Installation Instructions

Power Exhaust Part No: CRPWREXH033B00, CRPWREXH034B00, CRPWREXH035B00

Barometric Relief Part No: CRBARRLF003A01

SAFETY CONSIDERATIONS

Installation of this accessory can be hazardous due to system pressures, electrical components, and equipment location (such as a roof or elevated structure). Only trained, qualified installers and service technicians should install, start-up, and service this equipment.

When installing this accessory, observe precautions in the literature, labels attached to the equipment, and any other safety precautions that apply:

- Follow all safety codes
- Wear safety glasses and work gloves
- Use care in handling and installing this accessory

It is important to recognize safety information. This is the safety-alert symbol: ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices, which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

⚠ WARNING

Turn off main power to the unit and tag disconnect switch before performing service or maintenance operations. Electrical shock could cause personal injury or death.

GENERAL

IMPORTANT: The power exhaust accessory requires the use of the economizer. Power exhaust will not operate without the use of an economizer.

IMPORTANT: In order to field install Power Exhaust, the 48/50K unit must have "Power and Control Accessory" selected. Otherwise, it will not work.

An economizer is required to install the barometric relief or power exhaust accessories on 48/50K Series units. See Table 1 for power exhaust package usage. See Table 2 for a complete list of parts contained in each kit. The power exhaust blowers are shipped assembled and packaged one hood assembly per container.

NOTE: The 48/50K sizes 20-50 units require 2 assemblies per unit; 48/50K size 60 unit require 3 assemblies per unit.

Each hood assembly has 2 power exhaust blowers. Brackets, wires, and extra gasket screws are also included in the package.

In addition to field installing the power exhaust accessory, 48/50K series units must include the factory-installed option for "Power and Control for Accessory Multi-Stage Power Exhaust with BP Control."

⚠ CAUTION

When removing panels from the unit, be careful not to damage roof or other surfaces with the panels.

Table 1 — Power Exhaust Package Usage

UNIT	UNIT SIZE	PART NO.	VOLTAGE	NO. REQUIRED
48/50K[a]	20-50	CRPWREXH033B00	208/230-v	2
	60			3
	20-50	CRPWREXH034B00	400-v and 460-v	2
	60			3
	20-50	CRPWREXH035B00	575-v	2
	60			3

NOTE(S):

a. For 48/50K Series units, to field install Multi-Stage Power Exhaust accessory, the unit must be selected and shipped with factory-installed "Power and Control for Accessory Multi-Stage Power Exhaust with BP Control" option.

Table 2 — Power Exhaust/Barometric Relief Parts List

ACCESSORY KIT PART NUMBER	ITEM DESCRIPTION	QTY
CRBARRLF003A01	Relief Damper Assembly	1
	Seal Strip (1/8" x 3/4" x 84")	1
	Seal Strip (1/8"x 1-5/16" x 51")	1
	Screw (1/4"-14 x 3/4")	16
	Side Blockoff (48EJ500314)	2
	Support Panel (48EJ500276)	1
CRPWREXH033B00 CRPWREXH034B00, CRPWREXH035B00	Power Exhaust Hood Assembly	1
	Seal Strip (1/8" x 3/4" x 42")	1
	Seal Strip (1/8" x 1-5/16" x 2")	3
	Gasketed Screws	12
	Side Blockoff (48EJ500314)	2
	Support Panel (48EJ500276)	1
	Extension Harness (120"- 48VA002173)	1
	Extension Harness (190"- 48VA002174)	1

INSTALLATION

Power Exhaust

VERTICAL DISCHARGE UNITS (48/50K2, K3)

1. Unpack accessory packages.

   NOTE: For 48/50K sizes 20-50 units, 2 accessory packages are required. For 48/50K 60 units, 3 accessory packages are required. Installation will be repeated for each package.
2. Disconnect power to unit.
3. If the economizer hoods have been installed, perform the following:
   a. Remove the filters from the economizer hoods.
   b. Remove the 5 screws from the bottom of the economizer and 3 screws on each side of the economizer. Save screws.
   c. Remove the upper panel by pulling out the economizer assembly at the bottom to release the upper panel. Save all screws.
   d. Remove the lower panel. Save all screws.
   e. There are 2 economizer hoods and 4 panels on size 20-50 units. There are 3 economizer hoods and 6 panels on size 60 units. Repeat this step for each economizer hood and panel.

   If the economizer hoods have not been installed, remove the upper and lower panels covering each return air section. See Fig. 1 for panel locations. Save all screws. There are 2 economizer hoods and 4 panels on size 20-50 units. There are 3 economizer hoods and 6 panels on size 60 units. Repeat this step for each economizer hood and panel.
4. Install top support panel provided. Use 3 screws on each side and 5 screws across top previously removed from existing upper panel. If screws were removed in Step 3, install 3 screws on economizer sides and replace economizer filter. See Fig. 2 for support panel installation.
5. Place hood assembly close to unit. Plug the motor harness into mating plug in the center damper support. See Fig. 3-5 for harness plug locations and wiring.
6. Set the hood assembly into the opening (top lip first) underneath the support panel installed in Step 4.
7. Lift the assembly to allow bottom corner tabs to hook over the base rail. See Fig. 6 for hood bracket placement.
8. Install 3 screws (saved in Step 3) along the top of hood and through support panel.
9. Install the two side blockoff brackets on each side of the hood assembly with 6 gasketed screws provided (3 each side).
10. Install 3 gasketed screws (previously removed in Step 3) along the bottom of power exhaust assembly. See Fig. 6 for bracket locations.
11. Repeat Steps 3 through 10 for the other hood assemblies.
12. Remove tape from damper blades.
13. Variable air volume (VAV) units and units with power exhaust with building pressure (BP) control include pressure transducers for measuring the duct supply pressure (SP) or building pressure (BP) that require field supplied pneumatic tubing and pressure pickup ports. The pressure transducers are in an auxiliary control box, accessible through the filter access door. See “Unit Opening” in Fig. 8 for location of main door where access to auxiliary box is located. See Fig. 9 for pressure transducer locations.

HORIZONTAL DISCHARGE UNITS (48/50K4, K5)

1. Unpack accessory package. The support panel is not used and may be discarded.
2. Disconnect power to unit.
3. The return air duct requires openings of 45-1/4 in. wide by 23-3/16 in. high (on the side) for the number of accessories ordered. See Fig. 7 for mounting dimensions. Ensure that the transition required to accommodate these openings begins at least 3-1/2 ft away from the outdoor-air hood.

   NOTE: Any obstruction closer than 3-1/2 ft will interfere with the airflow and result in rain entering the hood through the filters. See Fig. 8 for power exhaust locations and duct opening dimensions.
4. Drill engagement holes for 1/4 in. screws around openings as shown in Fig. 7.
5. Place first hood assembly close to openings in ductwork, plug extension harness into one end of the motor harness. Plug the other end of the extension harness into the mating plug in the center damper support. See Fig. 3-5 for harness plug locations and wiring.

   NOTE: Two extension harnesses are supplied in the kit (120 in. and 190 in.). The 190 in. harness may be required when 3 packages are installed as the distance from the unit may be greater than 120 inches.
6. Set the hood assembly into the opening, top lip first.

7. Lift the assembly to allow bottom corner tabs to hook over the opening in ductwork.
8. Install 3 gasketed screws provided, along the top of hood.
9. Install two side blockoff brackets on each side of the hood assembly with 6 gasketed screws (3 each side) provided.
10. Install 3 gasketed screws provided, along the bottom of hood.
11. Repeat Steps 3 through 10 for the other hood assemblies.
12. Remove tape from damper blades.
13. Variable air volume (VAV) units and units with power exhaust with building pressure (BP) control include pressure transducers for measuring the duct supply pressure (SP) or building pressure (BP) that require field supplied pneumatic tubing and pressure pickup ports. The pressure transducers are in an auxiliary control box, accessible through the filter access door. See Fig 9 for pressure transducer locations.

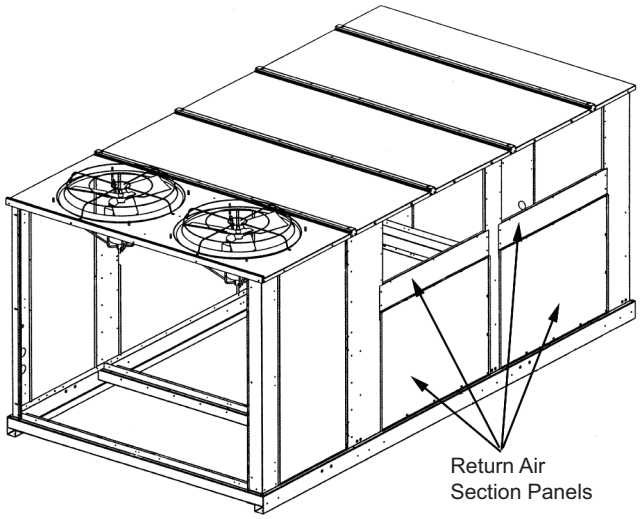


Fig. 1 — Typical Panel Locations (48/50K Size 20 Unit Shown)

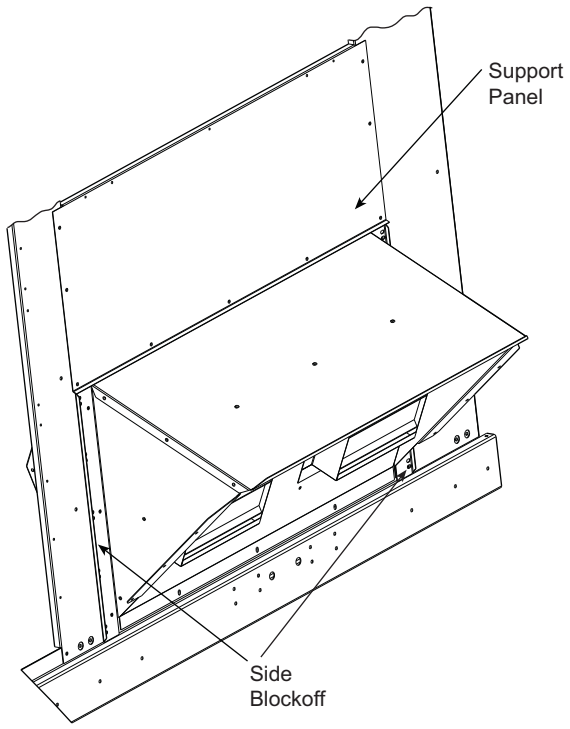


Fig. 2 — Support Panel Installation

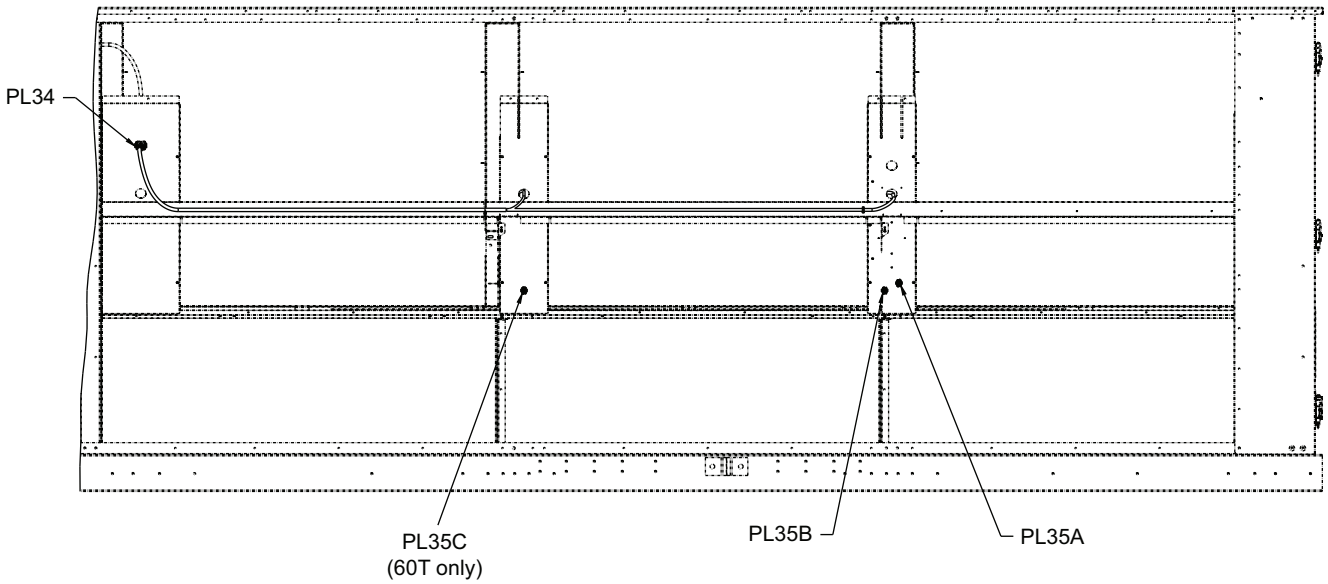


Fig. 3 — Wire Harness Plug Locations

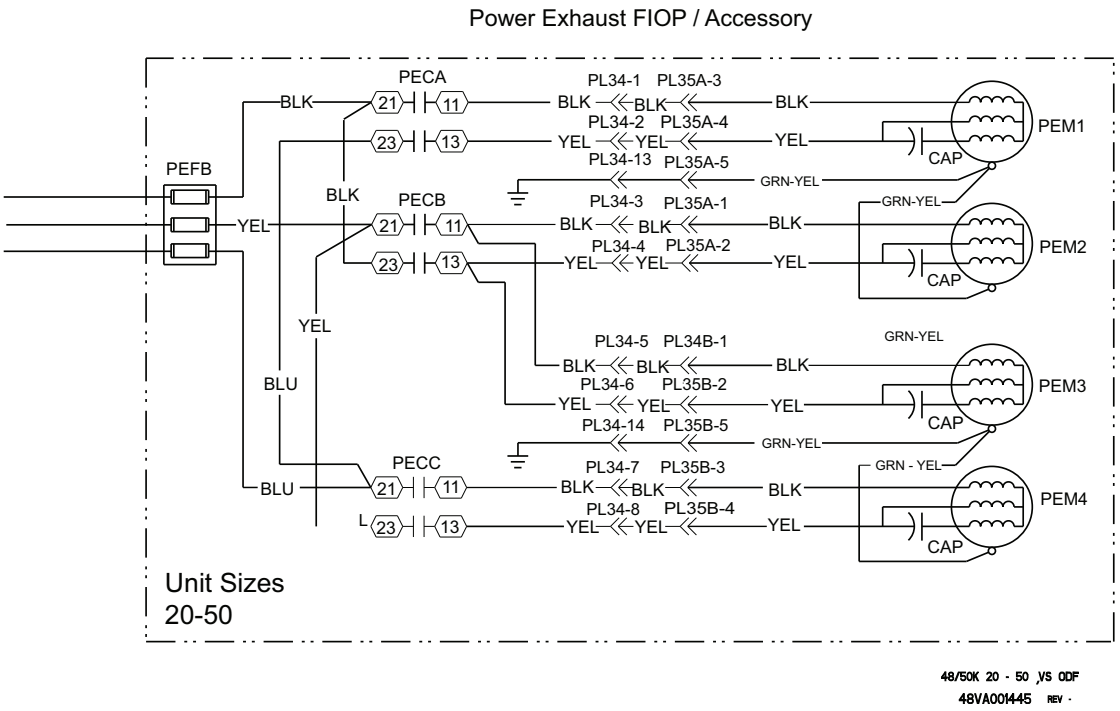


Fig. 4 — Power Exhaust Wiring (Size 20-50 Units)

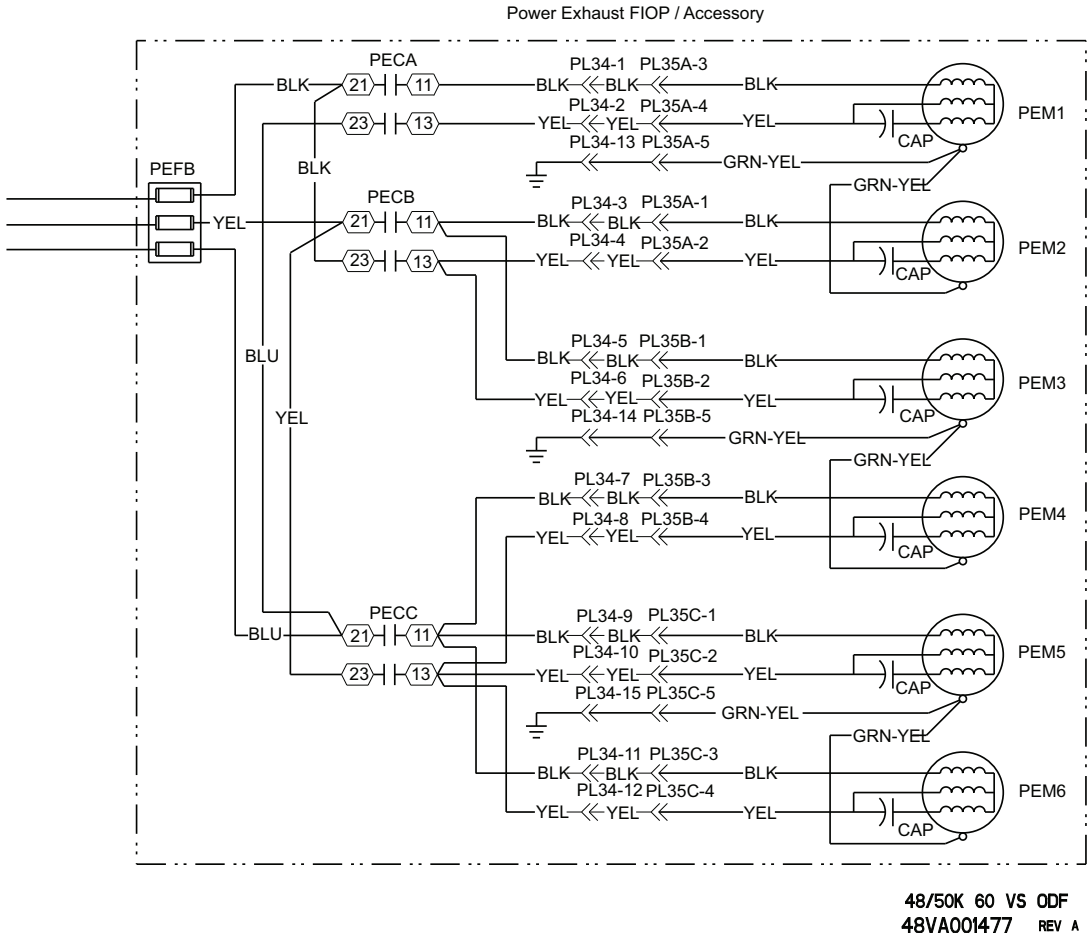


Fig. 5 — Power Exhaust Wiring (Size 60 Unit)

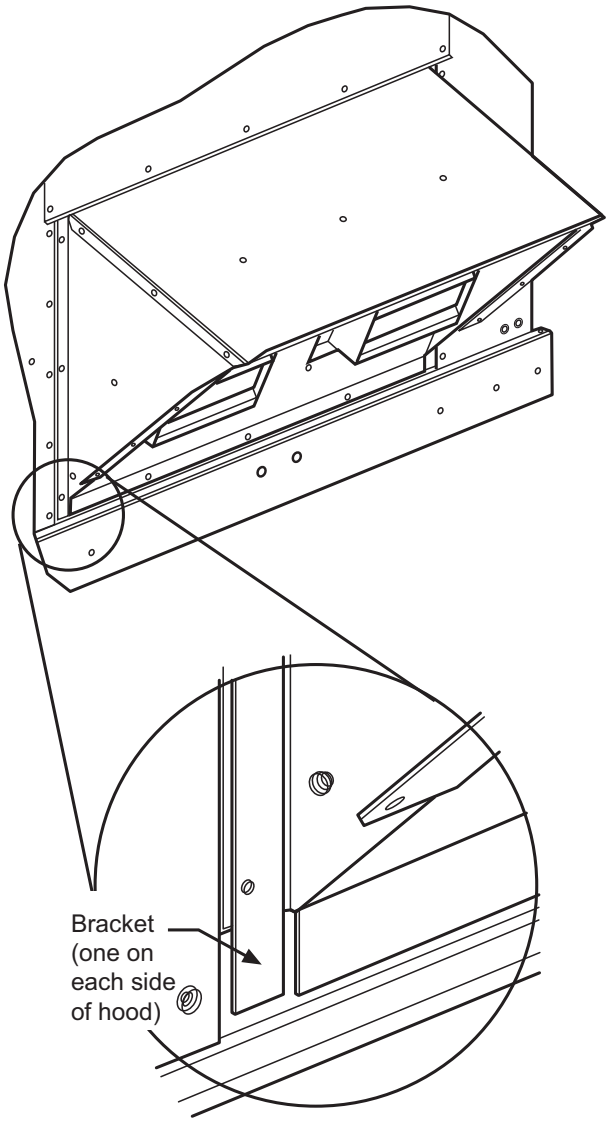
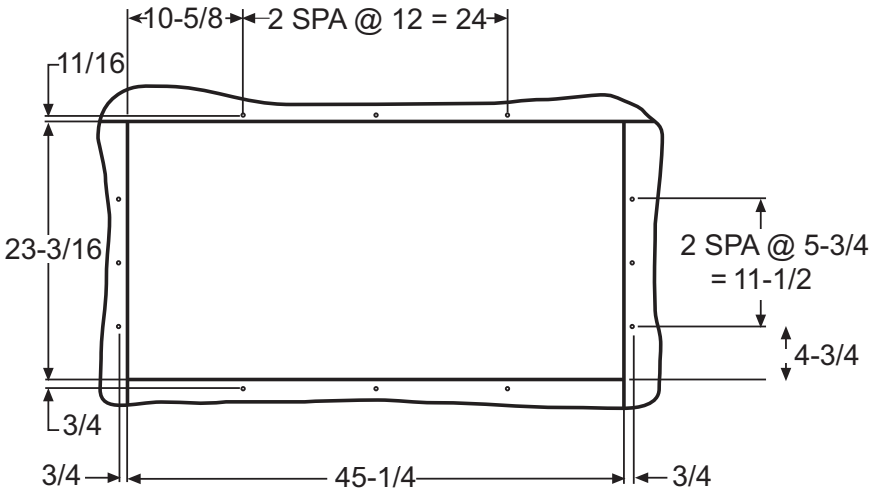
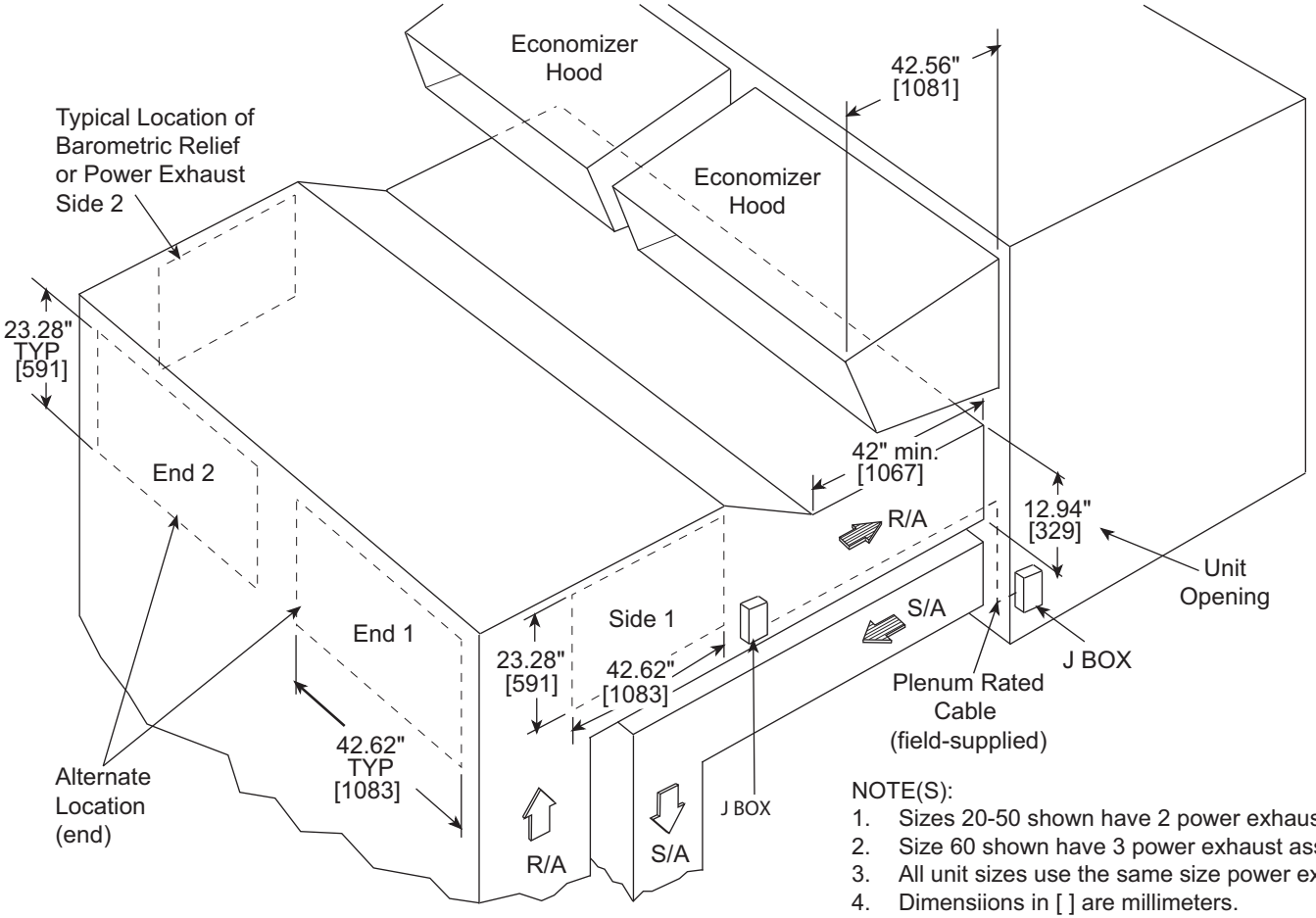


Fig. 6 — Hood Assembly Placed in Unit



NOTE: Dimensions are in inches.

Fig. 7 — Horizontal Discharge Mounting Opening



NOTE(S):
1. Sizes 20-50 shown have 2 power exhaust assemblies.
2. Size 60 shown have 3 power exhaust assemblies.
3. All unit sizes use the same size power exhaust assembly.
4. Dimensiions in [ ] are millimeters.
5. The return air temperature (RAT) sensor and return air relative humidity sensor, located in the return section of the unit, must be relocated upstream of the power exhaust in the return ductwork. Additionally, the duct pressure sensing tubing needs to be moved to a position before the power exhaust as well.

Fig. 8 — Power Exhaust Location on Side Return Duct

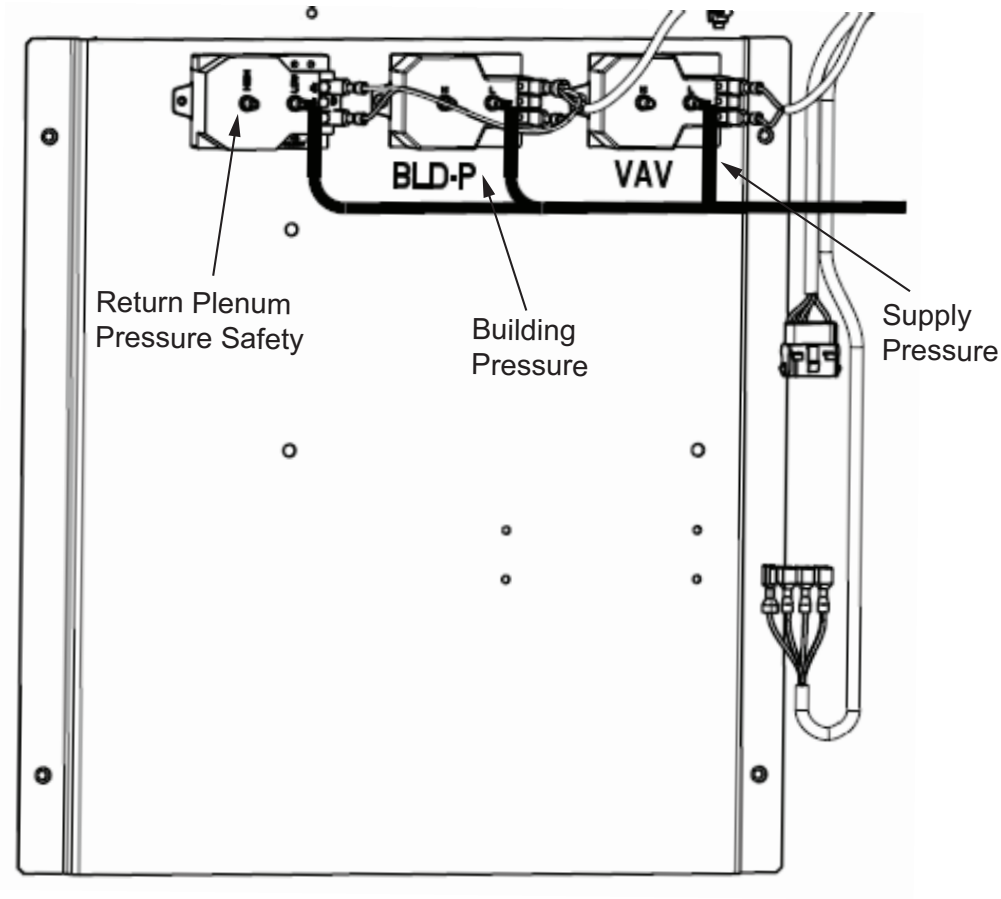


Fig. 9 — 48/50K Pressure Transducers in Auxiliary Control Box

Barometric Relief Damper

1. Remove return air section panel. Save screws for reuse. Refer to Fig. 1 for panel locations.
2. Position the barometric relief assembly at return air section of unit. Add seal strip to the edges of the hood assembly. See Fig. 10 for seal strip locations. The long piece of seal strip is for the top and bottom. The short piece is for the two sides.
3. Place the barometric relief assembly into the unit. The accessory should pivot on the unit end panel. See Fig. 11 for location of pivot point.
4. Fold barometric relief assembly back into the unit. See Fig. 12 for assembly.
5. Install the side blockoffs using the screws included (no. 14-10 x 7/8 in.). Be sure to properly position the hood. See Fig. 13 for positioning.
6. Tilt the assembly out of the unit and into final operating position. See Fig. 14 for proper positioning of the assembly.
7. Secure the assembly using the screws removed from Step 1.
8. Two barometric relief packages are used for 48/50K sizes 20-50 units. Three barometric relief packages are used for 48/50K size 60 unit. Repeat Steps 1-7 for additional barometric relief dampers.

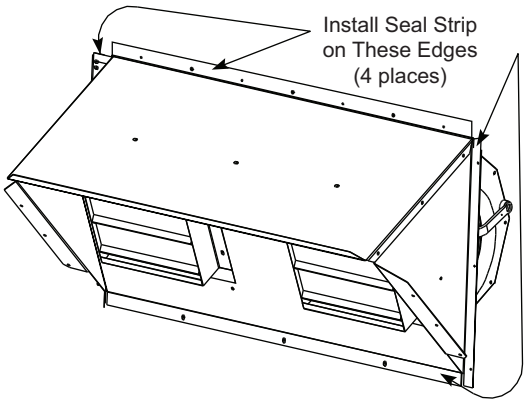


Fig. 10 — Hood Assembly

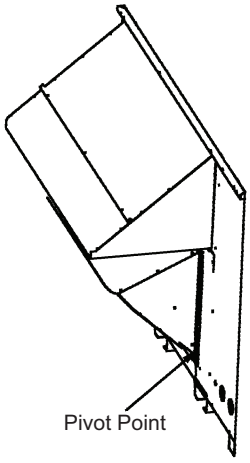


Fig. 11 — Pivot Point on Unit Panel

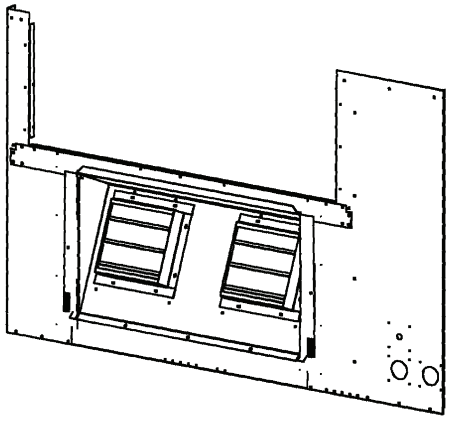


Fig. 12 — Power Exhaust/Relief Damper Assembly (Shown Folded)

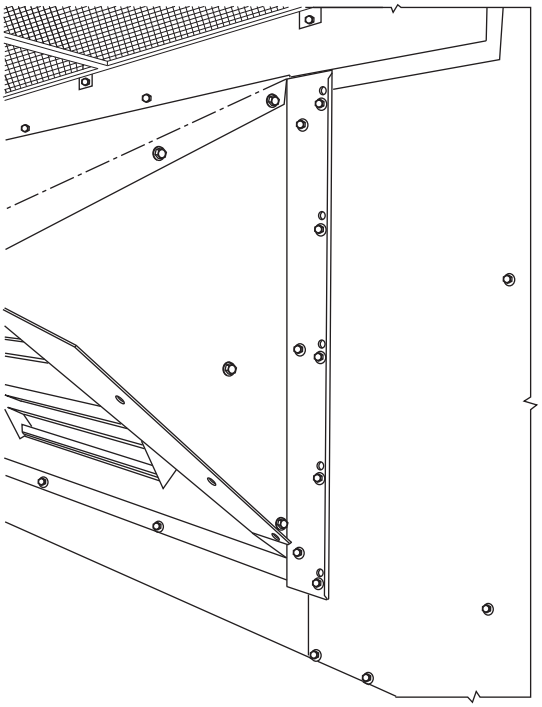


Fig. 13 — Blockoff and Hood Positioning

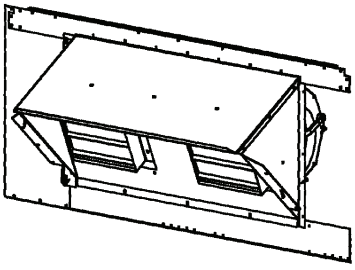


Fig. 14 — Assembly in Operating Position