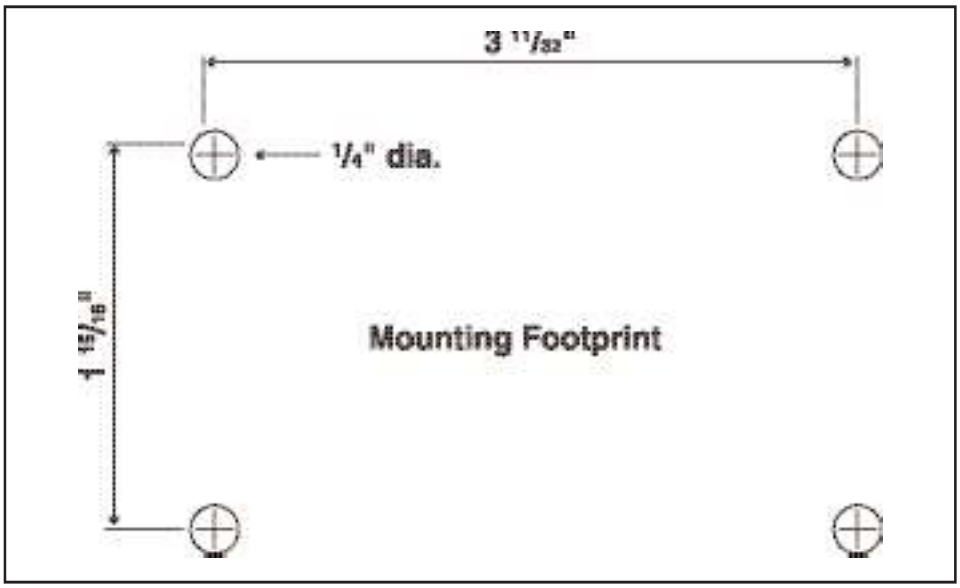
1) First install the pump in a suitable location, using the rubber insulators to mount to the vehicle.

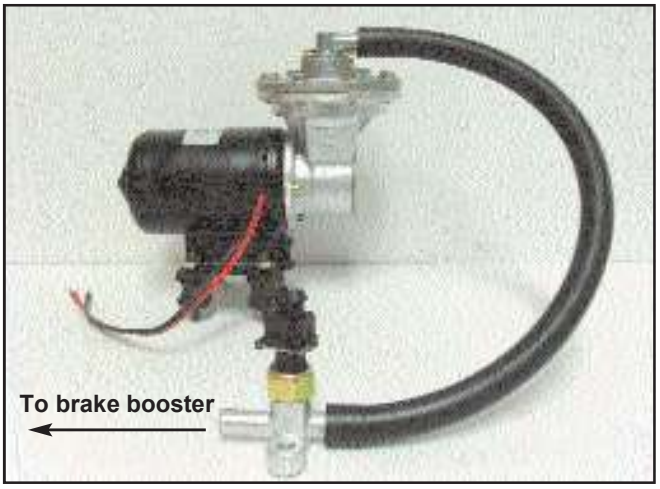


2) Next, mount the vacuum switch in a suitable location, making sure that the switch is grounded to vehicle.

IF SWITCH BODY IS NOT PROPERLY GROUNDED, THE ELECTRICAL CIRCUIT WILL NOT WORK PROPERLY!

3) Run vacuum hoses as shown below.

NOTE: Switch is unidirectional. (Switch will still function if vacuum lines are reversed.)

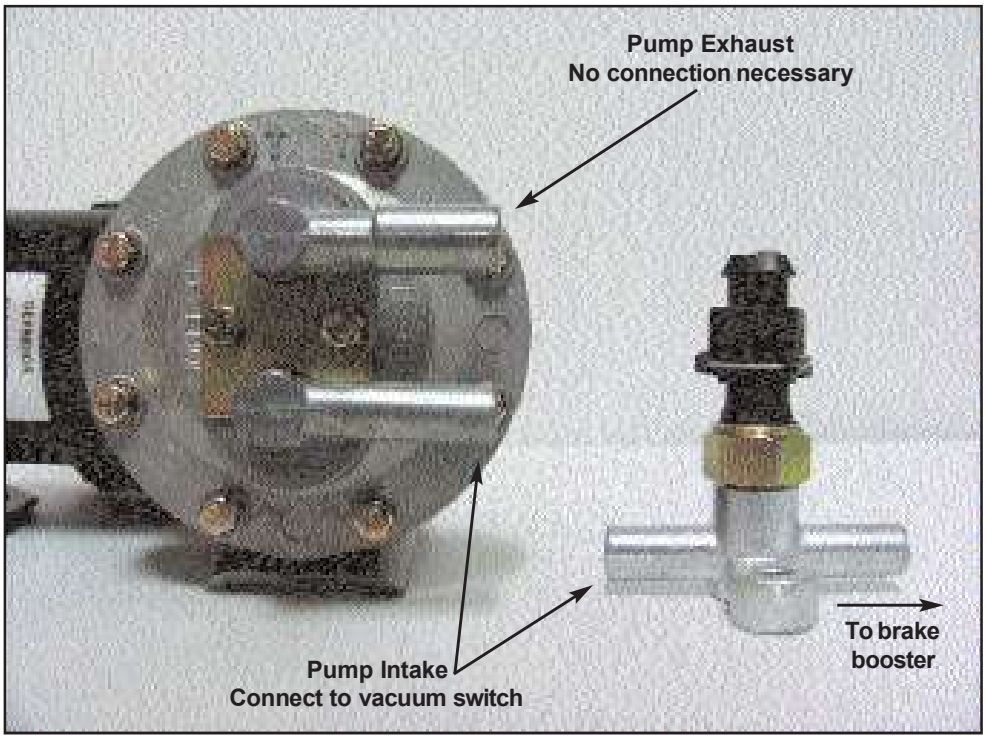


4) Begin electrical wiring by mounting the relay in a suitable location.

NOTE: Relay mounting tab does not have to be grounded!

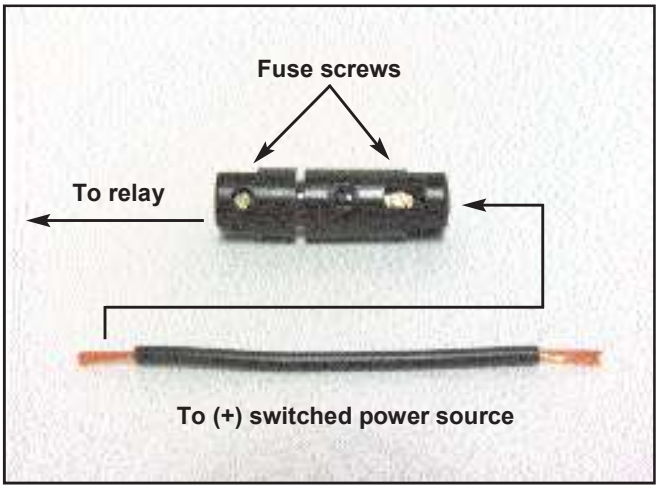
CAUTION: WHEN INSTALLING RELAY AND VACUUM SWITCH, MAKE SURE THAT THE VACUUM SWITCH (THE SWITCH WITH THE RUBBER HOSES ATTACHED TO IT) IS NOT WIRED TO THE POSITIVE (+) SIDE. IF VACUUM SWITCH IS WIRED INCORRECTLY, THE SWITCH WILL BURN OUT AND WILL NOT WORK!

Detailed Diagram Of Pump & Vacuum Switch



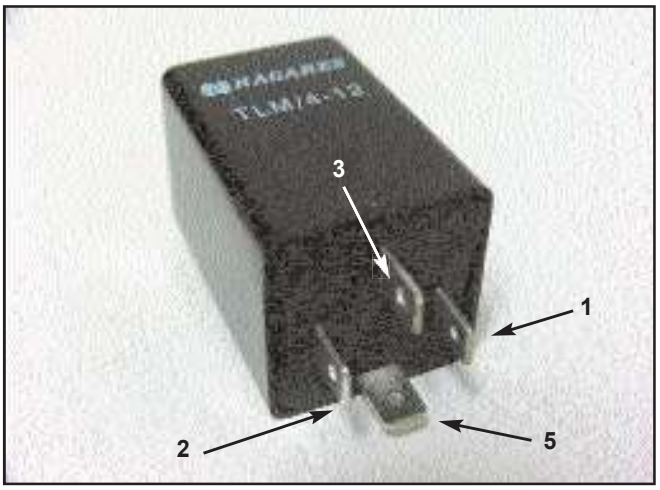
5) Next, wire the fuse to a positive (+) ignition switched power source.

a) Positive (+) connection must be a switched source or pump will run with key off!
b) The circuit used for connection must have an 8 to 10 amp fuse!
c) Make sure to tighten down fuse screws!

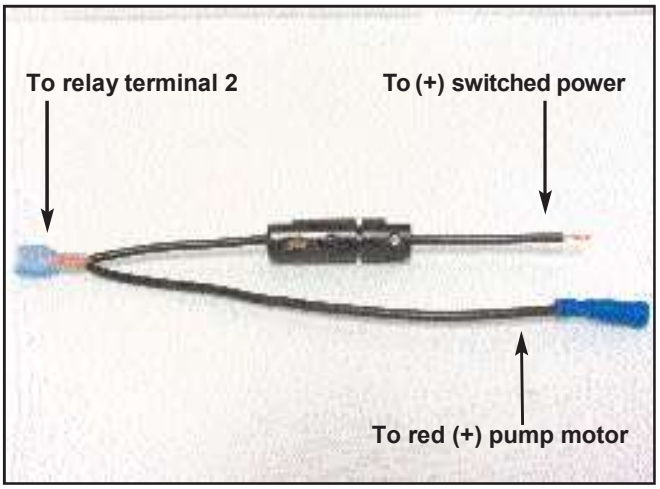


6) Detailed diagram of relay & proper connections: (Terminals are labeled on actual relay!) Proper connections to relay are explained in the following steps.

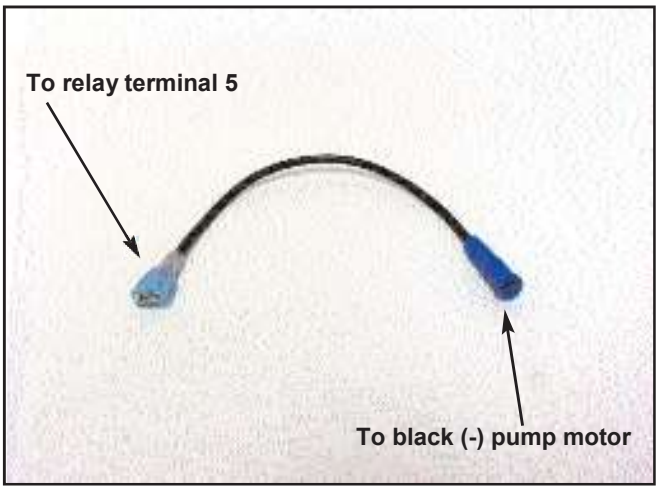
1) To top of vacuum switch
2) From (+) fuse, and to red (+) motor
3) Vehicle ground, battery (-)
5) To black (-) motor



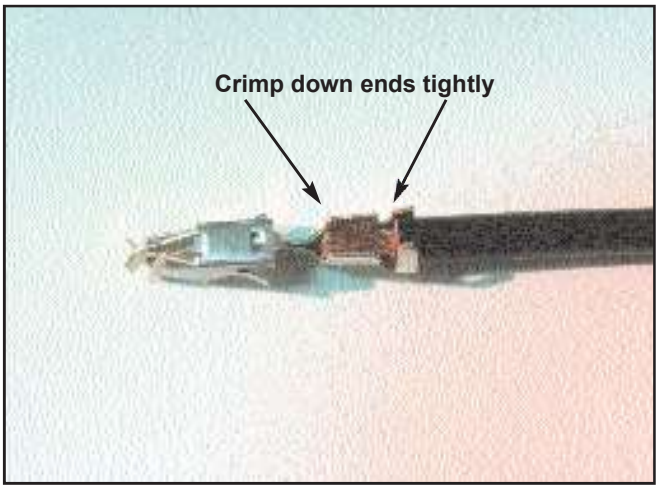
7) Splice two wires together, and connect with a female end connector as show below. The female end connector will connect to terminal 2 on the relay, one wire to the positive (+) switched power source (to fuse), and the last wire to the positive (+) pump motor side.



8) Now make one length of wire with a female end connector on one end, and a female bullet nose connector on the other. Connect female terminal connector to relay terminal 5, and the female bullet nose connector to the pump motor black (-) side.

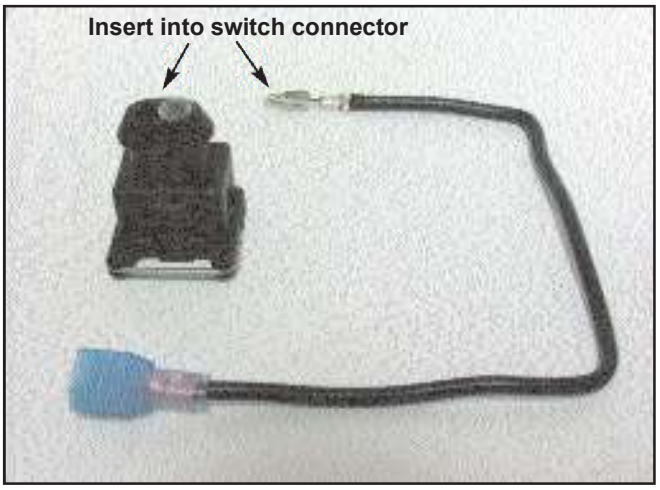


9) Now install vacuum switch clip connector onto the end of a length of wire. Make sure to crimp down ends!

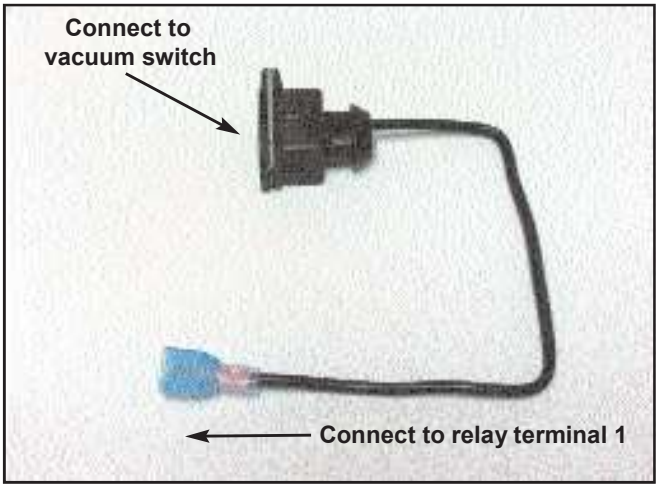


10) Next, install a female end connector to the end of the wire, and insert the vacuum switch clip connector into the vacuum switch connector as show below.

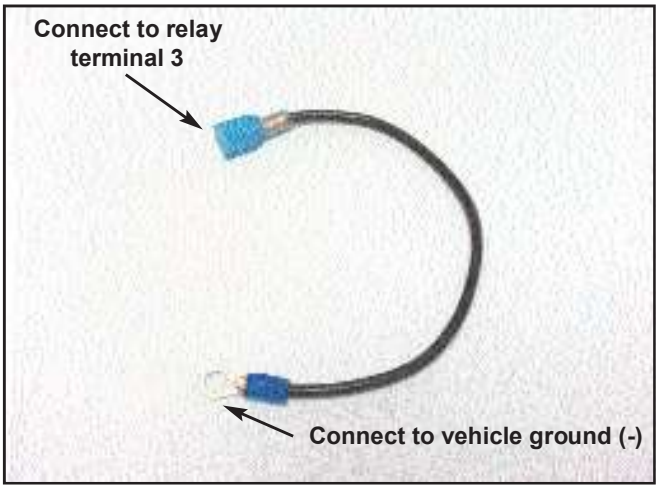
NOTE: CONNECTOR PIN ONLY INSERTS INTO VACUUM SWITCH CONNECTOR ONE WAY! DO NOT FORCE PIN INTO BODY! MAKE SURE THAT THE CONNECTOR LINES UP WITH PIN ON VACUUM SWITCH WHEN CONNECTING!



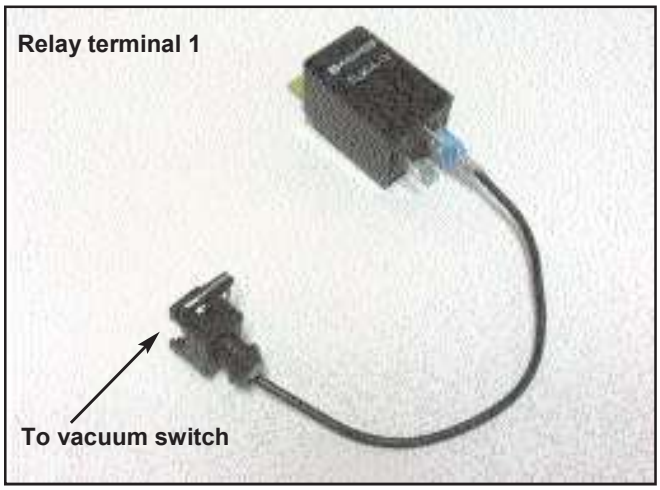
11) Finished assembly should look like the picture below. Now connect black vacuum switch connector to top of vacuum switch, and connect female terminal to relay terminal 1.

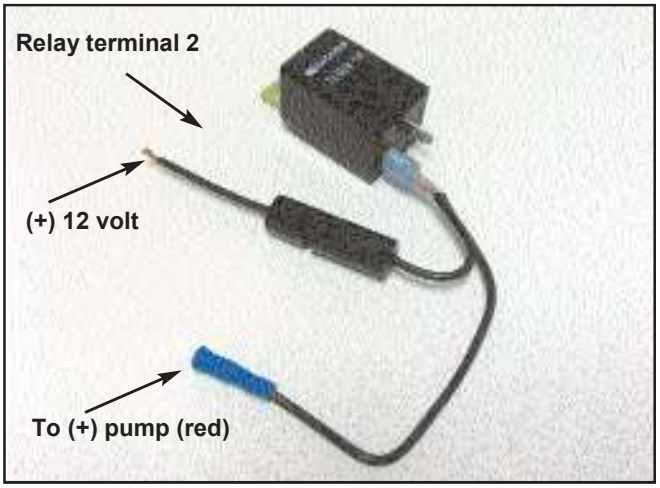


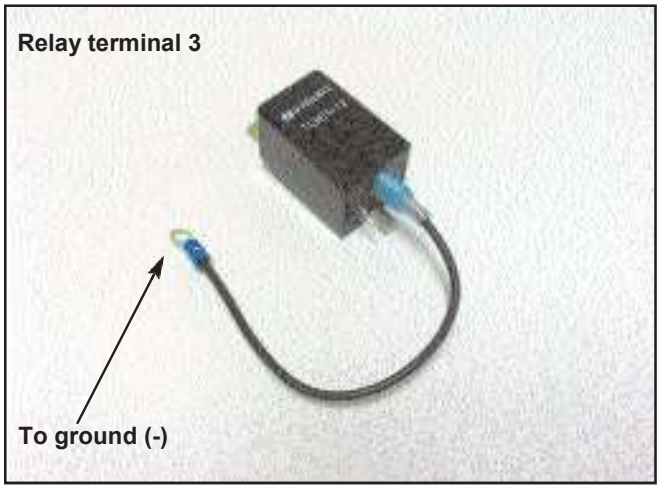
12) Lastly, make one wire as shown in the picture below. One end will have a female end connector connected to relay terminal 3, and the other end will have a ring terminal that will attach to a good ground point on the vehicle.

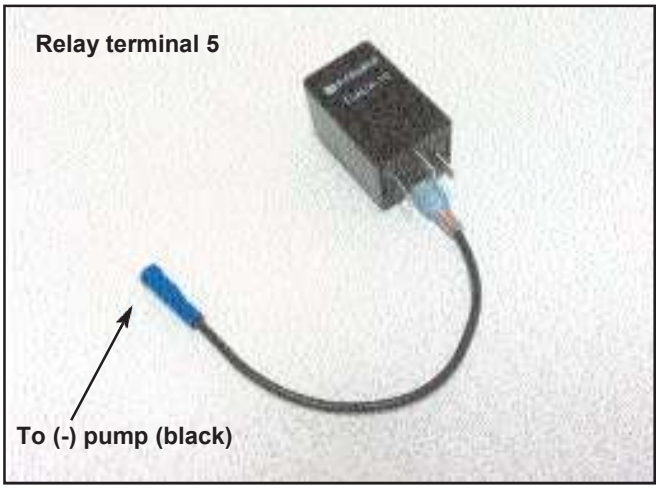


13) Congratulations, you have completed installation of the vacuum pump! Before you start the vehicle, review the simplified wiring diagram pictures below to make sure all of your connections are correct:









POSSIBLE ELECTRICAL PROBLEMS

FAULT	POSSIBLE CAUSE	SOLUTION
Pump doesn't work	Blown fuse Switch not grounded Vacuum switch connector not connected	Replace fuse Check wiring & ground Check top of vacuum switch
Vacuum pump won't stop	Vacuum switch failure Relay failure	Replace vacuum switch Replace relay