

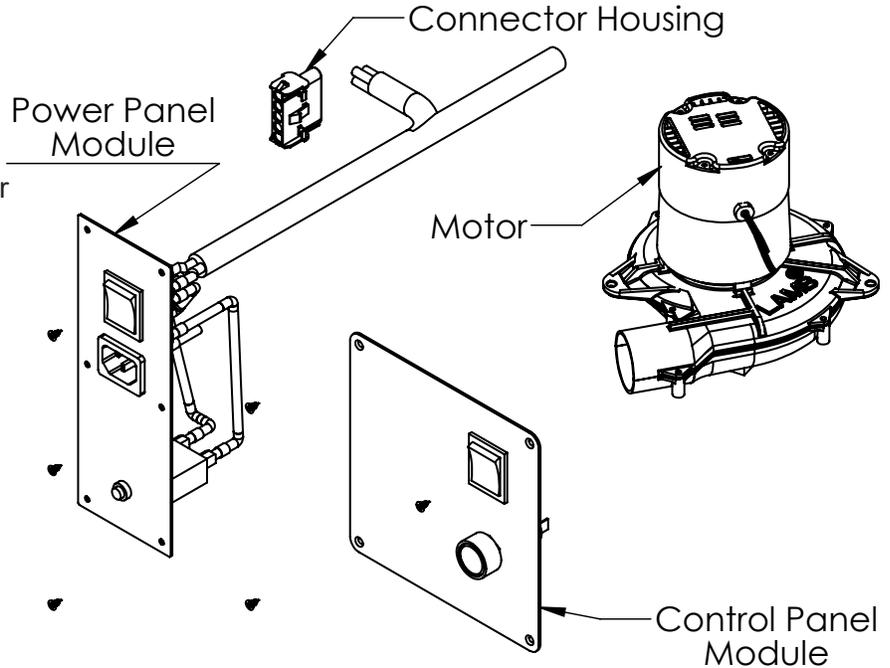
V-SIX MOTOR 120V - REPLACEMENT KIT

PACKING LIST

- 1 - 120V Brushed V-Six Motor
- 1 - Power Panel Module
- 1 - Control Panel Module
- 1 - Connector Housing
- 2 - Splice Connectors
- 10 - 4-40 Mounting Screws

Tools Required:

- Phillips Head Screwdriver
- Cutting Pliers
- Pliers
- 1/2" Socket or Wrench



EXISTING ELECTRONICS REMOVAL INSTRUCTIONS

1. Flip the *On/Off/Remote* switch on the *Control Panel* that is currently mounted on the front of your V-Six into the *Off* position. Next flip the *Main Power Disconnect* switch on the *Power Panel* that is currently mounted on the back of your V-Six into the *Off* position. Ensure that both switches are in the *Off* position, then remove the power cord from the unit.

NOTE: Page 5 contains a exploded diagram of the components mentioned in the following steps.

2. Take the *Case Lid* off of the V-Six by removing the 15 flat head screws securing it in place, then carefully lift up and set the lid and the screws aside for use later.
3. If applicable to your V-Six, remove the *External Cooling Filter* from the *Filter Mounting Plate* on the back of the unit by sliding it upwards, then remove the *Filter Mounting Plate* by unscrewing the two screws near the vent. This will also allow you to remove the *Inlet Tube* from inside the case. Set the mounting plate, filter, screws and inlet tube aside.

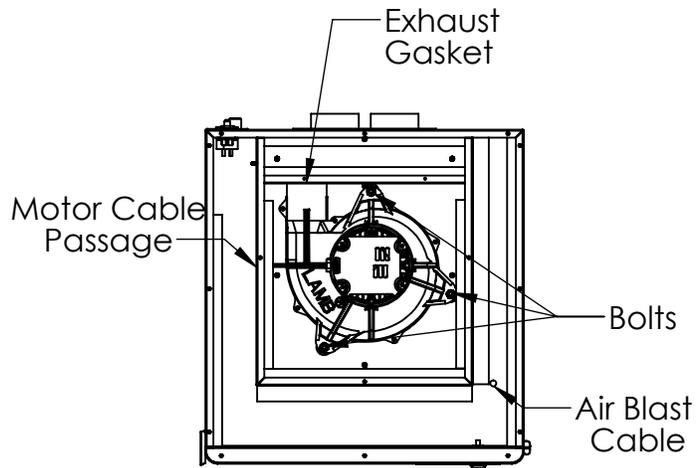


Fig. 1

4. Next, remove the 7 screws from the *Cool Air Divider Plate* and lift the plate out of the unit to expose the motor compartment. Set the divider plate and the mounting screws aside.

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5. Disconnect the motor cables at the white connectors and locate the 3 mounting bolts that secure the motor in place (Fig. 1). Use a 1/2" socket or wrench to remove the motor mounting bolts. Once the bolts have been removed, you can take out the motor. Make sure to save the 3 bolts and 3 metal standoffs for mounting the replacement motor.

6. Next, you will need to remove all of the electronics from the unit:

- a. At the front of the unit, remove all the connectors from the back of the *On/Off/Remote* switch, the *Air Blast* button, as well as the *Speed Control Slider*. Once all wires are disconnected, peel back the label and remove the 4 screws at each corner of the *Control Panel*, then pull off the panel.

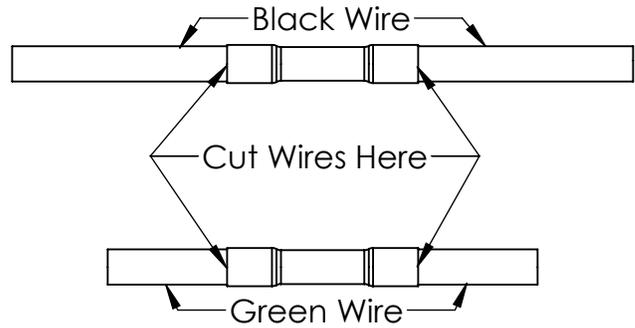


Fig. 2

- b. In the front right corner of the unit you will see a black cable routed through the sheet metal bulkhead and up to the back of the *Control Panel* (Fig. 1). Follow this black cable upwards from the bulkhead until you find two, red, double crimped connectors. Once they have been located, remove them by cutting the wires at both ends of the connector (Fig 2). You can discard these connectors.
- c. Next, in order to pass the cables from the motor compartment through the passage in the sheet metal wall, cut the 5 wires (black, green, white, yellow & blue) that are not attached to the motor at the base of the white connector housing. Discard the connector housing, and pull the 5 free wires from the motor compartment.
- d. At the back of the unit, unplug the two grounding connectors (with green wires) from the grounding tabs located on the inner wall. Remove the 6 screws holding the power panel in place, then pull the panel off of the unit along with all the wires and cables attached. You may discard this old electronics system as the only cable remaining should be the *Air Blast* cable in the front of the unit.

REPLACEMENT KIT INSTALLATION INSTRUCTIONS

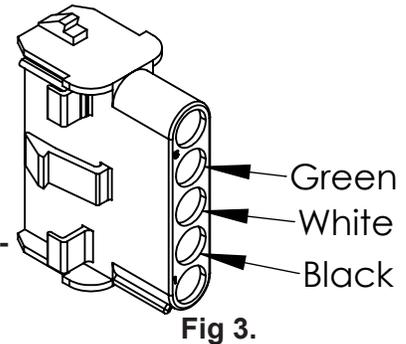
7. Remove all components from packaging and check them against the packing list above on Page 1.
8. Insert the replacement motor into the motor compartment, and align the 3 mounting holes on the motor housing with the 3 rubber motor mounts on the bulkhead below. One at a time, place the metal standoff between the rubber motor mounts and the motor housing mounting holes, and feed the bolt through the motor housing and standoff. Once all three bolts are in position, firmly press down on the top of the motor and begin tightening the bolts until the motor is secure. **NOTE:** Make sure that the gasket that seals the motor's exhaust port (in the motor compartment towards the back of the unit - see Fig. 1) is not compromised and is still in proper position.
9. Taking the new *Power Panel Module* from the replacement kit, feed the cables and wires into the case through the rectangular opening where the previous *Power Panel* was located. mount the new panel to the case using the six 4-40 screws provided. Once the *Power Panel Module* is secure, connect the two grounding cables (green wires with blue connectors) to the grounding tabs on the inner wall. Location of either grounding connectors does not matter.

V-SIX MOTOR

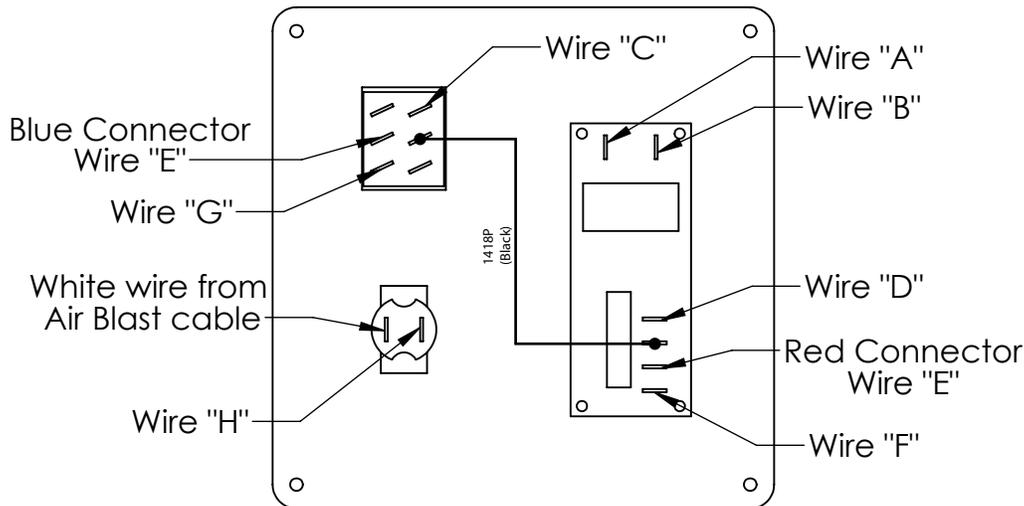
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10. Locate the motor compartment cable passage hole by reaching your hand down in the chanel (between the foam) and will feel for an opening in the soundfoam, along with a hole in the sheet metal (Fig. 1). Next, take the three wire (black, white, and green) cable that branches off the longer cable and feed it through the cable passage into the motor compartment.

11. Once you have successfully fed the cable through, attach the new connector housing (included in the kit) to the three wires by simply pushing each wire into the corresponding openings on the housing until you feel it click. Pull on each inserted wire to ensure that they are secure within the housing. **NOTE: MAKE SURE TO INSERT THE CORRECT WIRE INTO THE CORRECT PORT IN THE HOUSING. ONCE THE WIRES ARE INSERTED INTO THE HOUSING, THEY CANNOT BE REMOVED (Fig 3).** When all three wires have been inserted into the cable housing, connect the male housing to the female housing.



12. At the front of the unit, ensure that the wording on the *Control Panel* label is upright and legible. Slightly peel back each corner of the label, then secure the *Control Panel* by using the supplied four 4-40 screws at each corner. Next, remove the adhesive backing from each corner of the label and apply to the *Control Panel*.



13. Grab the long cable from the Power Panel, and identify the following wires by their labels:

- a. Black wire with red connector - **labeled "A"**
- b. White wire with red connector - **labeled "B"**
- c. Black wire with red connector - **labeled "C"**
- d. Black wire with red connector - **labeled "D"**
- e. Black wire with red & blue connector - **labeled "E"**
- f. Black wire with red connector - **labeled "F"**
- g. Black wire with red connector - **labeled "G"**
- h. White wire with no connector - **labeled "H"**

Connect the labeled wires to their respective terminals as shown in Figure 4.

NOTE: There should already be 1 wire connecting the PC board to the switch on the *Control Panel*.

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14. Next, grab the Air Blast cable routed upwards through the sheet metal, and identify the white wire with a red connector. Plug this wire into the respective terminal shown in Figure 4. Once this is complete, there should be 4 wires with no connectors left - two black wires and two green wires.
15. Looking at the *Tap Splice Connectors* provided you will notice two wire channels - one that is open and one that is closed. Slide the remaining black wire from the Air Blast cable into the open channel, ensuring that the wire reaches the end of the splice connector. Then slide the remaining black wire from the power cable into the closed channel until it hits the backstop. Holding both wires securely in place, use a pair of pliers and squeeze down on the metal connecting protrusion on the splice connector. Pull on both wires to confirm that they are secure and connected. Once the wires are securely connected, fold the protective latch over the connecting protrusion on the connector until it latches. **NOTE:** Failure to latch the cover could result in injury and/or product failure. Perform the same operation for the two remaining green wires.
16. Once step 15 is completed, there should be no more unconnected wires in the unit. Test that everything is connected correctly by plugging the power cord in to the *Power Panel*, flipping the *Main Power Disconnect* switch into the *On* position, and then flipping the front *On/Off* switch into the *On* position. The motor should begin running. If successful, flip both front and rear switches into the *Off* position, and unplug the power cord from the unit.

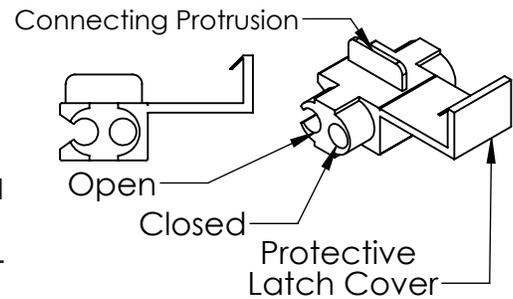
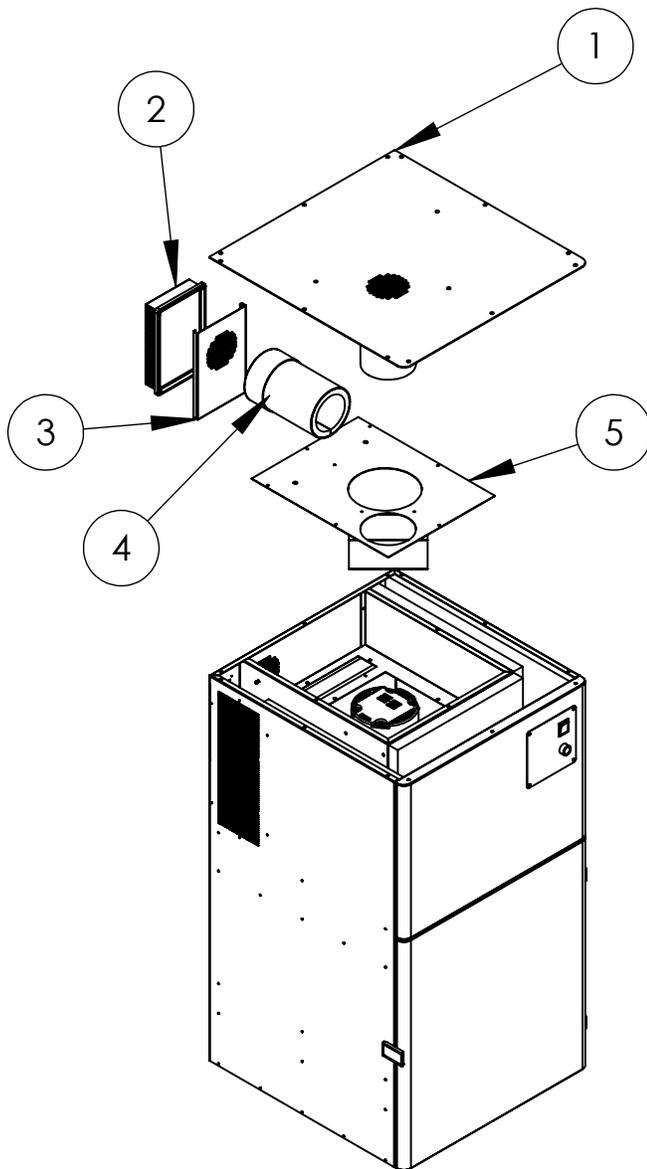


Fig. 5

WARNING: This motor will be exceedingly loud while it is running without the top of the case being closed. Only run the motor with the case open for a short period of time to ensure the electronics are properly connected, then turn off immediately.

17. After successfully testing, powering down the unit, and unplugging it from the power supply, remount the Cool Air Divider on top of the motor compartment with the 7 screws removed previously. If applicable to your V-Six, secure the Inlet Filter Plate to the back of the unit by tightening the two screws through the plate and case, and into the two mounting holes on the Inlet Tube. Slide the *External Cooling Filter* down into the *External Filter Mounting Plate*. If having trouble sliding the *External Cooling Filter* into the mounting plate, apply a small amount of dish soap or household cleaner to the sides of the filter frame and it should slide in please easily.
18. Place the *Case Lid* on top of the unit, making sure that the exhaust tube is aligned with the hole in the *Cool Air Divider Plate*, and secure the lid with the 15 screws removed at the start. Once finished, test the motor again using the same process described in step 16.

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Instruction's Listed Components

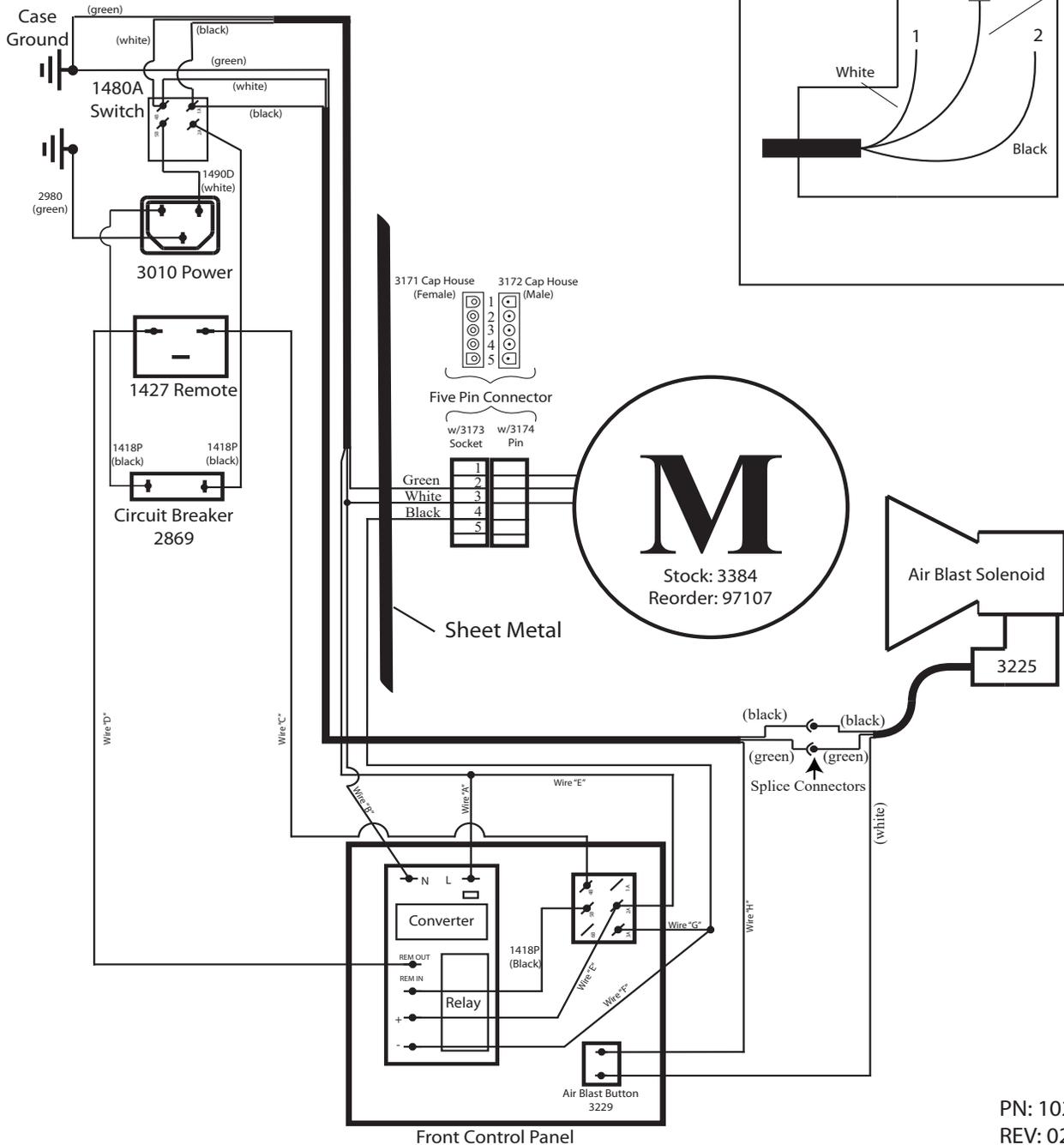
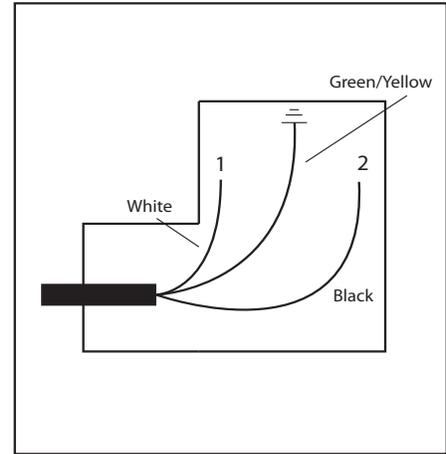
Item No.	Description	Step No.
1	Case Lid	2 & 17
2	External Cooling Filter	3 & 17
3	External Filter Mounting Plate	3 & 17
4	Cooling Inlet Tube	3 & 17
5	Cool-Air Divider Plate	4 & 17
6	Power Panel	6d & 9
7	Control Panel	6a,12,13

**V-SIX MOTOR
120V - REPLACEMENT KIT**

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**Brushed V6 Wiring
120V**

Solenoid wiring detail



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