

## Model Pro442PD

4-Zone Panel with Automatic Bypass Control

For Aftermarket

eControls



The Pro442PD 4-Zone Panel automatic controls bypass using the non-calling zone damper for CA Title24 installations or an external damper. The modulating dampers can be accurately and automatically positioned by the panel for the correct bypass.

- ▶ Eliminates having to test and calibrate Bypass.
- ▶ On-panel display for entering settings and monitoring operation.
- ▶ Push-in terminals and plug&play dampers speed up installation and reduce wiring errors.
- ▶ Works with all equipment.
- ▶ Expandable to 12 zones.
- ▶ Lower costs than competitive aftermarket panels.

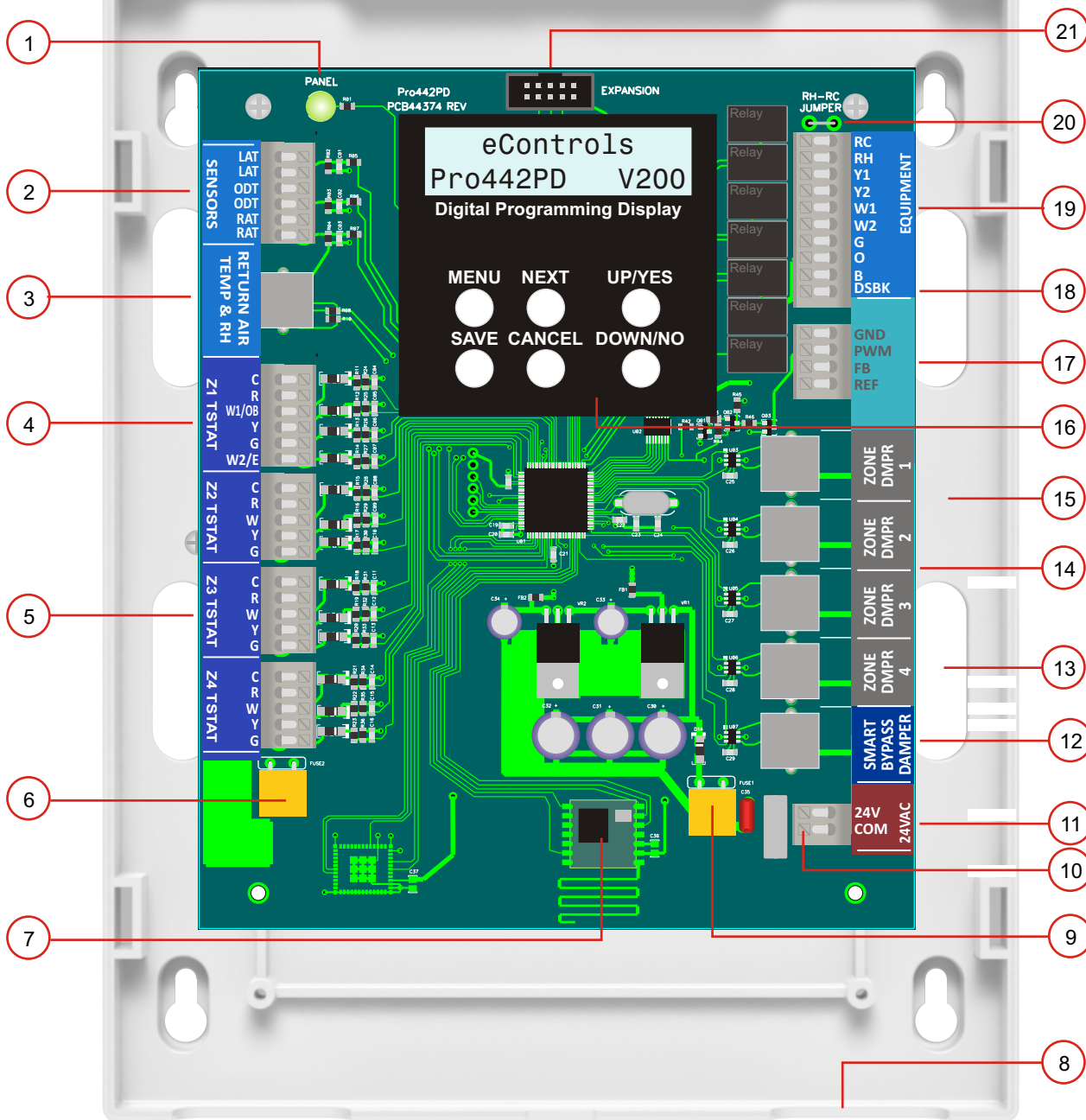


Provides the best comfort and lowest install cost.

Pat. Pend.

Proudly designed, engineered  
and assembled in the USA





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| <p>① LED indicates zoning panel status.</p> <p>② Terminals for leaving air, return air and outdoor temperature sensors.</p> <p>③ Connector P&amp;P return air humidity and temperature sensor.</p> <p>④ Terminals for Zone1 heat/cool or heat pump zone thermostat.</p> <p>⑤ Terminals for Zone2, 3 and 4 heat/cool zone thermostats.</p> <p>⑥ Automatic reset fuse for thermostats.</p> <p>⑦ Wireless 915MHz radio for wireless zone thermostats and wireless outdoor temperature sensor.</p> <p>⑧ Access at top and bottom of case for wiring.</p> | <p>⑩ Terminals are push-in, screwless type for easy wiring.</p> <p>⑪ Terminals for 24VAC power.</p> <p>⑫ Connector for external, modulating bypass damper automatically controlled by panel.</p> <p>⑬ Access for running wiring behind panel.</p> <p>⑭ Connectors for plug&amp;play zone dampers. 25-foot cables supplied with dampers.</p> <p>⑮ Wide access channels for routing wiring.</p> | <p>⑯ Backlit, 2x16 character LCD for selecting options and monitoring panel and equipment status.</p> <p>⑰ Terminals for PWM control of Lennox ECM fan or Nidec ECM motor with PWM speed control. Panel controls ECM motor speed based on demand and eliminates bypass.</p> <p>⑱ DSBK terminal for operating fan at lower speed when a limited number of zones are calling or in high humidity.</p> <p>⑲ Terminals for gas/electric, conventional and dual fuel heat pumps.</p> <p>⑳ Jumper connecting RH and RC.</p> <p>㉑ Connector for 4 or 8-zone expansion panels in separate case.</p> |
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## Compatible Equipment

Gas/electric equipment with 2-stage heating and 2-stage cooling. Conventional or dual fuel Heat pumps with 2-stage compressor and 2-stage auxilliary strip heating. O or B-type reversing valve.

## Compatible Zone1 Thermostats

Any 24VAC heat/cool thermostat with W, Y and G outputs or any 24VAC heat pump thermostat with O or B, Y, G and Emergency heat outputs.

## Compatible Zone2 ,3 and 4 Thermostats

Any 24VAC heat/cool thermostat with W, Y and G outputs.

## Zones

4 zones on panel. Expandable to 8 or 12 zones in separate case.

## Automatic Bypass Control

Automatic Bypass controlled by the zoning panel using the non-calling, modulating zone damper to meet CA Title24 (limited to 2 zones) or used with 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.

## ECM Fan Speed Control

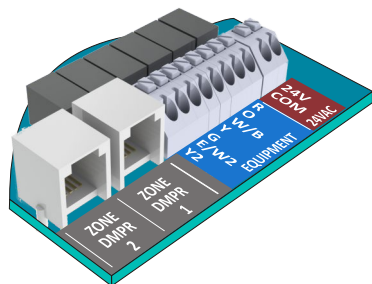
Compatible with Lennox ECM fans with PWM speed control or equipment with Nidec ECM fans with PWM fan motors. Fan speed is automatically adjusted based on the CFM demand. Eliminates installing bypass.

## Onboard 915MHz Radio

Compatible with wireless thermostats, wireless adapters and wireless outdoor temperature sensors. Eliminates running wiring within the home.

## Push-In Terminals

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



## 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 insures long operating life—tested to over 9 million cycles. Cables for connecting the damper to the panel are provided with each damper.

## On-Panel LCD Display

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



## Selecting Equipment Options

Use the factory set options or use the keys and LCD display to select the options suited to equipment type being used.

- Equipment Type.
- Stages of Heating and cooling.
- High and low temperature limits.
- Fan operation in gas heating.
- Number of zones being used.

## 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 Pro442PD offers features not found in competitive zoning panels, easier installation and lower cost.

Honeywell  
Model HZ432

AprilAire  
Models 6403 and 6404

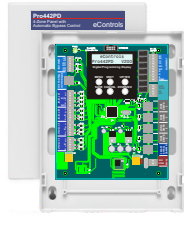
Zone First  
Models H32, H32P, MZP4, MXS4 and MDP3

EWC Controls  
Model BMPLUS3000

## Ordering Information

### Pro442PD

4-Zone Panel with Automatic Bypass Control, ECM fan control, wireless radio and expansion to 8 or 12 zones.



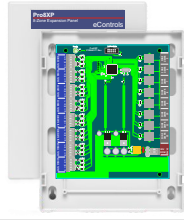
### Pro4XP

4-Zone Expansion panel with cable.



### Pro8XP

8-Zone Expansion panel with cable.



### T21 and T21WF

The T21 Touch Thermostat can operate as GE or HP thermostat. The T21WF includes WiFi with App.



### Model TS2B

Temperature Sensor, 2-Wire, Leaving Air or Return Air Sensor.



### Model TS3B

Temperature Sensor, 2-wire, Outdoor Air Sensor.



### Model TSWL

Temperature Sensor, Wireless, Outdoor Air Sensor.



### Model R80CJZ-XX

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



### T21WL

The T21WL Touch Thermostat is battery powered and can wirelessly communicate with the radio on the panel.



## Other Products

### ZCDWLB

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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