
INSTALLATION INSTRUCTIONS AND REPLACEMENT PARTS LIST

POWER EXHAUST VENTILATOR

Models:

CPVE6-A-X
CPVE6-A-4
CPVE6-C-X
CPVE6-C-4



CLIMATE CONTROL SOLUTIONS

BARD MANUFACTURING COMPANY
Bryan, Ohio 43506

Since 1914...Moving, ahead just as planned.

Manual: 2100-396C
Supersedes: 2100-396B
File: Volume 3, Tab 19
Date: 02-24-04

CONTENTS

Ventilators Matched to Bard Wall Mount Units	1
Installation Instructions	1
Wiring Diagrams	8
Replacement Parts Cabinet Components	
Exploded View	9
Usage List	9
Replacement Parts Functional Components	
Exploded View	10
Usage List	10
Replacement Parts Control Panel	
Exploded View	11
Usage List	11

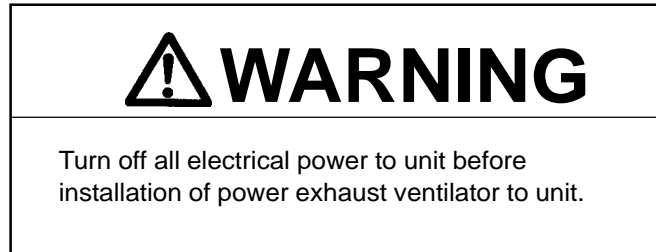
Figures

Figure 1	Condenser Partition Screw Hole Enlargement	3
Figure 2	Assembly of Exhaust Ventilator and Air Baffle Support	4
Figure 3	Attachement of MFAD to Unit	5
Figure 4	Attachement of Wire Assembly to Unit Control Box	6
Figure 5	Attachement of Rain Hood to Filter Access Door	7

Tables

Table 1	Air Flow Performance	2
---------	----------------------------	---

Power Exhaust Ventilator Model	Voltage	Use With These Units
CPVE6-A-X	208/230 Volts	WH381-A, WH381-B WH431-A, WH431-B WH491-A, WH491-B WH611-A, WH611-B
CPVE6-A-4		
CPVE6-C-X	460 Volts	WH381-C WH431-C WH491-C WH611-C
CPVE6-C-4		



INSTALLATION INSTRUCTIONS FOR POWER EXHAUST VENTILATOR

1. Remove and discard filter access door. Save mounting hardware to be used to attach new filter access door.
2. Remove and discard the condenser partition blank off plate.
3. Remove left side condenser grille. Set aside to be reattached later. Pull drain hose out of base pan and lay aside.
4. Under the condenser partition there is foil-faced insulation. Remove the 3 inch piece across the back. Cut away the insulation 1 inch on three sides around the exhaust opening. *NOTE: Some units may have this insulation cleared.*
5. From inside of the unit, enlarge holes in condenser partition. Drill out holes 1, 2, 3 and 4 to 1/4 inch diameter. Do **not** enlarge holes 5 and 6. (See Figure 1.)


NOTE: For model WH611 a duct extension is provided in this kit, which is to be added to the top of the exhaust blower assembly. (See Figure 2. Also motor lead extenders are provided. Attach them at this time. The 460 volt models have two wire extenders. For all other models discard the sheet metal duct and wire extenders.

6. From inside, install the air baffle support base plate on top of the condenser partition with the insulated side towards the return opening. Line up the holes and install screws in holes 5 and 6 (screws provided). (See Figure 2.)
7. From the left side of the unit through the opening where the condenser grille was removed, position

the exhaust ventilator with the flat side towards the back of the unit and slide on unit base until it is positioned under the opening. Lift up the far side and place the flange through the opening and up on top of the condenser partition. Lift up the end near to you and secure with two long screws up through the air baffle support. Do not tighten at this point. On some units it may be necessary to adjust the discharge line away from the back of the unit to allow clearance for the exhaust ventilator.

8. From the inside, line up holes through the air baffle support base to power exhaust assembly and secure with 3/4 inch screws that are provided. Tighten all screws at this time making sure of a good seal to the condenser partition. For screws 7 and 8 drill through condenser partition with 1/4 inch diameter drill. (See Figure 2.)
9. Pull the blower motor leads out of the power exhaust and lay them aside. Install the fresh air shield with the insulation side towards the return opening and secure with four screws provided. (See Figure 2.)
10. Install the MFAD from the outside of the unit. For attachment details see Figure 3. From the room side, plug the four wire connector from the power exhaust into the back of the MFAD control box.
On the 460 volt models, there is a two wire connectors also to be plugged into the MFAD control box.
11. Remove the electrical service access door and install the 3 wire pigtail provided. Snap the plastic connector into the hole in the control panel. Connect the red and black wires to the terminal block just below the circuit breaker making sure the green wire is grounded. (See Figure 4.)

12. Plug the high voltage connector from the MFAD into the connector installed in the control panel. Route the low voltage wires (black and orange) through the 7/8 inch bushing in the control panel into the low voltage box. Connect the orange lead to the "01" terminal and the black lead to the "C" terminal.
 13. Attach rain hood to the new filter access door and attach this assembly to the unit. Make sure you reattach the safety cable. (See Figure 5.)
 14. Reinsert the drain tube through the base.
 15. Reattach the condenser side grille.
 16. The installation of the Power Exhaust Ventilator is complete.
- The system will provide exhaust air volume equal to the fresh air volume

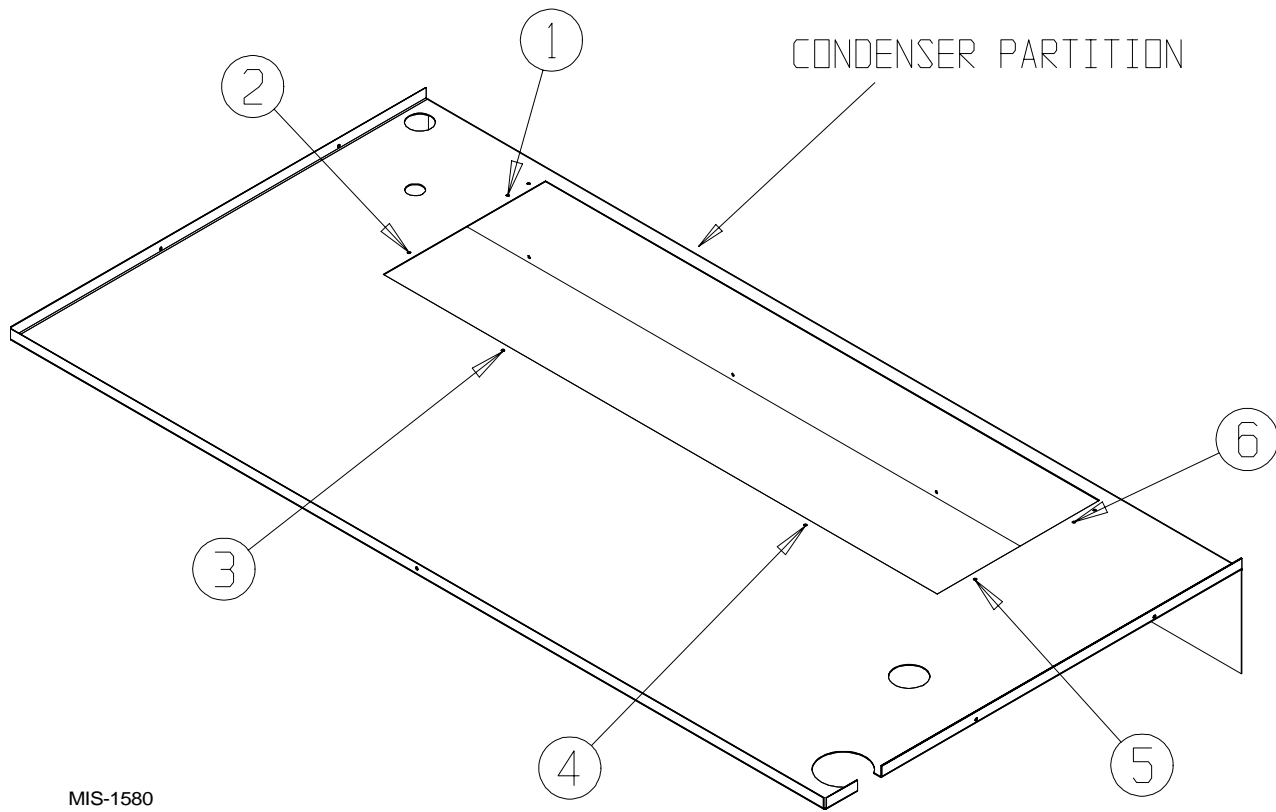
 WARNING
<p style="text-align: center;">Disconnect power to the unit before resetting speed of fan.</p>

The Power Exhaust Ventilator assembly is shipped from the factory with the exhaust blower motor wired on high speed. If a different speed is desirable the speed may be changed by removing the filter access door. Then remove the control box cover of the MFAD. Refer to the wiring diagram attached to the backside of the control panel cover. Reposition the blower leads to produce the desired blower speed. Reattach control box cover and filter access door.

**TABLE 1
PERFORMANCE DATA FOR THE POWER EXHAUST VENTILATOR**

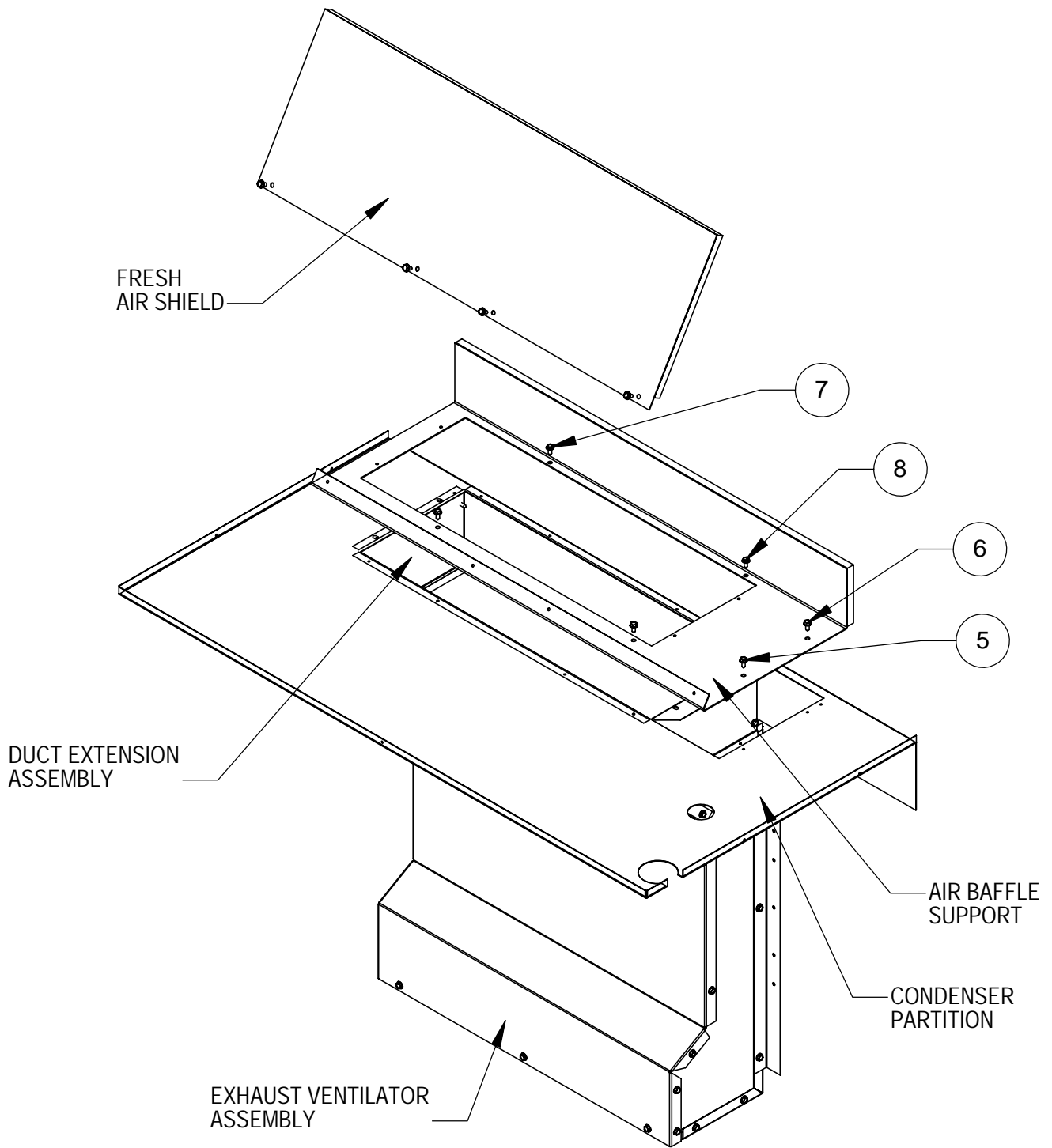
Indoor Blower Speed Tap	Power Exhaust Speed	CFM of Fresh Air
Low	Low	310
Medium	Medium	385
High	High	485
Low	High	450
Medium	Low	305
High	Medium	390
Low	Medium	375
Medium	High	480
High	Low	335

**FIGURE 1
CONDENSER PARTITION
SCREWHOLE ENLARGEMENT**



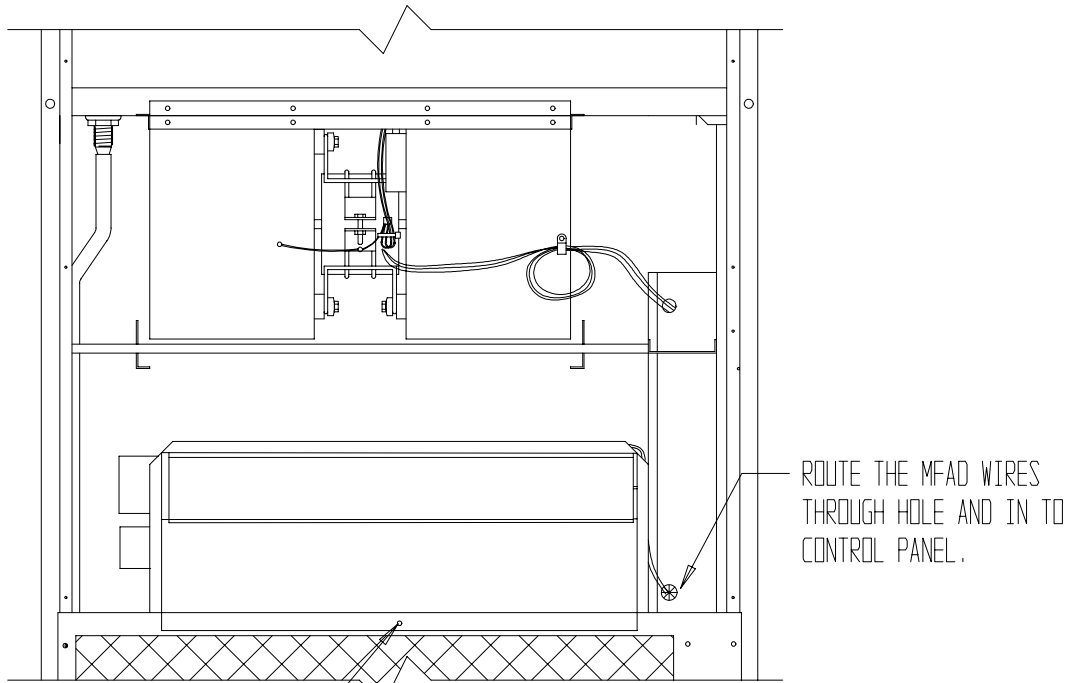
MIS-1580

**FIGURE 2
ASSEMBLY OF EXHAUST VENTILATOR
AND AIR BAFFLE SUPPORT**



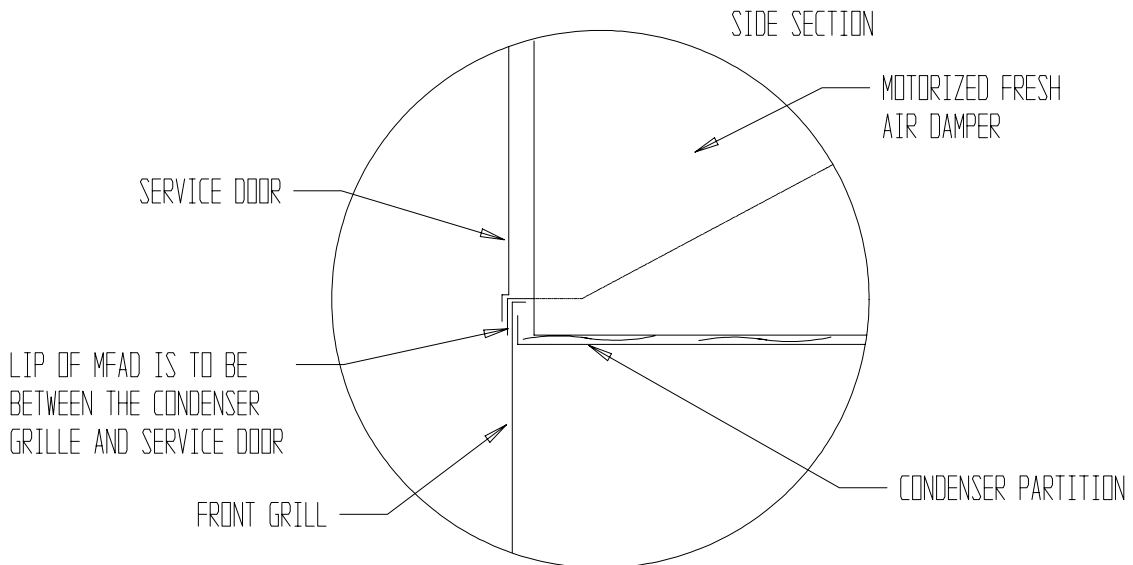
MIS-1640B

**FIGURE 3
ATTACHMENT OF MFAD TO UNIT**



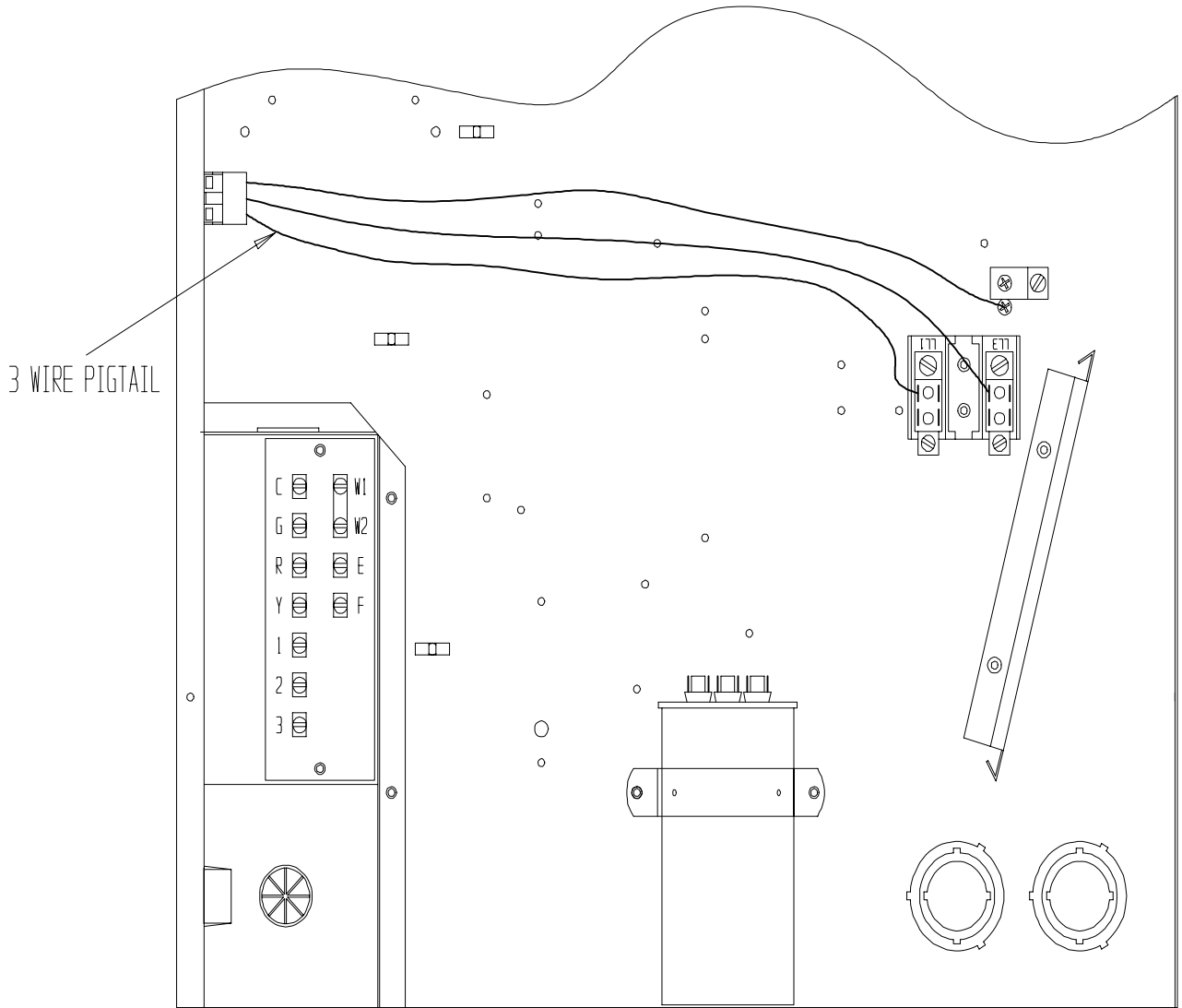
WHEN INSTALLING MFAD POSITION
SO THAT HOLE IN FRONT LIP IS
CENTERED OVER HOLE IN CONDENSER
GRILLE TO INSERT A SELF DRILLING
SCREW.

CAUTION: HOLE IN MFAD MUST
BE USED TO INSURE CLEARANCE
FROM CONDENSER COIL TUBING.



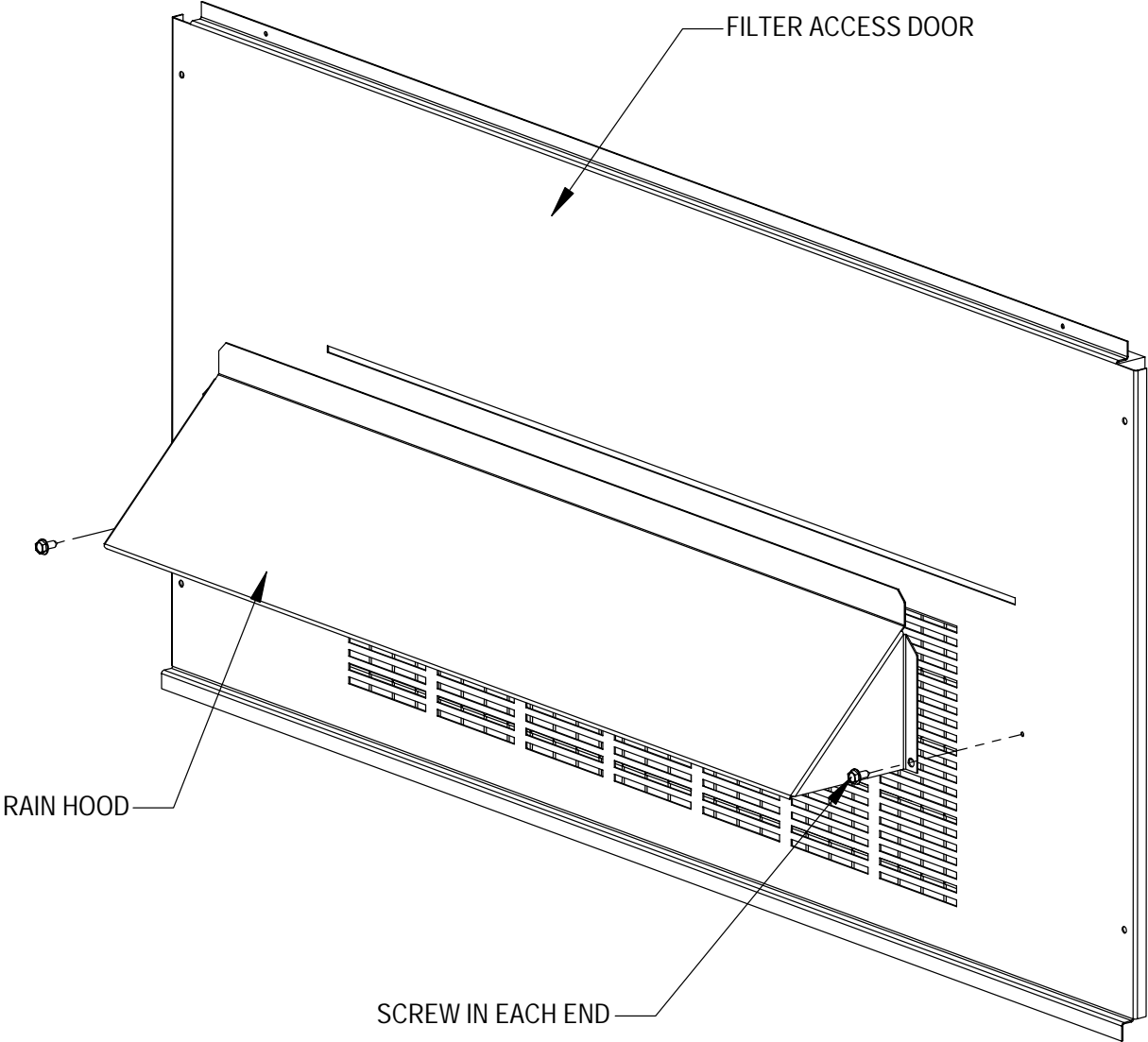
MIS-1691

FIGURE 4
ATTACHMENT OF WIRE ASSEMBLY
TO UNIT CONTROL BOX



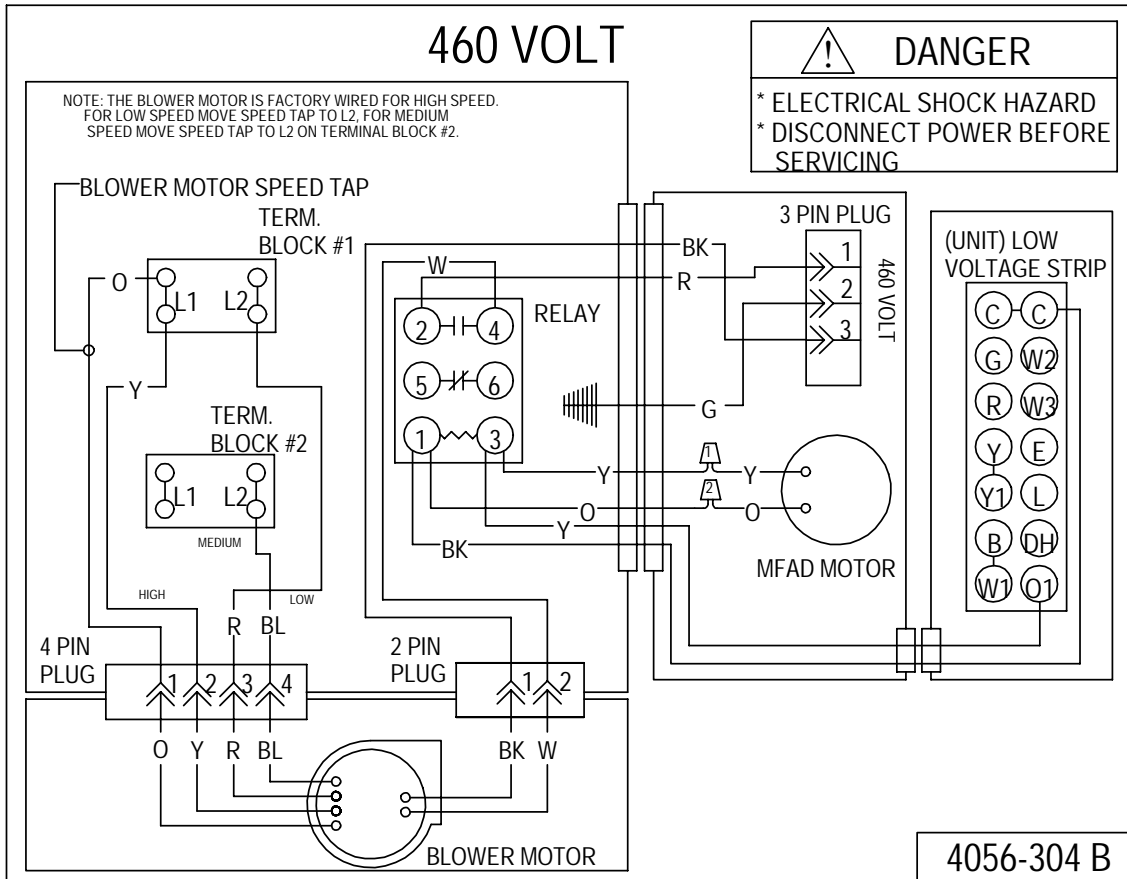
MIS-1690

**FIGURE 5
ATTACHMENT OF RAIN HOOD
TO FILTER ACCESS DOOR**

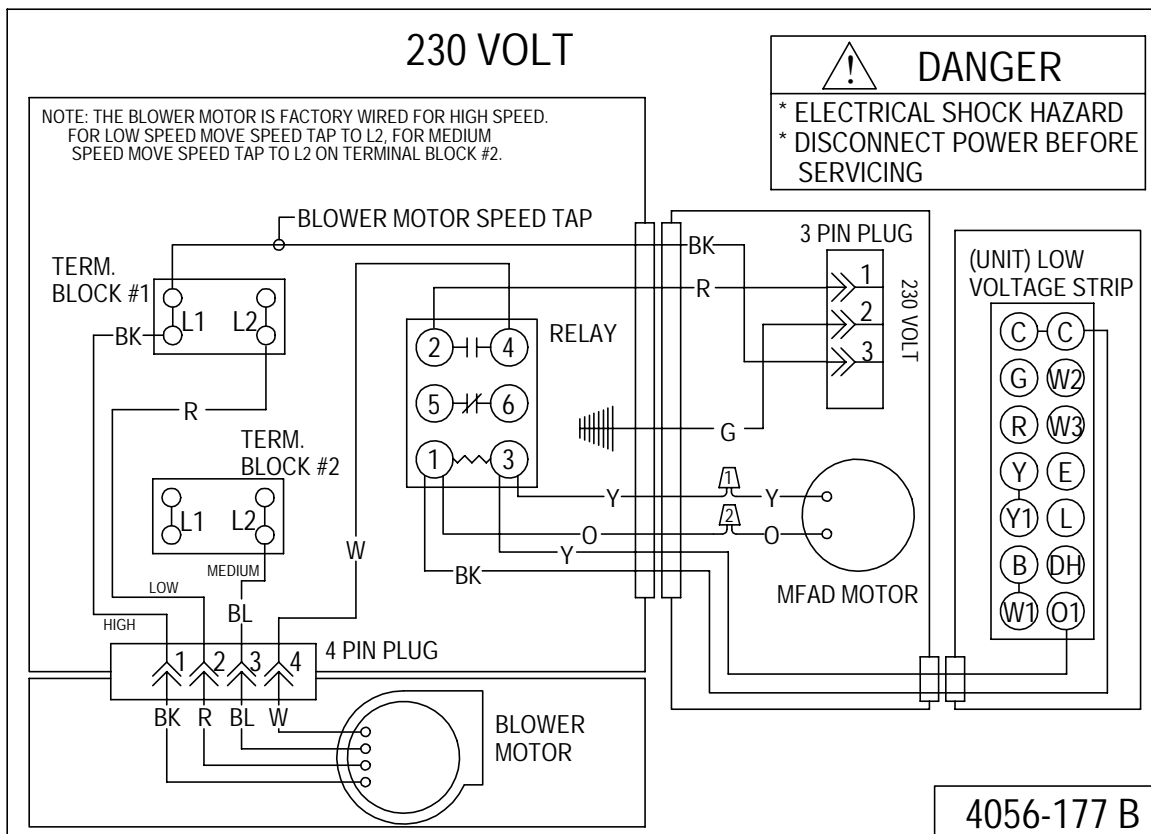


MIS-1692

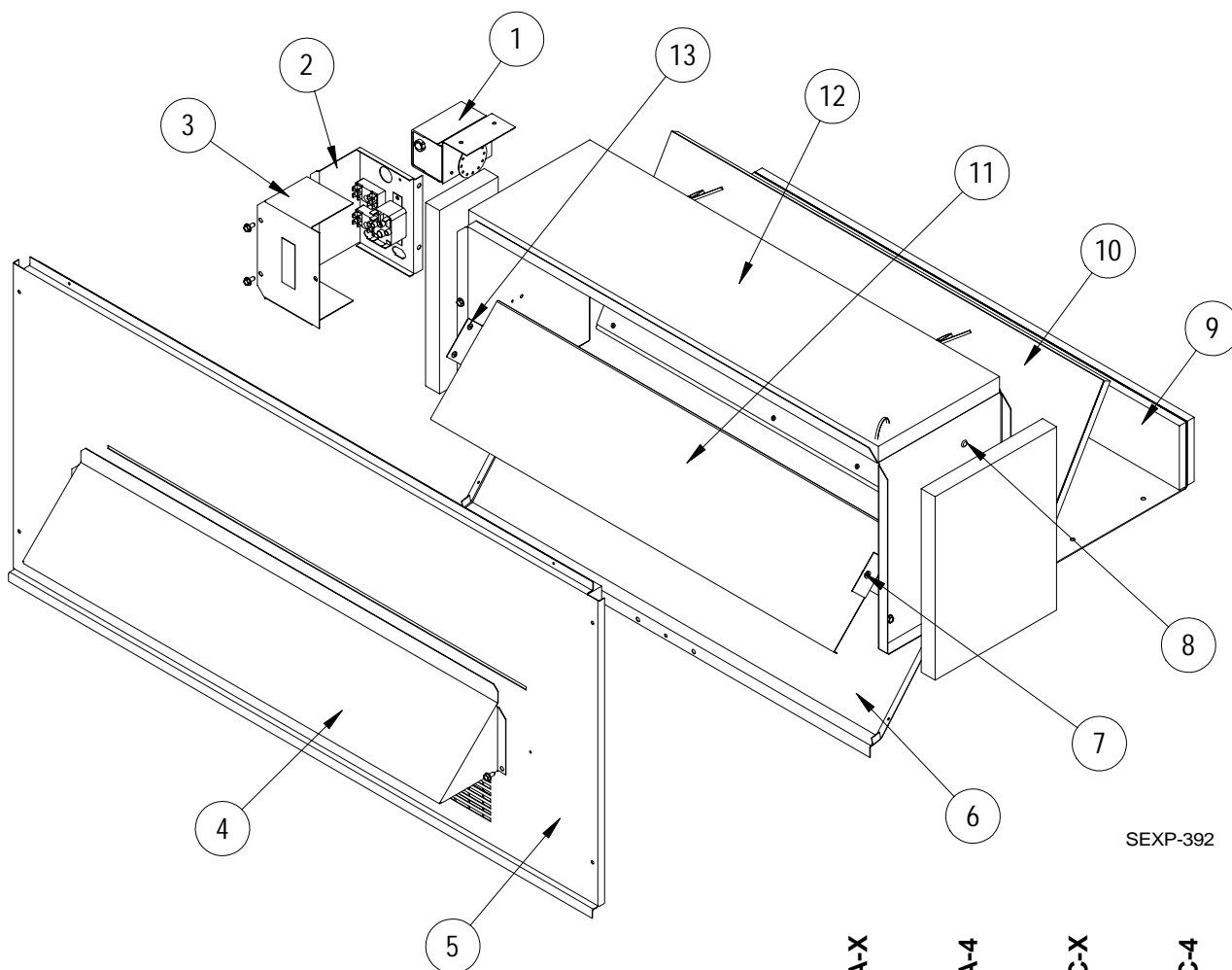
CPVE6-C-X AND CPVE6-C-4 MODELS



CPVE6-A-X AND CPVE6-A-4



CABINET COMPONENTS PARTS LIST

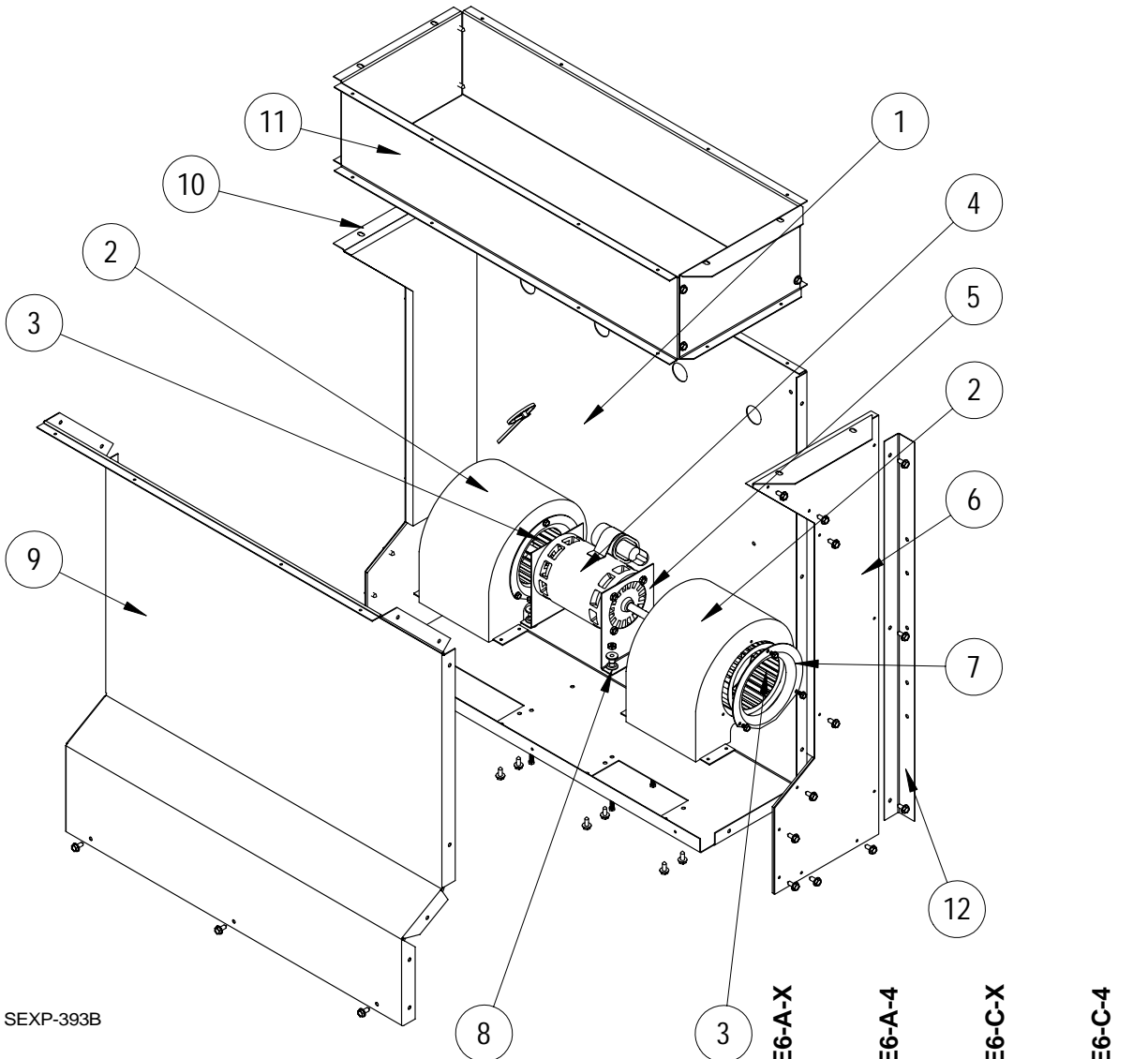


SEXP-392

Drawing No.	Part No.	Description	CPVE6-A-X	CPVE6-A-4	CPVE6-C-X	CPVE6-C-4
1	8110-001	Damper Motor	X	X	X	X
2	See page 11	Control Panel Components	X	X	X	X
3	133-168	Control Panel CVover	X	X	X	X
4	139-155-*	Power Vent Hood	X	X	X	X
5	552-344-*	Power Vent Service Door	X	X	X	X
6	139-167	MFAD Partition	X	X	X	X
7	8611-057	Bushing	X	X	X	X
8	8611-059	Canoe Clip	X	X	X	X
9	S526-315	Base Plate Assembly	X	X	X	X
10	S534-196	Air Shield Assembly	X	X	X	X
11	139-154	MFAD Blade	X	X	X	X
12	139-153	MFAD Wrapper	X	X	X	X
13	1012-067	Screw	2	2	2	2

* Exterior cabinet parts are manufactured with various paint color options. To insure that you receive the proper paint color, you must include the complete model and serial number of the unit for which cabinet parts are being ordered.

FUNCTIONAL COMPONENTS PARTS LIST



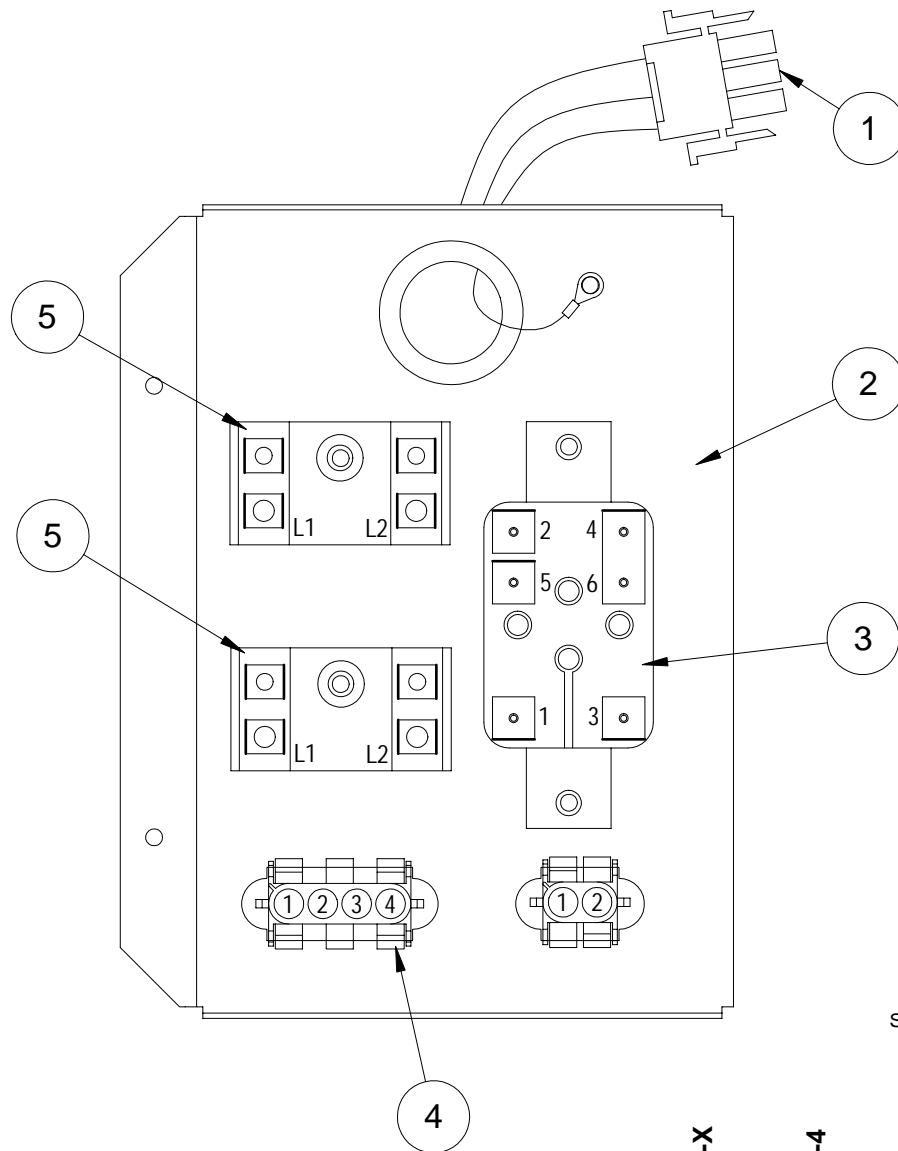
SEXP-393B

Drawing

Drawing No.	Part No.	Description	CPVE6-A-X	CPVE6-A-4	CPVE6-C-X	CPVE6-C-4
1	S508-165	Back Assembly	X	X	X	X
2	5152-079	Blower Housing	2	2	2	2
3	5152-078	Blower Wheel	2	2	2	2
4	S910-1540	Motor Assembly	X	X		
4	S910-1535	Motor Assembly			X	X
5	129-019	Motor Mount	2	2	2	2
6	S500-397	Right Side Assembly	X	X	X	X
7	5152-080	Inlet Rings	4	4	4	4
8	400-0208	Grommet Kit	4	4	4	4
9	S514-135	Front Assembly	X	X	X	X
10	S500-396	Left Side Assembly	X	X	X	X
11	141-311	Extension Assembly **	X	X	X	X
12	105-1164	Angle	2	2	2	2

** Needed on six ton cabinet only

CONTROL PANEL PARTS LIST



SEXP-394

Drawing No.	Part No.	Description	CPVE6-A-X	CPVE6-A-4	CPVE6-C-X	CPVE6-C-4
1	3000-1162	Wire Assembly	X	X		
1	3000-1163	Wire Assembly			X	X
2	117-245	Control Panel	X	X	X	X
3	8201-009	Relay	X	X	X	X
4	3000-1161	Wire Assembly	X	X	X	X
5	8607-017	Terminal Block	2	2	2	2