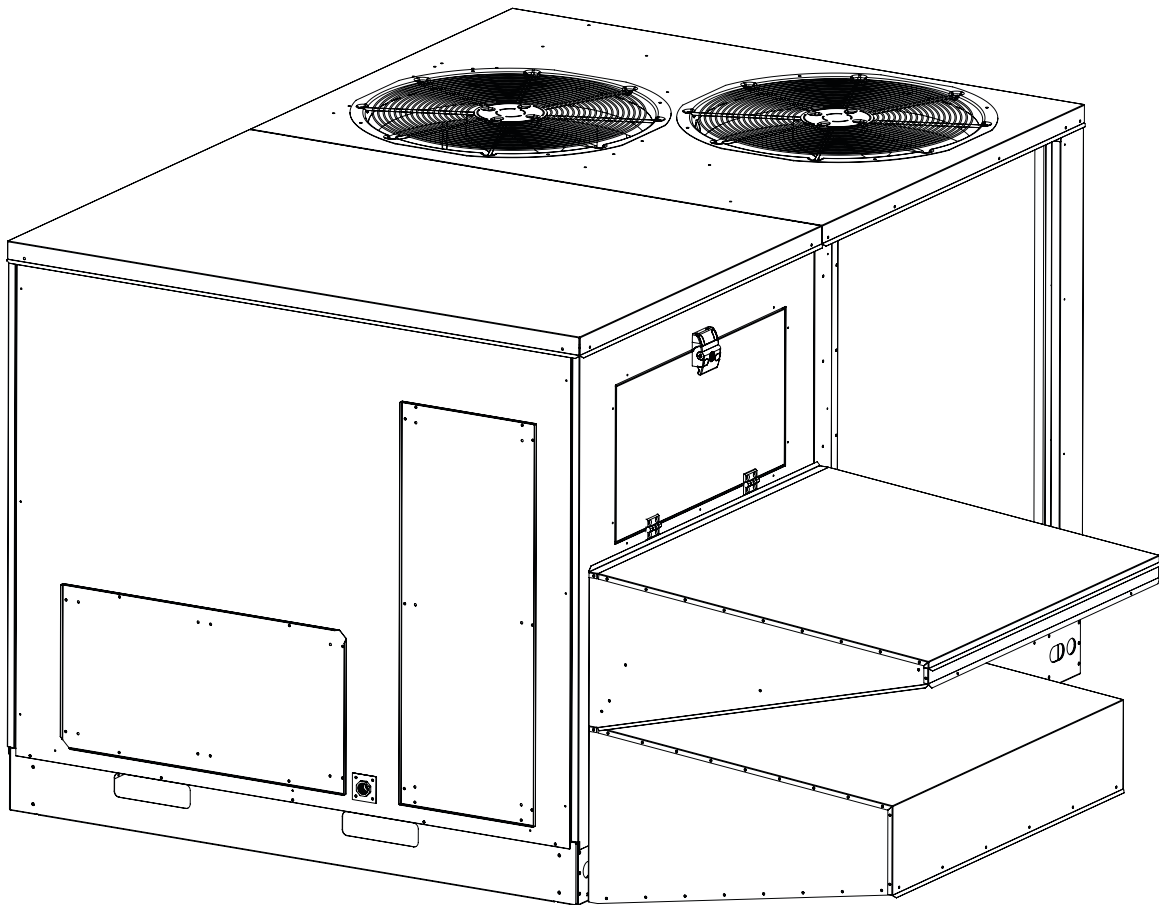


Power Exhaust Kit for P7TQ, Q7TQ & R7TQ Series

INSTALLATION INSTRUCTIONS



IMPORTANT

ATTENTION INSTALLERS:

It is your responsibility to know this product better than your customer. This includes being able to install the product according to strict safety guidelines and instructing the customer on how to operate and maintain the equipment for the life of the product. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Pay attention to all safety warnings and any other special notes highlighted in the manual. Improper installation of the furnace or failure to follow safety warnings could result in serious injury, death, or property damage.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Please read all instructions carefully before starting the installation. Return these instructions to the customer's package for future reference.

DO NOT DESTROY. PLEASE READ CAREFULLY & KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

IMPORTANT SAFETY INFORMATION

Please read all instructions before servicing this equipment. Pay special attention to all safety warnings and any other special notes. Safety markings are used frequently throughout these notes. Safety markings are used frequently throughout these instructions to designate a degree or level of seriousness and should not be ignored.

WARNING indicates a potentially hazardous situation that if not avoided, could result in personal injury or death.

CAUTION indicates a potentially hazardous situation that if avoided, may result in minor or moderate injury or property damage.

WARNING:

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury or property damage.

Improper servicing could result in dangerous operation, serious injury, death or property damage.

- Before servicing, disconnect all electrical power to furnace.
- When servicing controls, label all wires prior to disconnecting. Reconnect wires correctly.
- Verify proper operation after servicing.

WARNING:

The safety information listed below must be followed during the installation, service, and operation of this furnace. Unqualified individuals should not attempt to interpret these instructions or install this equipment. Failure to follow safety recommendations could result in possible damage to the equipment, serious personal injury or death.

CAUTION:

To avoid personal injury or property damage, make certain that the motor leads do not make contact with any uninsulated metal components of the unit.

- Before beginning the installation, verify the unit model number. The unit model is printed on the data label.
- Follow all precautions in the literature, on tags and labels provided with the equipment. Read and thoroughly understand the instructions provided with the equipment prior to performing the installation and operational checkout of the equipment.

- Use caution when handling this equipment or removing components. Personal injury can occur from sharp metal edges present in all sheet metal constructed equipment.
- Before installation, verify that the economizer ordered is the appropriate size for the unit.
- Inspect packing for damage or forced entry.
- Verify that all parts requested are accounted for. See Table 1 and Figure 8 (page 6).

ABOUT THE KIT

The power exhaust can be used in down flow economizer applications. This power exhaust is designed to relieve excess pressure that may occur with economizers or certain building conditions. All fan motors are recognized by UL. Permanently lubricated ball bearing and motor overload protection are standard.

These instructions pertain both to the field installed and factory installed Power Exhaust options (hereafter referred to as the "PE"). Due to shipping requirements, factory installed power exhaust hoods are shipped loose, with the wiring internal to the unit completed.

These instructions supplement those in 1011418 economizer kit, a required accessory to the PE. Ideally this installation should be conducted after all the steps from the economizer installation are completed, except for the installation of the barometric relief hood.

P/N	DESCRIPTION	QTY
1012664	Power Exhaust Hood Top	1
1012665	Power Exhaust Hood Bottom	1
1012666	Power Exhaust Hood Right Side	1
1012667	Power Exhaust Hood Left Side	1
1012893	Power Exhaust Fan Brace	1
667364	Fan Blade, 3 Propeller (072 Model)	1
271835	Fan Blade, 4 Propeller (090-150 Models)	1
205628	3/4 HP Fan Motor (208-460V)	1
622545	Capacitor (208-460V)	1
1012078	3/4 HP Fan Motor (575V)	1
622549	Capacitor (575V)	1
285934	Capacitor Strap	1
157107	Motor Mount	1
1013109	Neoprene Isolator	4
669335	Fan Grill	1
295481	Fan Orifice	1
624830	Contactora, 2 Pole	1
1012668	Contactora Bracket	1
038157	Strain Relief Bushing, Snap-in	1
1013012	Liquid Tight Fitting, 1/2"NPT	1
1013752	Installation Manual	1
600255	#10 - 24 UNC x 1/2"lg, Sheet metal Screw	70
600223	5/16 - 18 UNC x 3/4"lg, Hex Head Cap Screw	8
612011	5/16" Flat Washer	12
631591	Tie Wrap - 6"	6
606291	1/2" Nylon Clamp	6
631337	Closed End Wiring Connector	5

Table 1. Materials List

KIT INSTALLATION

1. Verify that the MCA and MOP of the installed unit will not be affected appreciably by the addition of the PE option.
2. Unpack and inspect all components for completeness and shipping damage. **If any component is damaged, report it immediately to the last carrier so that a claim can be made against the transportation company.**
3. Open and lock the unit disconnect switch before attempting to install this accessory.

NOTE: If this PE Option was factory installed, skip to **step 9** of these instructions.

4. Open the control compartment access doors and identify the mounting location of the PE contactor and bracket. Now install the PE contactor and bracket using the provided screws as shown in Figure 1.



Figure 1. Contactor Location

5. Using the supplied wiring leads, connect the tapped power wires from the unit terminal block to the line (right) side of the contactor and the 24 V control wires as shown in the wiring diagram. See Figure 7 (page 5).
6. Locate the two unused black wires in the compressor compartment. Remove the tie wraps securing them. Route the wires into the control compartment through the opening beneath the PE contactor.
7. Connect the 1/4"QC terminals of the two black wires to the load (left) side of the PE contactor. Secure any loose wires with the provided tie wraps. See Figure 2.
8. Move to the economizer section of the unit. Now locate and remove the 1/2"dia. knockout on the economizer damper left side.

⚠ CAUTION:

To avoid personal injury, two people are required to install the hood.

9. Remove the PE hood top from the hood assembly. Now working beneath the economizer intake hood, install the PE side panels and fan (lower) panel.

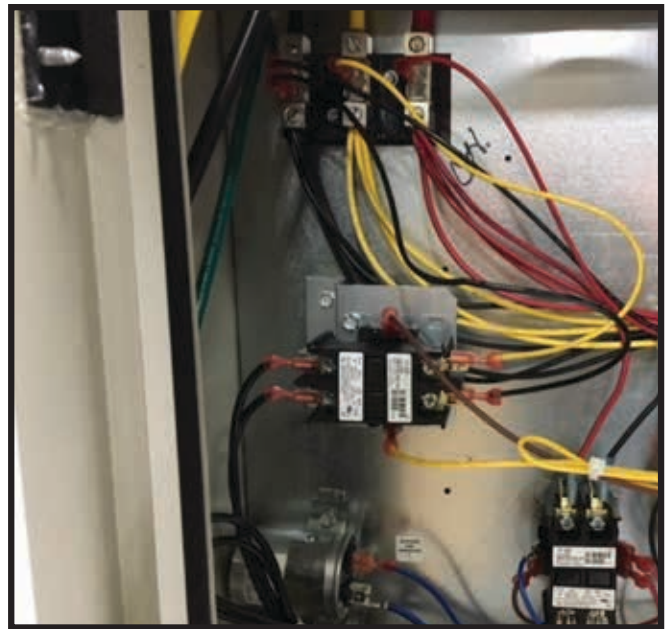


Figure 2. Power Wire Location

10. Install the capacitor bracket, brace, fan shroud and guard.
11. Install (4) vibration isolators in the fan panel, ensuring that the outward lower bolts pass through the brace.

⚠ CAUTION:

Misalignment of the motor and blade spacing will cause the blade to contact the grille, shroud and / or basket, causing damage and possible personal injury.

12. Install one washer on each bottom bolt. **NOTE:** Measure and confirm that the motor and blade spacing matches the to within +/- 1/16" as shown in the Power Exhaust Assembly drawing (no. D303199). See page 6.
13. Install the fan subassembly as shown in Figure 3. **NOTE:** Fan assembly may be pre installed.

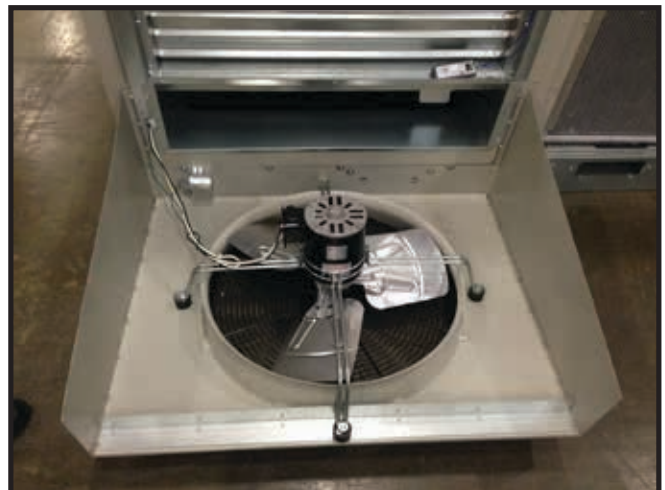


Figure 3. Fan Subassembly Installed



Figure 4. Two Pin AMP Plug Location

14. Install two washers on each top bolt.
15. Using a long tool, (such as a screwdriver), manually spin the fan blade to verify that no moving part contacts any other parts. Now wait for the fan to stop spinning before proceeding to the next step.
16. Locate the two-pin AMP plug in the upper right side of the filter compartment and remove any tie wraps securing the plug and wires. See Figure 4.
17. Connect the mating AMP plug from the PE kit. Route and secure the two black wires to the PE fan assembly as shown in Figure 5. **NOTE:** Make sure to install the provided strain relief bushing in the 1/2" dia. knockout removed in step 8.

NOTE: It may be required to use fish tape or similar to route the wires through the 1/2" dia. knockout.

18. Install the 1/2"NPT bushing into the motor connection box. Route the two (2) black wires through the bushing. Remove the motor connection box cover and make the wiring and capacitor connections per the supplied wiring diagram. Reference the motor connection box cover for the wiring based on supply voltage. Use the provided closed end connectors.
19. Replace the motor connection box cover. Secure the wiring using the provided tie wraps. Recheck the fan rotation and clearance as per instructions in steps 10 & 11.
20. Verify that all the connections are correct.
21. Install the PE hood top panel and close all access panels. See Figure 6.
21. Return power to the unit and setup the economizer controller for PE operation as follows:
 - a.) Verify that there is not a call for heat, cooling or blower.
 - b.) Review the manual for the Honeywell Jade™ Economizer Module to determine the basic operating procedures and the menu structure.
 - c.) Open the filter access door, it contains the Honeywell Jade™ Economizer Module.
 - d.) Navigate to the "STATUS" menu and "EXH1 OUT" parameter. Toggle this parameter from "OFF" to "ON".

- e.) Navigate to the "CHECKOUT" menu and initiate the "DAMPER OPEN" test. Verify that the damper opens fully and that the exhaust fan energizes.
- f.) Navigate to the "SET POINTS" menu and then to the "EXH1 SET" parameter. Toggle this parameter from "50" to "80".
- g.) Return to the main menu; the PE is now configured to energize at the 80% damper command setting. If the building conditions dictate, the "EXH1 SET" value may be changed to reduce the building pressures at a lower command percentage.
- h.) Close the filter access door. Verify and adjust the building S.P. and unit cfm as needed.
- i.) Place the unit back in service. Store all the Economizer and PE literature with the unit manuals.



Figure 5. Connector Connection



Figure 6. Final Assembly

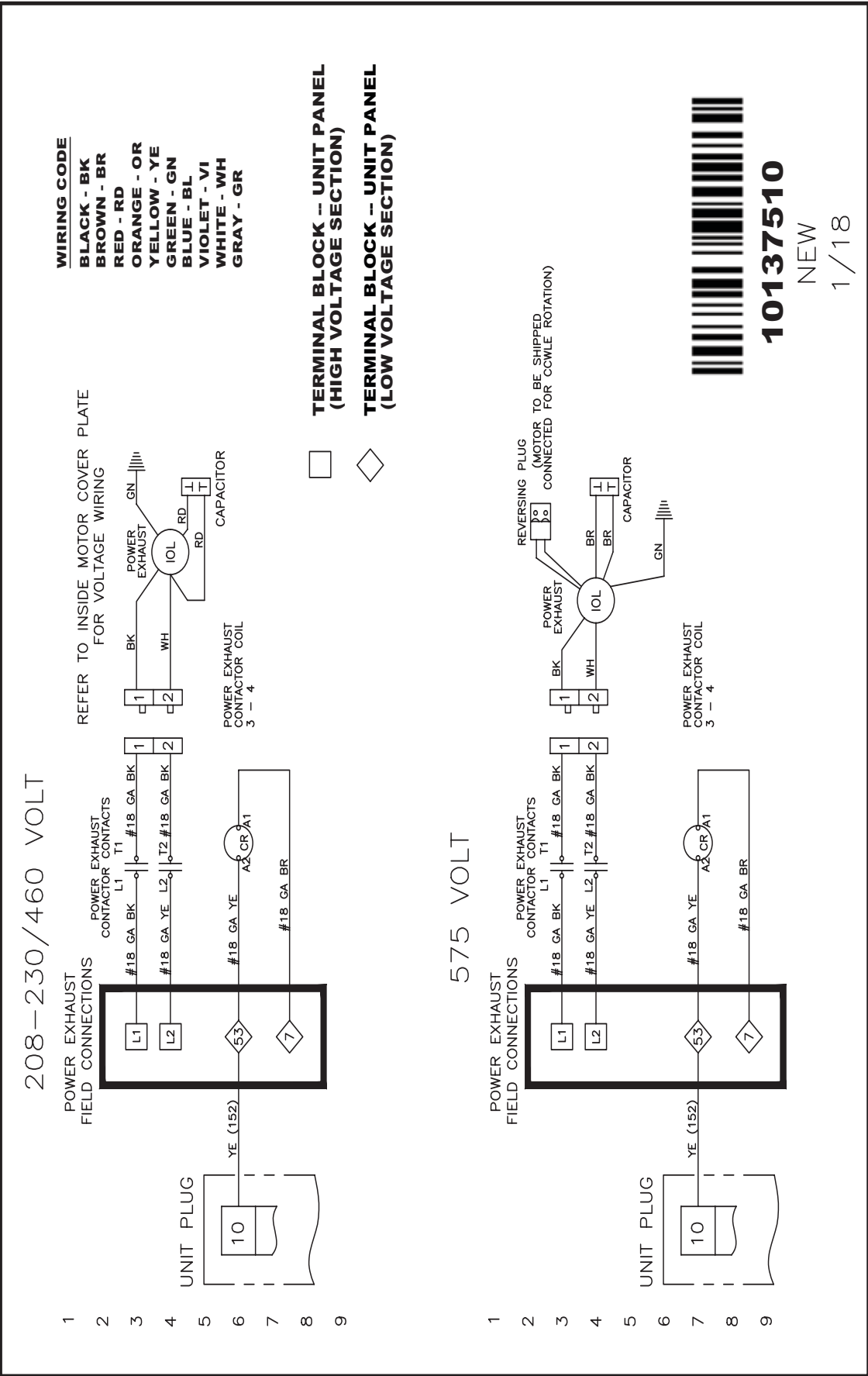


Figure 7. Wiring Diagram

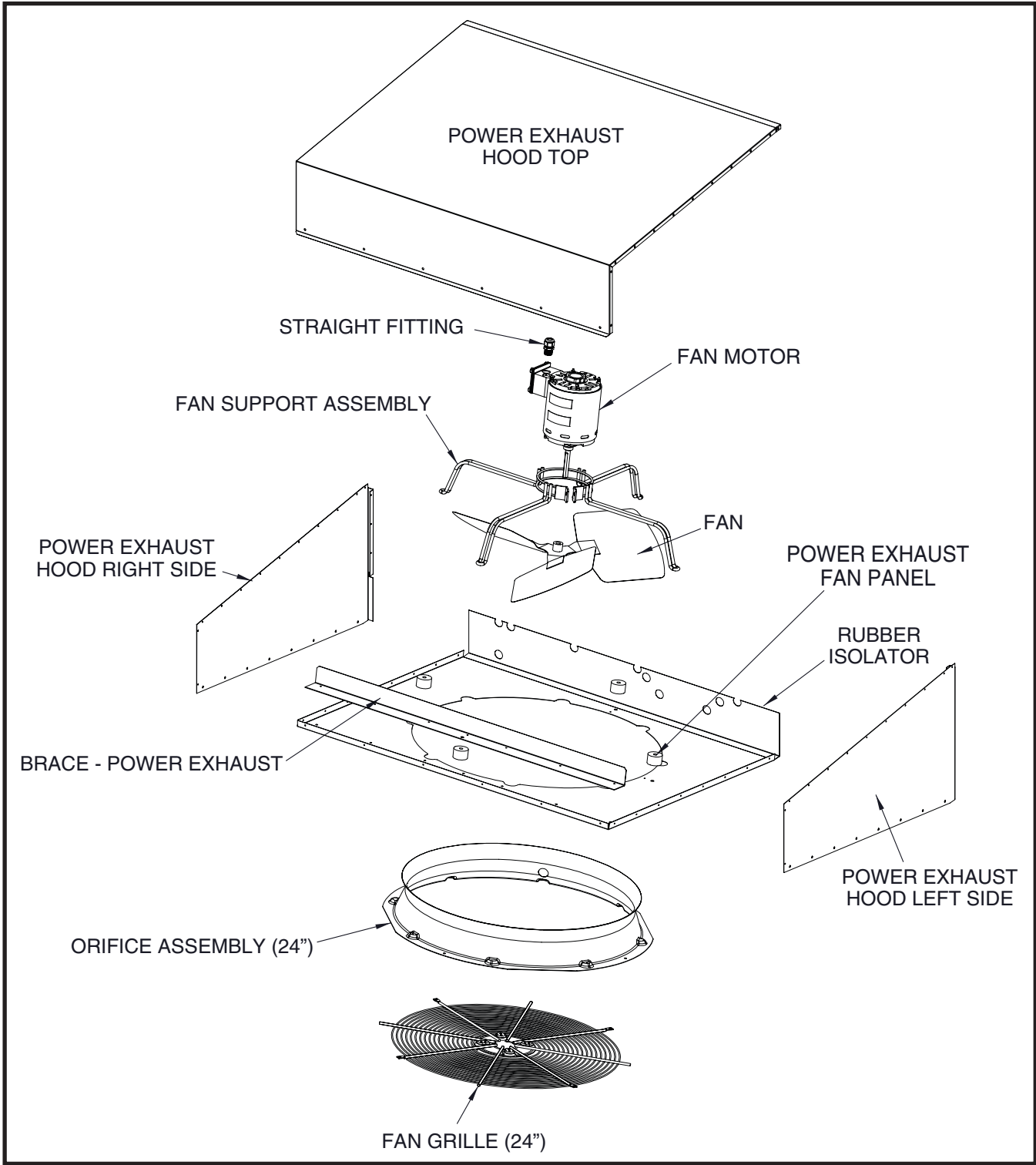


Figure 8. Power Exhaust Component Locations

