

# Models Pro221PD and Pro321PD

## 2 and 3-Zone Panels with Automatic Bypass Control



For Heat Pump Equipment



The Pro221PD and Pro321PD are 2 and 3-Zone Panels that automatically control bypass using the non-calling modulating zone dampers or an external modulating bypass damper and does not require installation of pressure sensors, bypass eliminator controls or special bypass dampers. The modulating dampers are accurately and automatically positioned by the panel for the correct bypass.


- ▶ Automatic bypass control eliminates the contractor having to set and test bypass operation.
- ▶ On-panel display for entering settings, testing installation and monitoring operation.
- ▶ Push-in terminals and plug&play dampers speed up installation and reduce wiring errors.
- ▶ Superior actuator with twice the torque and 4 times the operating life of a spring return actuator.
- ▶ “Quick Setup” option.
- ▶ Rapidly clone panels in the shop to eliminate field programming and errors.
- ▶ Lower costs than traditional low-end RNC panels.

Pat. Pend.

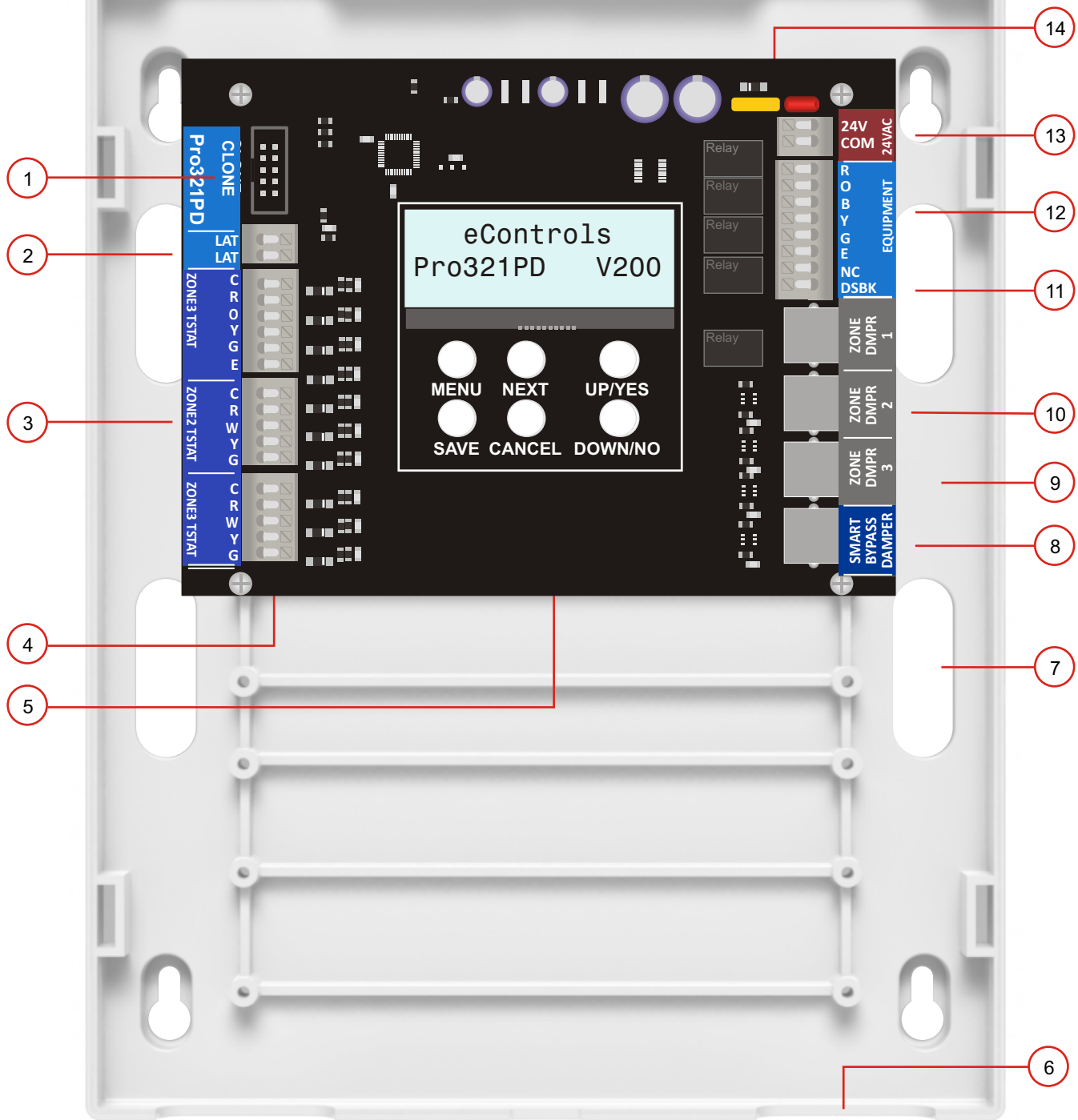


Pro321PD shown.

Provides the best comfort and lowest install cost.

Proudly designed, engineered  
and assembled in the USA 

# Pro321PD Zoning Panel



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|---|--|---|
| <p>① Connector for cloning panels with same options.</p> <p>② Terminals for Leaving Air Temperature sensor for downstaging when limits are exceeded.</p> <p>③ Terminals for Zone thermostats.</p> <p>④ Terminals are push in, screwless type for easy wiring.</p> | <p>⑤ On panel, backlit, 2x16 character LCD for intuitive programming of options and displaying panel status.</p> <p>⑥ Wiring access openings at top and bottom of case.</p> <p>⑦ Wiring access openings so wiring can be run behind case.</p> <p>⑧ Connector for external, modulating bypass damper controlled by panel.</p> <p>⑨ Large channels for wiring.</p> | <p>⑩ Connectors for plug&amp;play zone dampers.</p> <p>⑪ DSBK terminal for operating fan in low speed when only one zone is calling.</p> <p>⑫ Terminals for heat pump equipment.</p> <p>⑬ Terminals for 24VAC, 40VA transformer.</p> <p>⑭ Automatic reset fuse.</p> |
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## Compatible Equipment

Heat Pump equipment with single-stage compressor and single stage auxiliary strip heating.

## Compatible Zone Thermostats

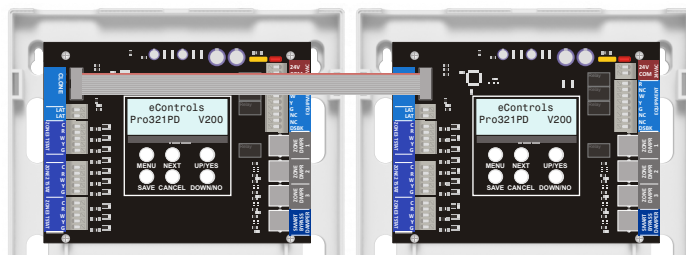
Use a heat pump thermostat in Zone1 with emergency heat control. Use any 24VAC heat/cool thermostat with W, Y and G outputs in Zones 2 and 3.

## Automatic Bypass Control

The zoning panel provides Automatic Bypass Control using the non-calling, modulating zone damper to meet CA Title24 or using an external modulating bypass damper. The panel automatically positions the bypass damper based on the size of the zone dampers, the bypass damper size, which zones are calling and how much extra CFM is acceptable for the calling zones.

## Cloning Panels

Cloning is a fast and simple way to transfer all the settings from one zoning panel to another panel in the shop or the field. Just connect the Cloning connectors on the two panels with the ribbon cable and select Cloning on the display.

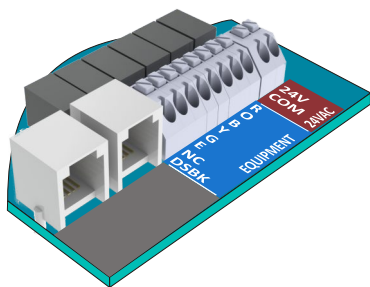


New Panel to be Cloned

Original Zoning Panel

## Push-In Terminals

Push-in, screwless terminals and Plug&Play dampers speed up installation and eliminate wiring errors.



## On-Panel LCD Display

Select "Quick Setup" or set options and display the operation of the equipment including call status, zone thermostat status, zone damper positions, bypass damper position and Leaving air temperature.



## Modulating Dampers

Modulating dampers can be positioned in 2% steps by the panel for exact bypass control. The dampers provide twice the torque of a typical spring return damper actuator and use only 2VA when positioning and less than 1VA when holding position.



LEDs indicate when the damper is fully open or closed. Multiple dampers can be used to define a zone. Electronic motor control ensures long operating life – tested to over 9 million cycles. Cables for connecting the damper to the panel are provided with each damper.

## Selecting Options

Use factory set options or use the keys and LCD display to select the options best suited to the installation.

- High and low temperature limits.
- Auxiliary heat delay.
- Purge operation
- Automatic changeover
- DSBK Option

## Selecting Auto Bypass Options

The keys and the LCD display are used to select the bypass options and settings.

- Turn automatic bypass control on or off.
- Select bypass using the non-calling dampers or an external modulating bypass damper.
- Select the zone damper sizes.
- Select the allowed increased CFM for the calling zones.
- Set the external bypass damper size.

## Competitive Zoning Panels

The Pro221PD and Pro321PD offer easier installation, lower cost and features not found in competitive zoning panels.

Honeywell

Models HZ221 and HZ321

AprilAire

Models 6302 and 6303

Zone First

Models H32P, MMP2 and MMP3

EWC Controls

Model NCM300

For installations using more than 3 zones or dual fuel heat pumps see the Pro432PD.

## Ordering Information

### Pro321PD

3-Zone Panel with Automatic Bypass Control for single stage Heat Pumps with single stage auxiliary heating.

For 3-zone, gas/electric installations, see panels Pro311PD or Pro322PD.



### Pro221PD

2-Zone Panel with Automatic Bypass Control for single stage Heat Pumps with single stage auxiliary heating.

For 2-zone, gas/electric installations, see panels Pro211PD or Pro322PD.



### Model TS2A

Leaving Air or Return Air Temperature Sensor. 2-Wire



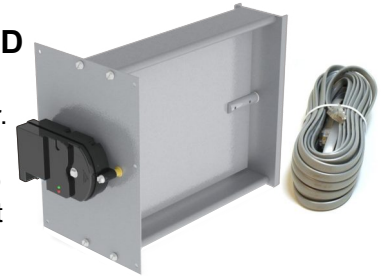
### Model R80ZJ-XX

Round, Modulating, Plug&Play Sealed Damper. Includes 25' plug&play cable. Available in 6-20 inch diameters (XX).



### Model RT80ZJ-HHxDD

Rectangular, Modulating, Plug&Play Sealed Damper. Includes 25' plug&play cable. Available in 8 x 8 to 20 x 16. Actuator on height side (first dimension).



## Other Products



### ZTWD11, ZTWD21 and ZTWD21WF

Thermostat with 2-Zone automatic comfort control, Eliminates bypass, LAT sensor and separate 24VAC transformer.



### ZCDWLR

2-Zone automatic comfort control, Eliminates bypass, LAT sensor and separate 24VAC transformer.



### ZCMWL

2-Zone manual comfort control, Eliminates bypass, LAT sensor and separate 24VAC transformer.

### Where to Purchase

Available through distribution.

### Contact Information:

949-916-0945  
Sales@eControlsUSA.com

Visit [eControlsUSA.com](http://eControlsUSA.com) to see other 2-Zone Comfort Controls and Zone Panel solutions.

### Limited 5-Year Warranty

The 5-year warranty is limited to the repair or replacement of defective product due to parts failure or defective workmanship.



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