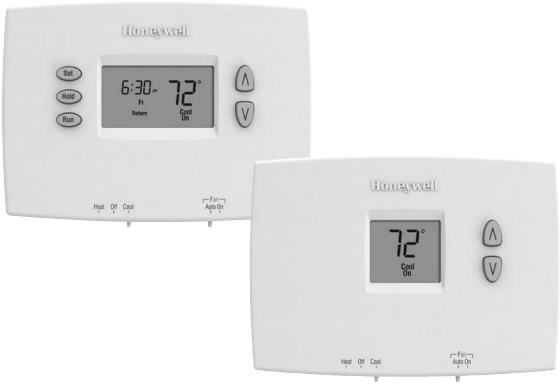


Honeywell

Installation Guide

PRO TH2000DH/TH1000DH Series

Thermostats

This manual covers the following models

- TH1100DH: For Heat only systems
- TH2110DH/TH1110DH: For 1 Heat/1 Cool systems
- TH2210DH/TH1210DH: For 2 Heat/1 Cool heat pump systems only

(Pull thermostat from wallplate and turn over to find model number.)

System Types

TH2110DH/TH1110DH:

- Gas, oil, or electric heat with air conditioning
- Warm air, hot water, high-efficiency furnaces, 1 Heat/1 Cool heat pumps, steam, gravity
- Heat only
- Heat only with fan
- Cool only
- 750 mV heating systems

TH2210DH/TH1210DH:

- 2 Heat/1 Cool heat pumps

TH1100DH:

- Gas, oil, or electric heat
- Warm air, hot water, steam, gravity
- Heat only
- 750 mV heating systems

Must be installed by a trained, experienced technician

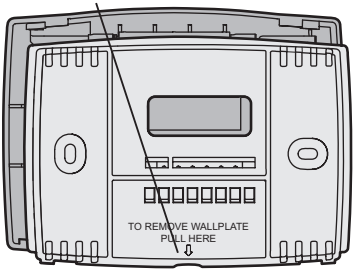
Read these instructions carefully. Failure to follow these instructions can damage the product or cause a hazardous condition.

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

Wallplate installation

Pull at bottom to remove thermostat from wallplate.

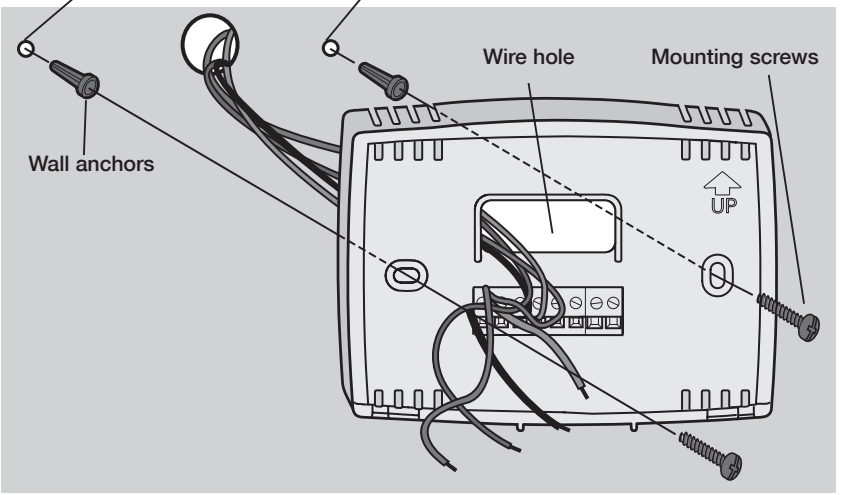


M32731

Remove the wallplate from the thermostat as shown at left, then follow directions below for mounting.

1. Pull wires through wire hole.
2. Position wallplate on wall, level and mark hole positions with pencil.
3. Drill holes at marked positions as shown below, then tap in supplied wall anchors.
4. Place wallplate over anchors, insert and tighten mounting screws.

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



M32805

CAUTION: ELECTRICAL HAZARD

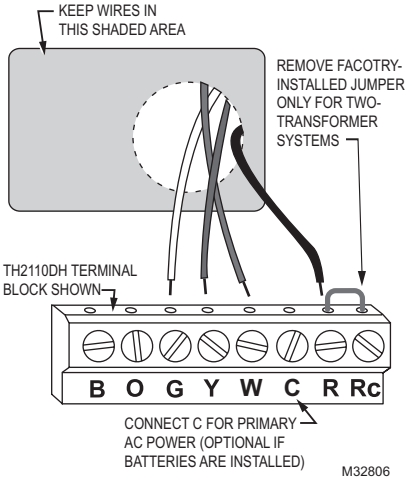
Can cause electrical shock or equipment damage. Disconnect power before beginning installation.

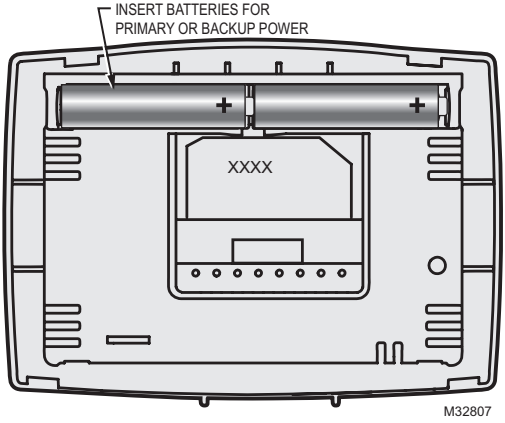
MERCURY NOTICE

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

ENGLISH

Power options





Wiring

Terminal designations

TH2110DH/TH1110DH:

- **B** Changeover valve energized in heating
- **O** Changeover valve energized in cooling
- **G** Fan relay
- **Y** Compressor contactor
- **W** Heat relay
- **C** 24 Vac common. For 2-transformer systems, use common wire from cooling transformer.
- **R** 24 Vac power from heating transformer
- **Rc** 24 Vac power from cooling transformer

TH2110DH/ TH1110DH

TH1100DH:

- **W** Heat relay
- **C** 24 Vac common
- **R** 24 Vac power

TH1100DH

TH2210DH/TH1210DH:

- **B** Changeover valve energized in heating
- **O** Changeover valve energized in cooling
- **G** Fan relay
- **Y** Compressor contactor
- **Aux/E** Auxiliary heat relay
- **C** 24 Vac common
- **R** 24 Vac power

TH2210DH/TH1210DH

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Wiring

Wiring guide — conventional and heat pump systems

2H/1C Heat Pump System TH2210DH/TH1210DH

M32809

B	Changeover valve energized in heating [5]
O	Changeover valve energized in cooling [5]
G	Fan relay
Y	Compressor contactor
Aux/E	Auxiliary heat relay
C	24 Vac common [3]
R	Power [1]

1H/1C System TH2110DH/ TH1110DH

(1 transformer)

M32811

G	Fan relay
Y	Compressor contactor
W	Heat relay
C	24 Vac common [3]
R	[R+Rc joined by jumper]
Rc	Power [1]

1H/1C System TH2110DH/ TH1110DH

(2 transformers)

M32812

G	Fan relay
Y	Compressor contactor
W	Heat relay
C	24 Vac common [3, 4]
R	Power (heating transformer) [1, 2]
Rc	Power (cooling transformer) [1, 2]

Heat Only System TH1100DH

M32817

W	Heat relay
C	24Vac common [3]
R	Power [1]

1H/1C Heat Pump System TH2110DH/TH1110DH [7]

M32813

B	Changeover valve energized in heating [5]
O	Changeover valve energized in cooling [5]
G	Fan relay
Y	Compressor contactor [6]
W	[W+Y joined by jumper]
C	24 Vac common [3]
R	[R+Rc joined by jumper]
Rc	Power [1]

Heat Only System TH2110DH/TH1110DH

M32814

W	Heat relay
C	24Vac common [3]
R	[R+Rc joined by jumper]
Rc	Power [1]

Heat Only System with Fan TH2110DH/TH1110DH

M32815

G	Fan relay
W	Heat relay
C	24 Vac common [3]
R	[R+Rc joined by jumper]
Rc	Power [1]

Cool Only System TH2110DH/TH1110DH

M32816

G	Fan relay
Y	Compressor contactor
C	24 Vac common [3]
R	[R+Rc joined by jumper]
Rc	Power [1]

See [notes] below

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 for 2-transformer systems.

[3] Optional 24 Vac common connection.

[4] Common connection must come from cooling transformer.

[5] Use either O or B terminals for changeover valve.

[6] Use a small piece of wire (not supplied) to connect W and Y terminals.

[7] Set fan operation switch to **Heat Pump** (see page 5).

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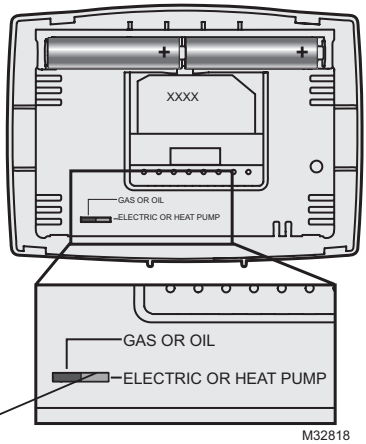
Fan operation settings

TH2110DH/TH1110DH only:

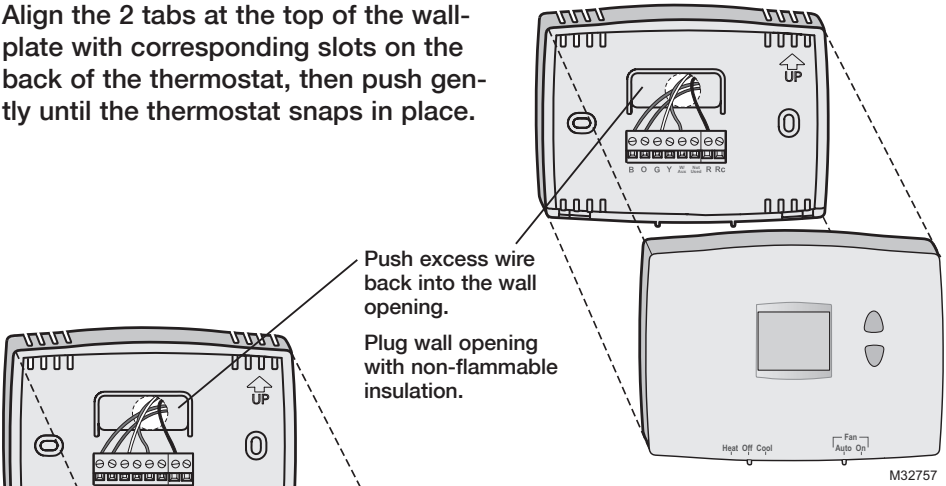
- **Gas or Oil**: For gas or oil heating systems, leave the fan operation switch in this factory-set position. (This setting is for systems that control the fan in a call for heat.)
- **Electric or Heat Pump**: Change the switch to this setting for heat pump or electric heat systems. (This setting is for systems that allow the thermostat to control the fan in a call for heat, if a fan wire is connected to the **G** terminal.)



Set fan operation switch.

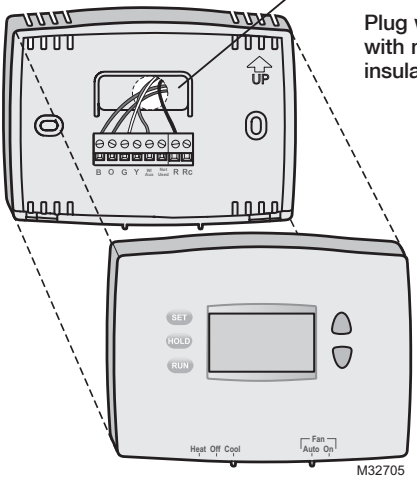
Thermostat mounting

Align the 2 tabs at the top of the wall-plate with corresponding slots on the back of the thermostat, then push gently until the thermostat snaps in place.



Push excess wire back into the wall opening.

Plug wall opening with non-flammable insulation.



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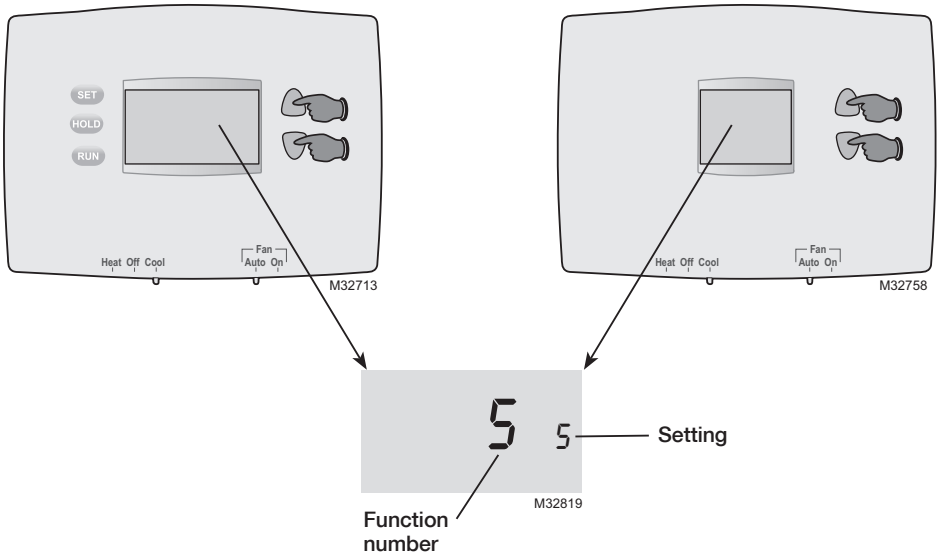
Installer setup

Follow the procedure below to configure the thermostat to match the installed heating/cooling system, and customize feature operation as desired.

To begin, press and hold the ▲ and ▼ buttons until the display changes.



Press the ▲ or ▼ button to change the setting.

Press the ▲ and ▼ buttons simultaneously for one second to advance to the next function.

Press and hold the ▲ and ▼ buttons to exit and save settings.

NOTE: If you do not press any button for 60 seconds while you are in the setup menu, the thermostat automatically saves any changes made and exits the menu.

ENGLISH

Installer setup

Setup function		Settings & options (factory default in bold)	
5	**Heating cycle rate** (CPH: cycles/hour) **TH2110DH, TH1110DH and TH1100DH**	**5** 1 3 6	**For gas or oil furnaces of less than 90% efficiency** For steam or gravity systems For hot water systems & furnaces of over 90% efficiency For electric furnaces [Other cycle rate options: 2 or 4 CPH]
6	**Auxiliary heat cycle rate** (CPH) **TH2210DH and TH1210DH**	**5** 1 3 6	**For gas or oil furnaces of less than 90% efficiency** For steam or gravity systems For hot water systems & furnaces of over 90% efficiency For electric furnaces [Other cycle rate options: 2 or 4 CPH]
9	**Compressor cycle rate** (CPH)	**3**	**Recommended for most compressors** [Other cycle rate options: 1, 2, 4, 5, or 6 CPH]
13	**Early Start (TH2110DH and TH2210DH)**	**1** 0	**On **See page 8** Off
14	**Temperature display**	**0** 1	**Fahrenheit** Celsius
15	**Compressor protection**	**5** 0	**Five-minute compressor off time (See page 8)** No compressor off time
20	**Clock display (TH2110DH and TH2210DH)**	**0** 1	**12-hour display** 24-hour display
25	**Lower temperature range (TH1100DH only)**	**0** 1	**Standard range 40°F to 90°F (4.5°C to 32°C)** Lower range (for garage mode) 35°F to 90°F (1.5°C to 32°C)
40	**Restore program schedule to default (TH2110DH and TH2210DH)**	**0** 1	**Off** On - program schedule default settings are listed in the operating manual

CAUTION: EQUIPMENT DAMAGE HAZARD

Compressor protection is bypassed during testing. To prevent equipment damage, avoid cycling the compressor quickly.

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Special functions

Early Start (Setup Function 13): Early start allows the heating or cooling to turn on before the program start time, so the temperature is reached at the time you set.

Compressor Protection (Setup Function 15): Forces the compressor to wait a few minutes before restarting, to prevent damage. During the wait time, the message Cool On or Heat On (heat pumps only) will flash on the display.

Accessories & replacement parts

Please contact your distributor to order replacement parts.

Cover plate assembly*..... Part Number 50002883-001

*Use to cover marks left by old thermostats.

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

- 3-7/16”H x 4-10/16”W x 1-3/16”D
  87mm H x 119mm W x 30mm D

Electrical Ratings

System	Voltage (50/60Hz)	Running Current
Heat (1st stage)	20-30 Vac	0.02-1.0 A
(Powerpile)	750 mV DC	100 mA DC
Auxiliary heat	20-30 Vac	0.02-1.0 A
Cooling	20-30 Vac	0.02-1.0 A

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