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Smarter Control Solutions.

Installation & Pairing Manual

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Safety Instructions

Please read these instructions carefully **BEFORE INSTALLING** and using the HTE-01 Thermostat. Keep this guide in a safe place for future reference.

- Installation and repairs are to be performed by a qualified contractor in strict accordance with the requirements of state and local regulating agencies. In the absence of local requirements, follow ANSI/NFPA 70, National Electric Code.

- The HTE-01 Thermostat may be used with a 24 VAC power source or battery power only. **DO NOT APPLY** supply voltage above 30 VAC.

- **DO NOT** expose the HTE-01 Thermostat to voltage fluctuations of more than ±2.4 VAC (±10% of nominal power rating).

- **DO NOT** install the HTE-01 Thermostat in a bathroom or area of excessive moisture.

- **DO NOT** expose the HTE-01 Thermostat or HTM-01 Base Module to water.

- **DO NOT** store the HTE-01/HTM-01 where temperatures drop below 14°F (-10°C) or exceed 140°F (60°C).

- **DO NOT** operate the HTE-01/HTM-01 where temperatures drop below 32°F (0°C) or exceed 122°F (50°C).

- **DO NOT** use solvents or aggressive cleaning agents to clean these devices. A dry, soft cloth is recommended.

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 operating instructions, refer to the **Operation Manual.**

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

Documentation

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customerservice@habitat.support

Thermostat Model: HTE-01

Base Module Model: HTM-01

Manual Table of Contents

What's In The Box

BEFORE BEGINNING installation, confirm that all parts are present in the package:

HTE-01 Thermostat with Mounting Plate

(2) AA Alkaline Batteries

**(2) Mounting Screws
(2) Wall Anchors**

HTM-01 Base Module with Double-sided Mounting Tape

HTM-01 Base Module Wiring Harness

HTM-01 Continuous Water Leak Sensor Cable

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Device Overview

PTAC - Packaged Terminal AC
HP - Heat Pump
HHP - Hybrid Heat Pump
FCU - Fan Coil / Mini-Split Unit
UNI - Unitary AC / Furnace
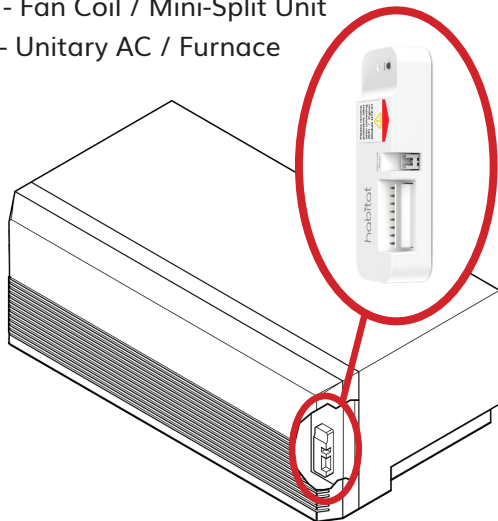
> ℹ The HTE-01 thermostat and HTM-01 base module are paired when supplied as a set from the factory. If base modules are added or if pairing is required in the field, see pages 11-12 for the device pairing procedure.

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 Dip Switch Configurations
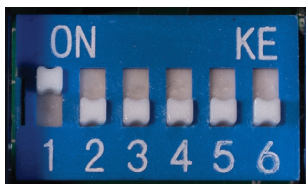
1 –	PTAC (Packaged Terminal Unit) **Factory Default**
2 –	FCU (Fan Coil Unit / Mini-Split)
3 –	HP (Heat Pump)
4 –	HHP (Hybrid Heat Pump)
5 –	UNTY (Unitary AC/Furnace)
6 –	O/B Terminal Selection (Heat Pump Only)

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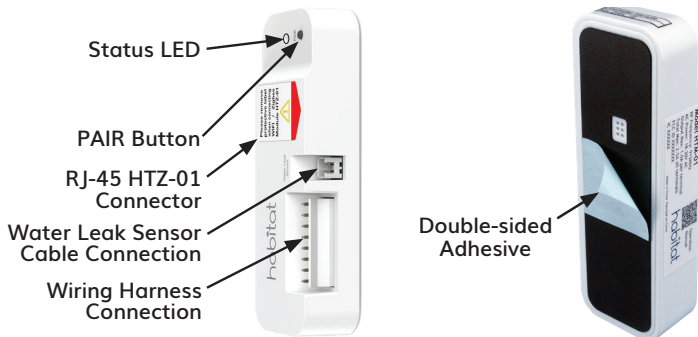
- ON = "B" – Cooling is default, switches over to Heat
- OFF = "O" – Heating is default, switches over to Cool

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

HTM-01 Base Module Installation

- **Mount the Base Module:** Using the double-sided adhesive backing on the Base Module mount it to a convenient location on the appliance.

Status LED

PAIR Button

RJ-45 HTZ-01 Connector

Water Leak Sensor Cable Connection

Wiring Harness Connection

Double-sided Adhesive

> Avoid mounting the HTM-01 Base Module in locations near line voltage power conduits.
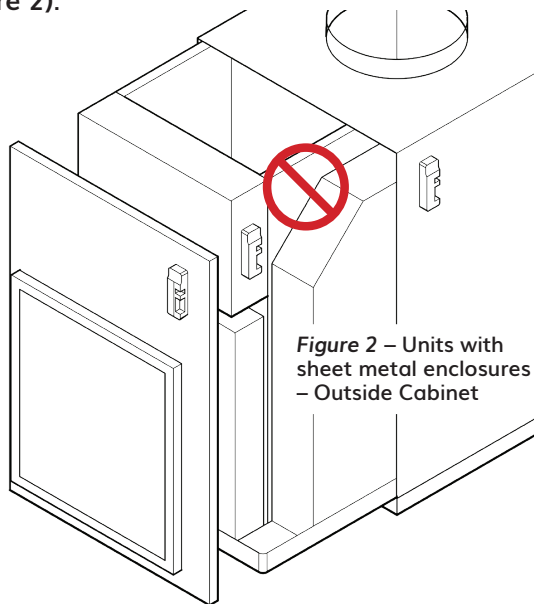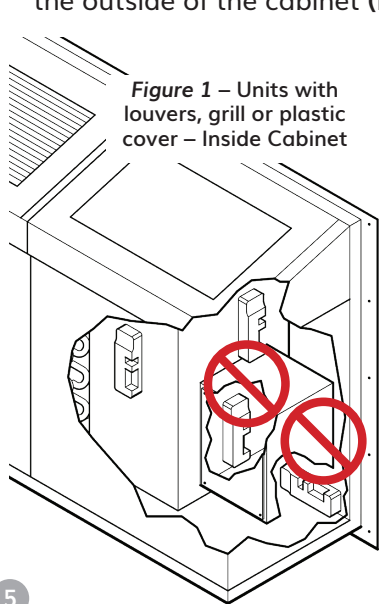>
> **DO NOT** locate the Base Module in locations where exposure to water or dirt/grease are likely.
>
> **DO NOT** mount the Base Module in locations where temperatures may exceed 104°F (40°C).
>
> For best results, assure that the harness is long enough to reach the intended location before mounting the base module.

- **Wire the Base Module:** Using the Base Module Wiring Harness provided, wire the Base Module to the appliance. Choose the appropriate wiring diagram from **Appendix A** based on: System Type, Heating/Cooling Stages and Fan Speeds.

- **Install Water Leak Sensor:** The sensor cable is to be installed where moisture is likely to accumulate if the condensate is not draining properly. The sensor will detect leaks at any point along the length of the cable.

- **Installation Location:** For best results, the HTM-01 base module is to be mounted in a convenient location on the HVAC unit where there is no sheet metal between the base module and the thermostat. The HTM-01 can be mounted on the inside of an enclosure behind louvers or grill **(Figure 1)**. For units with a sheet metal cabinet, mount the HTM-01 on the outside of the cabinet **(Figure 2)**.

Figure 1 – Units with louvers, grill or plastic cover – Inside Cabinet

Figure 2 – Units with sheet metal enclosures – Outside Cabinet

For HVAC units with an open bottom, place as close to the bottom as possible while avoiding places where furnishings or cleaning equipment can cause damage **(Figure 3)**.
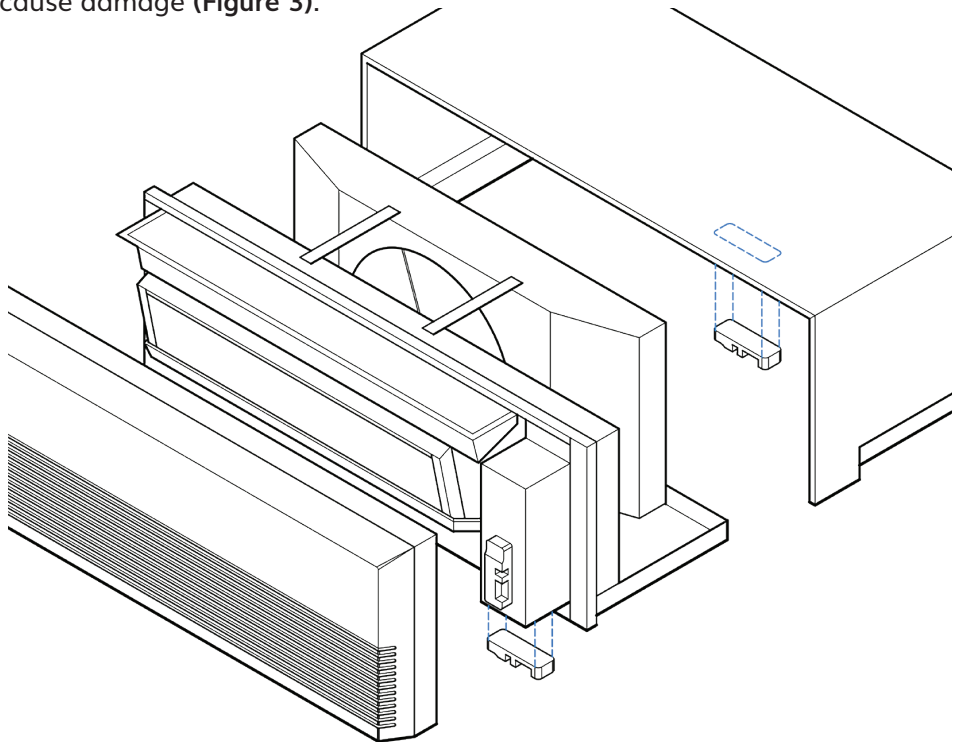

Figure 3 – Units with open bottoms – Inside Cabinet

LED Status Indication

The following table shows the base module state corresponding to the LED Status Indication.
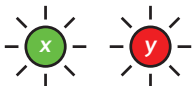
LED Status Indication		State	Description
	Flashing Green	Pairing	Base module is seeking to pair with the thermostat.
	Green	Paired	Base module is paired with the thermostat.
	Red	Not Paired	Base module is not paired with a thermostat.
2	2 Red Flashes then Pause	Alarm	Base module indicating an alarm (Water Leak, Smoke or CO2) accompanied by descriptive text on the thermostat display.
	Flashing Red	Identify Mode	Base module is in 'identify mode' which is initiated by the thermostat or web application.
	Alternating Green/Red	Factory Reset	Hold the PAIR button for 10 seconds and it begins to flash. Release and press again briefly to reset.
x y	Flashing x times Green then y times Red	Firmware Version	Indicates version x.y (eg. 2 green then 7 green = version 2.7.) Press and release PAIR button within 10 seconds of power up.
n	Flash Red n times	Base Module Number	Indicates base module number (1-8). Press and release PAIR button more than 10 seconds after power up.

HTE-01 Thermostat Installation

Mount the Thermostat: Remove Mounting Plate and mount it approximately 4-5 feet above the floor. Select an area with average temperature and good air circulation.

BE SURE that the ⌂UP⌂ symbol is correctly oriented.
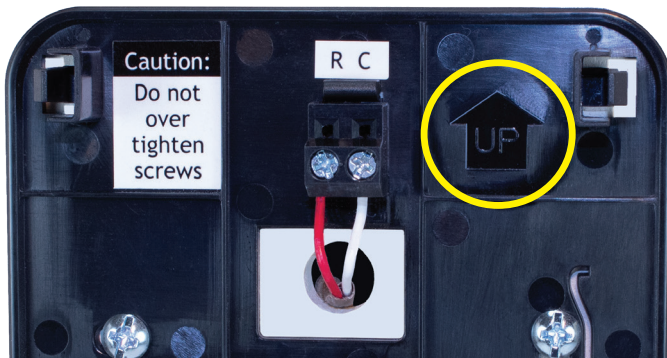
DO NOT MOUNT the thermostat near any heat source, behind doors or curtains, in corners, in direct sunlight, in areas of high humidity or where water is present.
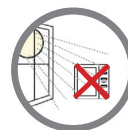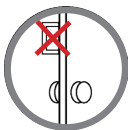
AVOID mounting the Thermostat on an exterior wall.

Power Installation

If using 24 VAC supply wiring, be sure that the wire goes through the opening in the Mounting Plate before mounting.

FOR 24 VAC INSTALLATIONS, insert the low voltage supply wires into the terminations provided and tighten the screws.

Hardwired Installation

DO NOT OVERTIGHTEN the terminal screws.
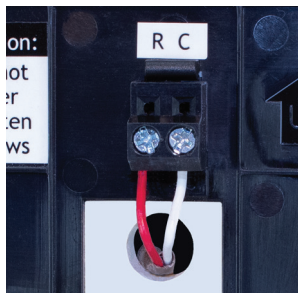
Battery installation is optional if Thermostat is hardwired, "R" and "C" terminal connected to 24 volt only power.

Wire Specifications:
Shielded or non-shielded 18-22 gauge thermostat wire.

Battery Installation

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

Boot Screen Display
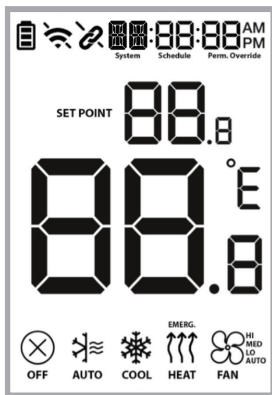
When the HTE-01 Thermostat is first powered, all segments are briefly displayed.
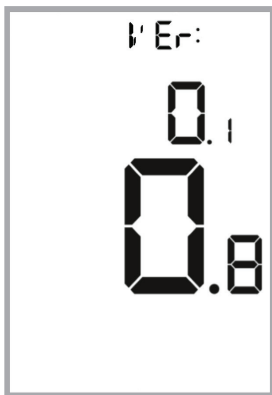
Next, the firmware version is displayed for 2 seconds.

Then the display briefly shows the system type which is dependent on the dip switch settings.

If more than 1 dip switch (1-5) is set to "ON" the following error message is displayed.

Device Pairing

The HTE-01 Thermostat and the HTM-01 Base Module that were shipped together were paired at the factory for convenience. To add additional base modules, use the following procedure.

1. Hold down the **Fan**, **Mode**, and ▼ buttons for more than 3 seconds to initiate the Pairing process on the HTE-01 Thermostat and set the 10-minute countdown timer in action. This will allow pairing of up to eight base modules.

   Note: To exit the Pairing process hold the **Mode** and **Fan** button until a beep is played.

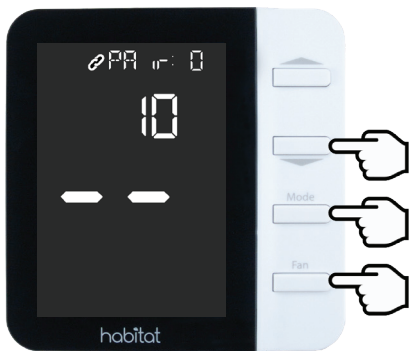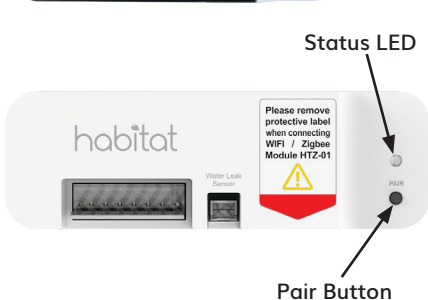2. To initiate pairing on the HTM-01 base module, press and hold the **Pair** button on the base module for at least 5 sec, but not more than 10 sec, until the Status LED flashes green. When the LED turns steady green the base module is paired with the thermostat. Repeat to pair additional modules. The table on page 7 shows the HTM-01 base module State that corresponds to the LED Status indication.

Note: holding the **Pair** button for longer than 10 sec will put the base module into the factory reset mode (LED alternating red and green).

Pairing Setup Display

PAIRED

UNPAIRED

𝒫PA ɪr: 1

Number of Paired Modules

10

Pairing process countdown time
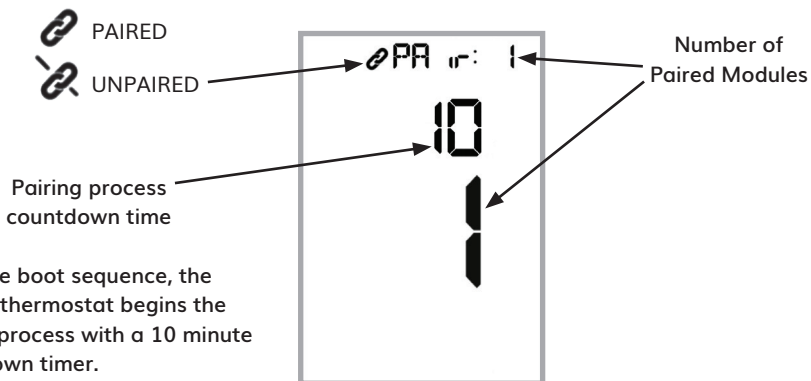
After the boot sequence, the HTE-01 thermostat begins the pairing process with a 10 minute countdown timer.

As the HTE-01 Thermostat pairs with each HTM-01 Base Module the number of paired modules is displayed. A maximum of 8 base modules can be paired with each thermostat.

If there are eight base-modules already paired with the thermostat, PA ɪr: 8 will be displayed for 3 seconds before returning to the previous screen.

Note: New modules will always be assigned to the lowest available number.

Home Screen

1
2
3
4
5
6
7
8
9
10
11
12
13
14

SET POINT

System
Schedule
Perm. Override

°F

EMERG.

OFF   AUTO   COOL   HEAT   FAN

HI
MED
LO
AUTO

AM
PM

13

1	Pairing status indicator: 🔗 Connected 🔗 Not connected	**8**	Time display	

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

1 - Schedule must be activated for schedule status to be displayed.
  See the Habitat programming guide for information on setting up a schedule.

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HTE-01 Thermostat Controls

Front View

SET POINT 75

68°F

8:00 AM

COOL

1

2

3 — Mode

4 — Fan

5

Bottom Side View

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

⬆ ⬇ – 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:

⊗ OFF ⇄≈ AUTO ❄ COOL ⇑⇑⇑ EMERG. HEAT 🌀 FAN

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

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.

Appendix A - Wiring Diagrams

TYPICAL 1H/1C SYSTEM
1 SPEED FAN

HTM-01 BASE MODULE

120 VAC
POWER
SUPPLY

L2   L1
(HOT)

24 volt Trans

C   R

> (i) Most PTAC, HP, and HHP systems support two-speed fan operation. In a single speed fan system, wires for Gh, Gm, and Gl should be connected to the fan relay output of the appliance. Always refer to the equipment manufacturer's specifications for remote thermostat operation.

Terminal	Description
C	COMMON
R	24V TRANSFORMER POWER
Y	COOLING
W	HEATING
O/B	CHANGEOVER
Gh	FAN SPEED HIGH
Gm	FAN SPEED MEDIUM
Gl	FAN SPEED LOW

COMPRESSOR RELAY

HEAT RELAY

FAN RELAY

TYPICAL 1H/1C SYSTEM
2 SPEED FAN

120 VAC POWER SUPPLY
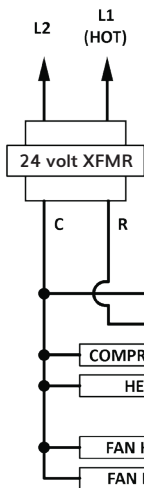
> ℹ Most PTAC, HP, and HHP systems support two-speed fan operation. In a single speed fan system, wires for Gh, Gm, and Gl should be connected to the fan relay output of the appliance. Always refer to the equipment manufacturer's specifications for remote thermostat operation.

HTM-01 BASE MODULE

L2   L1 (HOT)

| 24 volt XFMR |

C   R

Terminal	Description
C	COMMON
R	24V TRANSFORMER POWER
Y	COOLING
W	HEATING
O/B	CHANGEOVER
Gh	FAN SPEED HIGH
Gm	FAN SPEED MEDIUM
Gl	FAN SPEED LOW

COMPRESSOR RELAY
HEAT RELAY
FAN HIGH RELAY
FAN LOW RELAY

TYPICAL 1H/1C SYSTEM
3 SPEED FAN

120 VAC POWER SUPPLY

HTM-01 BASE MODULE

Most PTAC, HP, and HHP systems support two-speed fan operation. In a single speed fan system, wires for Gh, Gm, and Gl should be connected to the fan relay output of the appliance. Always refer to the equipment manufacturer's specifications for remote thermostat operation.

L2

L1 (HOT)

24 volt XFMR

C   R

Terminal	Description
C	COMMON
R	24V TRANSFORMER POWER
Y	COOLING
W	HEATING
O/B	CHANGEOVER
Gh	FAN SPEED HIGH
Gm	FAN SPEED MEDIUM
Gl	FAN SPEED LOW

COMPRESSOR RELAY

HEAT RELAY

FAN HIGH RELAY

FAN MEDIUM RELAY

FAN LOW RELAY

TYPICAL 1H/1C HEAT PUMP SYSTEM 2 SPEED FAN

HTM-01 BASE MODULE

120 VAC
POWER
SUPPLY

(i) Most PTAC, HP, and HHP systems support two-speed fan operation. In a single speed fan system, wires for Gh, Gm, and Gl should be connected to the fan relay output of the appliance. Always refer to the equipment manufacturer's specifications for remote thermostat operation.
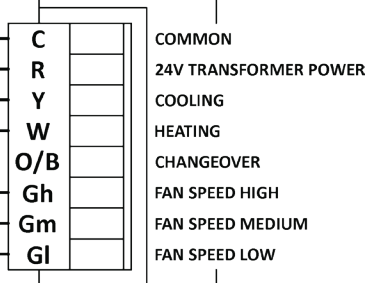
L2   L1
(HOT)

24 volt XFMR

C   R

Terminal	Description
C	COMMON
R	24V TRANSFORMER POWER
Y	COOLING
W	HEATING
O/B	CHANGEOVER
Gh	FAN SPEED HIGH
Gm	FAN SPEED MEDIUM
Gl	FAN SPEED LOW

COMPRESSOR RELAY

CHANGEOVER VALVE

FAN HIGH RELAY

FAN LOW RELAY

TYPICAL 2H/1C HEAT PUMP SYSTEM 2 SPEED FAN
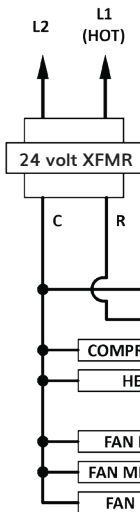
HTM-01 BASE MODULE

120 VAC
POWER
SUPPLY

ℹ️ Most PTAC, HP, and HHP systems support two-speed fan operation. In a single speed fan system, wires for Gh, Gm, and Gl should be connected to the fan relay output of the appliance. Always refer to the equipment manufacturer's specifications for remote thermostat operation.

L2   L1 (HOT)

24 volt XFMR

C   R

Terminal	Description
C	COMMON
R	24V TRANSFORMER POWER
Y	COOLING
W	HEATING
O/B	CHANGEOVER
Gh	FAN SPEED HIGH
Gm	FAN SPEED MEDIUM
Gl	FAN SPEED LOW
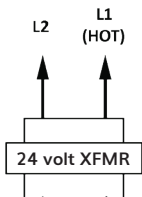
COMPRESSOR RELAY

AUX. HEAT RELAY

CHANGEOVER VALVE
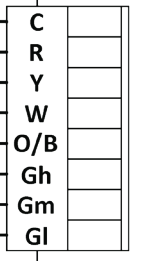
FAN HIGH RELAY

FAN LOW RELAY

Appendix B - Warranty Information

Warranty Registration

- For 2 years from the date of installation when registered within 60 days of the installation date or 26 months from the original purchased date (this warranty excludes consumables such as batteries) will be free from defects in material and workmanship under normal use and regular service and maintenance.

- For warranty issues, please contact the HVAC professional that installed this product.

- You can register your product by sending the Warranty Registration Form on the following page either by mail or electronically.

Email:
warrantyregistration@habitat.support

Mail:
Habitat Technologies
Warranty Registration Dept.
330 East 38th Street, Suite 530
New York, NY 10016-0444

Warranty Registration Form

Name _____

Address _____

_____

City, State, Zip _____

EMAIL: _____

Thermostat Model _____ Serial Number _____

Module Model _____ Serial Number _____

Installed Date _____

Appendix C - Specifications

Model HTE-01 Thermostat

Temperature Units	°C or °F
Dislay 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 Battery: 3.0 VDC, (2) AA batteries
Operating Environment	32°F – 122°F / 0°C – 50°C, <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, <95% non-condensing RH

Model HTM-01 Base 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, 44-170mA @ 24VAC, depending on load
Operating Environment	32°F – 122°F / 0°C – 50°C, <95% non-condensing RH
Storage Environment	10°F – 140°F / -12°C – 60°C, <95% non-condensing RH

Appendix D - Compliance

FCC

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.

Changes or modifications to this unit not expressly approved by the party responsible for compliance 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.

FCC AND INDUSTRY CANADA

RF Radiation Exposure statement: This equipment complies with FCC and Industry Canada RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the antenna and all persons.

Cet appareil est conforme aux limites d'exposition au rayonnement FR du FCC et d'Industrie Canada pour un environnement non contrôlé. Cet appareil devrait être installé et devrait fonctionner de sorte qu'il se trouve à une distance d'au moins 20 cm entre l'antenne et toute personne.

INDUSTRY CANADA

This device complies with Industry Canada license-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.

Le présent appareil est conforme aux CNR d'Industrie 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.

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Smarter Control Solutions.

Designed and Engineered in New York.
U.S. Registered Trademark. Patents pending
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