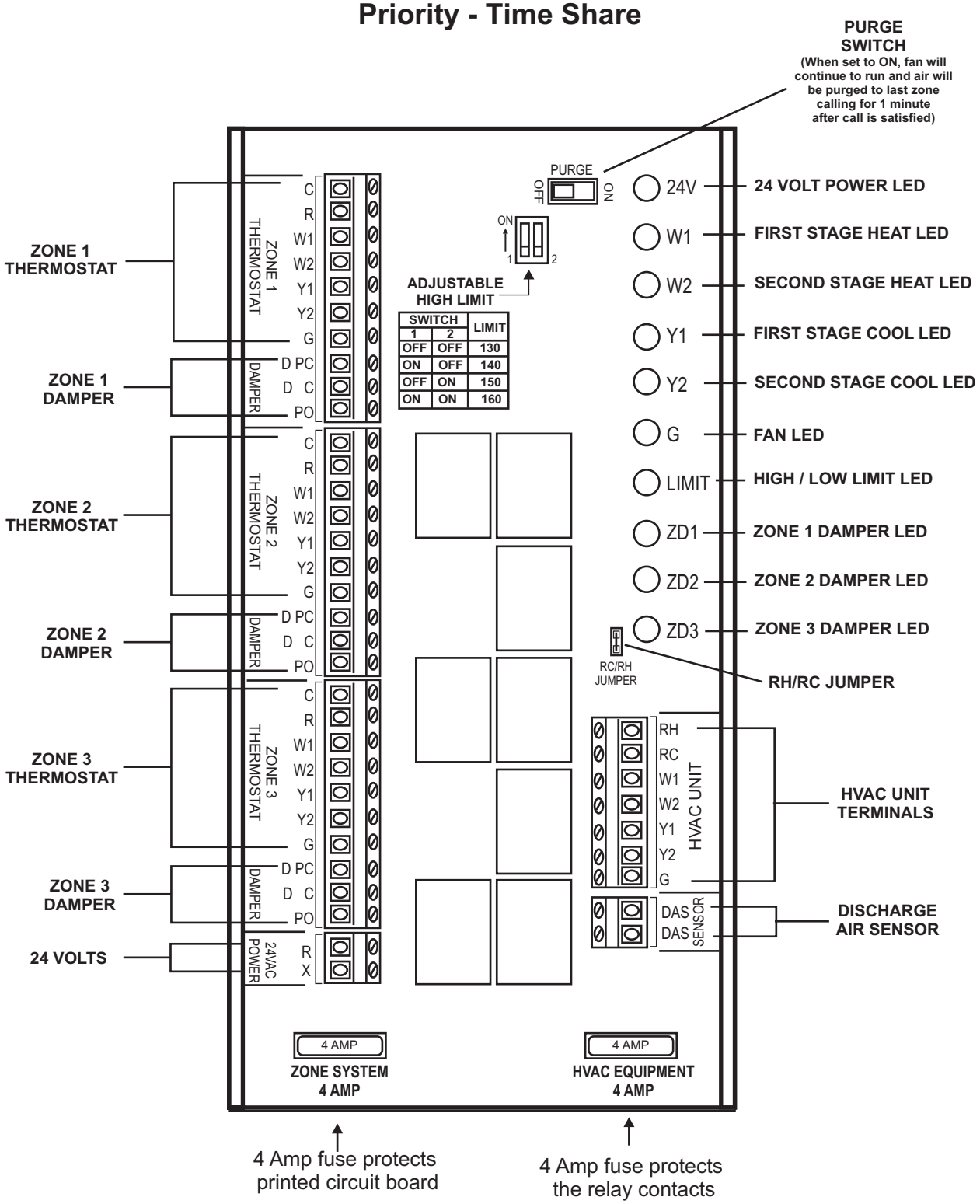
CP-3-HC Installation and Operation Instructions

2 Heat / 2 Cool - Auto Changeover First Call Priority - Time Share



FAHRENHEIT™
ZONE CONTROL SERIES

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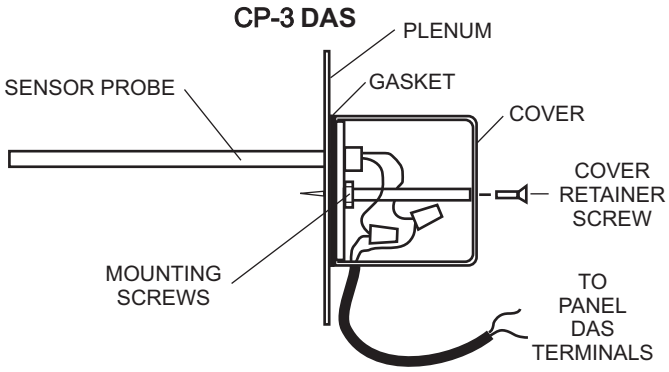
Installation

Mounting the Panel:
Carefully remove the CP-3 panel and cover from the shipping carton. Slide the PC board out of the snap track base and mount the base to a flat surface either on or near the HVAC indoor unit in an area that will facilitate easy access for wiring. Reinstall the PC board by carefully centering it over the base and snapping it back into the track groves.

Wiring the Zone Thermostats and Dampers:
Refer to the logic panel wiring diagram. Wire zone 1 thermostat and its associated damper to the ZONE 1 terminals on the logic panel. Wire zone 2 and 3 thermostats and dampers in the same manner.

Wiring the HVAC Equipment:
Wire the HVAC unit to the panel terminals. Do not wire the equipment common to the CP-3 panel.

Installing and Wiring the CP-3 DAS Discharge Air Sensor:
Drill a ½"hole in the middle of the main discharge air plenum approximately 18" downstream of the heat exchanger. Remove the CP-3 DAS cover. Slide the probe into the hole and use two self-tapping sheet metal screws to secure the base making sure that the gasket is in place. Use 18-2 thermostat wire and wire nuts to attach the sensor leads. Replace the cover and wire the sensor to the DAS terminals on the CP-3 panel.



Wiring the Transformer:
Wire a separate 24 Volt transformer of the proper VA to the logic panel terminals marked (X) and (H). Do not power the panel up until all wiring is completed.

Test, Check and Startup:

1. Verify that all component wires have been connected to the proper terminals and are secure.
2. Disconnect the HVAC equipment (R) terminal wire at the panel and apply 24 Volts to panel.
3. Take a jumper wire and momentarily short the DAS terminals. This will put the panel's time delays in "speed up" mode.
4. Place the zone thermostats in the OFF position.
5. Place zone 1 thermostat in the heating mode and have the thermostat call for heat. Confirm that (ZD1) LED is ON and that (W) LED is ON. Confirm that zone 1 damper is open and zone 2 and 3 dampers are closed. There will be no voltage across zone 1 (D) and (D) terminals and 24 volts on zone 2 and 3 (D) and (D) terminals.
6. Put zone #1 thermostat in the cooling mode and have the thermostat call for cooling. Confirm that (ZD1) LED is ON and that the (Y) and (G) LEDs are ON. If the thermostat has internal time delays, the cooling call may not activate immediately.
7. Turn zone1thermostat off and repeat steps 5 and 6 with the zone 2 and 3 thermostat. Remember, the zone calling will have its damper open and there will be no voltage on the (D) and (D) terminals for that zone.
8. Determine the ventilation mode of each zone thermostat by setting the thermostats in the Fan AUTO or ON mode.
9. Remove 24 Volts to the panel and reconnect the HVAC (R) wire.
10. When 24 Volts is again applied to the panel, the internal time delays will be activated.
11. Confirm that the LIMIT LED is ON. If not, check LIMIT wiring. If the system goes out on high or low limit, the LIMIT LED will blink.

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Specifications

Panel Dimensions:
Height: 8.0 Inches
Width: 6.0 Inches
Depth: 1.375 Inches

Mounting:
Snap Track with 2 back plate screws

Operating Temperature Rating:
-40° F to 150° F

Operating Humidity:
5% to 90% RH non-condensing

Wiring:
18-gauge wire for all equipment and system connections

Time Delays:
3 minutes minimum off between cooling calls
3 minutes minimum off on low limit
20 minute time share
Purge ON = 1 minute

Thermostats:
Single or multi-stage heat / cool
Programmable or non-programmable
Auto or manual changeover

Terminal Designations

Thermostats:

C	24Vac (Common)
R	24Vac (Hot)
W1	First Stage Heat
W2	Second Stage Heat
Y1	First Stage Cool
Y2	Second Stage Cool
G	Fan

Dampers:

D PC	Powered Closed
D C	Common
PO	Powered Open

High / Low Limit

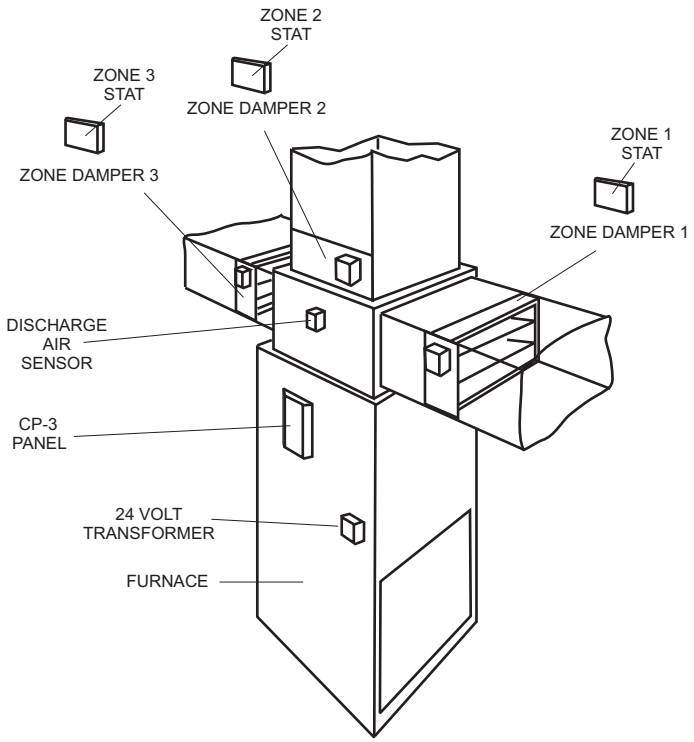
DAS	Discharge Air Sensor
DAS	(2 wire)

HVAC Equipment:

RH	24Vac Heating Transformer
RC	24Vac Cooling Transformer
W1	First Stage Heat
W2	Second Stage Heat
Y1	First Stage Cool
Y2	Second Stage Cool
G	Fan

Panel Power:

R	24Vac (Hot)
X	24Vac (Common)



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