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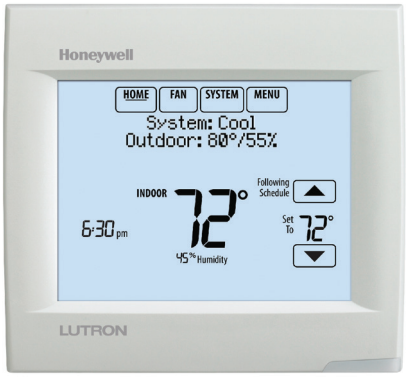
Lutron® Wireless Thermostat

The Lutron® Wireless Thermostat allows for the ability to adjust heating and cooling systems from anywhere using your mobile device – whether home or away. The Lutron® Wireless Thermostat works with Caséta® Wireless, RadioRA® 2, and HomeWorks® QS.



Lutron® Wireless Thermostat

Features

- Powered by Honeywell® HVAC control technology.
- Works with Caseta® Wireless[1], RadioRA® 2[2], or HomeWorks® QS[2].
- Adjust temperature settings via mobile device – whether home or away.
- 7-day programmable schedule.
- Large touchscreen display with backlight and message center.
- For use with an existing Wi-Fi Network.
- Supports up to three heat and two cool stages (heat pump), or up to two heat and two cool stages (conventional).
- Controls humidification, dehumidification, or ventilation.
- Universal input for a wired indoor, outdoor, or discharge sensor.
- Keeps date/time during power failure and automatically adjusts for daylight savings time.
- Automatically downloads software updates.
- Requires 24 V~ common connection from the HVAC equipment.
- Residential or commercial use.

1 The Lutron® App, Lutron® Smart Bridge or Smart Bridge PRO, and Honeywell® Total Connect Comfort account is required for setup and use with Caséta® Wireless. The Lutron® App is compatible with iOS® and Android™ devices.

2 The Lutron® Connect app, Lutron® Connect Bridge, and a Honeywell® Total Connect Comfort account is required for setup and use with RadioRA® 2 and HomeWorks® QS. The Lutron® Connect app is compatible with iOS® and Android™ devices.

LUTRON® SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:	
Job Number:		

Specifications

Regulatory Approvals

- FCC
- IC

Power

- Operating voltage: 24 V⁓ IEC PELV/NEC® Class 2

Typical Power Consumption

- 2.35 VA (backlight on)

Environment

- Ambient operating temperature: 32 ºF to 120 ºF (0 ºC to 49 ºC) 5% to 90% humidity, non-condensing. Indoor use only.

Communication

- Lutron® Wireless Thermostat communicates via a connection to an existing Wi-Fi network, and must be located within range of the Wi-Fi router.
- Supports 802.11 B/G/N wireless routers.

Power Failure

- Power failure memory: should power be interrupted, the Lutron® Wireless Thermostat will retain its programming when power is restored.

Mounting

- Mount on a wall using conventional thermostat mounting methods.

Wiring

- IEC PELV/NEC® Class 2, 22 AWG (0.5 mm^2) to 18 AWG (0.75 mm^2) solid wiring. Requires transformer common connection.

Warranty

- www.lutron.com/TechnicalDocumentLibrary/369-119_Wallbox_Warranty.pdf
- Warranty only valid if installed by a properly trained climate control specialist.

Job Name:	Model Numbers:	
Job Number:		

Compatibility

HVAC Type	Compatible
Single Stage Cool	Yes
Two Stage Cool	Yes
Single Stage Heat	Yes
Two Stage Heat	Yes
Packaged Roof Top Units	Yes
Heat Pump	Yes
Dual Fuel Systems	Yes
Geothermal Heat Pump	Yes
Heat Pump with Auxiliary Electric (Emergency) Heat	Yes
Typical Variable Speed Fan (Equipment Controlled)	Yes
Multi-Zone Systems (Controllable Dampers)	Yes: Requires a separate Zone Controller (not sold by Lutron)
In-Floor Radiant Heat	Yes
Line Voltage Electric Baseboard	No
Milli-Volt System	No
Proprietary / Digital Control Systems	No
Variable Speed Fan (Independent Relays)	No
Humidity Sensing	Yes
Outdoor Temperature Sensing	Yes
Humidification Control [1]	Yes
Dehumidifcation Control [1]	Yes
Ventilation Control [1]	Yes
VAV / VRV Systems	No

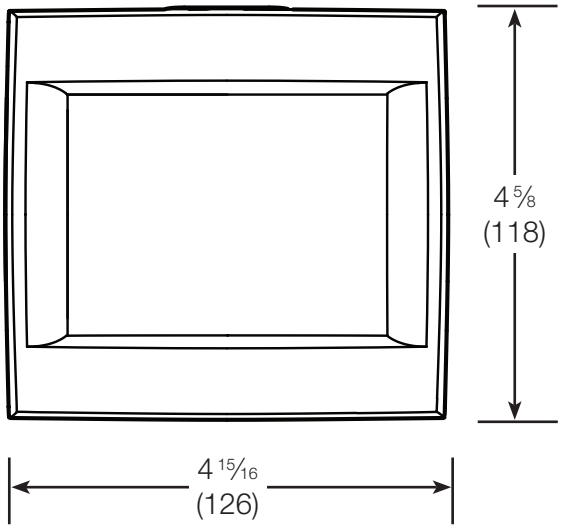
[1] **Note:** Includes one universal relay to control a humidifier, dehumidifier, or ventilation.

Job Name:	Model Numbers:	
Job Number:		

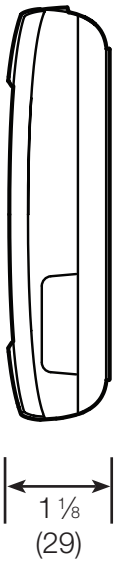
Dimensions

All dimensions are shown as in (mm) unless otherwise noted.

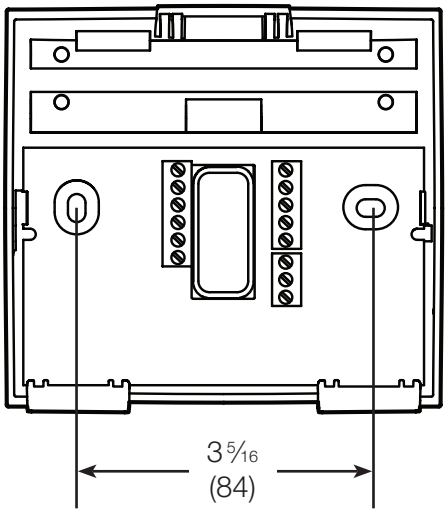
Front View



Side View

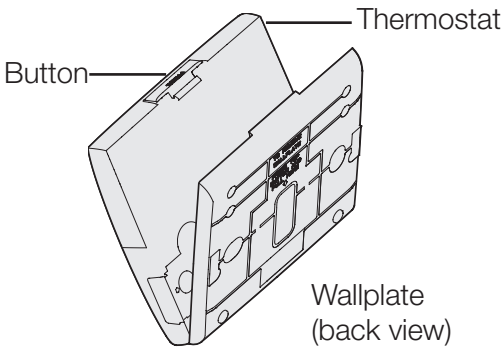


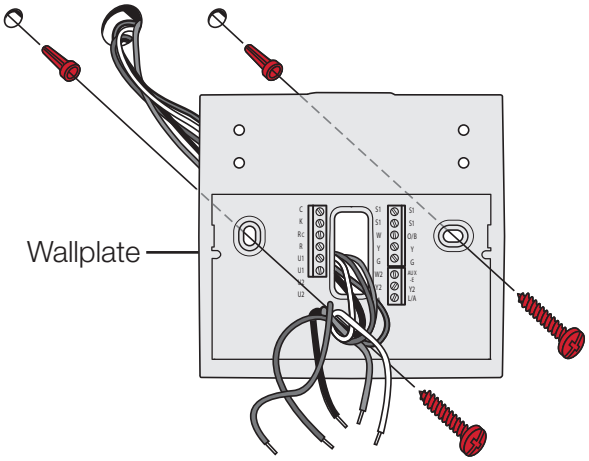
Back View



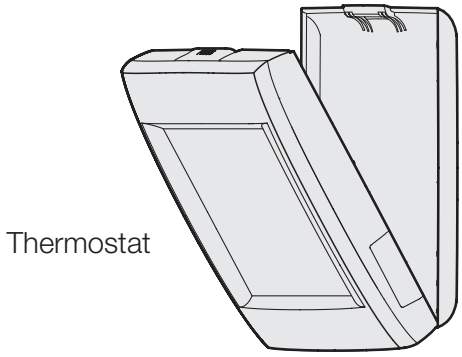
Job Name:	Model Numbers:	
Job Number:		

Mounting



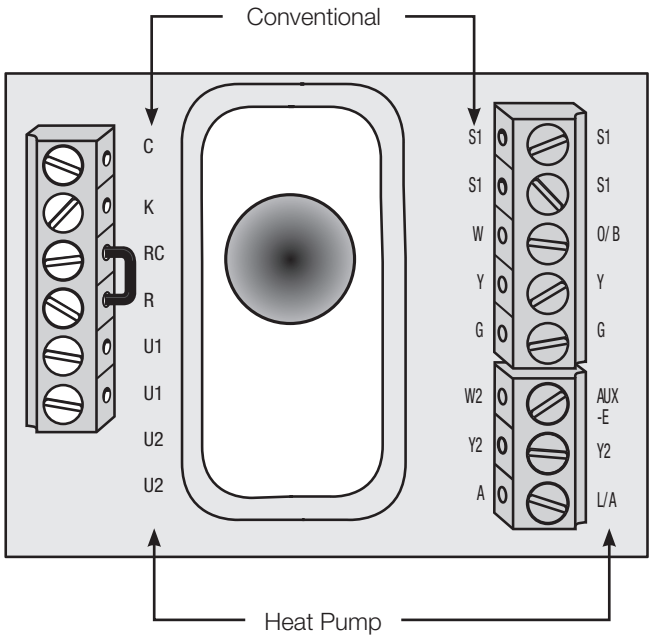


Wallplate



Job Name:	Model Numbers:	
Job Number:		

Terminal Designations



Job Name:	Model Numbers:	
Job Number:		

Terminal Designations

Conventional System		Heat Pump	
Terminal	**Description**	**Terminal**	**Description**
C	Common wire from secondary side of cooling transformer (if there are two transformers).	C	Common wire from secondary side of cooling transformer.
Rc[1]	Cooling power	Rc	Cooling power
R[1]	Heating power	R	Heating power
W	Heat, Stage 1	O/B	Changeover valve for heat pumps.
W2	Heat, Stage 2	AUX-E	Backup Heat/Emergency Heat
Y	Compressor, Stage 1	Y	Compressor, Stage 1
Y2	Compressor, Stage 2	Y2	Compressor, Stage 2
G	Fan Relay	G	Fan Relay
A	Connect to Economizer Module or Lighting Panel (TOD).	L/A	Connect to Compressor Monitor, Zone Panel, Economizer Module or Lighting Panel (TOD).
U1/U1	Universal relay for humidification, dehumidification, ventilation, or a stage of heating/cooling.	U1/U1	Universal relay for humidification, dehumidification, ventilation, or a stage of heating/cooling.
S1/S1	Universal input for a wired indoor, outdoor or discharge sensor.	S1/S1	Universal input for a wired indoor, outdoor or discharge sensor.
K[2]	Connect to K on Wire Saver module.	K[2]	Connect to K on Wire Saver module.

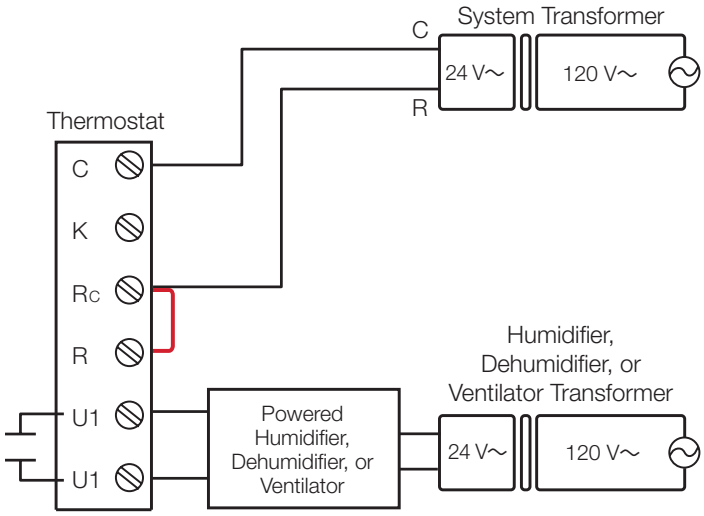
1 Remove factory-installed jumper for two-transformer systems.

2 The Honeywell® THP9045A1023 Wire Saver module is used on heat/cool systems when you only have four wires at the thermostat and you need a fifth wire for a common wire. Use the K terminal in place of the Y and G terminals on conventional or heat pump systems to provide control of the fan and the compressor through a single wire—the unused wire then becomes your common wire. See THP9045 instructions for more information.

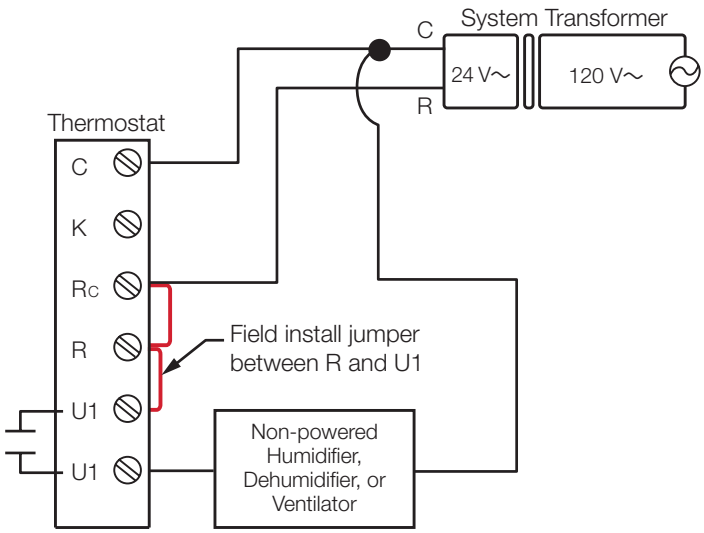
Job Name:	Model Numbers:	
Job Number:		

Humidification, Dehumidification, Ventilation Wiring Diagrams:

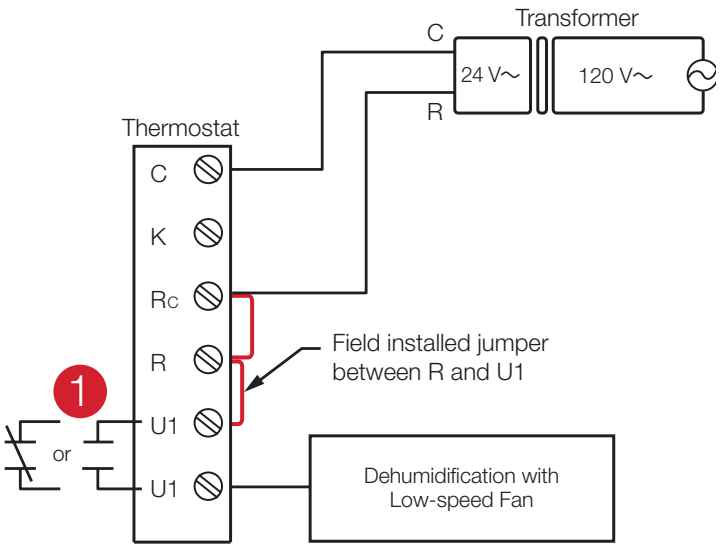
Powered Humidifier, Dehumidifier or Ventilator



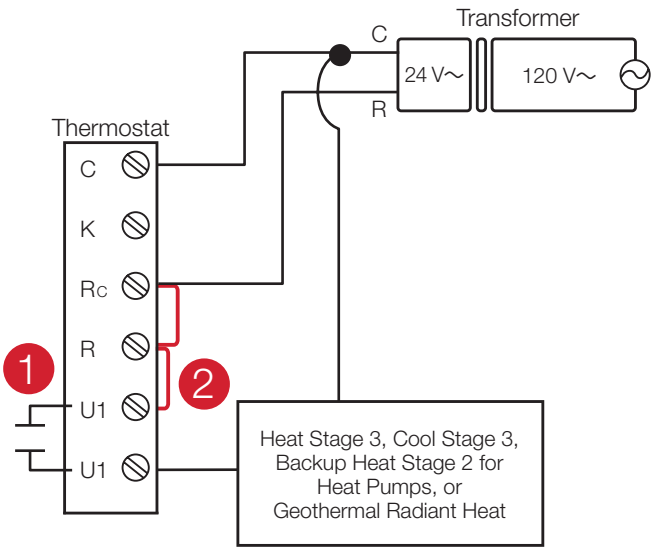
Non-Powered Humidifier, Dehumidifier or Ventilator



Dehumidification with Low-Speed Fan



Connecting a Heat or Cool Stage to U1



1 Wire the thermostat universal relay to the low-speed fan for dehumidification control at the equipment. The thermostat relay can be set to normally open or normally closed in the thermostat installer setup.

- Normally open, dry contacts
- Normally closed, dry contacts

1 U1 terminals are normally open dry contacts when set up for a stage of heating or cooling.

2 You must install a field jumper if the stage of heating or cooling is powered by system transformer. Do NOT install a field jumper if the stage of heating has its own transformer.

Job Name:	Model Numbers:	
Job Number:		

Wiring Guide (for use with 24 V⁓ common)

Conventional Systems

1H/1C System (1 transformer)

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
W	Heat relay
Y	Compressor contactor
G	Fan relay
S1 / S1	Optional remote sensor

1H/1C System (2 transformers)

C	24 V⁓ common (cooling transformer)
Rc	Power (cooling transformer)
R	Power (heating transformer)
W	Heat relay
Y	Compressor contactor
G	Fan relay
S1 / S1	Optional remote sensor

Heat Only System

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
W	Heat relay
S1 / S1	Optional remote sensor

Heat Only System With Fan

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
W	Heat relay
G	Fan relay
S1 / S1	Optional remote sensor

Heat Only System (Series 20)

C	24 V⁓ common
Rc	R and Rc joined by jumper
R	Series 20 valve terminal “R”
W	Series 20 valve terminal “B”
Y	Series 20 valve terminal “W”
S1 / S1	Optional remote sensor

Cool Only System

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
Y	Compressor contactor
G	Fan relay
S1 / S1	Optional remote sensor

2H/2C System (1 transformer)

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
W	Heat relay 1
Y	Compressor contactor 1
G	Fan relay
W2	Heat relay 2
Y2	Compressor contactor 2
S1 / S1	Optional remote sensor

2H/2C System (2 transformers)

C	24 V⁓ common (cooling transformer)
Rc	Power (cooling transformer)
R	Power (heating transformer)
W	Heat relay 1
Y	Compressor contactor 1
G	Fan relay
W2	Heat relay 2
Y2	Compressor contactor 2
S1 / S1	Optional remote sensor

Continued on next page...

Job Name:	Model Numbers:	
Job Number:		

Wiring Guide (for use with 24 V⁓ common) *Continued*

Heat Pump Systems

1H/1C Heat Pump (no auxiliary heat)

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
O/B	Changeover valve
Y	Compressor contactor
G	Fan relay
S1/S1	Optional remote sensor

2H/2C Heat Pump (no auxiliary heat)

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
O/B	Changeover valve
Y	Compressor contactor 1
G	Fan relay
Y2	Compressor 2 relay
S1/S1	Optional remote sensor

2H/1C Heat Pump (with auxiliary heat)

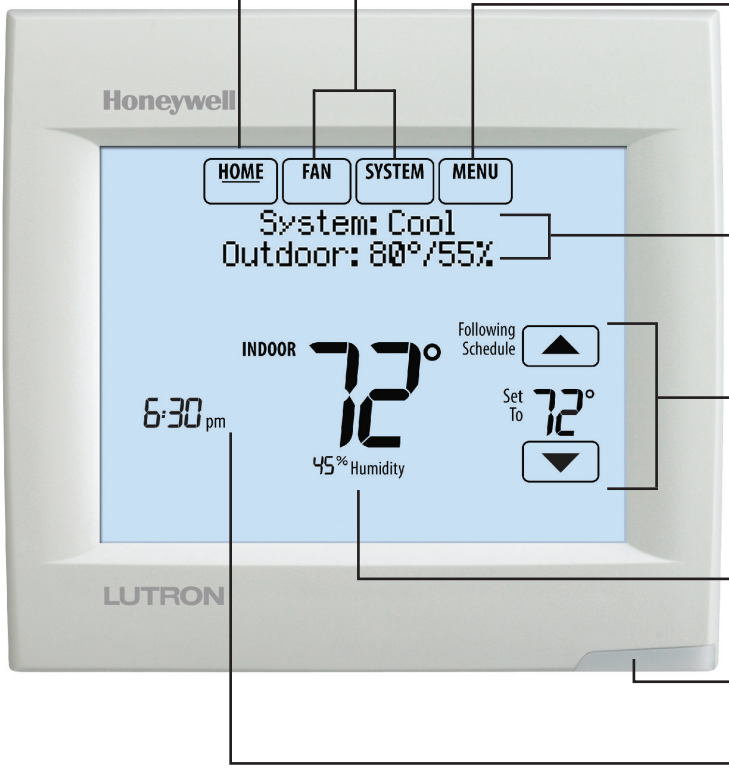
C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
O/B	Changeover valve
Y	Compressor contactor
G	Fan relay
Aux-E	Auxiliary heat relay (heat 2)
L/A	Equipment monitor
S1/S1	Optional remote sensor

3H/2C Heat Pump (with auxiliary heat)

C	24 V⁓ common
Rc	Power
R	R and Rc joined by jumper
O/B	Changeover valve
Y	Compressor contactor 1
G	Fan relay
Aux-E	Auxiliary heat relay (heat 2)
Y2	Compressor 2 relay
L/A	Equipment monitor
S1/S1	Optional remote sensor

Job Name:	Model Numbers:	
Job Number:		

Operation



Current display: Underlined label signifies the current display.

Mode control buttons: Use to change settings for Fan or System Heat/Cool.

Menu: Select options to: set schedules,view equipment status, change IAQ settings, access installer options, etc.

Current status: Shows system mode (heat/cool), outdoor temperature and humidity.

Current schedule: Shows desired temperature and schedule status.

Indoor conditions: Shows indoor temperature and humidity.

Alert Light: On when alert message is active or system is set to Emergency Heat.

Current Time

Job Name:	Model Numbers:	
Job Number:		