



**Master Power Brakes  
Electric Vacuum Pump Kit  
Various Applications  
P/N: AC9001K**



**Front**



**Back**

Thank you for purchasing the Master Power Brakes Electric Vacuum Pump Kit. If you are running a radical cam and therefore down on engine vacuum but still looking for the feeling in your brake pedal that a vacuum booster will provide, then you have made the right choice. The drawback to a vacuum pump has always been the noise. With the Master Power Brakes Silent Drive Vacuum Pump, that is no longer a problem.

Parts List	
Quantity	Description
1	Electric Vacuum Pump (Check Valve Installed)
1	Wiring Harness (w/Relay & Relay Mounting Bracket) Includes: <ul style="list-style-type: none"> <li>• Relay Harness w/relay mounting bracket</li> <li>• Switch Harness (Male Connector)</li> <li>• Pump Harness (Female Connector)</li> <li>• (2) Terminal ends</li> </ul>
1	Mounting Bracket
1	Billet Aluminum Vacuum Tee
1	Vacuum Switch
10	11/32" Vacuum Hose
4	5/16"-18 x 1-1/2" Grade 8 Hex Head Bolts
4	5/16" SAE Flatwasher
4	5/16"-18 Flanged Hex Nuts
2	M6-1.0 x 55mm Hex Head Bolts
2	M6-1.0 Nyloc Locking Nuts
2	M6 Flatwasher
2	1/4"-20 x 2" Socket Head Caps Screws
2	1/4"-20 Nyloc Locking Nuts

## **\*\*\*IMPORTANT – MUST READ\*\*\***

As with any electrical component or system, proper grounding of the installed components is not just recommended but necessary. In addition, the ground system in the vehicle is also very important to the proper operation of this vacuum pump system.

### **Pump Installation:**

1. Find a suitable location to mount the pump. **NOTE:** Page 5 of the instructions contains a template with the outline of the pump. This template can be used for both finding a suitable location along with location of the bracket mounting holes. **IMPORTANT:** The pump must be mounted vertical. Mounting the pump horizontally will damage the rubber isolators.
2. Mount the bracket using the provided 5/16"-18 x 1-1/2" Grade 8 Hex Head Bolts along with the 5/16" SAE Flatwasher and 5/16"-18 Flanged Hex Nuts. Torque the bolts to 25 ft/lbs.
3. With the bracket mounted, place the pump into the bracket and attach using the M6-1.0 x 55mm bolts, M6 Flatwashers and M6-1.0 Nyloc Lock Nuts. The pump is shipped with two rubber isolators and crush sleeves installed. DO NOT remove the isolators or the crush sleeves when mounting the pump to the bracket.

### **Switch Installation:**

1. Mount the Billet Aluminum Vacuum Tee in a suitable location between the pump and the booster that allows for adequate room for the installation of the switch and pigtail. The vacuum tee can be mounted in either direction. **NOTE:** Page 6 contains a template that can be used for properly locating the mounting holes.
2. Thread the Vacuum Switch into the Billet Aluminum Vacuum Tee. The threads on the switch are 1/8"-NPT and therefore will require either tape or liquid thread sealant. **NOTE:** If using the liquid, only use a small amount.

### **Electrical Installation:**

#### ***Relay Harness***

The relay harness consists of the relay and its mount, a 12 gauge red wire with a fuse holder and a black wire. The black wire must be connected to a proper chassis ground. The red wire connects to a constant 12-volt source.

Mount the relay bracket in a suitable location. The relay itself is sealed to the elements but the wiring is not. Therefore, it is recommended that it be mounted in a location that keeps it out of the elements as much as possible. Preferably a dry location.

#### ***Switch Harness***

The switch harness contains a red and blue wire along with a female weatherpack connector. The blue wire connects back to the relay block in location 86 in the block. Included is a terminal end that must be installed on the blue wire. Once proper length has been determined, crimp the terminal using the proper crimping tool. Figure 1 on page 3 shows a pre-crimped image with the wire stripped. The red wire must be connected to a switched 12-volt source.

## Pump Harness

The pump harness contains a red and black wire along with a male weatherpack connector. The red wire connects back to the relay block in location 87 in the block. Included is a terminal end that must be installed on the blue wire. Once proper length has been determined, crimp the terminal using the proper crimping tool. Figure 1 on page 3 shows a pre-crimped image with the wire stripped. The black wire must be connected to a proper ground location.

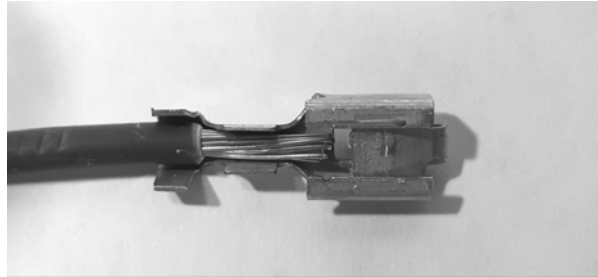
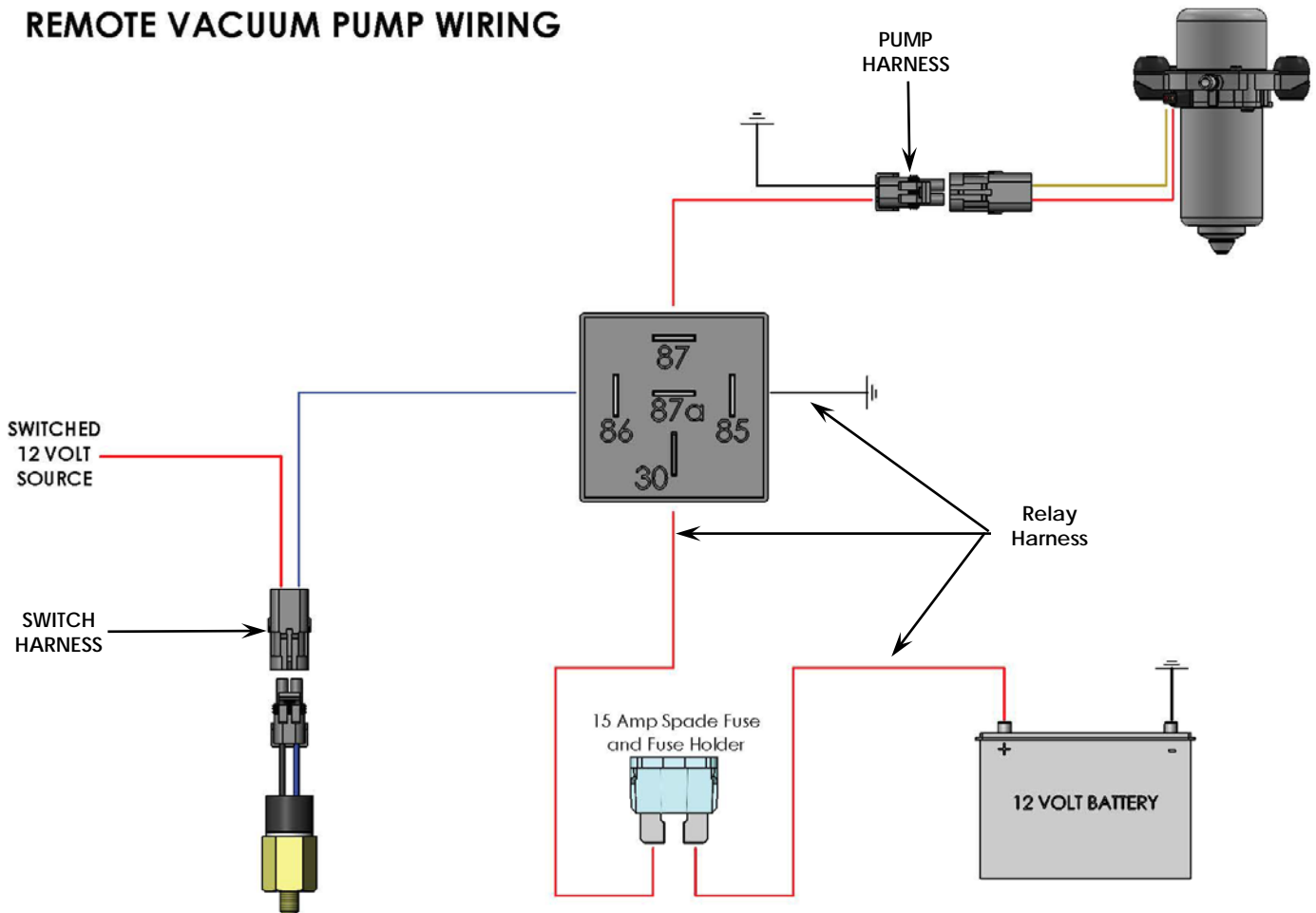


Figure 1 – Proper Wire Crimping

## REMOTE VACUUM PUMP WIRING



## Vacuum Hose:

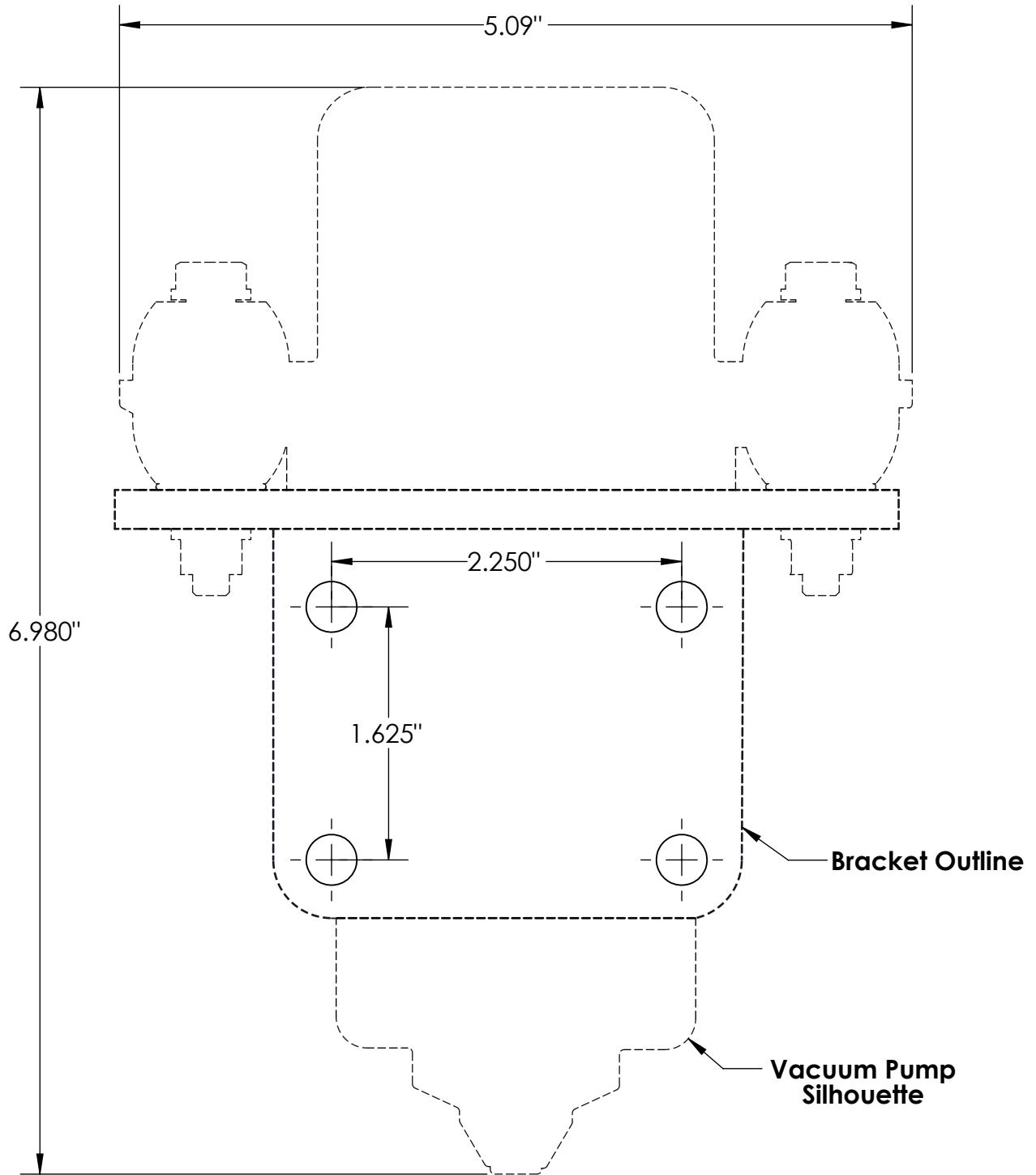
1. Run the vacuum hose from the vacuum pump to the vacuum tee and then to the brake booster. Use the provided hose with the kit for installation. If additional hose is needed, either call Master Power or you can pick the hose up locally. Be sure to use proper vacuum hose that will resist sucking shut. When installing the hose onto the pump, push the hose onto the hose barb on the check valve that is installed on the pump. **DO NOT** remove the check valve. Removal of the check valve will void any warranty and will cause the pump to operate incorrectly.

## Troubleshooting:

Fault	Possible Cause	Solution
Pump will not turn on	Blown fuse	Replace fuse
	Switch not grounded properly	Check wiring & ground
	Relay not grounded properly	Check wiring & ground
	Vacuum switch connector not connected	Check the top of the switch
Vacuum pump won't turn off	Vacuum switch failure	Replace the switch
	Relay failure	Replace the relay
	Vacuum leak in system	Diagnose location of leak and repair

If you have any questions or comments, please call Master Power Brakes at (888) 351-8781.

# Master Power Brakes Vacuum Pump/Bracket Mounting Template

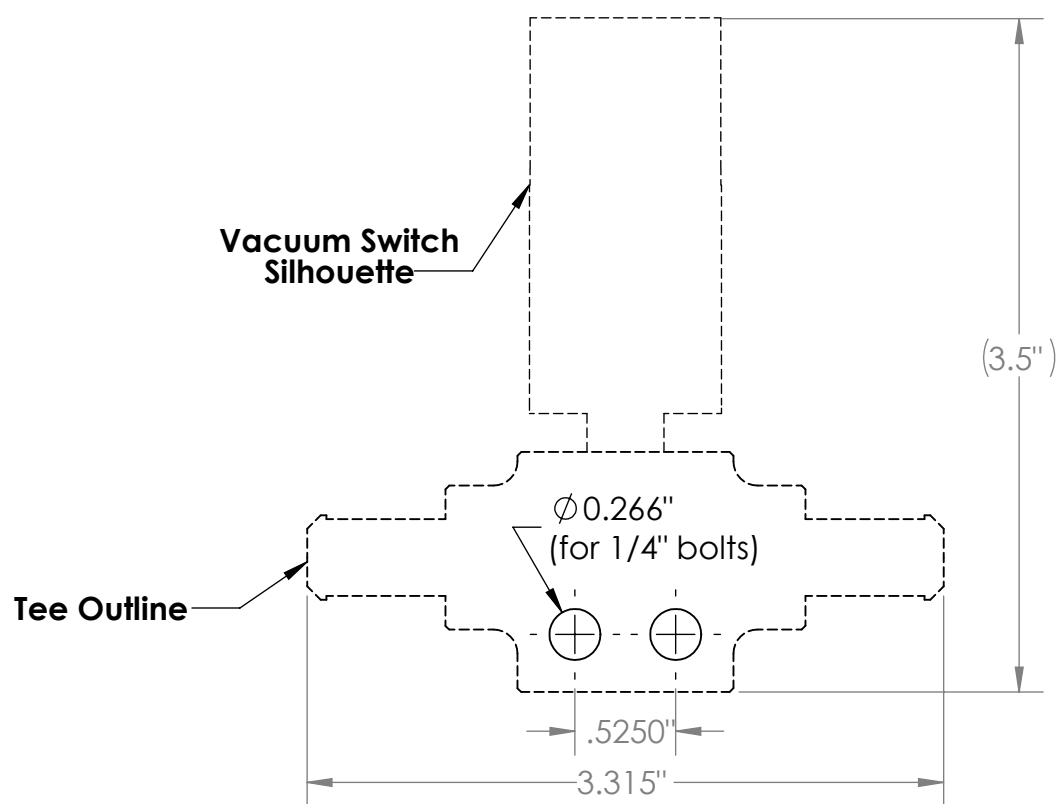


Please measure across bolt holes to ensure the document has been printed 1:1 and not skewed from possible printer settings



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# Master Power Brakes Vacuum Switch Tee Mounting Template



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