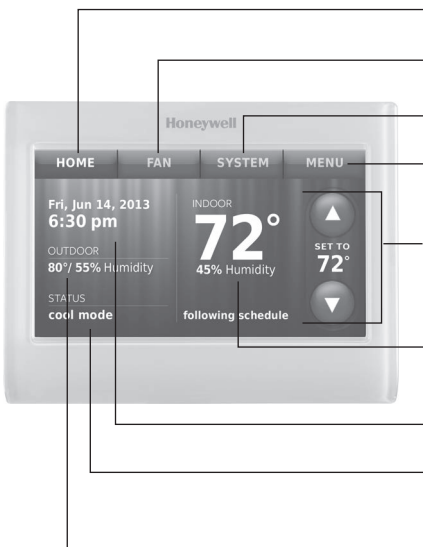


## Wi-Fi Thermostat 9000 color touchscreen

### Installation Guide



**HOME.** Touch to display Home screen.

**FAN.** Select fan mode.

**SYSTEM.** Select system mode (heat/cool).

**MENU.** Touch to display options. Start here to set a program schedule.

**Current schedule.** Change temperature setting and select temporary or permanent hold.

**Indoor conditions.** Shows indoor temperature and humidity.

**Current date and time.**

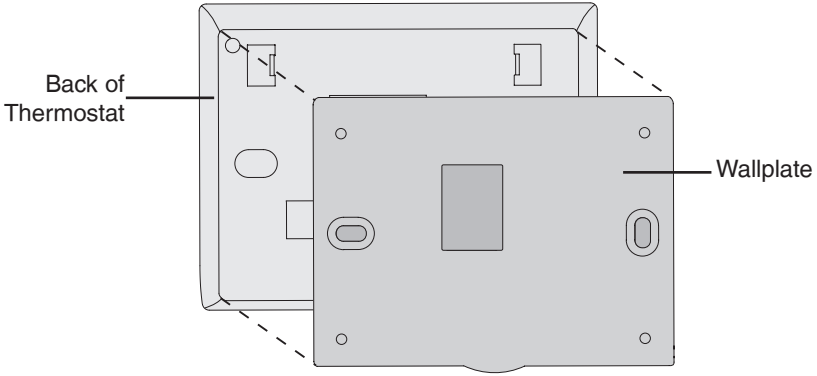
**Current status.** Shows system mode (heat/cool).

**Outdoor conditions.** Outdoor temperature and humidity appear after registration.

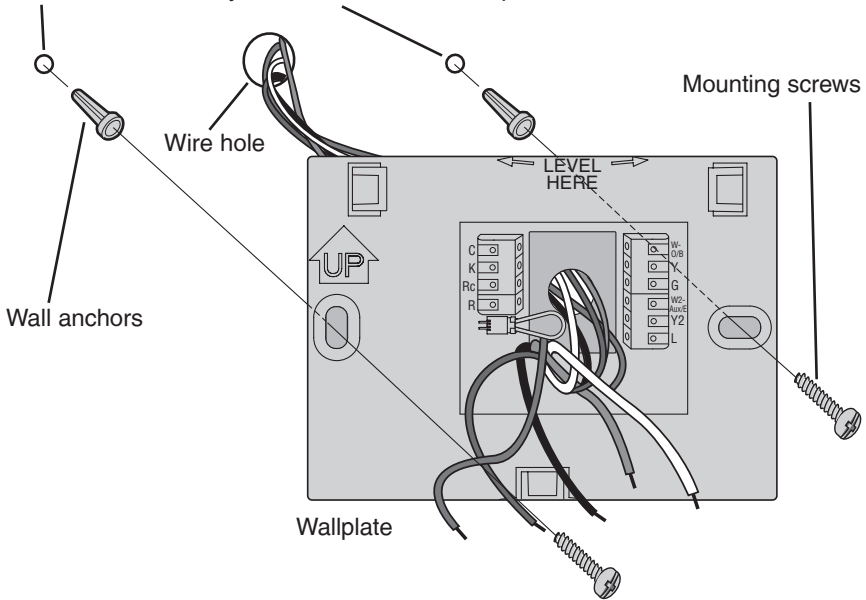


# Wallplate installation

1. Separate wallplate from thermostat.
2. Mount wallplate as shown below.



Drill 3/16" holes for drywall. Drill 7/32" holes for plaster.



## **CAUTION: ELECTRICAL HAZARD**

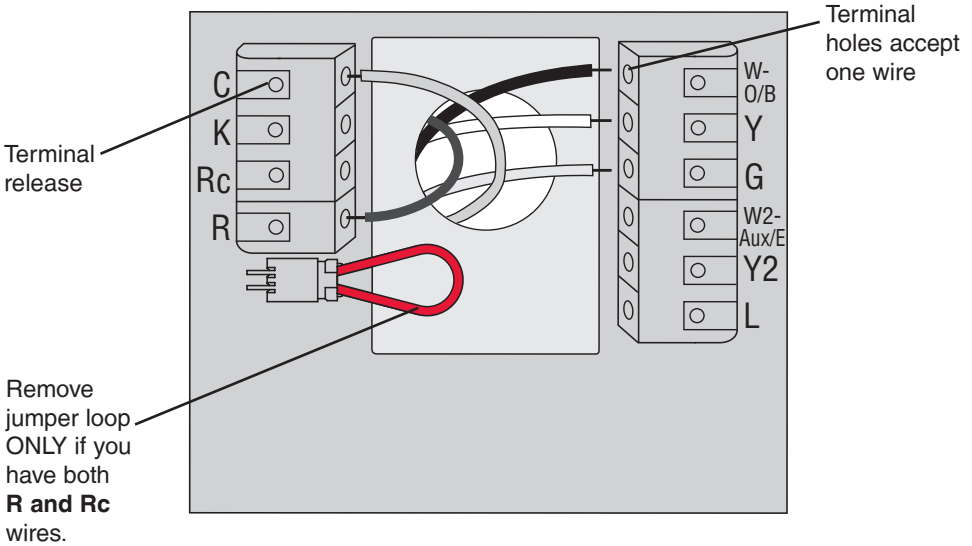
Can cause electrical shock or equipment damage. Disconnect power before beginning installation.




## **MERCURY NOTICE**

If this product is replacing a control that contains mercury in a sealed tube, do not place the old control in the trash.

# Wiring



## Terminal Designations

- |                 |   |
|-----------------|---|
| <b>C</b>        | Common wire from secondary side of cooling transformer (if 2 transformers). |
| <b>K</b>        | Optional wiser save module.   |
| <b>Rc</b>       | Cooling power. Connect to secondary side of cooling system transformer.     |
| <b>R</b>        | Heating power. Connect to secondary side of heating system transformer.     |
| <b>W-O/B</b>    | 1st stage heat relay. Or changeover valve for heat pumps.                   |
| <b>Y</b>        | 1st stage compressor contactor.   |
| <b>G</b>        | Fan relay.  |
| <b>W2-Aux/E</b> | 2nd stage heat relay. Or heat pump auxiliary/Emergency heat relay.          |
| <b>Y2</b>       | 2nd stage compressor contactor.   |
| <b>L</b>        | Heat pump system monitor.   |
-  Jumper Loop, a plug with a wire loop used to connect the **R** to the **Rc** terminals, Leave jumper loop in place in single transformer systems. Remove (unplug) jumper loop in two transformer systems.

# Wiring

## Wiring guide — conventional systems

### Wiring Instructions

1. This thermostat requires a 24Vac common to power the thermostat. The K terminal is available for Wiresaver module (THP9045A1023).
2. Straighten the wire. Using a pen tip to hold down the terminal, gently slide the wire into terminal hole.

**Note:** Terminal hole will only accept one wire.

#### 1H/1C System

(1 transformer)



Rc	Power [1]
R	[R+Rc joined by jumper loop]
Y	Compressor contactor
C	24VAC common
W	Heat relay
G	Fan relay

#### Heat-only System



Rc	Power [1]
R	[R+Rc joined by jumper loop]
C	24VAC common
W	Heat relay

#### 1H/1C System

(2 transformers)



Rc	Power (cooling transformer) [1, 2]
R	Power (heating transformer) [1, 2]
Y	Compressor contactor
C	24VAC common [3]
W	Heat relay
G	Fan relay

#### Heat-only System with Fan



Rc	Power [1]
R	[R+Rc joined by jumper loop]
C	24VAC common
W	Heat relay
G	Fan relay

#### Cool-only System



Rc	Power [1]
R	[R+Rc joined by jumper loop]
Y	Compressor contactor
C	24VAC common
G	Fan relay

#### 2H/2C System

(1 transformer)



Rc	Power [1]
R	[R+Rc joined by jumper loop]
Y	Compressor contactor (stage 1)
C	24VAC common
W	Heat relay (stage 1)
G	Fan relay
W2	Heat relay (stage 2)
Y2	Compressor contactor (stage 2)

#### 2H/2C System

(2 transformers)



Rc	Power (cooling transformer) [1, 2]
R	Power (heating transformer) [1, 2]
Y	Compressor contactor (stage 1)
C	24VAC common [3]
W	Heat relay (stage 1)
G	Fan relay
W2	Heat relay (stage 2)
Y2	Compressor contactor (stage 2)

See [notes] below



Jumper Loop

### NOTES

Wire specifications:

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

- [1] Power supply. Provide disconnect means and overload protection as required.
- [2] Remove jumper loop for 2-transformer systems.
- [3] Common connection must come from cooling transformer.

# Wiring

## Wiring guide — heat pump systems

### Wiring Instructions

1. This thermostat requires a 24Vac common to power the thermostat. The K terminal is available for Wiresaver module (THP9045A1023).
2. Straighten the wire. Using a pen tip to hold down the terminal, gently slide the wire into terminal hole.

**Note:** Terminal hole will only accept one wire.

#### 1H/1C Heat Pump System



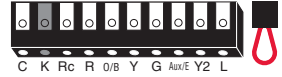
Rc	Power [1]
R	[R+Rc joined by jumper loop]
Y	Compressor contactor
C	24VAC common
O/B	Changeover valve [7]
G	Fan relay

#### 2H/1C Heat Pump System



Rc	Power [1]
R	[R+Rc joined by jumper loop]
Y	Compressor contactor
C	24VAC common
O/B	Changeover valve [2]
G	Fan relay
Aux/E	Auxiliary/Emergency heat relay
L	Heat pump system monitor

#### 3H/2C Heat Pump System



Rc	Power [1]
R	[R+Rc joined by jumper loop]
Y	Compressor contactor (stage 1)
C	24VAC common
O/B	Changeover valve [2]
G	Fan relay
Aux/E	Auxiliary/Emergency heat relay
Y2	Compressor contactor (stage 2)
L	Heat pump system monitor

See [notes] below



Jumper Loop

### NOTES

Wire specifications:

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

[1] Power supply. Provide disconnect means and overload protection as required.

[2] In Setup, set changeover valve to O or B.

# Initial setup

Upon initial power up, or after being reset to factory defaults, the initial thermostat options (language, location, and system type) must be set to define the heating/cooling system. Other options can be customized later.

Follow prompts on the screen to select appropriate options.

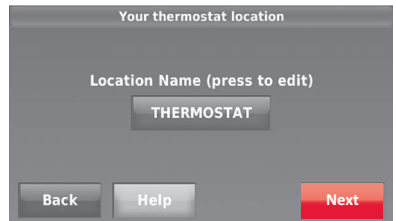
1. Touch the language you want the thermostat to display, then touch **Next**.



2. Select Home or Business installation, then touch **Next**.



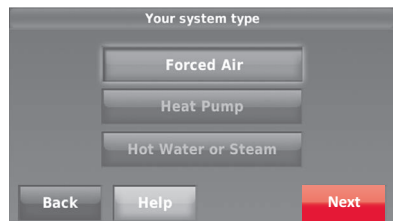
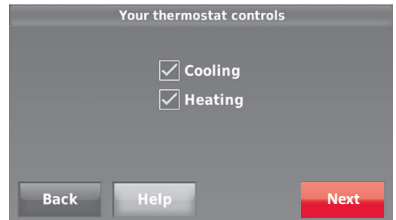
3. Touch **Next**, or name the thermostat location—touch THERMOSTAT and follow the rest of the instructions.



4. Select what the thermostat will control and touch **Next**.

**Note:** Touch the orange Help button on any screen for more information.

5. Select the system type and touch **Next**. The system type determines other selections for completing initial setup.
6. Touch **Next** after making selections on each screen.
7. Touch **Done** on the last screen. The thermostat displays an option to connect to the Wi-Fi network.



# System setup

From the home screen, touch **Menu > System Setup** to modify the initial system setup.



## System Setup Options (MENU > System Setup)

Screen Title	Settings and Options
Language	English/Français/Español.
Thermostat installed in	Home/Business (Thermostat is used in a residential (default) or commercial setting).
Your thermostat location	Touch <b>THERMOSTAT</b> button to display a screen where you can enter a custom name using a keypad. If you have only one thermostat, you can leave the name as <b>THERMOSTAT</b> . For business installations you can check a box to display the thermostat name on the home screen.
Your thermostat controls	Select Heating or Cooling or both (default).
Your system type	Select Forced Air (default), Heat Pump, or Hot Water or Steam. Each option offers different choices on the following screens.
Your forced air heating system type	Select how your forced air system is powered: Gas/Oil (default) or Electric.
Efficiency of your heating system	Select Standard Efficiency Forced Air (default) or High Efficiency Forced Air.
Your heating system type	If you selected Hot Water or Steam on “Your system type,” select the specific heating system here.
Number of cooling stages	Select 1 Stage (default) or 2 Stages. If you are unsure, note which wires are connected: ‘Y’ wire only (1 stage) or ‘Y’ and ‘Y2’.
Number of heating stages	Select 1 Stage (default) or 2 Stages. If you are unsure, note which wires are connected: ‘W’ wire only (1 stage) or ‘W’ and ‘W2’.
Your fan control	Select whether your thermostat (default) or heating system controls the fan.
Type of changeover valve	If you selected Heat Pump on “Your system type,” select whether it uses a cooling changeover valve (default) or heating changeover valve.
Number of heat pump compressor stages	Select 1 Stage (default) or 2 Stages. If you are unsure, note which wires are connected: ‘Y’ wire only (1 stage) or ‘Y’ and ‘Y2’.
Your backup heat	No or Yes (default)

# Connecting to the Wi-Fi network

After the initial setup, walk the homeowner through connecting to a Wi-Fi network. Or, refer the homeowner to the User's Guide, so the homeowner can connect the thermostat to a Wi-Fi network at a later time.

## 1 Connect the Wi-Fi network.

Touch **Yes** to connect the thermostat to the Wi-Fi network. The screen displays the message "Searching for wireless networks. Please wait..." after which it displays a list of all Wi-Fi networks it can find.

**Note:** If you cannot complete this step now, touch **I'll do it later**. The thermostat will display the home screen. Complete this process by selecting **MENU > Wi-Fi Setup**. Continue with Step 2.

## 2 Select the network.

2a Touch the name of the homeowner's network. The thermostat displays a password page.

**Note:** If the home network is not shown on the list, touch **Rescan**.

2b Using the keyboard, touch the characters that spell out the home network password.

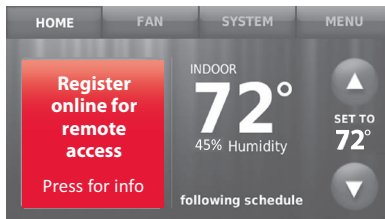
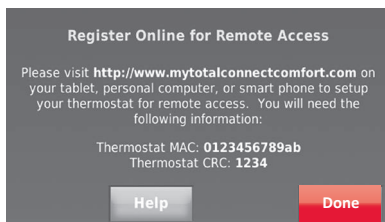
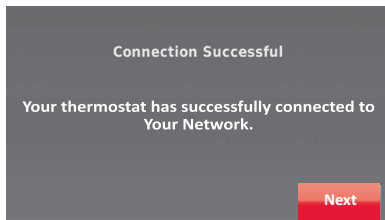
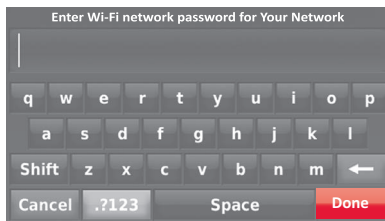
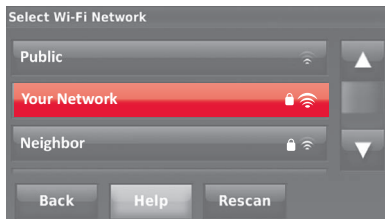
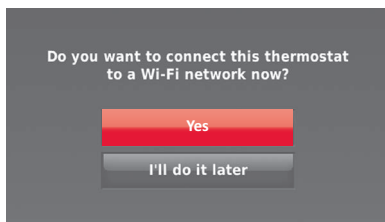
2c Touch **Done**. The thermostat displays "Connecting to your network. Please wait..." then shows a "Connection Successful" screen.

2d Touch **Next** to display the registration information screen.

2e Have the homeowner register the thermostat by going to <http://www.mytotalconnectcomfort.com>. Note the Thermostat MAC and CRC; they'll be needed during registration. Or, refer the homeowner to the User's Guide.

**Note:** The Register Online screen remains active until you complete registration and/or touch **Done**.

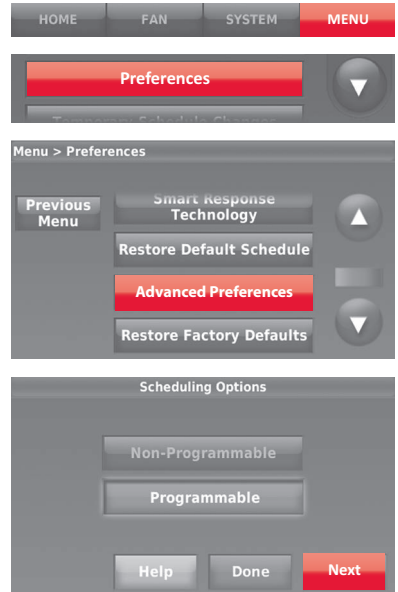
3 For remote access, the homeowner or end-user must register at [mytotalconnectcomfort.com](http://mytotalconnectcomfort.com)





# Setting advanced preferences

- 1 Touch **MENU**. The thermostat displays a list of options.
- 2 Select **Preferences > Advanced Preferences**. The thermostat displays the first screen of options that you can change.
- 3 On each screen, make changes as needed, then touch **Next** to display new options. Repeat this step until you have made all changes.
- 4 When you have made all changes, press **Done** to save and exit.



Screen Title	Settings and Options
Scheduling Options	Select Non-programmable or Programmable. Programmable uses default or customized programming to automatically raise and lower temperature settings for different times of day.
Temperature Indication Scale	Select Fahrenheit or Celsius.
Heating and Cooling System Changeover	Select Manual or Automatic.
Number of Schedule Periods	Select 2 Periods Per Day or 4 Periods Per Day.
Pre-occupancy Purge Duration *	Select how long the fan will run before each occupied period: Off, 1, 2, or 3 hours.
Type of Override *	Select Standard to maintain the programmed periods or Initiate Occupancy to use energy-saving settings until a user presses Start Occupancy.
Override Duration *	Select how long to maintain temperature during an override: 1-10 hours or No Limit.
Early Recovery for Heating *	Select No to begin recovery on schedule or Yes to ramp up temperature early.
Early Recovery for Cooling *	Select No to begin recovery on schedule or Yes to ramp down temperature early.
Temperature Limits	Select the Minimum Cool and Maximum Heat Limit.
Keypad Lockout	Select Unlocked/Partially Locked/Locked.
Clock Format	Select 12 Hour or 24 Hour.
Daylight Saving Time	Select Off or On. If set to On, the system will automatically change time/date to account for daylight saving.
Indoor Display Offsets	Select the number of degrees to offset indoor temperature or percentage to offset indoor humidity.

\*Available when thermostat is installed in Business mode.

# Troubleshooting

If you have difficulty with your thermostat, please try the following suggestions. Most problems can be corrected quickly and easily.

## **Display is blank**

- Check circuit breaker and reset if necessary.
- Make sure power switch at heating and cooling system is on.
- Make sure furnace door is closed securely.
- Make sure C wire is connected.

## **Cannot change system setting to Cool**

- Check that System Setup screen “Your thermostat controls” or “Your system type” is set to match your heating and cooling equipment.

## **Fan does not turn on when heat is required**

- Check that System Setup screen “Your fan control” is set to match your heating equipment.

## **“Wait” appears on the screen**

- Compressor protection feature is engaged. Wait 5 minutes for the system to restart safely, without damage to the compressor.

## **Heat pump issues cool air in heat mode, or warm air in cool mode**

- Check your setting for System Setup screen “Type of changeover valve” to make sure it is properly configured for your system (see page 66).

## **Heating or cooling system does not respond**

- Touch **SYSTEM** to set system to Heat. Make sure the temperature is set higher than the Inside temperature.
- Touch **SYSTEM** to set system to Cool. Make sure the temperature is set lower than the Inside temperature.
- Check circuit breaker and reset if necessary.
- Make sure power switch at heating and cooling system is on.
- Make sure furnace door is closed securely.
- If “Wait” is displayed, the compressor protection timer is on. Wait 5 minutes for the system to restart safely, without damaging the compressor.

## **Heating system is running in cool mode**

- Check that System Setup screen “Your thermostat controls” or “Your system type” is set to match your heating and cooling equipment .

# Accessories & replacement parts

**Please contact your distributor to order replacement parts.**

Cover plate assembly . . . . . Part Number THP2400A1027W

## Specifications

### Temperature Ranges

- Heat: 40° to 90°F (4.5° to 32°C)
- Cool: 50° to 99°F (10° to 37°C)

### Operating Ambient Temperature

- 32° to 120°F (0° to 48.9°C)

### Shipping Temperature

- -20° to 120°F (-28.9° to 48.9°C)

### Operating Relative Humidity

- 5% to 90% (non-condensing)


### Physical Dimensions

- 4-1/2" W x 3-1/2" H x 7/8" D  
115 mm W x 88 mm H x 22 mm D

### Electrical Ratings

Terminal	Voltage (50/60Hz)	Max. Current Rating
<b>W-O/B</b>	20-30 Vac	1.0 A
<b>W2</b> (Aux/E)	20-30 Vac	1.0 A
<b>Y</b> Cooling	20-30 Vac	1.0 A
<b>Y2</b> Cooling	20-30 Vac	1.0 A
<b>G</b> Fan	20-30 Vac	0.5 A

 **DISCONNECT POWER BEFORE INSTALLATION.** Can cause electrical shock or equipment damage.

 **MERCURY NOTICE:** If this product is replacing a control that contains mercury in a sealed tube, do not place the old control in the trash. Contact the Thermostat Recycling Corporation at [www.thermostat-recycle.org](http://www.thermostat-recycle.org) or 800-238-8192 for information on how and where to properly and safely dispose of your old thermostat.

## Need Help?

For assistance with this product please visit <http://customer.honeywell.com> or call Honeywell Customer Care toll-free at **1-800-468-1502**

### Automation and Control Systems

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1985 Douglas Drive North  
Golden Valley, MN 55422

Honeywell Ltd  
705 Montrichard Avenue  
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<http://customer.honeywell.com>