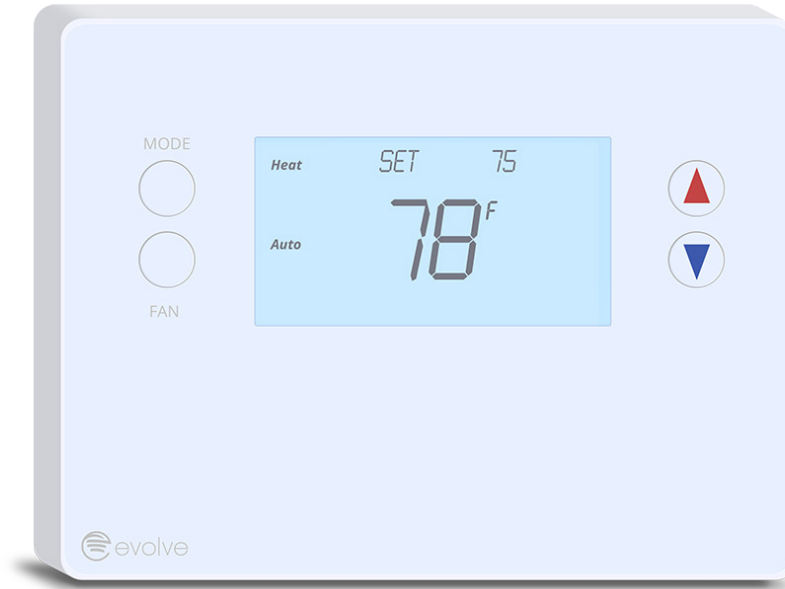


## TB-200

**Product**

Battery Powered Thermostat

**Description**

The Evolve Wireless Digital Thermostat/Temperature Sensor is designed to control the majority of HVAC systems when used in conjunction with the RPTAC-5. This device is battery operated and includes a 128 x 64 backlit graphical display and a 6 button keypad with on screen labels. The Battery Operated Thermostat contains a robust interface and is designed for use with communicating systems where remote monitoring and/or remote control are desired. The Thermostat interface includes heating and cooling display, system mode, fan mode display and control and fan cyclers amongst other features. The device can be wall mounted or mounted on a single-gang junction box.

This Battery Operated Thermostat is designed to work with other Evolve enabled devices.

**Specifications**

- SKU: TB-200
- Supported Networks:
  - Z-Wave – Signal (Frequency) 908.42 MHz
- Power: (4) AA Batteries (no wiring needed)
- Dimensions: 4.5" H x 5.75" W x 1" D
- Weight: 0.51 lbs.
- Available in Glass only

**Wiring****Between the TB-200 and the RPTAC-5**

No wiring needed. All communication is done via RF.

T-100-H



## Product

Wireless Digital Thermostat

## Description

The Evolve Wireless Digital Thermostat is designed to control the majority of HVAC systems with its all-in-one design including a 128 x 64 backlit graphical display and 6 button keypad with on screen labels. The Wireless Thermostat contains a robust interface and is designed for use with communicating systems where remote monitoring and/or remote control are desired. The Thermostat interface includes heating and cooling display, system mode, fan mode display and control and fan cycler amongst other features. The device can be wall mounted on a single-gang junction box and requires both 24VAC (R) and 24VAC (C) wires from the HVAC System for power.

This Wireless Digital Thermostat is designed to work with other Evolve enabled devices. Evolve nodes of other types can be included in the network and will also act as repeaters to increase the range of the network.

## Specifications

- SKU: T-100-H
- Supported Networks:
  - Z-Wave – Signal (Frequency) 908.42 MHz
- Power: 24 VAC, Wiring 18 AWG
- Dimensions: 4.5" H x 5.125" W x 1" D
- Weight: 0.51 lbs.
- Available in Glass or Matte finish

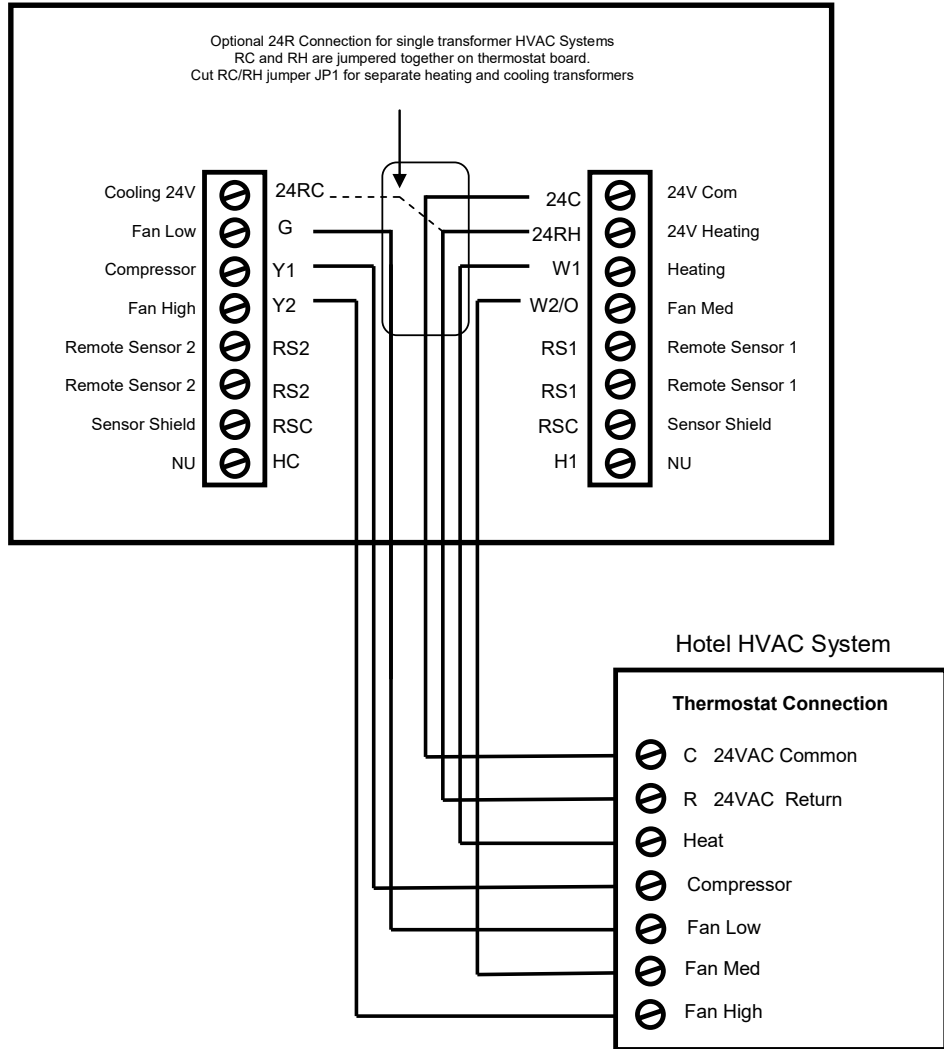
## Wiring

The device uses standard thermostat connections: C, R, W1, W2, Y1, Y2, G. The use of each of these terminals vary by application. The most common applications are outlined below; for applications not found on this list, please contact Evolve Technical Support at [support@evolvecontrols.com](mailto:support@evolvecontrols.com) for more detail.

Wiring Cont'd

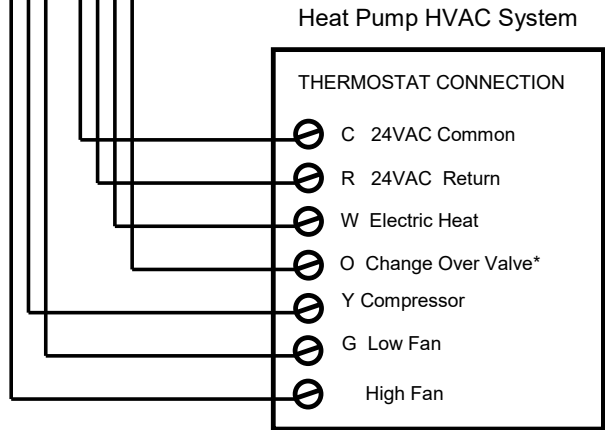
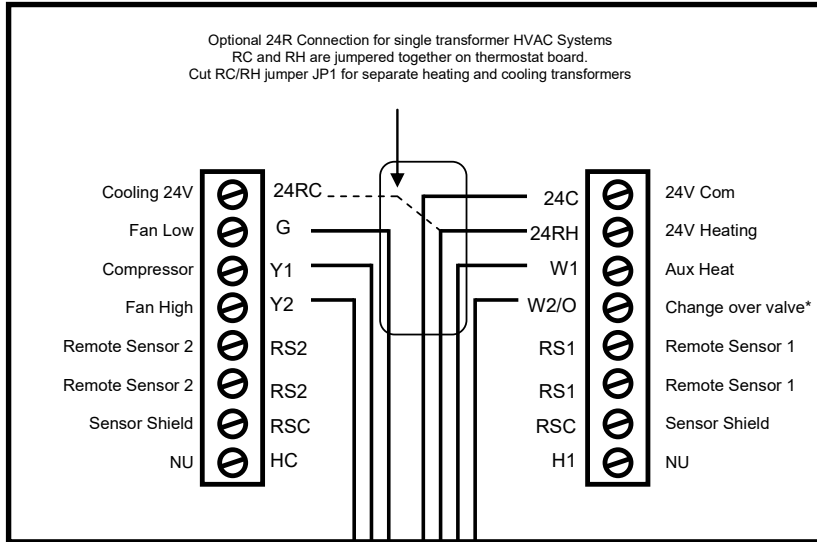
HVAC Type: <b>Hotel 3 Speed</b>	Voltage: 24VAC
HVAC System Wiring	Single Transformer Systems

\* Heat Pump diagram on next page.



Wiring Cont'd

HVAC Type: Hotel Heat Pump	Voltage: 24VAC
HVAC System Wiring	Single Transformer Systems



\* Reversing Valve

Wiring Cont'd

System Type Selection in the Installer Setup Menu

System Type	Fan Coil A	Fan Coil B		Heat Pump A	Heat Pump B
Fan Speeds	3 speed	2 speed		1 speed	2 speed
Heat Stages	1	1		3	2
Cool Stages	1	2		2	1
Terminal	Output	Output		Output	Output
C	24VAC C	24VAC C		24VAC C	24VAC C
RH	24VAC R	24VAC R		24VAC R	24VAC R
RC	nu	nu		nu	nu
W1	Heat valve	Heat valve		Aux Elect Ht	Aux Elect Ht
W2/O	Fan 2	Fan 2		Changeover	Changeover
G	Fan 1	Fan 1		Fan 1	Fan 1
Y1	Cool Valve 1	Cool Valve 1		Comp stg 1	Comp stg 1
Y2	Fan 3	Cool stg 2		Comp stg 2	Fan 2

T-1500



Product

Wireless High Voltage Digital Thermostat

Description

The Evolve Wireless Digital Thermostat is designed to control the majority of HVAC systems with its all-in-one design including a 128 x 64 backlit graphical display and 6 button keypad with on screen labels. What makes this device different than the T-100-H is purely higher voltage. The Wireless Thermostat contains a robust interface and is designed for use with communicating systems where remote monitoring and/or remote control are desired. The Thermostat interface includes heating and cooling display, system mode, fan mode display and control and fan cyclers amongst other features. The device can be wall mounted or mounted on a single-gang junction box.

This Wireless Digital Thermostat is designed to work with other Evolve enabled devices. Evolve nodes of other types can be included in the network and will also act as repeaters to increase the range of the network.

Specifications

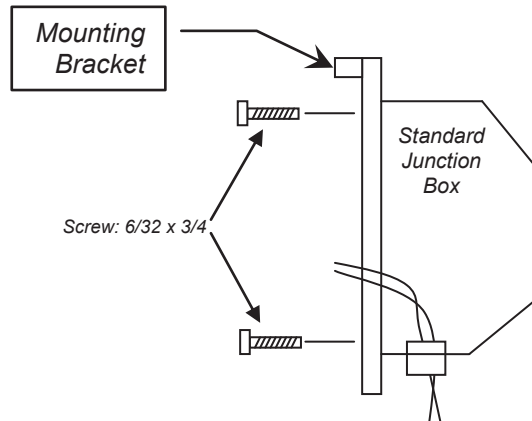
- SKU: T-1500
- Supported Networks:
  - Z-Wave – Signal (Frequency) 908.42 MHz
- Power: 110 VAC – 277 VAC, Wiring 18 AWG
- Dimensions: 4.5" H x 5.75" W x 1" D
- Weight: 0.51 lbs.
- Available in Glass or Matte finish
- Load rating: 2 Amps max heat/cool, 1/6 HP fan
- Relay Contact Rating:
  - 120 VAC, 10A
  - 240VAC, 10A
  - 277VAC, 8A
- Rated for pilot relay duty only

Wiring

The device uses standard thermostat relay connections: The use of each of these terminals varies by application. The most common applications are outlined below; for those not found on this list, please contact Evolve Technical Support at [support@evolvecontrols.com](mailto:support@evolvecontrols.com) for more detail.

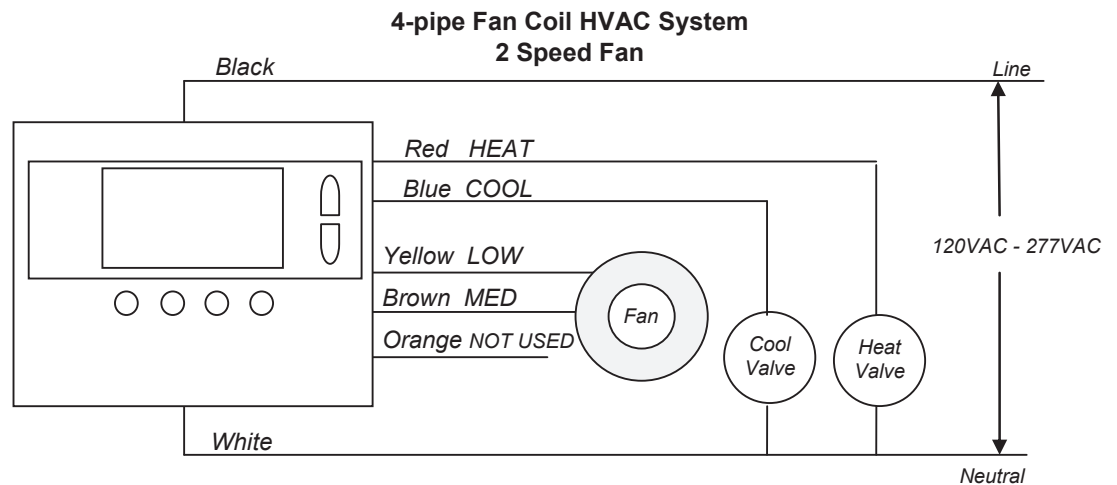
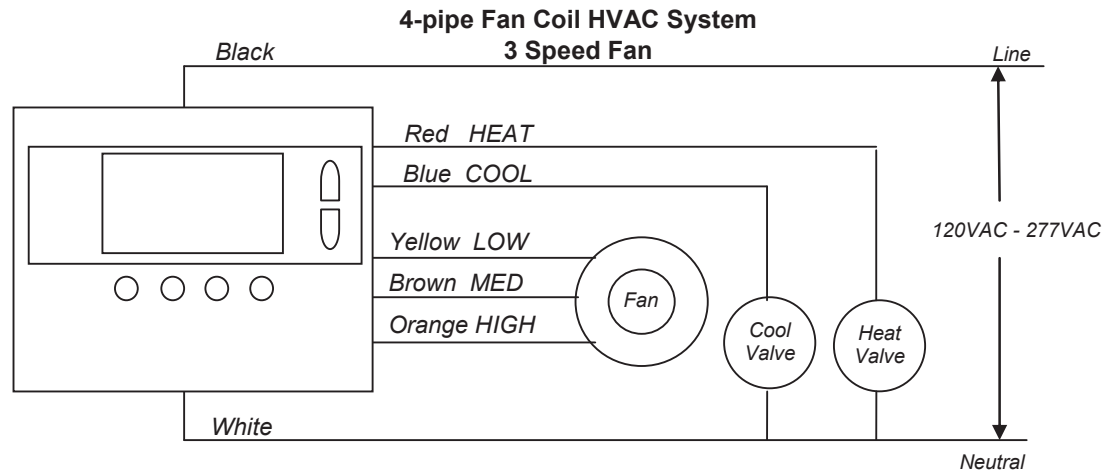
Wiring Cont'd

Install the mounting bracket to the junction box with either 2 (single gang) or 4 screws (double gang).



Fan Coil:

- Black = power
- White = Neutral
- Red = heating
- Brown = only used in a 3 speed system, this wire represents MEDIUM fan
- Blue = cooling
- Orange = only used in a 2 or 3 speed system, this wire represents HIGH fan
- Yellow = LOW fan. Note: in a 1 speed system, the wire is the default "only" fan terminal used

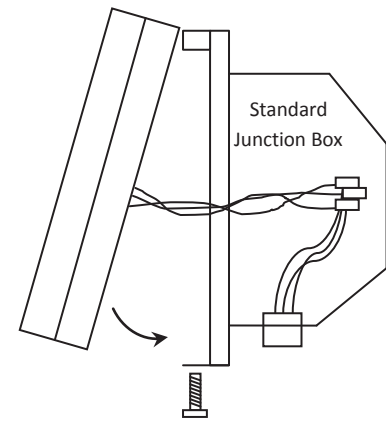


## Wiring Cont'd

Connect the thermostat wires to the cable wires using appropriate sized wire nuts.

Push the wires into the junction box. Tilt the thermostat so that the top of the thermostat is resting on the mounting tabs of the mounting plate. Push the bottom of the thermostat towards the wall and secure in place with the self-tapping screws as shown to the right.

Turn power back on. LCD should display temperature and thermostat functions.







## Thermostat

### DESCRIPTION

The Evolve Controls Thermostat is designed to control the majority of HVAC systems with its all-in-one design including a 4.3", Backlit LCD Display with Integrated "In-Cell" Touchscreen. The Wireless Thermostat contains a robust interface and is designed for use with communicating systems where remote monitoring and/or remote control are desired. The Thermostat interface includes heating and cooling display, system mode, fan mode display and control and fan cycler amongst other features. The device can be wall mounted on a single-gang junction box and requires both 24VAC (R) and 24VAC (C) wires from the HVAC System for power.

This Digital Thermostat is designed to work with other Evolve Controls enabled devices. Evolve Control nodes of other types can be included in the network and will also act as repeaters to increase the range of the network.

### FEATURES

- 4.3", backlit LCD display with integrated "In-Cell" touchscreen
- Ambient temperature
- Onscreen set point, operation and fan mode controls
- Degrees Fahrenheit or Celsius modes
- Monitors, displays and reports relative humidity
- Remote control of thermostat functions
- Z-Wave compatible
- Optional remote Z-Wave and wired sensors

**SPECIFICATIONS**

**SKU: TC-500**

Supported networks: Z-Wave ( 500 series chip ) – Signal (Frequency) 908.42 MHz

Wireless Communication Range: up to 130ft (40m) indoors

Uses standard thermostat connections

Central HVAC systems or seperate heating/cooling systems

Heat Pump HVAC systems : 3-stage heating, 2-stage cooling

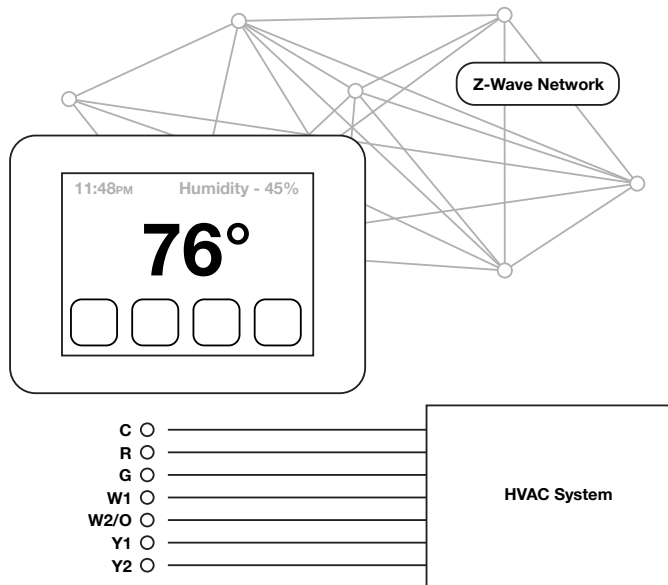
Standard gas/electric HVAC Systems : 2-stage heating, 2-stage cooling

Fan system : Selectable for gas or electric heat systems and supports Fan Cycler feature

Emergency Heat: In Heat pump mode, Emergency Heat mode is directly selectable from the thermostat

Automatic heating and cooling changeover

**INSTALLATION**



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