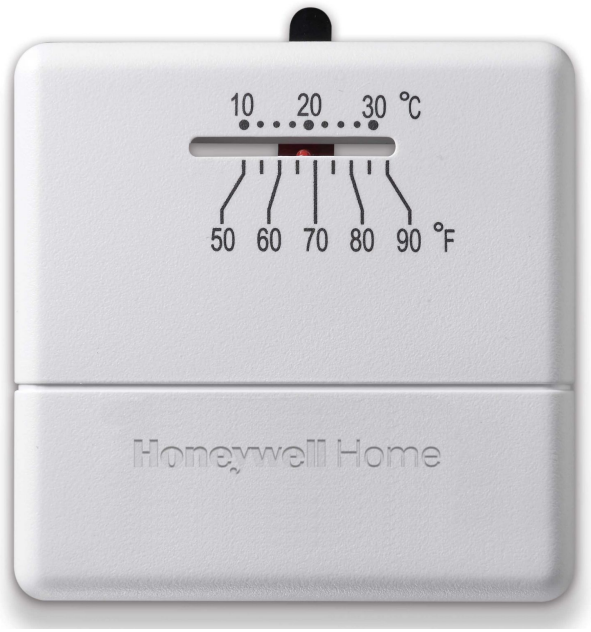


Ct30 Heat Only Non-Programmable Thermostat

CT30A1005/E1

Owner's Manual [pdf]: CT30 Series Low-Voltage Thermostat

Contents [hide

Why is my system heating when it's set to cooling?

If the heating/cooling system is providing warm air when it's in cooling mode, complete the following steps:
1. Verify the thermostat is wired correctly.
2. Make sure the thermostat is configured correctly for the heating/cooling system type.
3. Verify the wiring is connected correctly and securely to the thermostat.
If the above information has been verified and the issue is still present, contact a HVAC professional.

How do I adjust set point in Auto Changeover mode?

When you are in Auto Change Over mode, the display will say either "auto heat" or "auto cool" to the left of the room temperature. If you are trying to change the heat setting when the display says "auto heat", or trying to change the cool setting when it says "auto cool", simply press the + or – button. If you want to change the cool set point when it says "auto heat", you must first press the mode button until the mode shows "cool", then use the + or -; to change the cool set point. Then press the mode button to switch the mode back to Auto Changeover. If you want to change the heat set point when it says "auto cool", you must first press the mode button until the mode shows "heat", then use the + or – to change the heat set-point. Then press the mode button to switch the mode back to Auto Changeover. If you are trying to set the heat and cool set points for your program settings (wake, leave, return, sleep) the thermostat allows you to adjust each set point as you cycle through the program settings.

Does the TH1100DH/TH1110DH/TH1210DH thermostat work with heat pumps with auxiliary/backup heat?

TH1100DH is for Heat Only applications. The TH1110DH and TH1210DH will work for a stand alone heat pump, and the TH1210DH will work for a heat pump with backup.

Does the TH1100DV/TH1110DV/TH1210DV thermostat work with heat pumps with auxiliary/backup heat?

TH1100DV is for Heat Only applications. The TH1110DV and TH1210DV will work for a stand alone heat pump, and the TH1210DV will work for a heat pump with backup.

Does the RTH111 thermostat work with heat pumps with auxiliary/backup heat?

RTH111 will only work with a stand alone heat pump and will not work with heat pumps with auxiliary/backup heat.

Is the TH1110D2009, TH1010D2000 heat pump compatible?

The TH1110D2009 will work with a heat pump with no backup.

The TH1010D2000 is 1 heat or 1 cool conventional only.

How do I fix a blank display on my TH1100DH/TH1110DH/TH1210DH thermostat?

If the thermostat is battery powered, check/replace your batteries. If the device is common wired, try and power it up with batteries. If that fails to power up the thermostat, you may need to involve a technician. If batteries do power up your common wired thermostat, check your breakers, furnace power switch, furnace door kill switch to insure your system is powered. If your system is fine, and the thermostat only works on batteries, you may need to involve a technician.

How do I fix a blank display on my TH1100DV/TH1110DV/TH1210DV thermostat?

If the thermostat is battery powered, check/replace your batteries. If the device is common wired, try and power it up with batteries. If that fails to power up the thermostat, you may need to involve a technician. If batteries do power up your common wired thermostat, check your breakers, furnace power switch, furnace door kill switch to insure your system is powered. If your system is fine, and the thermostat only works on batteries, you may need to involve a technician.

How do I switch my TH1110D2009, TH1010D2000 between heating and cooling?

Pressing the Menu button will cause the Mode and Fan menus to appear.

Press Mode (-) to cycle through the available modes.

Please note the TH1010D2000 will only have the options of heating or cooling and off.

How do I wire my thermostat?

*There is no standard for which color wire controls each function. When wiring, each wire should be identified by what terminal(s) it connects to, never by color. If you do not know the terminal that each wire connects to, it may be necessary to go to the HVAC system and look at the designations on the control board. For typical wiring examples, and for clarification of what types of systems your thermostat works with, please consult your owners/install guide. *

The thermostat uses 1 wire to control each of your HVAC system's primary functions, such as heating, cooling, fan, etc. See the diagram below for what each wire controls on your system:

S – Indoor and Outdoor Wired Sensors

Y – Compressor Stage 1 (Cooling)

Y2 – Compressor Stage 2 (Cooling)

G – Fan

C – Common

U – Humidifier, Dehumidifier, or Ventilator control

L/A – A – Input for heat pump fault

O/B – Reversing valve for Heat Pump systems

E – Emergency Heat

Aux / W2 – Heat Stage 2 (Heating)

W – Heat Stage 1 (Heating)

R – 24vac (Heating transformer)

Rc – 24vac (Cooling transformer)

*Trade model thermostats are required to operate "dual-fuel" systems (systems that use a heat pump for the first 1 or 2 stages of heating and use a gas or oil furnace for backup / emergency heating). If you have a dual-fuel system, or are unsure, it is recommended that you contact a Professional HVAC Contractor to continue.

Please follow the below guide for the basic wiring walkthrough:

To protect your equipment, turn off the power at the breaker box or switch that controls your heating and cooling equipment. To make sure that your system is off, change the temperature on your existing thermostat so that your system starts heating or cooling. If you don't hear or feel the system turn on within 5 minutes, the power is off. If you have a digital thermostat that has a blank display, you can skip this step.

Next, remove your existing thermostat from the wall plate. Most thermostats pull directly off the wall. However, some lift from the bottom and lever off, and others have a locking tab.

The next step is to take a picture of your wiring. When taking the picture, please make sure that the terminal markings are clearly visible.

Review your pictures.

If you see terminals labeled A B C, or 1 2 3 then your new thermostat may not be directly compatible, as your system requires a communicating thermostat.

If you see thick, black or red wires then you have a line voltage system. This type of wiring requires a line voltage thermostat and is not compatible with low voltage thermostats

If you see wires connected to terminals labeled G1,G2,G3, you will need a thermostat capable of controlling multiple fan speeds, none of our retail thermostats are compatible with this system type. G is compatible, but not G1,G2,and/or G3.

What you should typically see is 18 – gauge solid core wire. The most common configuration is five wires, however you could see as few as two, and as many as ten.

Any wire that is present, but not connected to a terminal you will want to make a note of, but you will not label these wires.

Using the photos that you took, remove each wire one at time and label it. If a terminal has multiple designations like W and O/B, it will be labeled as W and O/B and not just one or the other.

After you have removed and labeled all wires you can unscrew, remove the old thermostat wall plate and mount the new thermostat's wall plate.

After mounting the new thermostat's wall plate, we can re-connect the wiring. If we recommend placing a wire in a terminal, do not move it to another terminal if we address it later in the guide. (Ex. – You have a single wire labeled W-O/B and we advise placing it in the O/B terminal. If later in the guide we recommend putting the W wire in the W terminal, you will not move this wire, as we've already instructed you to place it in O/B.)

Now, let's cover wiring configurations.

Identify any wires label R, RH, or RC. You will typically have one or two out of those three. If you just have one wire, regardless if it's labeled RC, it will go into the R terminal, and the jumper connecting terminals R and RC will be in place. Some thermostats have a jumper switch, some have a metal staple, others may have a plug, and the jumper may also just be a wire connecting the two terminals. If you have two wires, R or RH will go into the R terminal, and RC will go into the RC terminal. If you have more than one wire (you have a wire labeled R, and another wire labeled Rc for example) you can remove any jumpers between the R and Rc terminals, or push the switch to open the RC terminal so you can insert a wire.

Next, let's talk about the C, or common wire. If you have a Trane model thermostat, and have a wire labeled X or B refer to your thermostat manual. In some cases, one of those wires may be your common. If you have a C wire, place it into the C terminal on your wall plate.

Let's take a look at the G wire. This wire will go to the G terminal on your new thermostat.

For the Y, Y1, and Y2 wires, Y or Y1 will go to the Y terminal, and Y2 will go to the Y2 terminal.

The O/B wire can have many configurations. It can be W-O/B, O/B, W-O, W-B, or you may even have separate O and B wires. If you have separate wires for O and B, you will want to tape off the B wire so it can't make contact, and the O wire will be connected to the O/B terminal on your thermostat.

If your O or B terminal shares a label with another wire, typically W, you'll need to identify whether you have a heat pump system or not. A heat pump runs your compressor for both heating and cooling. If you don't know your system type, place this wire into the W terminal. If you have a heat pump system, place it into the O/B terminal.

Locate any unconnected wire labeled W or W1. If in the previous step you identified an O, B, or O/B wire that's connecting to the O/B terminal, and have a separate W wire, place this wire into the W2 terminal. If you do not have a wire connected to the O/B terminal, connect the W wire to the W terminal.

Why is my heating not working?

Why is my heating not working? If your heating is not working, it's probably due to issues with the following:

- Air Flow
- Heating or Furnace System
- Thermostat Wiring
- Thermostat Screen
- Thermostat Functionality

To begin fixing your heating, continue to the Air Flow section.

Air Flow

Go to your vents

What best describes the air coming out of your vents?

- NO AIR – Continue to the Furnace or Heating System section.
- ROOM TEMPERATURE – Continue to the Thermostat Functionality section.
- WEAK HEAT (WARM) – Continue to the Fan section.
- COLD – Continue to the Thermostat Functionality section.

Furnace or Heating System

Go to your home’s circuit breaker

Make sure the breaker to the furnace is turned on

Go to your furnace or heating system

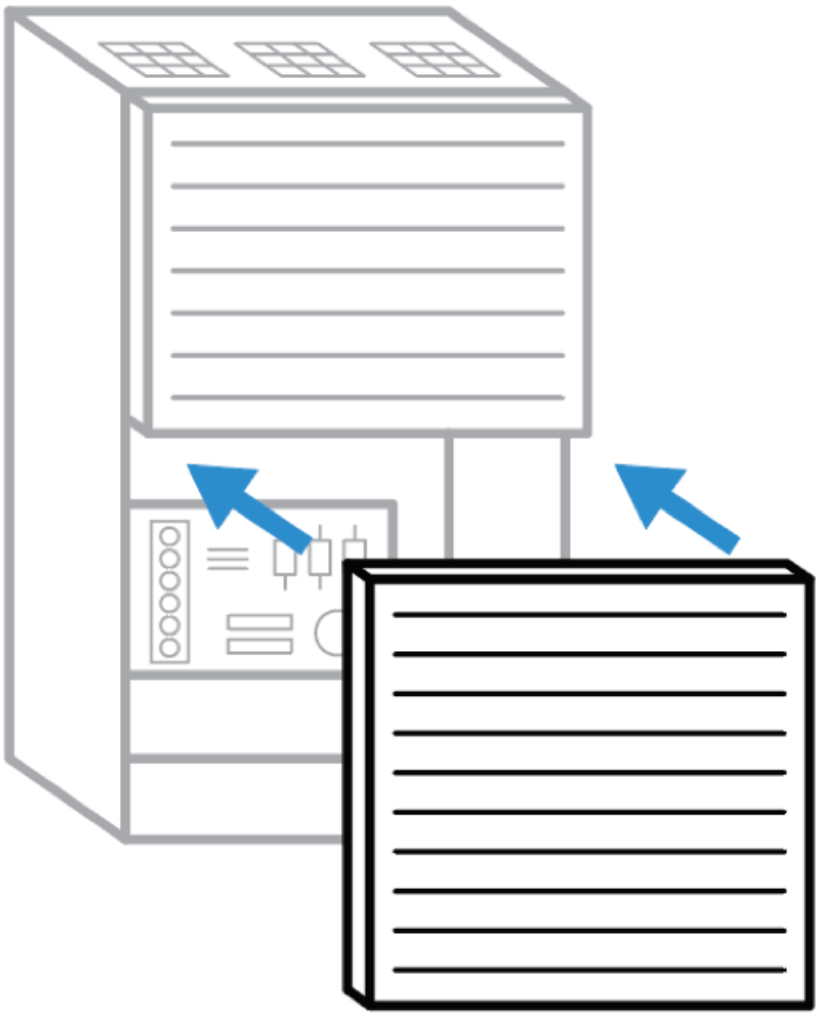
This system is often located in your basement, attic, or garage.

3. Make sure your furnace is turned on

There’s usually a switch next to your furnace that turns it on or off. It sometimes looks like a light switch.

4. Make sure the furnace cover is closed.

Be sure the cover is completely closed. Some systems won’t power up if the cover isn’t fully closed.



5. Are there any error lights on the furnace?

Most furnaces have lights on them. When there's an error, this light will flash or blink rapidly. There's typically an error code reference guide inside the furnace cover.

- YES – Contact the manufacturer of your furnace, or contact Support at 1-855-733-5465 to find a pro-installer in your area.
- NO – Continue to the next step.

Go to your vents

6. Do you feel any air?

It doesn't have to be hot air.

- YES – Continue to the Thermostat Wiring section.
- NO – Contact Support at 1-855-733-5465 to find a pro-installer in your area.

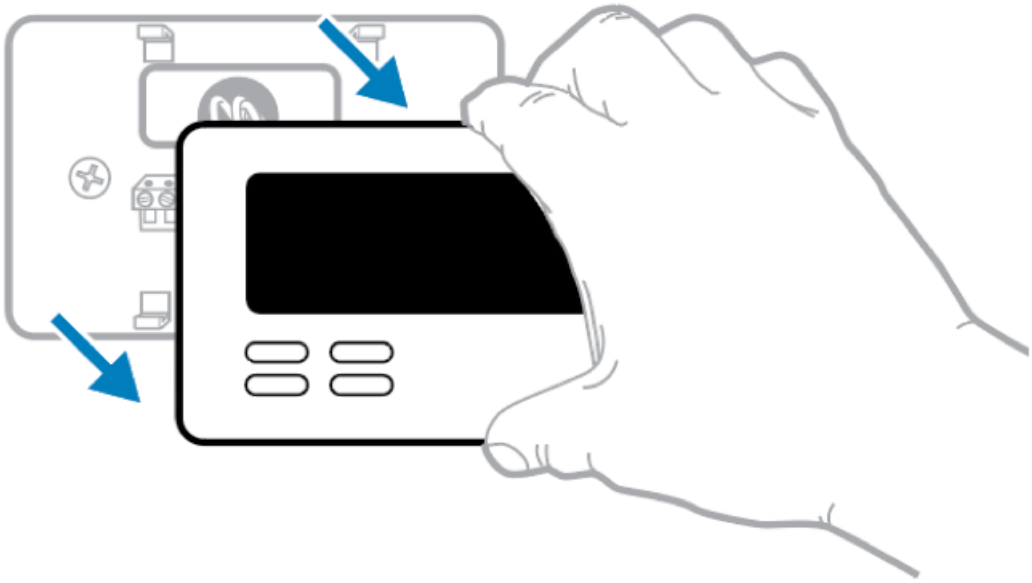
Thermostat Wiring

Go to your thermostat

7. Remove your existing thermostat from the wall plate

On most thermostats, you can take off the thermostat by grasping and gently pulling. Some thermostats may have screws, buttons, or clasps.

Note: Don’t remove any wires from your thermostat at this time.



8. Do you have wires connected to any of the following terminals?

- W: Continue to the next step.
- O/B: Continue to the next step.
- W-O/B: Continue to the next step.
- W & O/B: Disconnect the wire connected to W and insert it into W2. Leave O/B alone. Continue to the **next** step.

Go to your vents

9. Is your heating working now?

- YES – Congratulations! You’ve fixed your heating! You are now complete.
- NO – My heating isn’t working, but I’m still feeling air flow. Continue to the Thermostat Screen section.

Thermostat Screen

Go to your thermostat

10. Does the thermostat show any of the following icons or messages?

- “Heat”
- “Heat On”
- Fire Icon
- Sun Icon
- YES – Continue to the next step.
- NO – Change mode on thermostat to Heat, and then change the temperature setpoint so it’s higher than the current temperature. Afterwards, continue to the next step. *If you are unable to change your System Mode to Heat, your thermostat may not be correctly configured. Locate the Installer guide for your model and verify your settings are correct for your System Type and Heat Stages.*

11. Check the thermostat screen again: are the icons or messages present?

- YES – Continue to next step.
- NO – Contact Support at 1-855-733-5465 to find a pro-installer in your area.

12. Are the icons or messages flashing?

- YES – If the icons or messages are flashing, this means your compressor protection is on. Wait for 5 minutes until the icons or messages stop flashing, and then continue to the next step. If after 5 minutes, the flashing doesn’t stop, contact Support at 1-855-733-5465 to find a pro-installer in your area.
- NO – If the icons or messages aren’t flashing, this means your heat should be working. Continue to the next step.

Go to your vents

13. Is your heating working now?

- YES – Congratulations! You’ve fixed your heating! You are now complete.
- NO – Contact Support at 1-855-733-5465 to find a pro-installer in your area.

Thermostat Functionality

Go to your thermostat

14. Switch your thermostat from Heating to Cooling.

Go to your vents

15. What temperature do you feel blowing from the vent?

- COLD – This means your thermostat is cooling correctly, but the heating isn’t working properly. Contact Support at 1-855-733-5465 to find a pro-installer in your area.
- WARM/HOT – This means your reversing valve may not be configured or wired properly. Continue to the Thermostat Wiring section.

Fan

Go to your thermostat

16. Turn your fan mode on.

Go to your vents

17. Is your heat working at full force (not weak)?

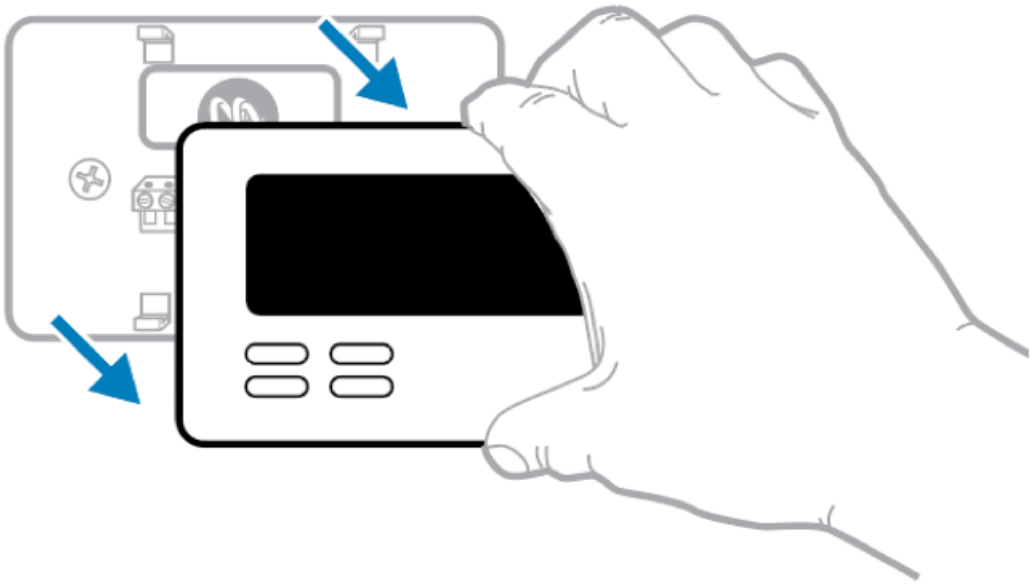
- YES – There's nothing wrong with your system, but it's not correctly configured. Contact Support at 1-855-733-5465 to find a pro-installer in your area.
- NO – Continue to the next step.

Go to your thermostat

18. Remove your existing thermostat from the wall plate

On most thermostats, you can take off the thermostat by grasping and gently pulling. Some thermostats may have screws, buttons, or clasps.

Note: Don't remove any wires from your thermostat at this time.



19. Do you have a wire connected to the G-Terminal?

- YES – Since you have a G-Wire, but your fan isn't working properly, your system may need servicing. Contact Support at 1-855-733-5465 to find a pro-installer in your area.
- NO – You require a G-Wire to run your fan. Contact Support at 1-855-733-5465 to find a pro-installer in your area.

How do I find out what the voltage is coming into my thermostat?

Honeywell offers thermostats for both low voltage (24 volts) and line voltage (120 or 240 volts) systems. The most common type of voltage from a central heating and/or cooling system is 24 volts (24Vac). The old thermostat may say somewhere on the thermostat that it is for 24 volt (24Vac) or maximum 30 volts (30Vac). If you see 120 Vac or 240 Vac on the thermostat, a low voltage thermostat will NOT work with your system. You will need a line voltage thermostat. This type of voltage is common with electric baseboard heating. Regardless of the voltage, Honeywell strongly suggests that you turn off the power to the system at the furnace, at the fuse, or at the circuit breaker panel before installing or replacing a thermostat. If you are unsure about your voltage, please contact a local heating and cooling contractor in your area for assistance.

How many thermostats can one Portable Comfort Control manage?

One Portable Comfort Control can manage up to 16 thermostats. I am unsure of the voltage coming up to my thermostat. How do I find out? Answer: Honeywell offers thermostats for both low voltage (24 volts) and line voltage (120 or 240 volts) systems. The most common type of voltage from a central heating and/or cooling system is 24 volts (24Vac). The old thermostat may say somewhere on the thermostat that it is for 24 volt (24Vac) or maximum 30 volts (30Vac). If you see 120 Vac or 240 Vac on the thermostat, a low voltage thermostat will NOT work with your system. You will need a line voltage thermostat. This type of voltage is common with electric baseboard heating. Regardless of the voltage, Honeywell strongly suggests that you turn off the power to the system at the furnace, at the fuse, or at the circuit breaker panel before installing or replacing a thermostat. If you are unsure about your voltage, please contact a local heating and cooling contractor in your area for assistance.

Will the Lyric thermostat work with my HVAC system?

The Lyric thermostat is designed to work on most low voltage heating and cooling systems, at 24 Volts. Gas and oil furnaces, heat pumps, and hot water systems are examples of these low voltage systems. The thermostat can also support multi stage systems with more than one stage of heating and cooling. The Lyric thermostat does not work for 110V or higher line voltage systems, such as electric baseboard heaters. Thick black, red or white wires connected with wire nuts running to your existing thermostat will typically mean you have a high voltage system. If your system is high voltage, we will help you find another compatible thermostat. To identify your home heating and cooling system type, click here. If your system is high voltage, we will help you find another compatible thermostat.

Is the Lyric UL (Underwriters Laboratories) approved?

The Lyric is a low voltage thermostat. Low voltage thermostats do not require UL (Underwriters Laboratories) approval, as the UL approval rating only applies to line voltage products.

Can I control a zoning application with the Lyric thermostat?

The Lyric thermostat is designed to work on most low voltage hot water zoning systems and forced air zoning systems. For a complete list of zoning systems and to verify your system’s compatibility, please contact Lyric Technical Support at 1-800-633-3991.

Specifications

Heat Only Non-programmable Thermostat

Thermostat Type	T87, Other Thermostats of Similar Size, Mechanical, Non programmable
Color	White
For Use With	Heat Only Systems
Includes	Thermostat, Cover Plate, Wire Label, Caution Card, Wall Anchors, Mounting Screws
Program Modes	Manual / Not Programmed
Product Height	3.12 in
Product Length	3.12 in
Product Width	0.88 in
Warranty	1 Year
Control Functions	Heating

Downloads

Owner’s Manual [pdf]: **CT30 Series Low-Voltage Thermostat**