

# habitat™

Smarter Control Solutions.



Operation Manual

# About This Manual

This manual uses special attention icons to alert the user of (1) Important safety concerns, (2) Instructions on proper operation of control functions and (3) Installation/set up information.



**Safety:** Indicates a condition which may cause severe personal injury, death, or major property damage.



**Important Information:** Indicates information which requires special attention for correct operation of the control.



**Your Benefit:** Indicates helpful installation or setup information.

For installation and instructions, refer to the **Installation & Pairing Manual**.

For programming instructions, refer to the **Programming Guide**.



Documentation





## Habitat Technologies

330 East 38th Street, Suite 530  
New York, NY 10016-0444

Customer Service

Toll Free: 1-800-717-1682

Web Site: [www.habitattechnologies.com](http://www.habitattechnologies.com)  
[customerservice@habitat.support](mailto:customerservice@habitat.support)

Thermostat Model: HTE-01

Base Module Model: HTM-01

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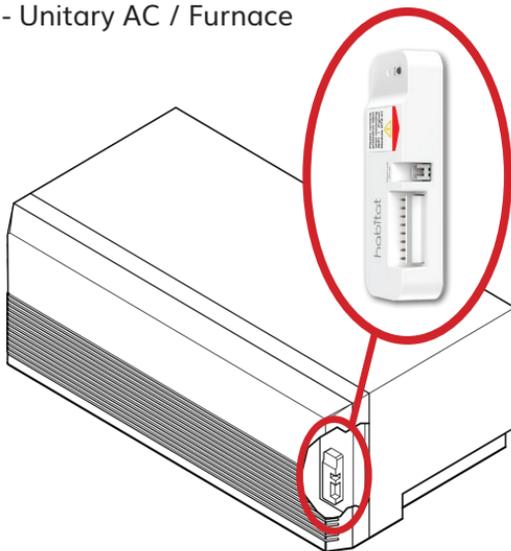
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# System Overview



PTAC - Packaged Terminal AC  
HP - Heat Pump  
HHP - Hybrid Heat Pump  
FCU - Fan Coil / Mini-Split Unit  
UNI - Unitary AC / Furnace



The HTE-01 thermostat and HTM-01 base module are paired when supplied as a set from the factory. If base modules are added or if pairing is required in the field, see the Installation & Pairing Manual for the correct procedure.

A single Model HTE-01 thermostat can control up to eight air conditioning units equipped with Model HTM-01 base modules. The range between the thermostat and the base modules can be up to approximately 50 feet through standard building materials.

# System Overview - Dip Switch Configurations



- 1 – PTAC (Packaged Terminal Unit)  
**Factory Default**

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- 2 – FCU  
(Fan Coil Unit / Mini-Split)

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- 3 – HP  
(Heat Pump)

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- 4 – HHP  
(Hybrid Heat Pump)

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- 5 – UNTY  
(Unitary AC/Furnace)

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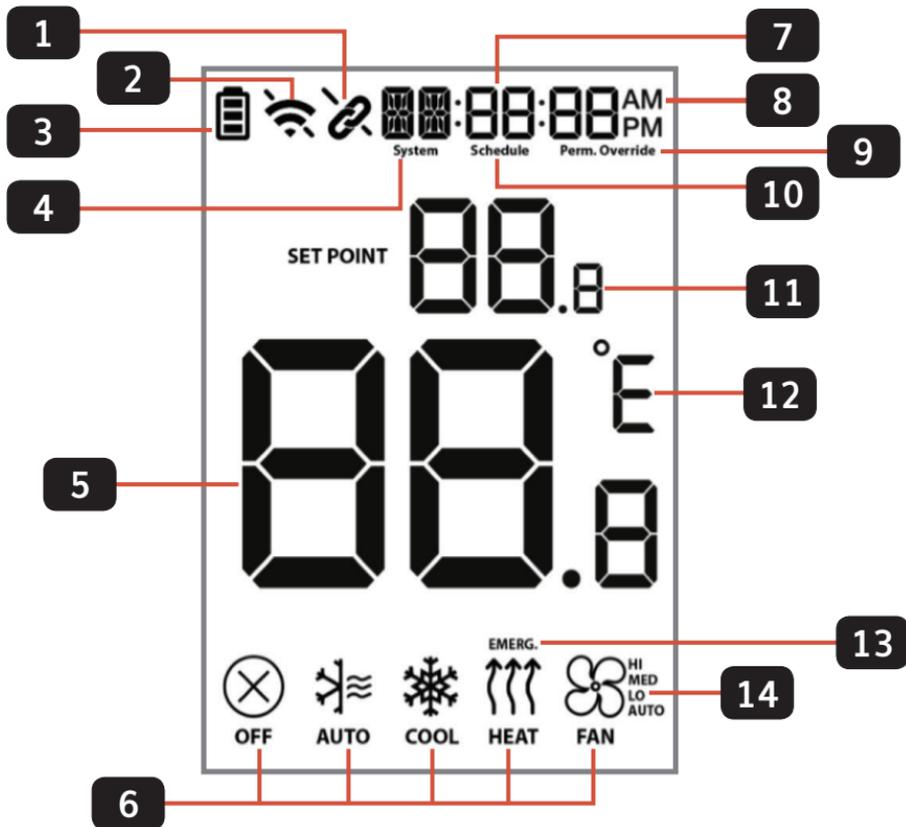
- 6 – O/B Terminal Selection  
(Heat Pump Only)

For heat pump installations, dip switch #6 must be set to match the appliance changeover valve. Refer to appliance manufacturers system specifications for required setting.

- ON = "B" – Cooling is default, switches over to Heat
- OFF = "O" – Heating is default, switches over to Cool

If more than one appliance type (dip switch 1-5) is selected, **DIPErr** error code will be displayed.

# Home Screen



|                 |  |                  |   |
|-----------------|--|------------------|---|
| <p><b>1</b></p> | <p>Pairing status indicator:</p> <p> Connected</p> <p> Not connected</p>   | <p><b>8</b></p>  | <p>Time display</p>   |
| <p><b>2</b></p> | <p>WIFI status indicator (only shown when WIFI module is in use.)</p> <p> Connected</p> <p> Not Connected</p>  | <p><b>9</b></p>  | <p>Override status indicator<sup>1</sup>:</p> <p>Override – Temporary Override</p> <p>Perm. Override – Permanent Override</p> |
| <p><b>3</b></p> | <p>Thermostat Battery power status indicator, only shown when on battery power.</p> <p> Full  Half  Low  Replace</p> | <p><b>10</b></p> | <p>Schedule running indicator:</p> <p>Schedule – Schedule running<sup>1</sup></p> <p>(Blank) No Schedule</p>                  |
| <p><b>4</b></p> | <p>System type</p>   | <p><b>11</b></p> | <p>Set point</p>  |
| <p><b>5</b></p> | <p>Room temperature</p>  | <p><b>12</b></p> | <p>Celsius or Fahrenheit units</p>  |
| <p><b>6</b></p> | <p>Mode status</p>   | <p><b>13</b></p> | <p>Emergency heat indication</p>  |
| <p><b>7</b></p> | <p>Additional system type text</p>   | <p><b>14</b></p> | <p>Fan speed indication</p>   |

1 - Schedule must be activated for schedule status to be displayed.

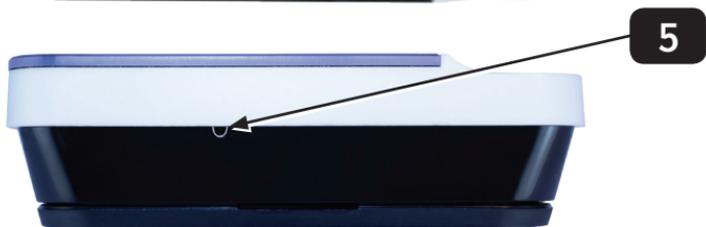
See the Habitat programming guide for information on setting up a schedule.

# HTE-01 Thermostat Controls

Front View



Bottom View



**1** LCD Display – See preceding pages for detailed descriptions of the display icons.

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  – Increase or Decrease the target temperature set point.

**2** Changing the target set point:

- Press the  or  button while in Auto, Heat or Cool Modes.
  - If a schedule is programmed, "Override" is displayed below the time indicating that the current target setpoint will be maintained until the:
    - Next schedule period
    - Set point is changed to the scheduled value
    - **Mode** button is held for 3 seconds, displaying "Schedule", "Perm. Override"
    - To change the temperature units between °F and °C, quickly press and release the  and  buttons.
- 

**3** Mode – Cycle through Operation modes:



**4** Fan – Cycle through desired Fan Speeds.

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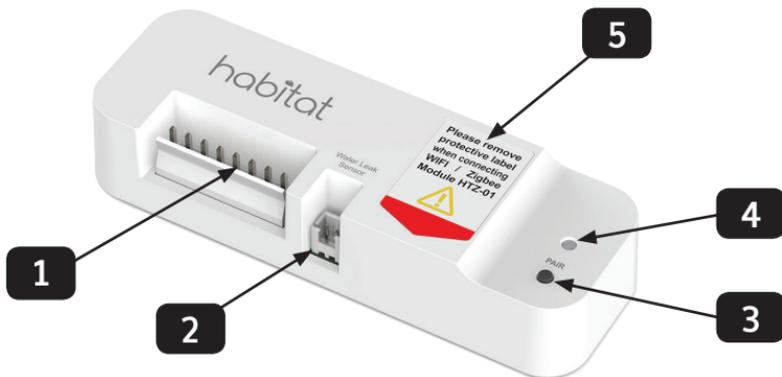
**5** Manual Reset – Reboots the thermostat system only.

---



To save energy, the display will turn off after a period of inactivity. Before making changes, press any button to activate the display, illuminating the screen.

# HTM-01 Base Module Connections and Controls



- 1** Appliance Harness Connector
- 2** Water Leak Sensor Connector
- 3** Pairing Button
- 4** Module Status LED
- 5** Module Wi-Fi Connector (remove protective label)

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# HTE-01 Thermostat Operation



To save energy, the display will turn off after a period of inactivity. Before making changes, press any button to activate the display, illuminating the screen.

## Changing Operating Mode:

- Press the **Mode** button to change between:

|   |   |
|---|---|
| <br>OFF  | Thermostat will not generate heating or cooling demands.  |
| <br>AUTO | If the equipment supports automatic changeover, the thermostat will switch between heating and cooling based on the room temperature. |
| <br>COOL | Thermostat will maintain the target set point temperature with cooling.   |
| <br>HEAT | Thermostat will maintain the target set point temperature with heating.   |
| <br>FAN  | Thermostat will operate the fan for circulation.  |

## Changing Fan Speed:

- Press the **Fan** button to scroll through fan speed options as shown in the following chart.

| System Type   | Mode                 | Fan Sequence  |
|---|----------------------|---|
| PTAC (Packaged Terminal AC)<br>HP (Heat Pump)<br>HHP (Hybrid Heat Pump) | Cool<br>Heat<br>Auto | <br>FAN      FAN      FAN          |
|   | Fan<br>Only          | <br>FAN      FAN                   |
| FCU (Fan Coil Unit / Mini-Split)  | Cool<br>Heat<br>Auto | <br>FAN      FAN      FAN      FAN |
|   | Fan<br>Only          | <br>FAN      FAN      FAN          |
| UNI (Unitary Furnace / AC)  | Cool<br>Heat<br>Auto | <br>FAN                            |

- When a schedule is running, the default fan speed for PTAC, HP, HPP or FCU, while heating or cooling is "AUTO"
- If the Thermostat is in Fan Only mode, the default fan speed is "LO"

## Alarm Operation:



- When any base module detects water leakage, it will be reported to the thermostat which will display the message shown.

*Note: The number shown after WATER indicates the base module which has detected a water leak from the Water Leak Sensor Cable.*

- Before resetting the alarm, the continuous water leak sensing cable must be dried completely. This may require both wiping the sensing cable dry and air drying the braid.
- To reset the alarm, press all buttons ( , , **Mode** and **Fan**). The thermostat will re-check the base modules.
- If alarms from multiple base modules are reported, only one alarm will be shown until a button is pushed and the backlight illuminates. Then, the display will scroll through the alarms detected.

### Compressor Short Cycle Delay Protection:

The HTE-01 Thermostat has a built in short cycle delay to protect the compressor. The Programming Guide describes how to change this delay from its default value of 5 minutes to as low as 1 minute.

When this function is active, the  or  will flash but the output will not turn on.

### Cooling Fan Delay:

For PTAC, HP or HHP systems in  mode, the fan will remain running for 1 minute after the cooling demand is satisfied.

### Hydronic Heat Operation:

For Hydronic Heat applications use the “Low Fan Speed” setting to activate the unit’s Heat Fan Lockout Mode. This will prevent the fan from turning on until the units aquastat senses hot water flowing through the system’s coil.

### Emergency Heat:

If the Emergency Heat parameter is enabled and the system mode is not ‘Fan Only’, the thermostat will call for heat when the room temperature falls below the Emergency Heat Setpoint Temperature (Administrative Settings).

### Temperature Units:

To change the temperature units between °F and °C, quickly press and release the  and  buttons.

## Keypad Lock:

This function locks the keypad to prevent users from changing the set point temperature, operating mode, or fan speed. Enable or disable the Keypad Lock function in the Administrative Parameters menu. (See the latest version of the Habitat Programming Guide: HC-PG-HTE-01-HTM-01).

### To lock the keypad:



Press and hold the  and  buttons until a beep sounds and **LOC** is displayed (3 seconds).



If any button is pressed after locking the keypad, **LC** will be displayed, indicating the keypad is locked. No changes are permitted to Mode, Fan Speed or Set Point while the keypad is locked.

### To unlock the keypad:



Hold down the **Mode** and **Fan** buttons until the second beep is played and **CODE00** is displayed (10 seconds). Use the  and  buttons to change the number to **11** and press **Fan**.



**UNLOC** is displayed, indicating the keypad has been unlocked. The Thermostat then returns to the home screen.

## Setback/eco mode:

This function saves energy and money by changing the heating and/or cooling set points to an economical preset temperature when the space is unoccupied. The eco mode may be turned on or off manually with the keypad using the parameter settings, through the mobile application, or with an occupancy sensor.

### To enable/disable setback:



Hold down the **Mode** and **Fan** buttons until a beep is played (3 seconds). After releasing the buttons **MODE** is displayed.



Press **Fan** several times until **SEtBAC** is displayed with either **OFF**, **ON** or **SE<sub>n</sub>**.

| Value            | Description                                       |
|------------------|---|
| OFF <sub>F</sub> | eco mode disabled                                 |
| ON               | eco mode enabled                                  |
| SE <sub>n</sub>  | eco mode enabled triggered by an occupancy sensor |

Use the  and  buttons to change the value between available values. Press **Fan** to select. If **ON** or **SE<sub>n</sub>** is selected, parameters for Heat Set Point and Cool Set Point will be available.

## Setback Temperatures:



Use the ▲ and ▼ buttons to set the HEAT Set Point. Press Fan to select.



Use the ▲ and ▼ buttons to set the COOL Set Point. Press Fan to select.

To exit the Parameters Setup, hold down the **Mode** and **Fan** buttons until a beep sounds (3 seconds).

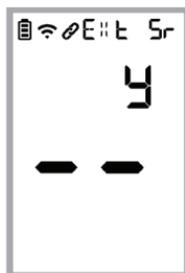
## External Temperature Sensor:

When a HomeLink module is connected, an optional wireless temperature sensor is available to provide a flexible location for the temperature sensing point.

*To enable/disable the external temperature sensor:*



Hold down the **Mode** and **Fan** buttons until a beep sounds (3 seconds). After releasing the buttons, **Module** is displayed. Press the **Mode** button several times until **E t Sr** is displayed.



Use the ▲ and ▼ buttons to change the value between disable (n) and enable (y). Press **Fan** to select the value. To exit the Parameters Setup, hold down **Mode** and **Fan** buttons until a beep sounds (3 seconds).

## Schedule Setup:



Press & hold **Mode** & **Fan** until a sound is played (3 seconds), then release.



The display will show the number of base modules currently paired.



Press **Mode** to scroll back to the Schedule Parameter and use the  button to toggle schedule to "y". Press **Fan** to confirm.



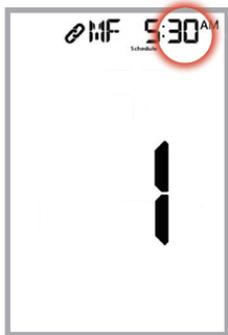
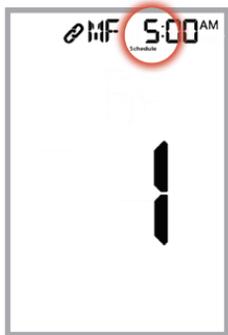
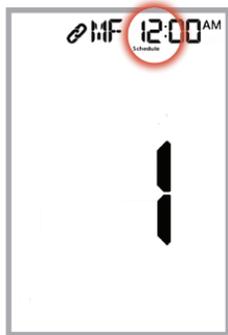
When prompted to **UPDATE**, Use the   buttons to toggle to "y". Press **Fan** to continue.

- Choose Schedule Type

| Display   | Description                          | Action when "Fan" pressed                    |
|---|--------------------------------------|--|
|  <b>5+2</b><br><small>Schedule</small> | Weekday (MF) or<br>Weekend (SS)      | MF – Set periods*                            |
|   |                                      | SS – Set periods*                            |
|  <b>WK</b><br><small>Schedule</small>  | Same schedule<br>throughout the week | Set periods*                                 |
|  <b>DAY</b><br><small>Schedule</small> | Different schedule<br>each day       | MO, TU, WE, TH, FR, SA, SU<br>– Set periods* |

\* Periods SS, WK, MO, TU, WE, TH, FR, SA, SU are set up in the same way as listed below MF.

- Period Setup

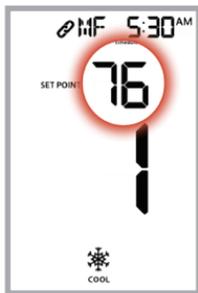


Use the   buttons to set the hour that the first period begins. Press **Fan** to continue.

Use   buttons to set minutes for the first period. Press **Fan** to continue.



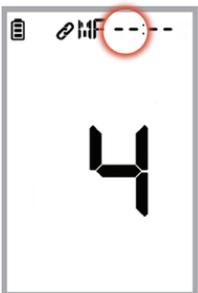
Use   buttons to set the target set point for Heating. Press Fan to continue.



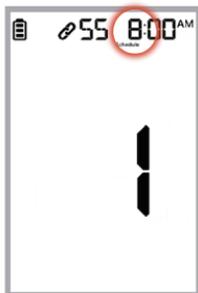
Use   buttons to set the target set point for Cooling. Press Fan to advance to the next period.



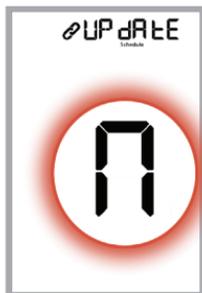
Set time and temperature set points for each desired period.



To disable a period, press the  button until **---:---** is displayed. **Up to 6 periods per day or group of days can be programmed.**



After the 6th period is programmed, the HTE-01 Thermostat will move to the next day or group, depending on the schedule type.



Once all periods and day groups have been programmed, a prompt to Update will be displayed. Press "n" to accept the current schedule or "y" to make further changes.

# Power Operation

## Battery Installation

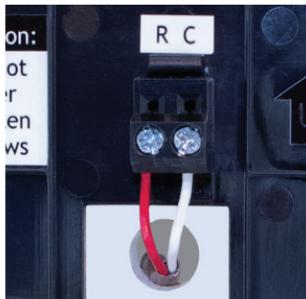


Please insert 2 AA Alkaline batteries (included.) High performance lithium batteries may be used and are recommended on commercial applications.



When the battery icon starts flashing and it shows the Low  or Replace  icons, the batteries should be replaced immediately to prevent system shutdown.

## Hardwired Installation



Battery installation is optional if Thermostat is hardwired, "R" and "C" terminal connected to 24 volt only power.

# Model Specifications

## Model HTE-01 Thermostat

|                           |   |
|---------------------------|---|
| Temperature Units         | °C or °F  |
| Display Temperature Range | 32°F - 99°F / 0°C - 40°C  |
| Power Source              | Hardwired: 18 to 30 VAC, NEC Class II, 50/60 Hz, 65 mA @ 24 VAC<br>Battery: 3.0 VDC, (2) AA batteries |
| Operating Environment     | 32°F – 122°F / 0°C – 50°C,<br><95% non-condensing RH  |
| Program                   | 5 + 2 / 7 days  |
| Dimension                 | 3.93" W x 3.93" H x 1.1" D  |
| Frequency                 | ISM Band 915MHZ   |
| Storage Environment       | 10°F – 140°F / -12°C – 60°C,<br><95% non-condensing RH  |

## Model HTM-01 Module

|                       |   |
|-----------------------|---|
| Load Rating           | 1 amp per terminal, 1.5 amp maximum all terminals combined.                 |
| Power Source          | 18 to 30 VAC, NEC Class II, 50/60 Hz<br>44-170mA @ 24VAC, depending on load |
| Operating Environment | 32°F – 122°F / 0°C – 50°C,<br><95% non-condensing RH                        |
| Storage Environment   | 10°F – 140°F / -12°C – 60°C,<br><95% non-condensing RH                      |

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Internal use

HC-UM-HTE-01-HTM-01-2020.11 v1