GENUINE COMFORT

GC-THOD-O-1

Instruction Manual

Wired Energy Saving Occupancy Thermostat

THERMOSTAT QUICK REFERENCE

Thermostat

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THERMOSTAT 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	Yes
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

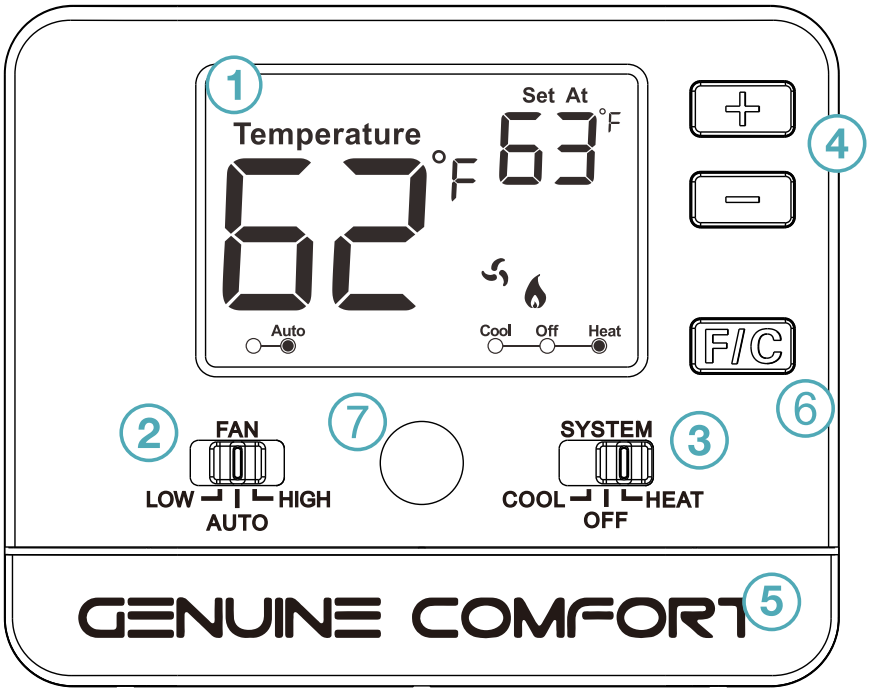
Hardwire (Common Wire) --24VAC

Specifications

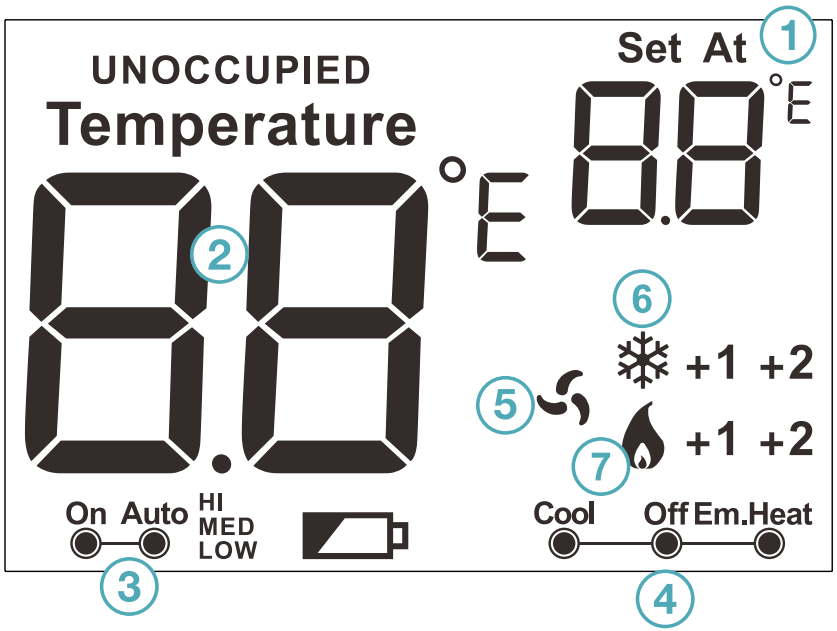
The display range of temperature ---- 32℉ to 99℉ (0℃ to 40℃)
The control range of temperature ---- 41℉ to 90℉ (5℃ to 32℃)
Humidity display range ---------- 0%-99%
Load rating ---------- 1 amp per terminal, 1.5 amp maximum all terminals combined
Display accuracy ---------- ± 1°F
Swing (cycle rate or differential) ----- Heating is adjustable from 0.2°F to 2.0°F
Cooling is adjustable from 0.2°F to 2.0°F
Power source ---------- 18 to 30 VAC, NEC Class II, 50/60 Hz for hardwire (common wire)
Operating ambient ---------- 32° to +105° (0° to +41°C)
Operating humidity ---------- 90% non-condensing maximum
Dimensions of thermostat ---------- 4.7”Wx3.8”Hx1.1”D

THERMOSTAT QUICK REFERENCE

Getting to know your thermostat



1 LCD Display
2 Fan Switch
3 System Switch
4 Set-Point Buttons
5 Easy to open the face door
6 Temperature unit switching button
7 (PIR)Human body sensor detection window



1 Displays the uset selected set-point temperature
2 Indicates the current room temperature
3 Fan mode indication
4 System mode indication
5 Fan run indication
6 cool run indication
7 heat run indication

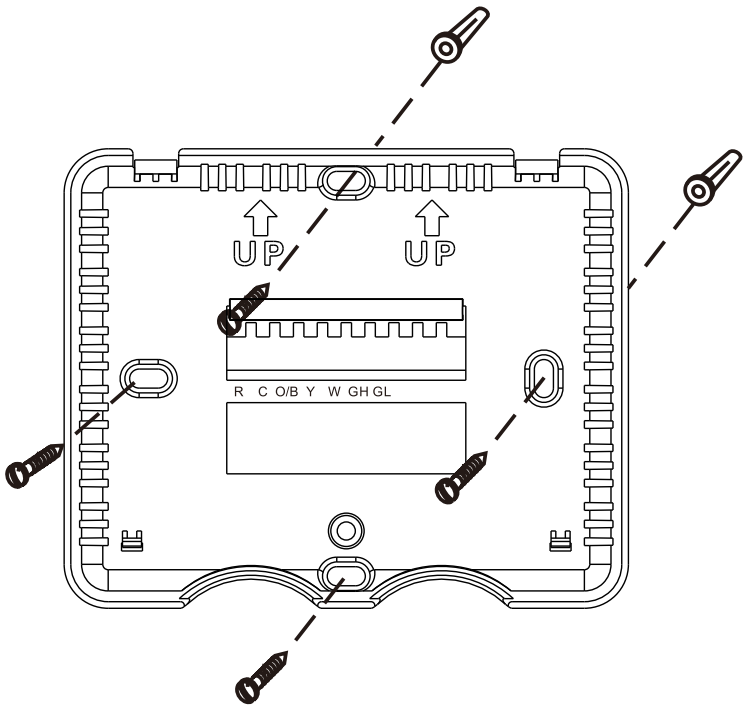
INSTALLATION TIPS

IMPORTANT SAFETY INFORMATION WARNING

- Always turn off power at the main power source by unscrewing fuse or switching circuit breaker to the off position before installing, removing cleaning, or servicing thermostat.
- Read all of the information in this manual before installing or programming this thermostat.
- This is a 24V AC low voltage thermostat. Do not install on voltages higher than 30V AC
- All wiring must conform to local and national building and electrica codes and or dinances.
- 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

Installation tips



1 Horizontal Mount:
For a horizontal mount , put screws on the left and right.

2 Vertical Mount:
For a vertical mount, put screws on the top and bottom.

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

Caution:
Electrical Hazard

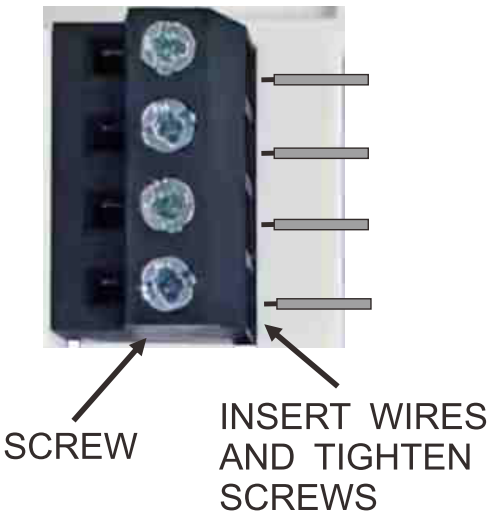
Disconnect power before installing this product. Failure to do so can cause electric shock or equipment damage.

Mercury Notice:

This product is mercury-free. However,if this product is replacing a control which contains mercury, it needs to be disposed of properly. Contact your local waste management authority for instructions regarding recycling and proper disposal of the control.

INSTALLATION TIPS

Wiring Tips



Wire Specifications

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

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.

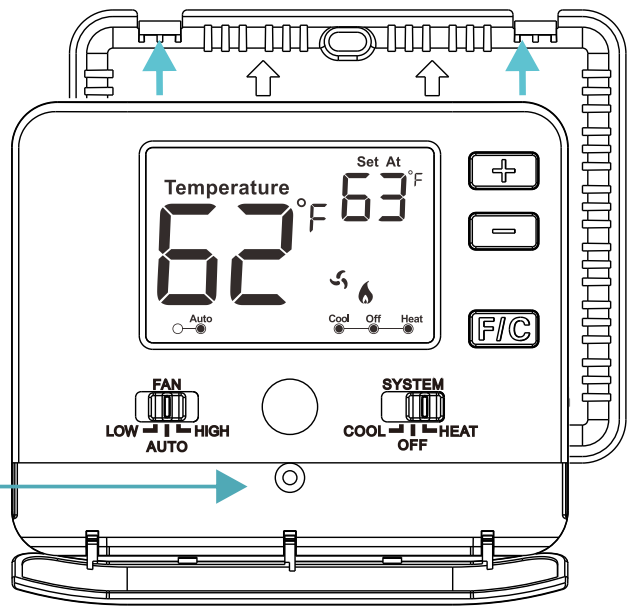
Max Torque = 6in/lbs.

Install a thermostat

1.Install the thermostat on to the wiring board

2.Tighten the screws

To remove the terminal board, you must unscrew this screw.



WIRING DIAGRAMS

Terminal	Wiring port function
R	Transformer power-24VAC
C	Transformer common port（24VAC）
O/B	Reversing Valve/Configerable Terminal
GH	Fan control port --- High speed
GL	Fan control port --- low speed

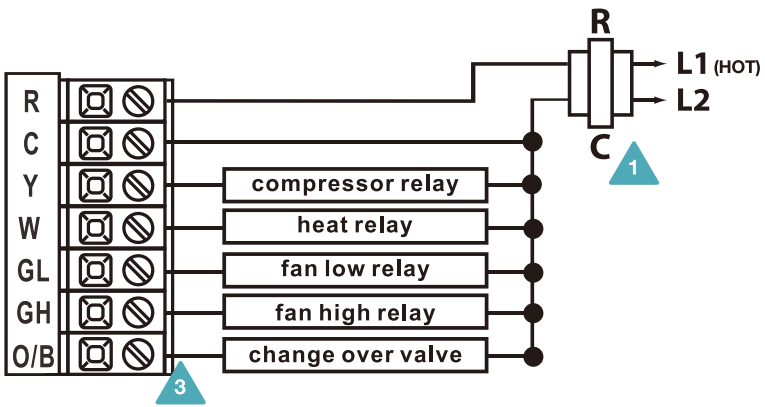
		Level 1 heating	Level 2 heating	Level 1 cooling		
Heat Pump OFF	1H1C	W		Y		
Heat Pump ON	1H1C	Y		Y		
	2H1C	Y	W	Y		

WIRING DIAGRAMS

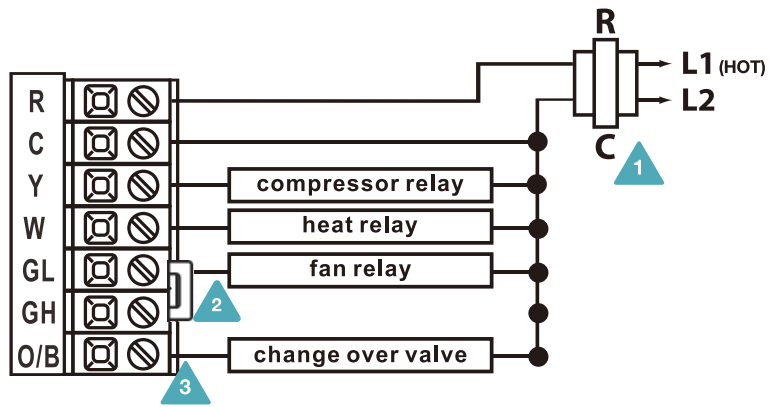
1. Power supply
2. Jumper(not supplied) to connect GL and GH terminals.
3. Thermostat must be set to O and B to match the changeover valve, O is the cool changeover valve, B is the heat changeover valve.
4. The Aux Heat Relay is energized as the second stage of heat

HEAT PUMP OFF

Typical1H/1C System:2 SpeedFan



Typical1H/1C System:1 SpeedFan

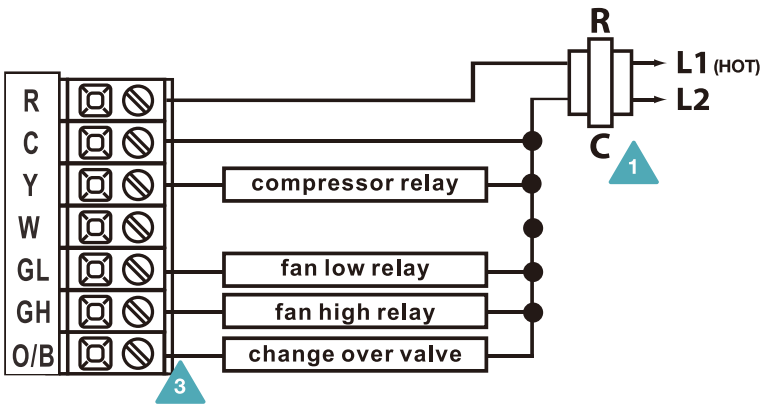


Note: Most PTAC systems support two speed fan operation.In a single speed fan PTAC system or conventional single speed fansystem, a jumper should be installed between GL and GH on the thermostat.

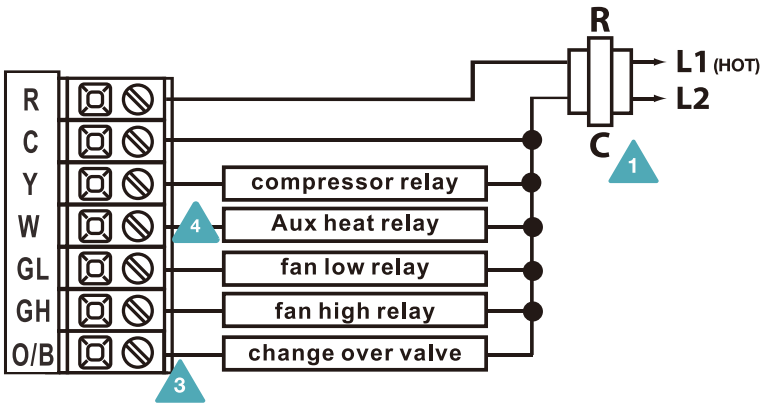
WIRING DIAGRAMS

HEAT PUMP ON

Typical 1H/1C Heat Pump System:2 SpeedFan



Typical 2H/1C Heat Pump System:2 SpeedFan



TECHNICIAN SETUP

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

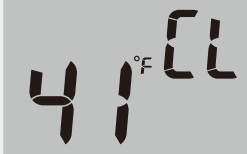
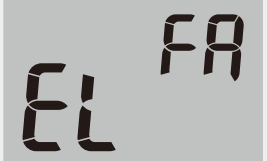
1.Set the thermostat system switch to OFF
2.To enter Tech Setup Menu,press and hold “+”and “-” together for 3 seconds
3.Use“+ or “-"to select desired setting for each option.
4.Tap“+”and“-”together to move next option.
5.To exit Tech Setup Menu,move system switch or wait for 15 seconds.

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° degrees and you would like it to read 72° then select +2.		You can adjust the room temperature display to read 4° above or below the factory calibrated reading.	

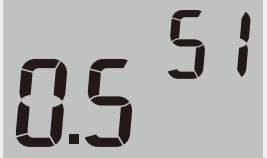
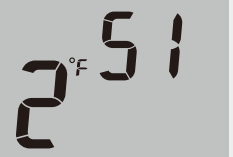
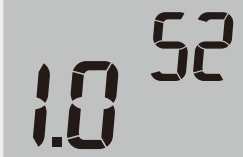
TECHNICIAN SETUP

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 2 minutes after it was last turned off		Selecting"ON"will not allow the compressor to be turned on for 2 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 achange over valve that energizes in heating		0 for cooling changeover valve b for heating changeover valve	
Heat Pump	When turned on the thermostat will operatea 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 heatpump systems.	
Heating Temperature Setpoint Limit	This feature allows you to set a maximum heat setpoint value.The setpoint temperature cannot be raised above this valve.		Use the - or + key to select Range :41°F-90°F 5℃-32℃	

TECHNICIAN SETUP

Tech Setup Steps		LCD Will Show	Adjustment Options	Default
Cooling Temperature Setpoint Limit	This feature allows you to set a minimum cool setpoint value. The setpoint temperature cannot be raised above this valve.		Use the - or + key to select Range :41°F-90°F 5℃-32℃	
Fan Operation	Gas is selected so that the thermostat does not turn on the fan while heating ELEC was chosen to enable the thermostat to be controlled to turn on the fan while heating		Use the - or + key to select ELEC or GAS	
(PIR) energy saving mode	Select OFF: Turn off this feature Select ON: Once a room is declared vacant by PIR human sensors, The PTAC opportunity undergoes three stages of energy saving adjustment.		Use the - or + key to select ON or OFF	

TECHNICIAN SETUP

Tech Setup Steps		LCD Will Show	Adjustment Options	Default
Energy saving phase 1 (Time setting)	Once a room is declared vacant by PIR human sensors,Start the timing, When the timing meets the S1 time, the section is adjusted according to the temperature set by S1. The unit is: hours		Use the - or + key to select 0.5-24 hours	0.5
Energy saving phase 1 (Temperature setting)	The unit is: Fahrenheit or Celsius		Use the - or + key to select 0-20°	2
Energy saving phase 2 (Time setting)	Once a room is declared vacant by PIR human sensors,Start the timing, When the timing meets the S2 time, the section is adjusted according to the temperature set by S2. The unit is: hours		Use the - or + key to select 0.5-24 hours	1.0

TECHNICIAN SETUP

Tech Setup Steps		LCD Will Show	Adjustment Options	Default
Energy saving phase 2 (Temperature setting)	The unit is: Fahrenheit or Celsius		Use the - or + key to select 0-20°	4
Energy saving phase 3 (Time setting)	Once a room is declared vacant by PIR human sensors,Start the timing, When the timing meets the S3 time, the section is adjusted according to the temperature set by S3. The unit is: hours		Use the - or + key to select 0.5-24 hours	3.0
Energy saving phase 3 (Temperature setting)	The unit is: Fahrenheit or Celsius		Use the - or + key to select 0-20°	8

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