GC-THBS-O-1

Instruction Manual

Wireless Thermostat

THEMOSTAT QUICK REFERENCE

Thermostat Applications Guide

Description	
Gas or Oil Heat	Yes
Electric Furnace	Yes
Heat Pump (No Aux. or Emergency Heat)	Yes
Heat Pump (With Aux. or Emergency Heat)	Yes
Multi-Stage Systems	No
Heat Only Systems	Yes
Heat Only Systems - Floor or Wall Furnace	Yes
Cool Only Systems	Yes
Millivolt Conventional Systems	No
Two Transformer Systems	No

Power Type

Battery Power

Hardwire (Common Wire)

A trained, experienced technician must install this product.

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

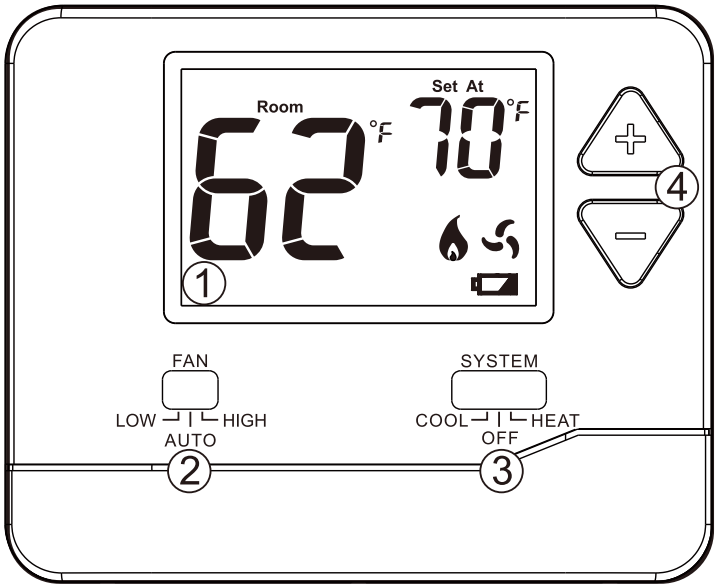
Table of Contents

	Page
Themostat Quick Reference	2-3
Installation Tips	4-9
Wiring Dia grams	10-14
Technician Setup	15-19
Thermostat paired	20
Specifications	21

Genuine Comfort support

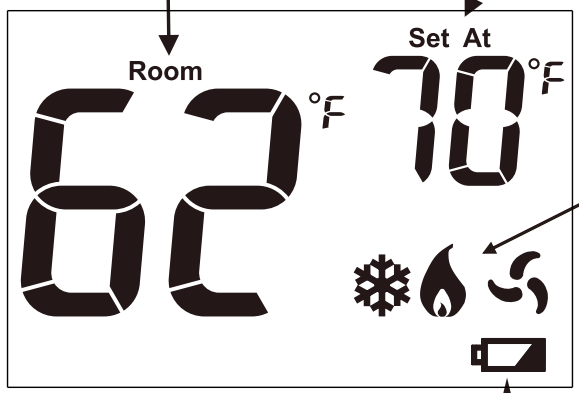
support.genuinecomfort.com

Getting to know your thermostat



Indicates the current room temperature

Displays the user electable setpoint temperature



System operation indicators: The COOL, HEAT or FAN icon will display when the COOL, HEAT or FAN is on. NOTE: The compressor delay feature is active if these icons are flashing. The compressor will not turn on until the 5 minute delay has elapsed.

① LCD

② Fan Switch

③ System Switch

④ Setpoint Buttons

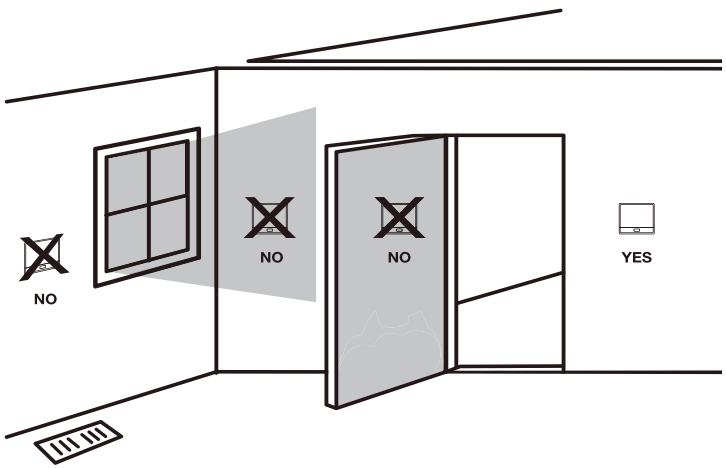
Caution:

When the battery icon appears replace your 2x AAA batteries immediately. Failure to do so may result in your heating & cooling system becoming inoperable. Freezing or overheating can occur.

INSTALLATION TIPS

Wall Locations

The thermostat should be installed approximately 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.



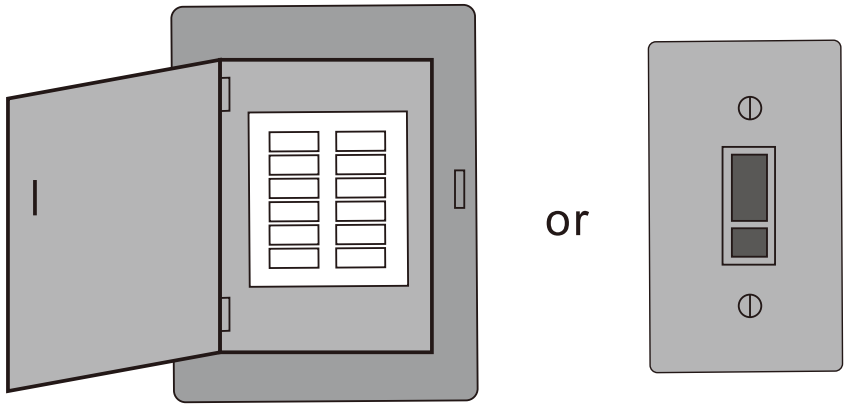
Installation Tip

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.

Do not install thermostat in locations:

- Close to hot or cold air ducts
- That are in direct sunlight
- With an outside wall behind the thermostat
- In areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where there might be concealed chimneys or pipes

1 Turn Off the Power of Your Heating/Cooling System



Circuit breaker box

or

Heating/cooling system power swich

Caution: Electrical Hazard
Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

Warning:
All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.

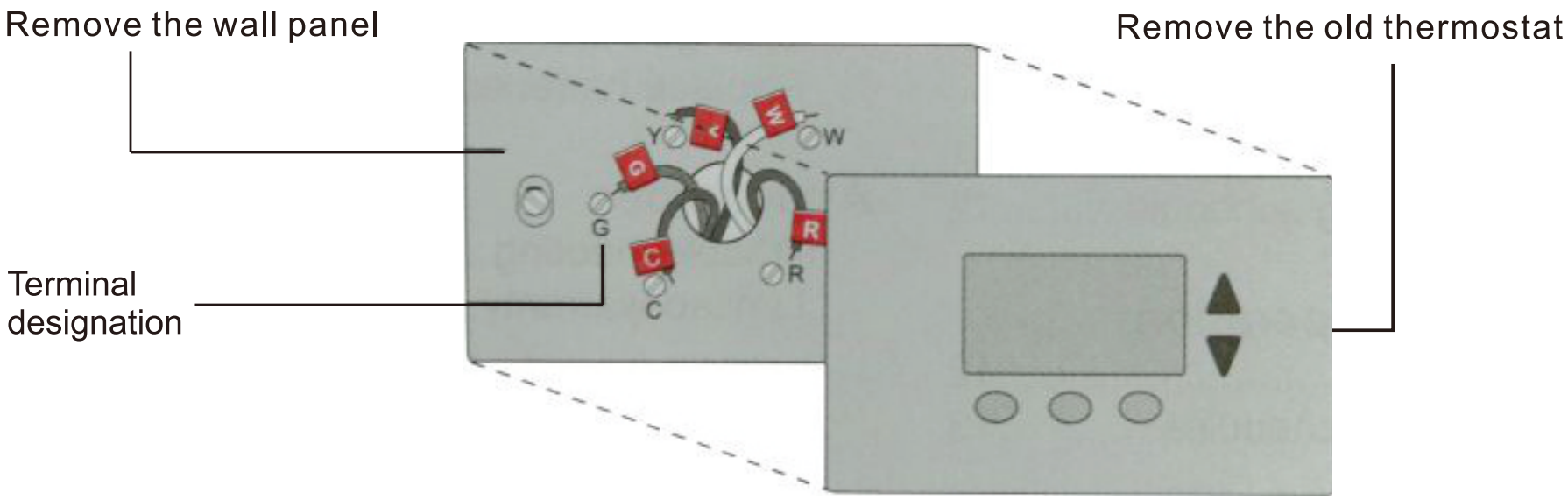
Warning:
This is a 24V AC low voltage thermostat. Do not install on voltages higher than 30V AC.

Do not short (jumper) across terminals on the gas valve or at the system control to test installation. This will damage the thermostat and void the warranty.

INSTALLATION TIPS

2 Remove Old Thermostat -(If Any)

Remove the old thermostat,Remove the old thermostat， Remember the function of the cable or port before disconnecting, and then remove the wall panel



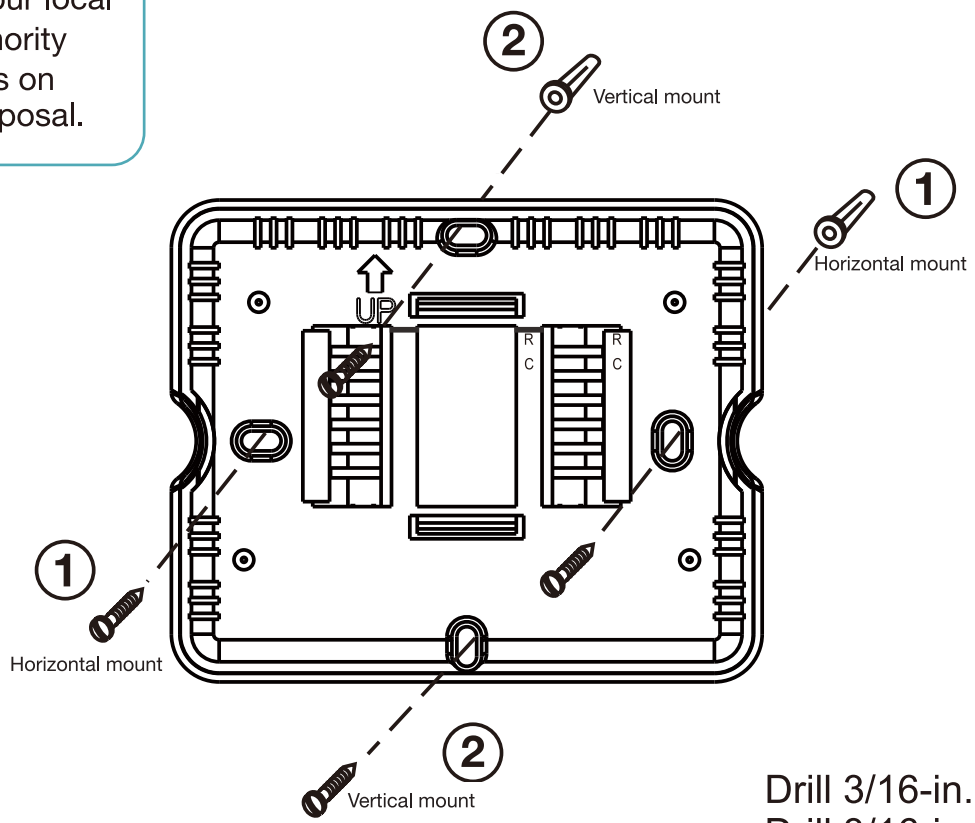
3 Mount New Wallplate

Mount the new wallplate using the included screws and anchors.

Mercury Notice:
All of our products are mercury free. However, if the product you are replacing contains mercury, dispose of it properly. Your local waste management authority can give you instructions on recycling and proper disposal.

For vertical mount put one screw top and one screw bottom.

For horizontal mount put one screw left and one screw right.

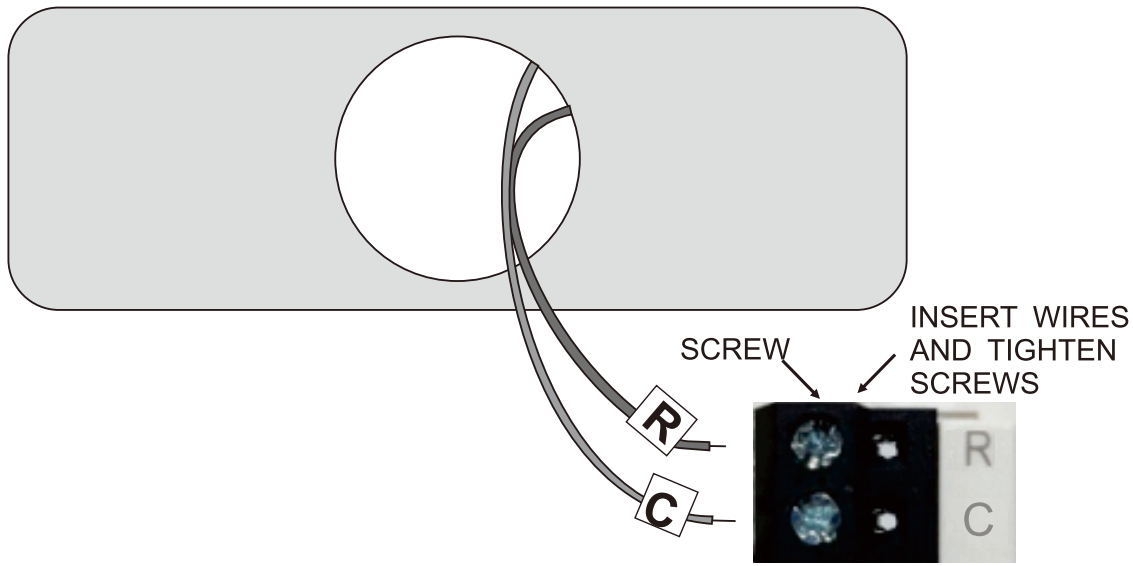


Drill 3/16-in. holes for drywall
Drill 3/16-in. holes for plaster

INSTALLATION TIPS

4 Connect Wires

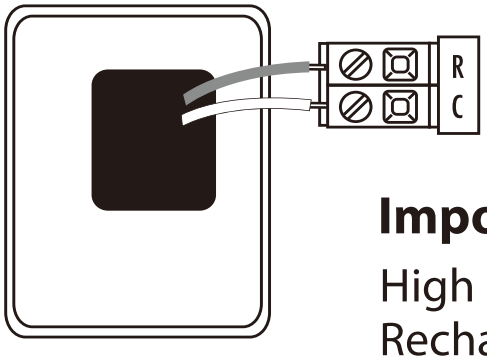
Simply match wire labels to the letters on the thermostat.



Installation Tip:

Do not overtighten terminal block screws, as this can damage the terminal block. A damaged terminal block can keep the thermostat from fitting on the subbase correctly or cause system operation issues. Max Torque = 6in-lbs.

5 Battery Installation

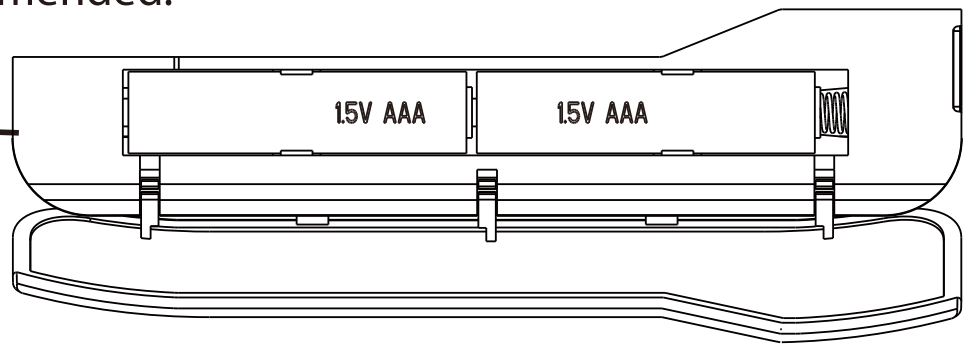


Battery installation is optional if used with AC power (the C terminal is connected). During power outages, the batteries will save settings and power the display.

Important:

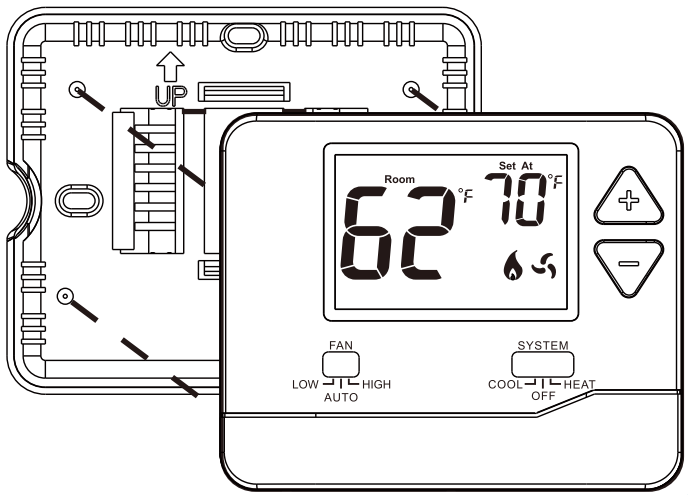
High quality alkaline batteries are recommended. Rechargeable batteries or low quality batteries are not recommended.

Insert 2 AAA Alkaline batteries (included). High quality alkaline batteries are recommended.



6 Mount Thermostat

Align the 4 tabs on the subbase with corresponding slots on the back of the thermostat, then push gently until the thermostat snaps in place.



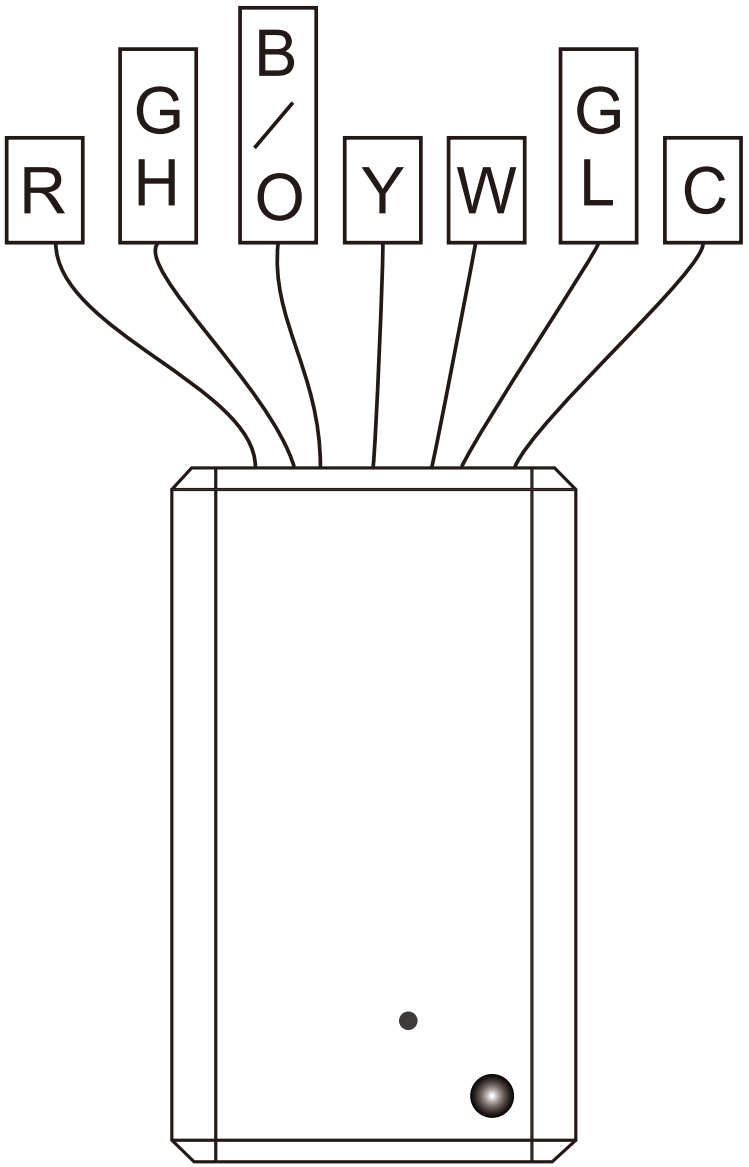
WIRING DIAGRAMS

Terminal Designations

Terminal	1 Heat 1 Cool Conventional System	1 Heat 1 Cool Heat Pump System
R	Transformer power	Transformer power
C	Transformer common port	Transformer common port
B/O	Reversing Valve/ Configerable Terminal	Reversing Valve/ Configerable Terminal
GL	Fan Relay, Low	Fan Relay, Low
GH	Fan Relay, High	Fan Relay, High
W	First stage of heat	Second stage of heat
Y	First stage of cool	First stage of heat & cool

Wiring Tips

Use 18- to 22-gauge thermostat wire. Shielded wire is not required.



Note:

The base module may be mountedusing adhesive tape, such asdouble-sided tape or hook and loopstrips.
The base module must behardwired (C &R terminalsconnected to 24V power).
Usesecondary source of securement toprevent module from dropping intocondenser drain pan.

Connecting to a PTAC:

When connecting the Base Moduleto a PTAC, refer to the PTACmanufacturer instructions to enableremote thermostat operation.

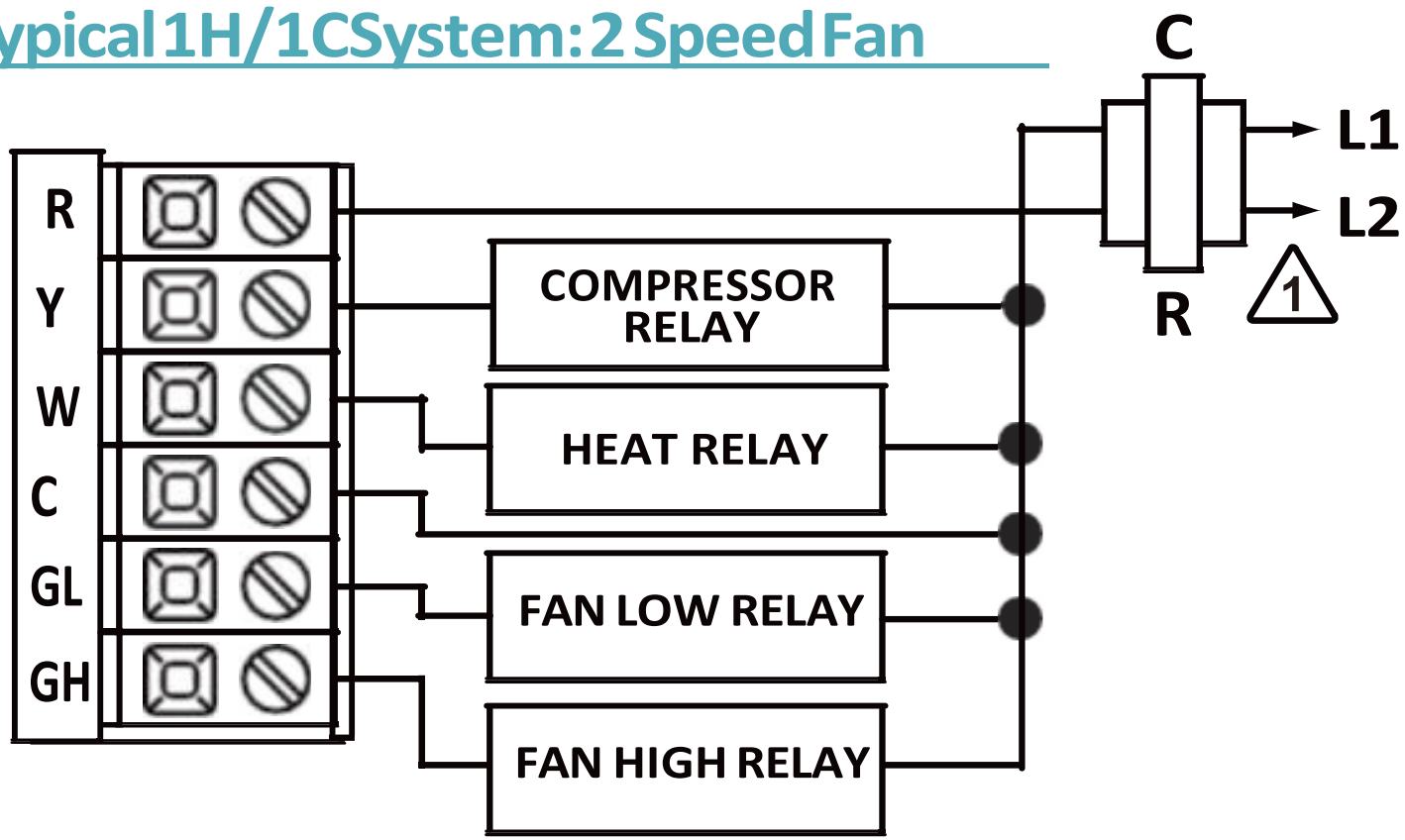
Wiring Note:

The base module ispackaged with labeledthermostat wire. Wireappropriately into thePTAC board terminals.

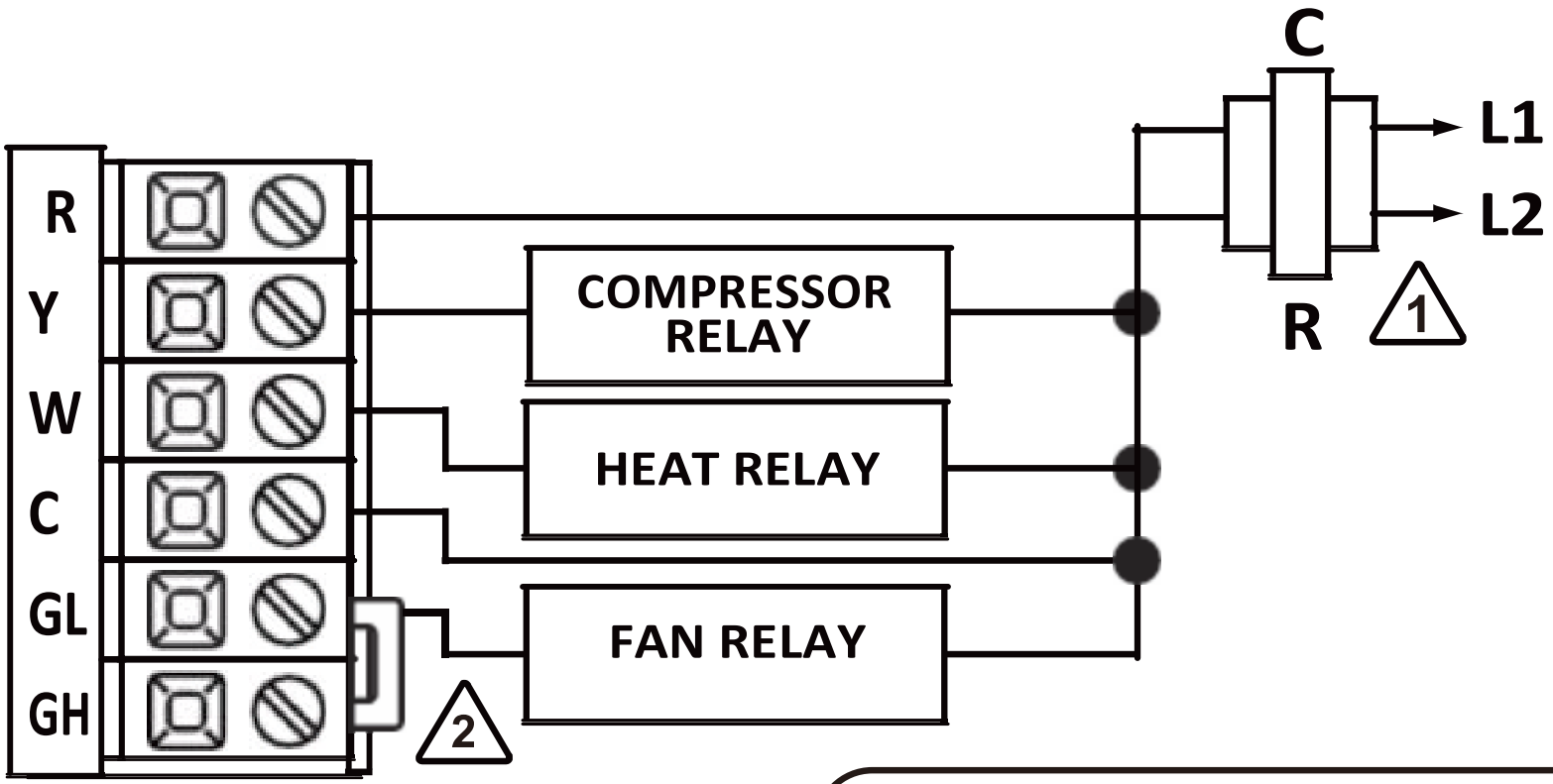
WIRING DIAGRAMS

1. Power supply
2. Jumper (not supplied) to connect GL and GH terminals.
3. Thermostat must be set to O and B to match the changeover valve, O is the cool changeover valve, B is the heat changeover valve.
4. The Aux Heat Relay is energized as the second stage of heat.

Typical 1H/1C System: 2 Speed Fan



Typical 1H/1C System: 1 Speed Fan

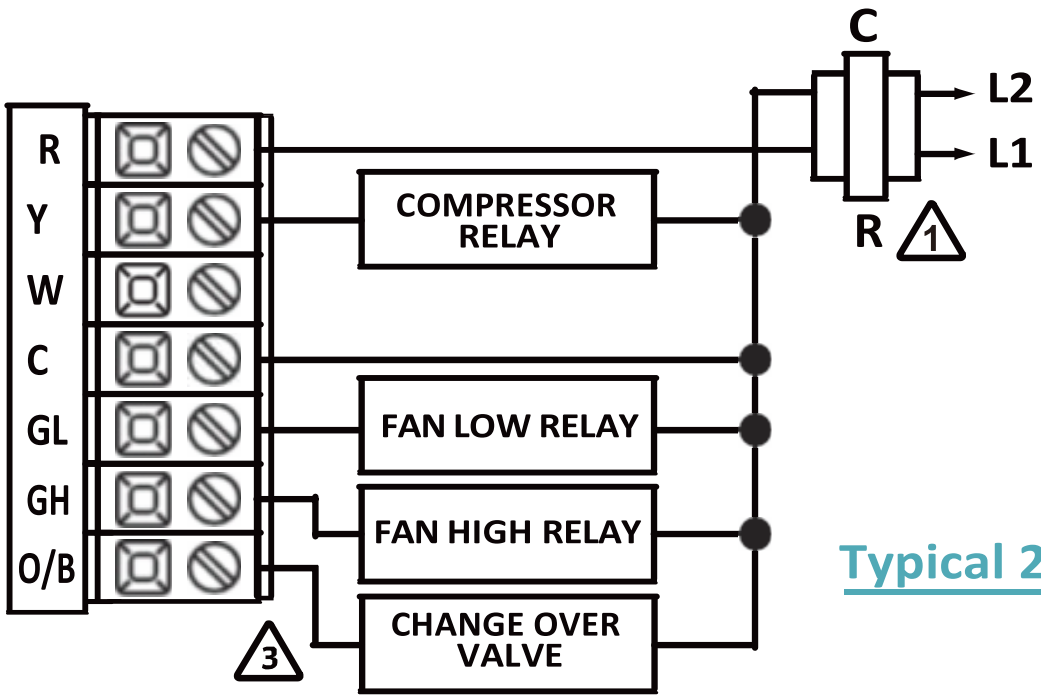


Note:

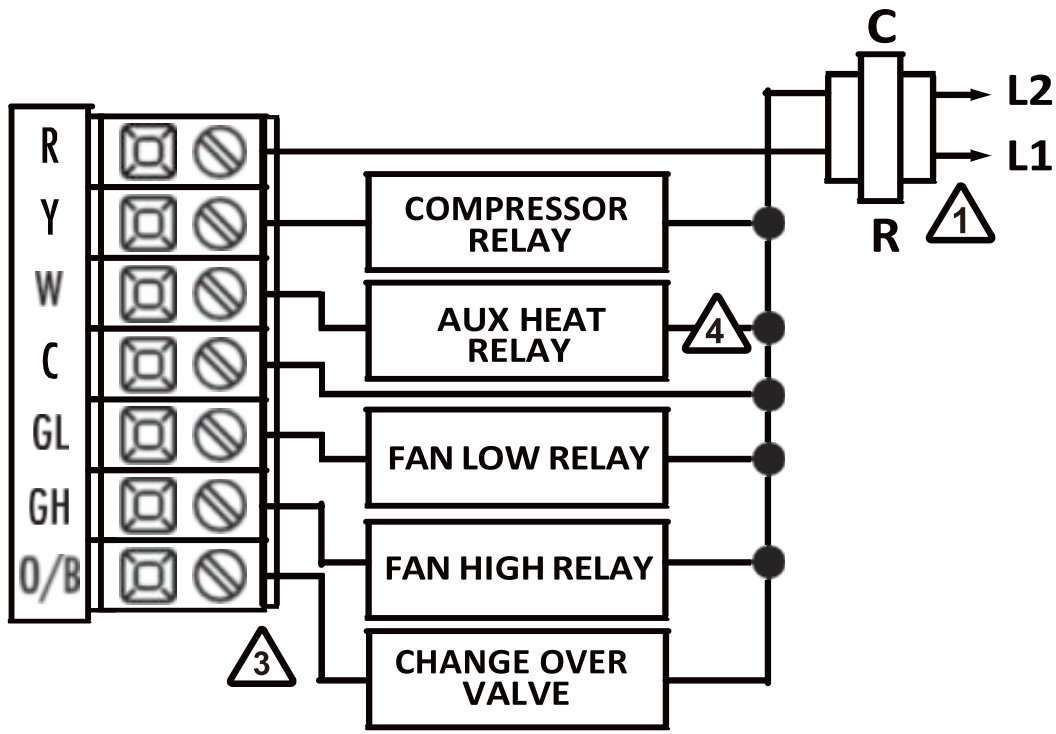
Most PTAC systems support two speed fan operation. In a single speed fan PTAC system or conventional single speed fan system, a jumper should be installed between GL and GH on the thermostat.

WIRING DIAGRAMS

Typical 1H/1C Heat Pump System: 2 Speed Fan



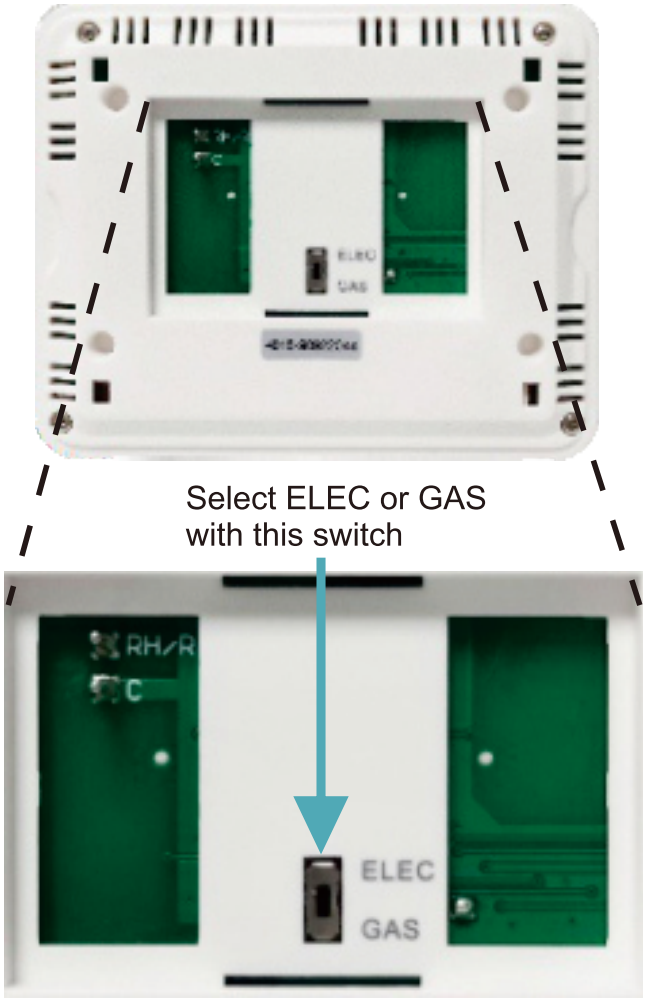
Typical 2H/1C Heat Pump System: 2 Speed Fan



Fan Operation Setup

Electric: The thermostat operation jumper pin should be put in the ELEC position. This setting allows the thermostat to operate the fan during a call for heat. Most PTAC systems will require ELEC Fan Operation Setup.

Gas: For systems that control the fan during a call for heat, put the jumper pin into the GAS position.



●Restore factory Settings:

Press and hold the “-” button,turn on the power,and release the factory Settings after the display is normal.

●HEAT SWING

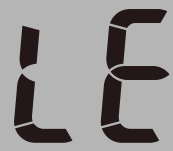
Select HEAT with the system switch, hold down the + and - buttons together for 3 seconds to access the HEAT SWING setting. Use the + or - key to adjust the swing from ±0.2℉ to ±2℉. Wait approximately 15 seconds or slide the system switch to return to normal operation .

●COOL SWING

Select COOL with the system switch, hold down the + and - buttons together for 3 seconds to access the COOL SWING setting. Use the + or - key to adjust the swing from ±0.2℉ to ±2℉. Wait approximately 15 seconds or slide the system switch to return to normal operation.

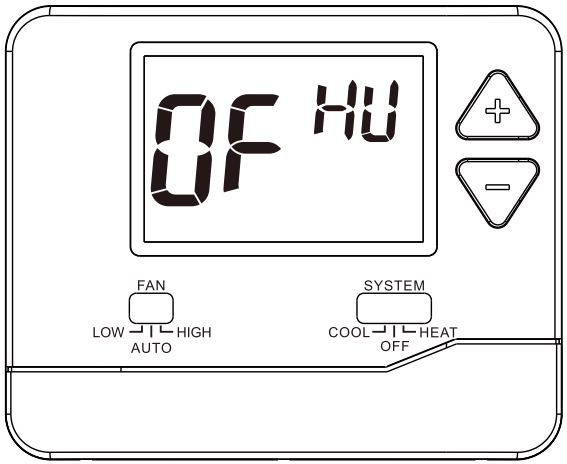
Technician Setup Menu

1.Set the thermostat system switch to OFF.
2.To enter Tech Setup Menu,press and hold “+”and “-”together for 3 seconds.
3.Use “+”and“-”to select desired setting for each option.
4.Tap “+”and “-”together to move next option.
5.To exit Tech Setup Menu,move system switch or wait for 15 seconds.

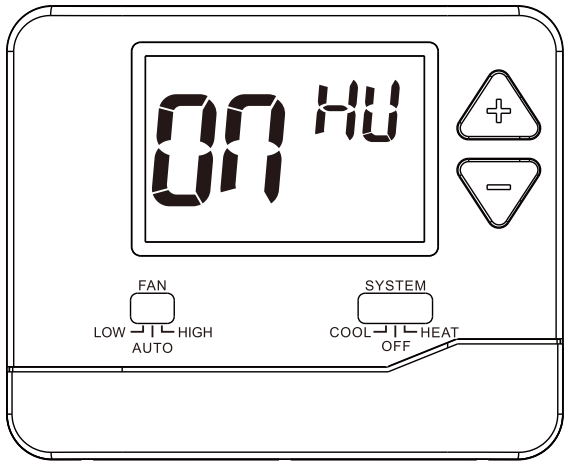
Tech Setup Steps		LCD Will Show	Adjustment Options	Default
Room Temperature Calibration	This feature allows the installer to change the calibration of the room temperature display. For example, if the thermostat reads 70˚ and you would like it to read 72˚ then select +2.		You can adjust the room temperature display to read up to 4˚ above or below the factory calibrated reading.	
Pair	Transmitter and receiver pair code		Press and hold “+” for 3 seconds until “LE” is flashed. Then release	
F or C	Select for Fahrenheit temperature read out select C for Celsius read out.		F for Fahrenheit C for Celsius	

TECHNICIAN SETUP

Tech Setup Steps		LCD Will Show	Adjustment Options	Default
Compressor Short Cycle Delay	The compressor short cycle delay protects the compressor from short cycling. This feature will not allow the compressor to be turned on for 5 minutes after it was last turned off.		Selecting ON will not allow the compressor to be turned on for 5 minutes after the last time the compressor was switched off. Select OFF to remove this delay.	
Change Over Valve Selection	Select 0 for a changeover valve that energizes in cooling. Select b for a change over valve that energizes in heating.		0 for cooling changeover valve.b for heating changeover valve.	
Heat Pump	When turned on the thermostat will operate a heat pump.Y will be the first stage of heat & cool, W will be the second stage of heat.		OFF configures the thermostat for non heat pump systems. ON configures the thermostat for heat pump systems.	
Heating Temperature Setpoint Limit	This feature allows you to set a maximum heat setpoint value.The setpoint temperature cannot be raised above this value.		Use the [+] and [-] key to select the maximum heat setpoint. Range 44°F- 90°F 7°C-32°C	
Cooling Temperature Setpoint Limit	This feature allows you to set a minimum cool setpoint valve. The setpoint temperature cannot be lowered below this value.		Use the [+] and [-] key to select the minimum cool setpoint. Range 44°F- 90°F 7°C-32°C	



Heat pump default off and on



Switching Between Display and Thermostat Modes

To switch between display mode (controlling the PTAC unit through the main display on the unit) and thermostat mode (controlling the PTAC unit through the thermostat on the wall) press and hold both the "HEAT" and "+" buttons on your PTAC if you have a Genuine Comfort 42", 32", or 26" model or press and hold both the "VTAC MODE" and "+" buttons if you have a Genuine Comfort VTAC model.

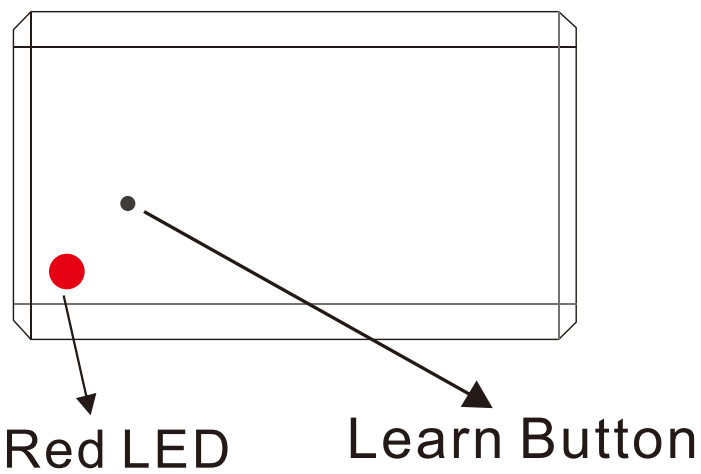
Thermostat paired

The thermostat and receiver come factory linked out of the box.
If however, communication is lost, follow this easy- **Two Step** process to re-establish the communication link.

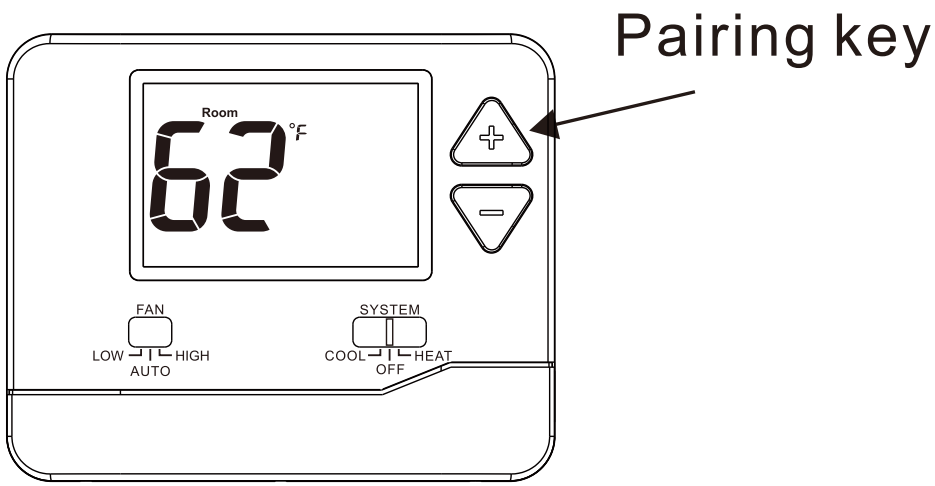
1. RX: Press and hold the receiver learning button for 3 seconds. **The Red LED** will flash when it is ready to receive the paired signal from the **Thermostat**. (Receiver must be 24V powered).

2. Transmitter: Turn the SYSTEM switch to OFF. Press and hold“+” and “-”together for 3 seconds to access the interface of room temperaturecalibration. Press and hold“+”and “-"together until“LE” is displayed onthe LCD.Then press and hold "+" for 3 seconds , the transmitter willtransmit the code signal. When the red LED on the receiver stops flashing,indicating that the code is successful.

Step 1.



Step 2.



Specifications

The display range of temperature ...	32˚F to 99˚F (0˚C to 40˚C)
The control range of temperature....	44˚F to 90˚F (7˚C to 32˚C)
Load rating.....	1 amp per terminal, 1.5 amp maximum all terminals combined
Swing (cycle rate or differential)	Heating is adjustable from 0.2˚ to 2.0˚ Cooling is adjustable from 0.2˚ to 2.0˚
Power source	18 to 30 VAC, NEC Class II, 50/60 Hz for hardwire Battery power from 2 AAA Alkaline batteries
Operating ambient	32˚F to +105˚F (0˚C to +41˚C)
Operating humidity	90% non-condensing maximum
Dimensions of thermostat	120 x 98 x 28MM
Operating Frequency	915 MHz
Transmission Distance.....	approx. 100 meters (328 ft) in open terrain and approx. 30 meters (98 ft) indoor (can go through 3-5 walls but specifically depends on the actual material of the obstacle).

Instruction Manual