering Mode.



## Set Time on Thermostat in Engineering Mode

Enter Engineering mode menu by pressing and holding  ,  ,  for 10s.



Enter "System Setting" by pressing  button.




Then select "System Configuration" by pressing  button.



Then select "Other Setup" by pressing  button.






Then select "Date Time" by pressing  button.






Then select "Set Date Time" by pressing  button.

In menu "Set Date Time"...






1. Press  or  to change the year.  
(options: 2023-2037)  
Then Confirm by pressing  .






2. Press  or  to change the month.  
(options: Jan-Dec)  
Then Confirm by pressing  .






3. Press  or  to change the day.  
Then Confirm by pressing  .






4. Press  or  to change the time zone.  
(options: Pacific Time' Central Time'Eastern Time'Mountain Time)  
Then Confirm by pressing  .



5. Press  or  to adjust hours  
(digits 1-12).  
Then Confirm by pressing  .



6. Press  or  to minutes (digit 0-59).  
Then Confirm by pressing  .

7. The thermostat will display ,


wait for 2s time out, will go to menu "Date Time".



## Occupancy Sensor

Enter Engineering mode menu by pressing and holding  ,  ,  for 10s.



Enter "System Setting" by pressing  button.



Then select "System Configuration" by pressing  button.



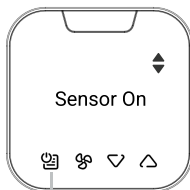
Then select "Other Setup" by pressing  button.





Then select "Occupancy Sensor" by pressing  button.

If time has been set through the menu "Time", you can On or OFF the Occupancy Sensor:

### Occupancy Sensor On



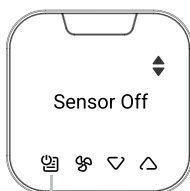
1. Press  to select main menu option: "Sensor On"

2. And the thermostat will display 


3. wait for 2s time out, will go to menu "Occupancy Sensor".



### Occupancy Sensor Off



1. Press  to select main menu option: "Sensor Off"

2. And the thermostat will display 

3. wait for 2s time out, will go to menu "Occupancy Sensor".



## Occupancy Sensor

NOTE:

If configuring by **Adv. Config via App**

Adv. Config  
via App

the “Occupancy Sensor is On” setting will refer to the profile setting you have selected for configuration by EC Tool App.

If configuring by **Std. Config via TSTAT**

Std. Config  
via TSTAT

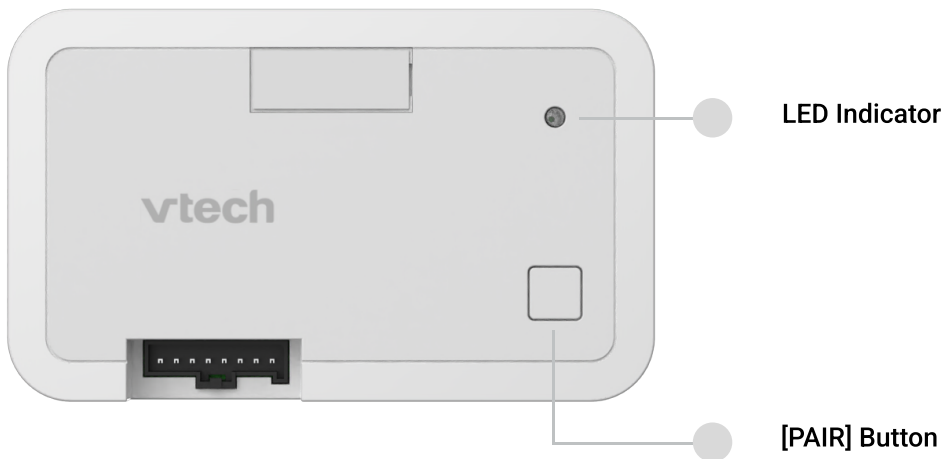
the “Occupancy Sensor is On” setting will be the following default setting:

Option	Default
Local occupancy sensor(PIR)	ON
Incidental occupancy threshold	0 min(s)
Occupancy threshold	60 min(s)
Night occupancy threshold	0 min(s)
Night occupancy begin	21:00
Night occupancy end	7:00
Cycle minimizer	ON
Unoccupied heating setpoint	62 °F
Unoccupied cooling setpoint	83 °F

## Error Code of Thermostat Displays

<b>Error Code</b>	<b>Condition</b>
E01	24VAC detected safety is out of range.
E02	Internal temperature of controller is too high.
E03	<p>The Real Time Clock (RTC) is lost, you can do configuration with the EC Tool again (set to the right location that synchronized with atomic clock time on the phone before you do configuration).</p> <p>Or set the time through the menu "Set Time" on thermostat in Engineering Mode.</p>

## 2. Controller Operation



### Pair the Controller with Thermostat

Hold [PAIR] button on your controller for 5 seconds (but less than 10 seconds), then release the button to start searching an available thermostat.

### Stop Pairing the Controller with Thermostat

Hold [PAIR] button for 10 seconds and release to start unpairing.

### Technical Information (Power requirements)

Input Voltage: 24V AC ~50/60Hz

Output Voltage: 24V AC

Loading Current: 0.5A

## Controller LED Indicator

Dual Color LED	Condition	Annotation
Flash green	Start Zigbee pairing	<p>Press and hold [PAIR] for 5s (less than 10s), the controller indicator will turn to flash green, and when you release the button, will enter Zigbee pairing mode.</p> <p>During the process of Start Zigbee pairing (with the controller indicator is flash green), if user want to stop the pairing process, can press and hold [PAIR] for 5s.</p>
Solid green	Paired. Normal operation. The Controller is connected to thermostat operating normally.	/
Flash yellow	Removing all devices from system/ Factory reset.	When there is a paired device, press and hold 10s [PAIR] is to removing all connected devices.
Solid yellow	Not paired	<p>Situation 1: When it is powering up</p> <p>Situation2: If the controller is not paired with thermostat</p>
Flash green & red alternatively	Disconnected. The Controller is searching and trying to reconnect to thermostat.	After disconnecting thermostat, the controller keeps searching for the thermostat.
Solid red	Error	Any problems cause the HVAC or Controller not working.



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