

HZ221 TrueZONE

Honeywell



Zone Panel Professional Installation Guide



69-2200-01

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Need Help?

For assistance with this product please visit <http://yourhome.honeywell.com>
or call Honeywell Zoning Hotline toll-free at 1-800-828-8367

Read and save these instructions.

SPECIFICATIONS AND ACCESSORIES

Input Ratings:

Voltage: 18-30 VAC 50/60 Hz transformer of 40 VA or more.

Current Draw:

Zone Panel: 6.25 VA max.

All VA specifications at 24 VAC.

Wiring:

18–20-gauge solid (not stranded) wire.

Humidity Ratings:

5% to 90% RH non-condensing.

Temperature Ratings:

Shipping: -20° to 150°F (-29° to 66°C)

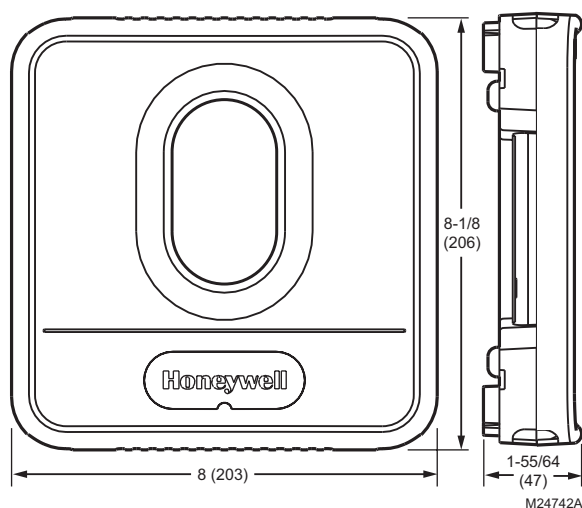
Operating: -40° to 165°F (-40° to 74°C)

Dimensions:

See below.

Emissions:

Complies with FCC Class B, part 15 requirements.



HZ221 TrueZONE panel dimensions in in. (mm).

RECOMMENDED THERMOSTATS, DAMPERS, AND ACCESSORIES

The following are suggested thermostats, dampers, and accessories for use with the TrueZONE panel.

Table 1. Recommended Thermostats.

System	Non-Programmable	Programmable
Heat Pump	TH3210D, TH5220D, TH5320U	TH4210D, TH6220D, TH8220U, TH8321U, YTH9421C

Note: These thermostat models all have different four-digit suffixes. All versions of the model numbers listed above will work with the applications they're listed for.

Table 2. Recommended Dampers.

Type	Honeywell Damper	Round	Rectangular
Zone	Spring-open/power-closed	ARD	ZD
Zone	Power-open/power-closed	MARD/RRD	For recommended dampers call the Honeywell Zoning Hotline at 1-800-828-8367.
Bypass	Static pressure regulating damper	SPRD	SPRD

Table 3. Maximum Dampers.*

Ambient Temp.	Maximum Damper VA per Zone
100°F (38°C)	28.8
160°F (71°C)	16.8

* Use an SDCR (Slave Damper Control Relay) for additional dampers.

Maximum dampers per panel is limited by transformer size.

Ensure transformer is large enough to power the panel (6.25 VA) and dampers.

Table 4. Accessories.

Accessory	Description
40 VA transformer*	AT140A1042*
75 VA transformer	AT175A1008
Discharge Air Temperature Sensor (DATS)*	DATS C7735A1000*
SDCR	Slave Damper Control Relay

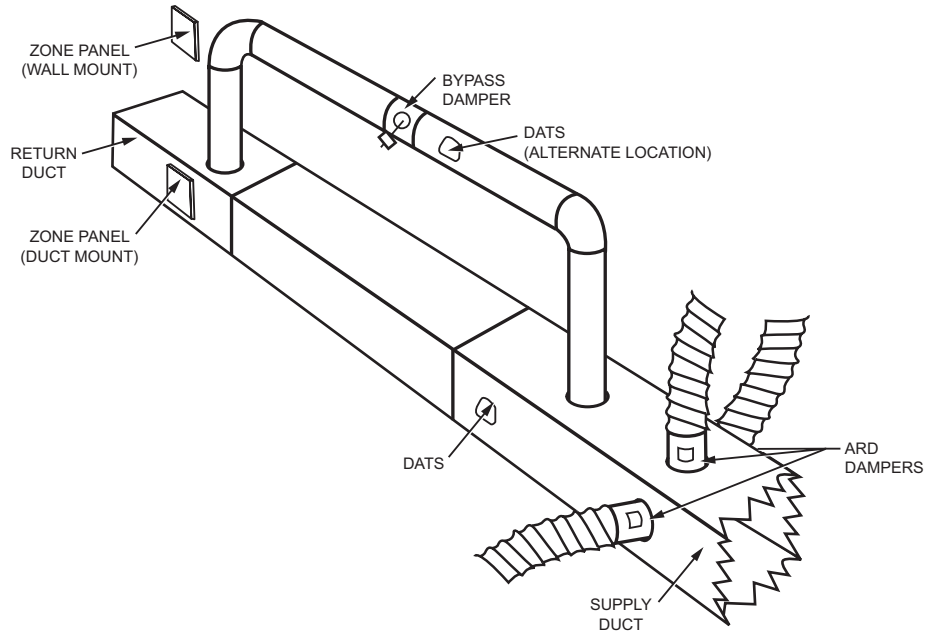
* Included in HZ221K kit.

INSTALLATION

1

Mount the HZ221 TrueZONE panel near the HVAC equipment; locate it on a wall, stud, roof truss, or cold-air return.

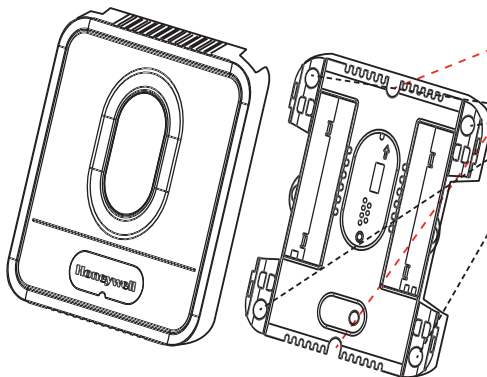
NOTE: The HZ221 TrueZONE panel can be mounted in any orientation; level it for appearance only.



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2

Separate the zone panel cover from the base, and use the base as a template to drill mounting holes. Attach the base to the wall, stud, roof truss, or duct with appropriate screws (not included).



M24803

Use two screws for attaching to a stud or roof truss, or four screws for duct or drywall/plaster installations.

WIRING

Wiring must comply with applicable codes, ordinances, and regulations.



CAUTION: Voltage Hazard.

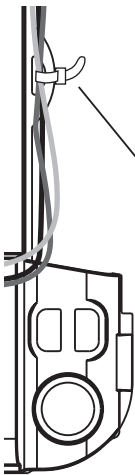
Can cause electrical shock or equipment damage. Disconnect power before beginning installation.
Wire entire panel before applying transformer power.

3

Install thermostats using instructions provided with thermostats.

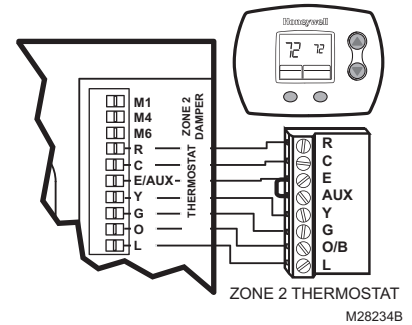
Connect thermostat to zone panel. To connect wire to the panel, strip approximately 1/4 in. of insulation and push wire into terminal. To release wire, press the button on top of the terminal. In retrofit applications, trim end of wire if not straight.

If the thermostat has separate E and Aux terminals, install a jumper between the two terminals.



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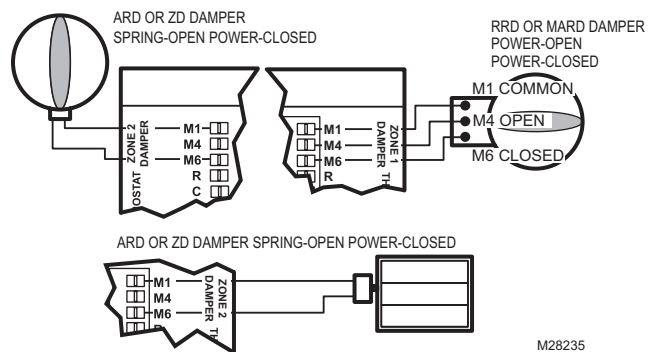
Wires can be run behind the panel, through wire channels on the panel's sides, and must be attached to a wiring anchor with a cable tie.



4

Install dampers using instructions provided with dampers. Connect dampers to zone panel.

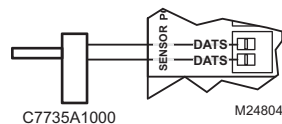
NOTE: Multiple dampers can be wired in parallel.



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5

Connect DATS as shown.



C7735A1000

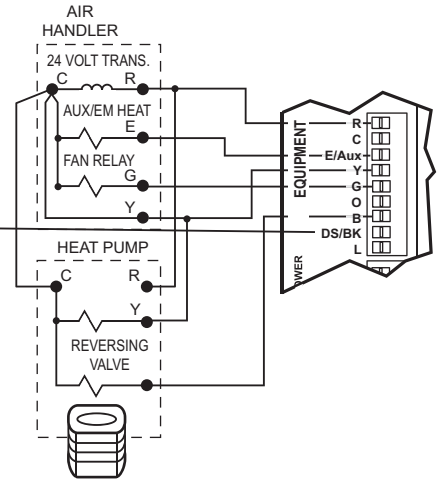
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WIRING

6

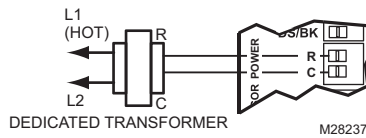
Connect equipment as shown.

The DS/BK terminal is used with a variable-speed fan. Connect to the DS, BK, or ODD terminal on the furnace equipment. When only one zone calls for heat, cool, or fan, the DS/BK terminal operates the fan at low speed to reduce airflow.



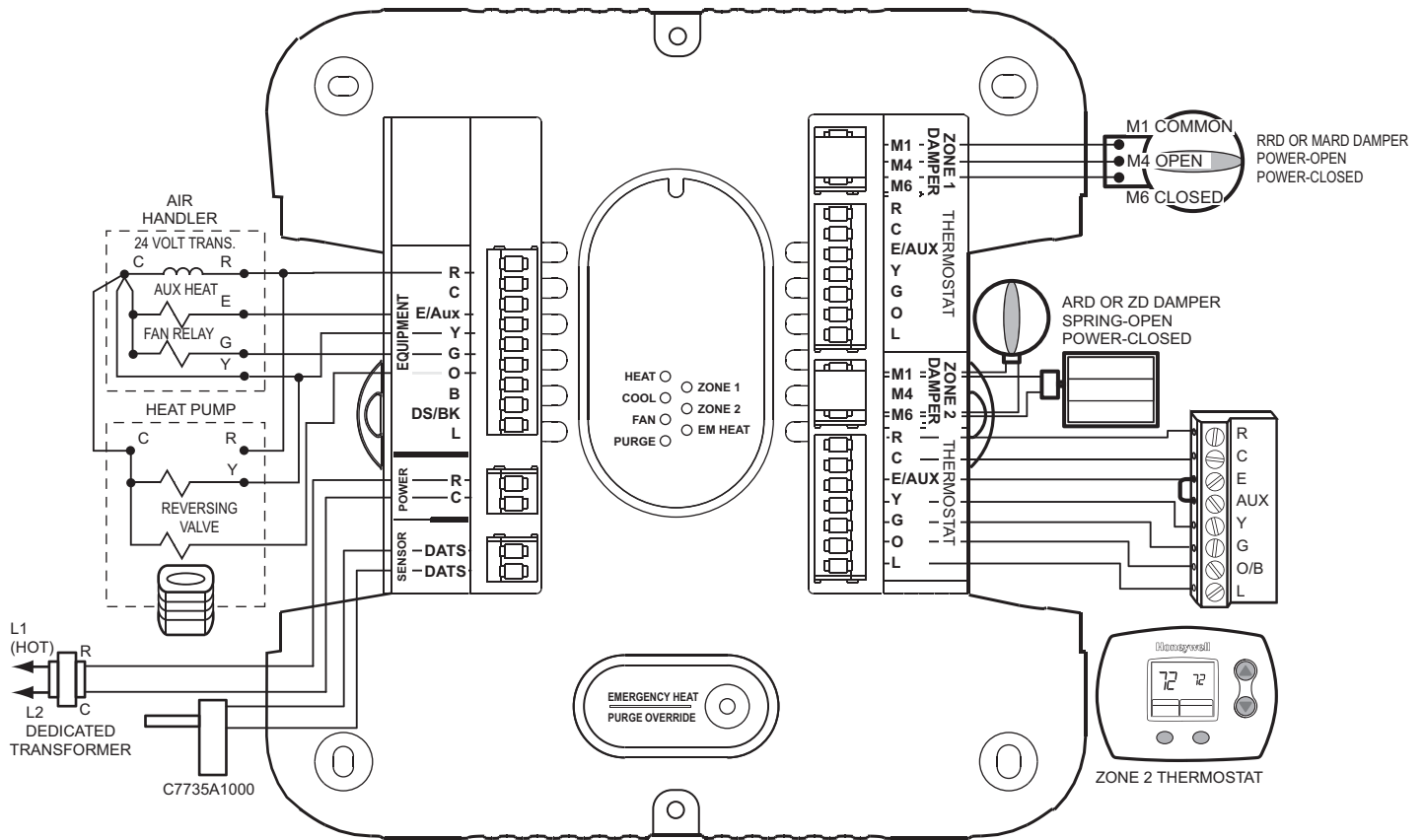
7

Connect transformer as shown.



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The following diagram is an overall view of wiring for a heat pump system as depicted in steps 3–7.



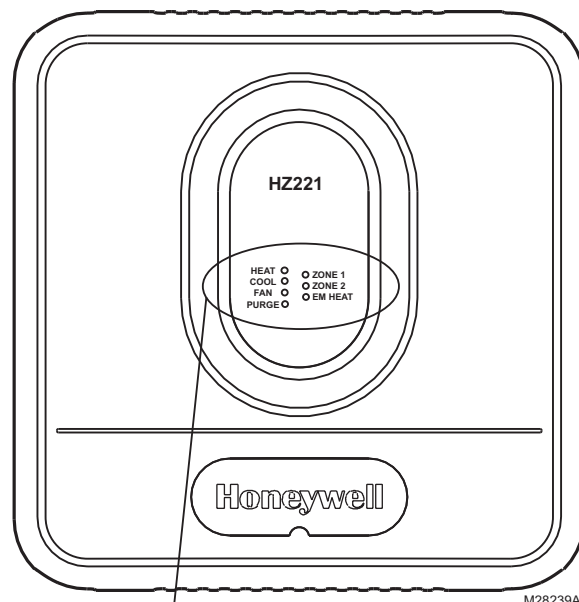
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OPERATION

The HZ221 TrueZONE panel contains an LED display that communicates system and zone status. The LEDs indicate the following information.

Table 5. LED Operation.

LED	Description
HEAT	Solid when in heat. Blinking when DATS temperature exceeds 120°F (49°C) and calling for heat pump only. Blinking when DATS temperature exceeds 160°F (71°C) and calling for heat pump and auxiliary heat. At 150°F (66°C), auxiliary heat is disabled.
COOL	Solid when in cool. Blinking when 45°F (7°C) DATS low limit mode has been reached.
FAN	Solid when in operation.
PURGE	Solid when in purge (lasts 2 minutes at power-up and after a call for heat or cool). Blinking when the DATS sensor has failed, or the wires are shorted or open. Will blink for 3 minutes at power-up if DATS is not present.
ZONE 1, 2	Solid green when open or opening. Solid red when closed or closing. Blinking amber when there is a damper or thermostat short circuit (circuit breaker trip).
EM HEAT	Solid when in Em Heat mode.



LED display.

HZ221
2 Zones, 2H/1C

LED Status

Heat LED	Heating Mode
Flashing Heat LED	High Limit
Cool LED	Cooling Mode
Flashing Cool LED	Low Limit
Purge LED	Purge Mode
Flashing Purge LED	Sensor Failure
Fan LED	Fan On
Em Heat LED	Em Heat Mode
Zone LEDs	Green - Open Red - Closed Flashing - Short

Zone Names

Zone 1 _____

Zone 2 _____

Technical Support: 1-800-828-8367
Customer.Honeywell.com

Patents Pending

50031314-001 Rev. A

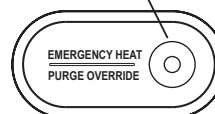
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Much of this information is also listed on the label on the inside of the HZ221 cover.

When the zone panel cover is off, the EMERGENCY HEAT/PURGE OVERRIDE button is visible.

When the panel is in Purge (at startup or after a call for heat/cool), pressing this button stops the Purge, which saves time during installation or troubleshooting.

All other times, pressing the button puts the zone panel into Em Heat mode so that all calls for heat are handled by the auxiliary heat.



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WARRANTY

Honeywell warrants the products in this catalog (except those parts designated on Honeywell's price lists as not covered by this warranty) to be free from defects due to workmanship or materials, under normal use and service, for the following warranty periods. Honeywell VisionPRO®, Commercial VisionPRO™, FocusPRO®, PRO 4000, PRO 3000, LineVolt™ PRO, Digital Round™, and Modern Round™ (T87K, N) Series Thermostats with a date code of 0501 or later: sixty (60) months from date of installation. CommercialPRO, PRO 2000 and PRO 1000 thermostats: twenty-four (24) months from date of installation. All other Honeywell thermostats and thermostats with a date code of 0452 or earlier: twelve (12) months from date of installation, unless specified otherwise. Honeywell Air Cleaners, Humidifiers, Ventilators, Ultraviolet Treatment and Zoning Products with a date code of 0501 or later, excluding replacement maintenance parts: sixty (60) months from date of installation. All other Honeywell indoor air quality and zoning products with a date code of 0452 or earlier: twenty-four (24) months from date of installation, unless specified otherwise. Variable frequency drive devices (VFD) and accessories: new products for thirty-six (36) months and factory refurbished drives for twelve (12) months from date of installation when start-up and commissioning is performed by Honeywell VFD Authorized and trained personnel. All VFD warranty return products must have prior authorization (Form No. 87-0284) and be returned only to the VFD Service Center in Chattanooga, TN. MS, MN and Fact Acting 2-position Direct Coupled Actuators: sixty (60) months from date of installation. The warranty period for all other products is twelve (12) months from date of installation.

If a product is defective due to workmanship or materials, is removed within the applicable warranty period, and is returned to Honeywell in accordance with the procedure described below, Honeywell will, at its option, either repair, replace or credit the customer for the purchase price of the product, in accordance with the procedure described below. This warranty extends only to persons or organizations who purchase products in this catalog for resale.

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