



HZ221 TrueZONE



Zone Panel Professional Installation Guide



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Need Help?

For assistance with this product please visit <http://honeywellhome.com>
or call 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:

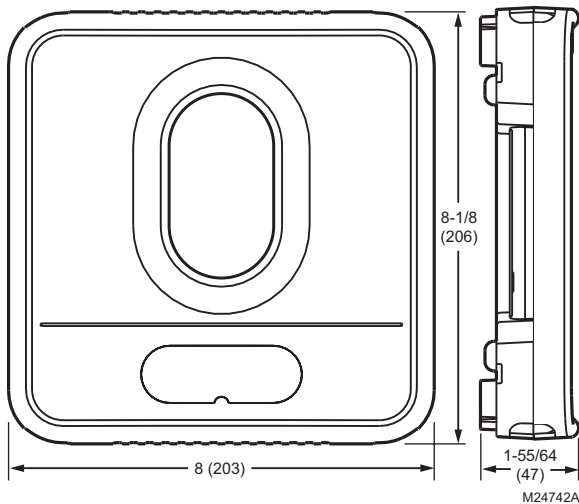
Shipping: -20° to 150°F (-29° to 66°C)
Operating: -40° to 165°F (-40° to 74°C)

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.

Compatible thermostats*	
TH4210U2002 (Programmable or non-programmable)	
TH6210U2001 (Programmable or non-programmable)	
TH6220U2000 (Programmable or non-programmable)	
TH6320U2008 (Programmable or non-programmable)	
TH6220WF2006 (Wi-Fi)	
TH6320WF2003 (Wi-Fi)	
TH8321WF1001 (Wi-Fi)	
THX321WFS2001W (Wi-Fi)	
* Note: The HZ221 supports a heat pump with either a heat or cool reversing valve, but the thermostats MUST be configured for a heat pump with cool reversing valve to correctly communicate to the zone panel.	

Table 2. Recommended Dampers.

Type	Damper	Round	Rectangular
Zone	Spring-open/ power-closed	ARD	ZD
Zone	Power-open/ power-closed	MARD/RRD	
Bypass	Static pres- sure regulating damper	CPRD	

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

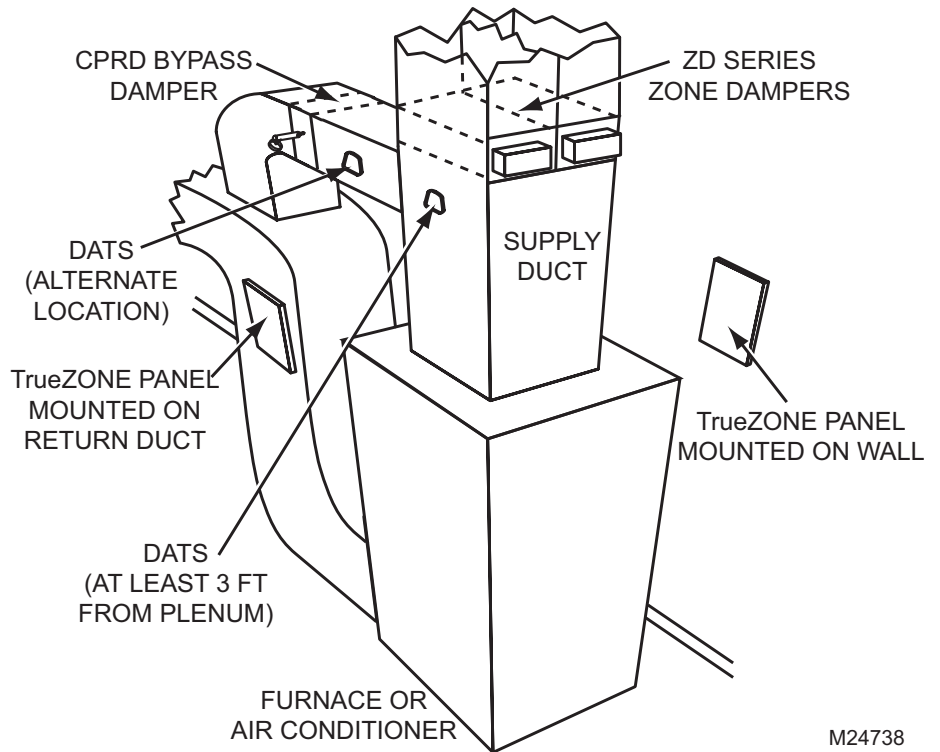
* Included in HZ221K kit.

INSTALLATION

1

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

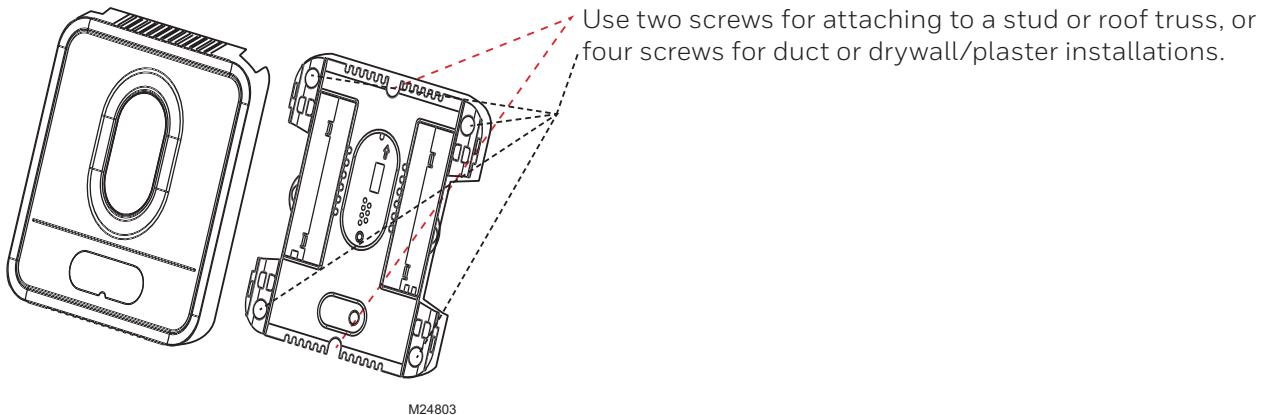
NOTE: The HZ221 TrueZONE panel can be mounted in any orientation; level it for appearance only.



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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).



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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.

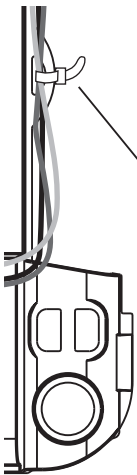
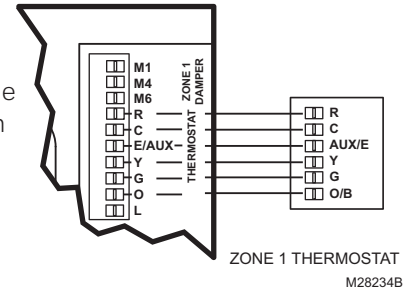
3

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.

Note: Thermostat must be configured for changeover in cool mode. If heat pump uses changeover in heat mode, wire the changeover to B on equipment terminals.

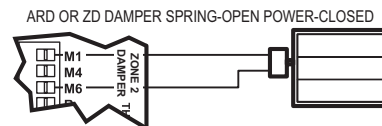
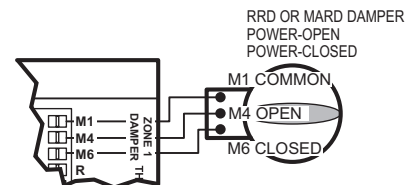


Wires can be run behind the panel, through wire channels on the panel's sides, and must be attached to a wiring anchor with a cable tie.

4

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

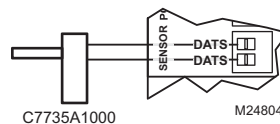
NOTE: Multiple dampers can be wired in parallel.



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5

Connect DATS as shown.

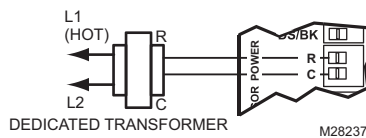


Connect equipment as shown.

The diagram shows the electrical connections for a heat pump system. It includes an **AIR HANDLER** section with a 24 VOLT TRANS. and a **HEAT PUMP** section with a REVERSING VALVE. The **AIR HANDLER** contains terminals C, R, E, G, and Y. The **HEAT PUMP** contains terminals C, R, and Y. A **WIRER** terminal block is shown with terminals R, C, E/Aux, Y, G, O, B, and DS/BK L. The **EQUIPMENT** terminal block is shown with terminals R, C, E/Aux, Y, G, O, B, and DS/BK L. The wiring connections are as follows:

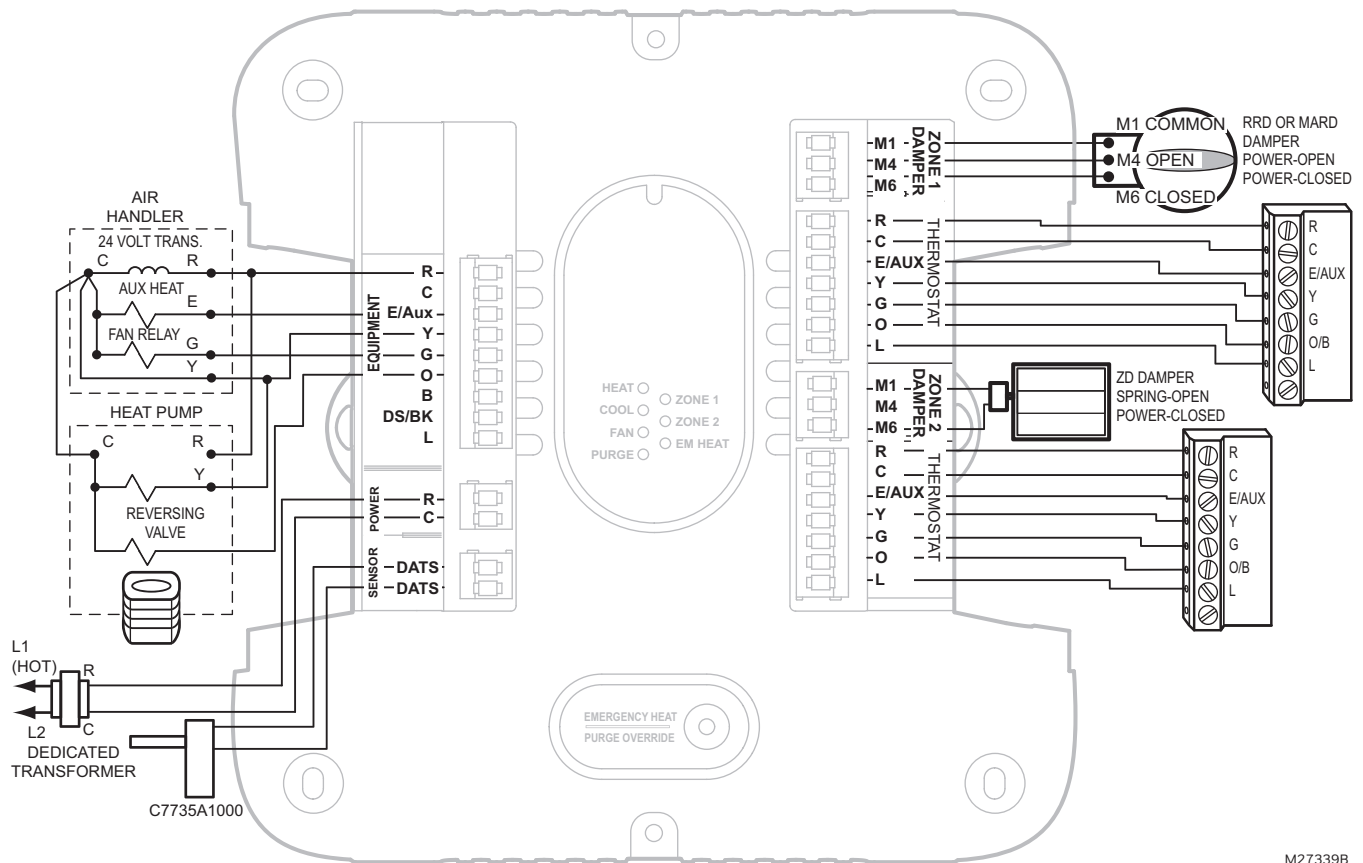
- AIR HANDLER C is connected to HEAT PUMP C.
- AIR HANDLER R is connected to HEAT PUMP R.
- AIR HANDLER E is connected to EQUIPMENT E/Aux.
- AIR HANDLER G is connected to EQUIPMENT G.
- AIR HANDLER Y is connected to HEAT PUMP Y.
- HEAT PUMP Y is connected to REVERSING VALVE.
- REVERSING VALVE is connected to EQUIPMENT DS/BK L.
- EQUIPMENT R is connected to AIR HANDLER R.
- EQUIPMENT C is connected to AIR HANDLER C.
- EQUIPMENT Y is connected to AIR HANDLER Y.
- EQUIPMENT G is connected to AIR HANDLER G.
- EQUIPMENT O is connected to AIR HANDLER O.
- EQUIPMENT B is connected to AIR HANDLER B.
- EQUIPMENT DS/BK L is connected to REVERSING VALVE.

Connect transformer as shown.



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Thermostats must be wired/configured for cool changeover “O”, even if equipment uses heat changeover “B.”



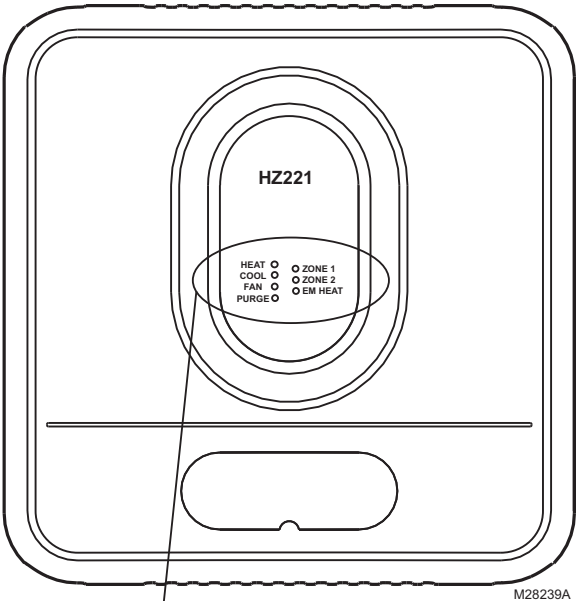
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OPERATION

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.



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.resideo.com

Patents Pending

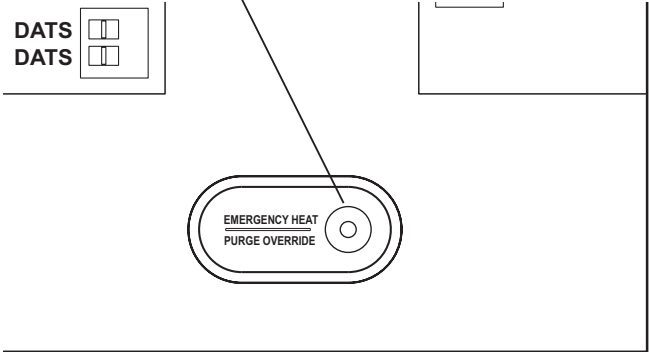
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Much of this information is also listed on the label on the inside of the HZ221 cover.

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.



WARRANTY

Resideo warrants this product, excluding battery, to be free from defects in workmanship or materials, under normal use and service, for a period of five (5) years from the date of first purchase by the original purchaser. If at any time during the warranty period the product is determined to be defective due to workmanship or materials, Resideo shall repair or replace it (at Resideo's option).

If the product is defective,

(i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or

(ii) call Resideo Customer Care at 1-800-828-8367. Customer Care will make the determination whether the product should be returned to the following address: Resideo Return Goods, 1985 Douglas Dr. N., Golden Valley, MN 55422, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Resideo that the defect was caused by damage which occurred while the product was in the possession of a consumer.

Resideo's sole responsibility shall be to repair or replace the product within the terms stated above. RESIDEO SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT.

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69-2200-03 M.S. Rev. 07-19 | Printed in United States

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