

Installation Instructions

AHVUL

Air Horn

RIVCO Products, Inc.
440 South Pine Street
Burlington, WI 53105
262-763-8222
rivcoproducts.com

Kawasaki Vulcan 800 / 900

Air Horn Installation Instructions #AHVUL

1. Remove stock horn and mounting bracket from the frame. Remove the seat (two 10mm bolts, one on each side towards the rear of the seat on most models). Remove the fuel tank.
2. Remove the bracket that is bolted to the compressor, this will not be used on this model. Attach the white wire to the compressors (-) negative terminal and the short black wire to the (+) positive and connect the supplied air hose to the fitting on the compressor. The compressor should be mounted along side the ignition coils with the hose route down towards the left frame tube where the horn set will mount. Use the 2 long cable ties supplied to secure the compressor to the ignition coils. Attach the (-) ground wire to one of the coil mounting bolts
3. Installing the relay. Reroute the original horn wires up towards and as close to the compressor as possible. Attach the original horn wires to the relay terminals #85 and #86 (it doesn't matter which wire to which terminal). Attach the short black wire from the (+) positive compressor and the long black wire (supplied) to the remaining terminals #30 and #87 (again it doesn't matter which wire to which terminal). Secure the relay with a cable tie to the frame. Route the long black wire back along the left side of the frame back to the battery.
4. Cut the wire to the appropriate length allowing for the supplied fuse holder to be attached to the (+) positive battery terminal. Strip 3/8" from end of the black wire and crimp on the fuse holder. Connect the spade (forked) end of the fuse holder to the (+) positive battery terminal

5. * MOUNTING THE HORN SET WITHOUT ENGINE GUARDS *

Locate the left forward engine mounting plate (this is a triangular plate connecting the engine to the frame). Remove the upper 8mm (12mm wrench size) bolt from the plate. Using the new longer 8mm bolt supplied, install the horn bracket (Z shaped with angle cut ends) with the off set towards the engine and tighten securely (the bracket angle will align with the notch in the frame when you tighten it).

Install the horns to the mounting bracket using the 5/16" x 3/4" long bolt, nut and lock washer supplied before tightening. Align the horns so they are parallel to the ground. Tighten securely.

6. * MOUNTING THE HORN SET WITH ENGINE GUARDS *

Locate the left forward engine mounting plate (this is a triangular plate connecting the engine to the frame). Remove the upper 8mm (12mm wrench size) bolt from the plate. Using the 8mm bolt you removed, install the horn bracket (Z shaped with angle cut ends) with the offset towards the engine. Make the bolt snug so that you can still pivot the bracket on the bolt.

Install the horns to the mounting bracket using the 2 - 5/16" bolts, loc washer, washers and the threaded spacer. Place the spacer between the horns and the mounting bracket. Start a bolt with a washer from each side. Snug these bolts. Next align the horns so they are parallel to the ground. Tighten both upper and lower bolts securely.

7. Route the hose from the compressor to the "Y" on the horn set, trim the hose to the desired length and connect it to the "Y". Turn on the key and test the horns. Reinstall the fuel tank and the seat.
8. Install the horn covers per instructions enclosed.

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Kawasaki Vulcan - Classic / Nomad
Air Horn Installation Instructions #AHVUL
For earlier models equipped with two horns mounted just above the radiator

1. Remove stock horns and their mounting bracket from the frame (located just above the radiator). The two 6mm bolts holding the bracket to the frame are located inside a slot in the frame just above the top and in front of the radiator. Remove the Allen screw attaching the ignition switch to the frame and let the switch hang. Remove the cable tie just above ignition switch going through a hole in the frame. Remove the seat (2 -10mm bolts just in front of the top of the rear shock absorber).
2. Installing the compressor. Attach the white wire to the compressors (-) negative terminal and the short black wire to the (+) positive. Connect the air hose to the fitting on the compressor. Insert the compressor inside the frame where the stock horn mounting bracket was located using the original 6 mm bolts with the hose pointing to the left side of the motorcycle. Run the other end of the white wire through a hole in the frame and attach ring terminal to the left 6 mm bolt holding the compressor on. Tighten both bolts
3. Installing the relay. Attach the original left horn wires to the relay terminals #85 and #86 (it doesn't matter which wire to which terminal). Attach the short black wire from the (+) positive compressor and the long black wire to the remaining terminals #30 and #87 (again it doesn't matter which wire to which terminal). Secure the relay with a cable tie through the slot in the relay and the hole in the frame just above the ignition switch (keep the terminals facing down and the relay hidden behind the frame).
4. Route the long black wire up under the fuel tank along the left side of the frame, threading it through the spark plug wire holder over the front cylinder and the hose holder over the rear cylinder. Now route the wire toward the middle of the frame and out over the fuse box and battery.
5. Cut the wire to the appropriate length allowing for the fuse holder to be attached to the (+) positive battery terminal. Strip 3/8" from end of the black wire and crimp on the fuse holder. Attach the spade (forked) end of the fuse holder to the (+) positive battery terminal. Use the other cable tie to neatly secure all the wires just above the relay.

6 a.* MOUNTING THE HORN SET WITHOUT ENGINE GUARDS *

Remove the 12mm motor mount bolt approx. 8" below the ignition switch. Using the new longer 8mm bolt supplied, install the horn bracket (Z shaped with angle cut ends) with the off set towards the engine and tighten securely (the bracket angle will align with the notch in the frame when you tighten it). Install the horns to the mounting bracket using the 5/16" x 3/4" long bolt, nut and lock washer supplied before tightening. Align the horns so they are parallel to the ground. Tighten securely.

6 b.* MOUNTING THE HORN SET WITH ENGINE GUARDS *

Remove the 12mm motor mount bolt approx. 8" below the ignition switch. Using the longer 8mm bolt supplied install the horn bracket (Z shaped with angle cut ends) with the offset towards the engine. Make the bolt snug so that you can still pivot the bracket on the bolt. Install the horns to the mounting bracket using the 2 - 5/16" bolts, loc washer, washers and the threaded spacer. Place the spacer between the horns and the mounting bracket, this will offset the horns inward to clear the engine guard. Start a bolt with a washer from each side. Snug these bolts. Next align the horns so they are parallel to the ground. Tighten both upper and lower bolts securely.

7. Route the hose to the "Y", cut the hose to the desired length and connect it to the "Y". Turn on the ignition and test the horns. Reinstall the ignition switch and the seat.
8. Install the horn covers per instructions enclosed

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Kawasaki Vulcan - Classic / Nomad / Mean Streak / 2000
Late model (equipped with 1 original horn)
Air Horn Installation Instructions #AHVUL

1. Remove stock horn and mounting bracket from the frame. Remove the seat (two 10mm bolts, one on each side towards the rear of the seat on most models).
2. **Install the compressor as follows:** Remove the left plastic side cover, notice the plastic shelf or ledge behind this cover. Remove the bracket from the compressor, this will not be used on this model. Connect the air hose to the fitting on the compressor. Connect the short black wire to the compressors Positive (+) terminal and the short white wire to the negative (-) terminal. Lay the compressor horizontally along the plastic shelf or ledge, find a suitable route for the hose to lead out from under the side cover, up over the cylinders and down towards the left side of the frame where the horns will mount. Secure the compressor to the shelf or ledge using the two long cable ties supplied. Attach the white, negative (-) wire to any nearby bolt on the frame to obtain a good ground.
3. Installing the relay. Attach the short black wire from the (+) compressors positive terminal to #30 or # 87 on the relay. Connect the supplied fuse holder to the battery positive (+) terminal. Using the black wire and one of the female terminals supplied connect the fuse wire to the relays terminal #30 or #87. Connect the relays terminals # 85 and #86 to the original horn wires as follows. Reroute the original horn wires upward and over the engine and towards the back. Cut the supplied black wire into two equal lengths. Strip one end of each wire and crimp on two of the supplied male terminals. Connect these wires to the original horn wires and wrap the connections with electrical tape. Route these wires up over the top of the engine along with any other existing wires and back to o the relay. Cut the wires to the desired length. Strip the ends, crimp on two of the supplied female terminals and connect these wires to the relay terminals # 85 and #86. Secure the relay using one of the small cable ties supplied.
 - **MOUNTING THE HORN SET WITHOUT ENGINE GUARDS ***
4. Locate the left forward engine mounting plate (this is a triangular plate connecting the engine to the frame). Remove the upper 8mm (12mm wrench size) bolt from the plate. Using the new 8mm bolt supplied, install the horn bracket (Z shaped with angle cut ends) with the off set towards the engine and tighten securely (the bracket angle will align with the notch in the frame when you tighten it).
5. Install the horns to the mounting bracket using the 5/16" x 3/4" long bolt, nut and lock washer supplied before tightening. Align the horns so they are parallel to the ground. Tighten securely.
 - **MOUNTING THE HORN SET WITH ENGINE GUARDS ***
6. Locate the left forward engine mounting plate (this is a triangular plate connecting the engine to the frame). Remove the upper 8mm (12mm wrench size) bolt from the plate. Using the 8mm bolt you removed, install the horn bracket (Z shaped with angle cut ends) with the offset towards the engine. Make the bolt snug so that you can still pivot the bracket on the bolt.
7. Install the horns to the mounting bracket using the 2 - 5/16" bolts, loc washer, washers and the threaded spacer (the spacer will allow clearance between the horn set and the engine guards). Place the spacer between the horns and the mounting bracket. Start a bolt with a washer from each side. Snug these bolts. Next align the horns so they are parallel to the ground. Tighten both upper and lower bolts securely.
8. Route the hose from the compressor up over the engine and forward then down to the horn set. Cut the hose to the desires length and connect it to "Y" hose from the horns. Turn on the key and try the horns. Replace the seat and side cover.
9. Install the horn covers per instructions enclosed.

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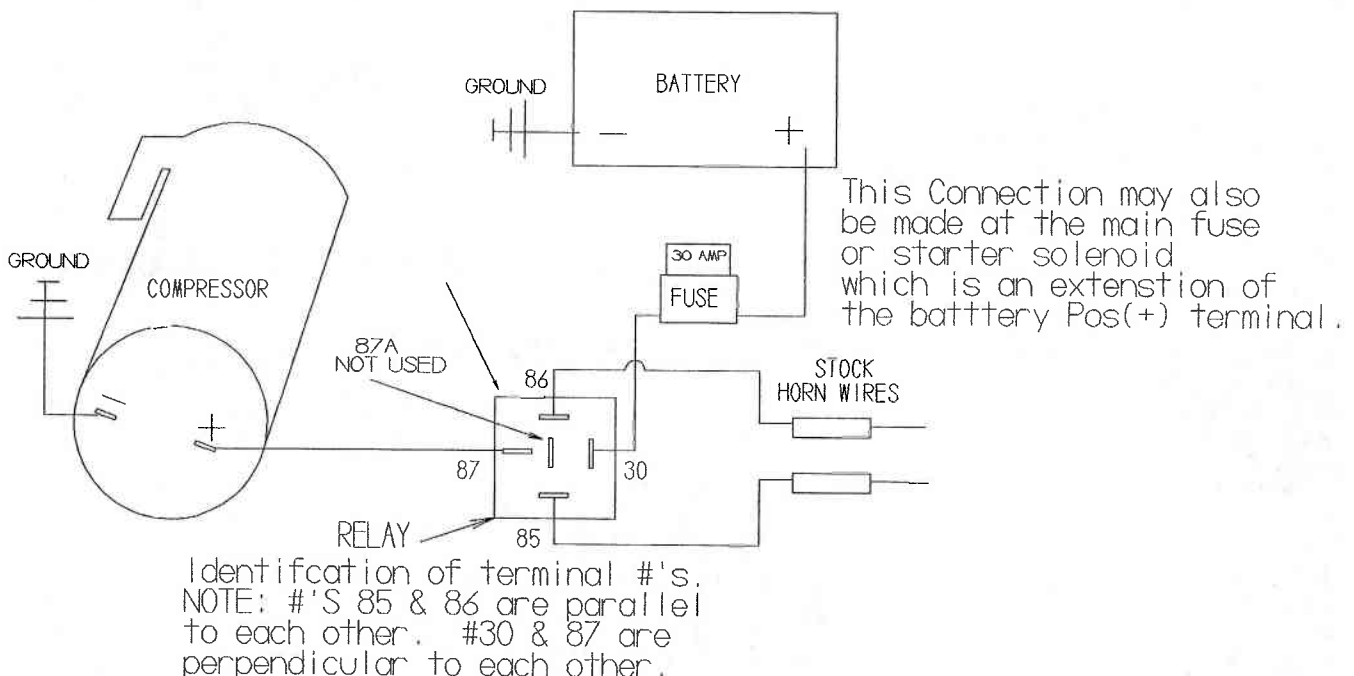
AIR HORN BASIC OPERATION PRINCIPLES AND ELECTRICAL WIRING DIAGRAM

The motorcycles stock horn draws only a small amount of power (less than 1 amp.) which comes directly from the horn button on the handlebars. The air horns electric air compressor draws considerably more power (approx. 8 amps). This requires the use of a relay, heavier gage wire and fuse to prevent damage to the horn button contacts as well as provide enough amperage to run the compressor at full speed.

A relay is a switch that is able to handle higher amperage loads and be controlled remotely by a small switch like a horn button. In the wiring diagram shown when the horn button is pushed power flows through terminals 85 & 86, this activates a small electromagnet inside the relay. This engages a set of heavy-duty contacts between terminals 30 & 87 which allows the higher amperage power to flow from the battery to the compressor.

The air compressor creates an almost instant air pressure to the horns. Because the pressure is created so fast there is no need for an air storage tank as on a big truck or R.V. Although the pressure is very low (12-15 psi.) it delivers a large volume of air (3 CFM cubic feet per minute). This low pressure high volume air supply causes a diaphragm or reed at the base of the horn to vibrate at a very high speed or frequency. The exact speed at which it vibrates is varied by the length of the horn or "trumpet". The longer the trumpet vibrates slower at 450 times per second "Hz" (Hertz), thus producing the lower tone of the two. The short or high tone trumpet operates at 550 MHz. Together they produce an extremely loud 125 db.(decibels) this is approximately 4 times louder than most electric motorcycle horns @ 87db.

ELECTRICAL WIRING DIAGRAM



AIR HORN INSTALLATION F.A.Q. TROUBLESHOOTING

All components are tested for operation and quality at the factory. An inoperative or bad component is highly unlikely but not impossible. If you are having problems please check the following

"NOTHING HAPPENS WHEN THE HORN BUTTON IS PUSHED"

1. Check ignition switch. Ignition must be in the "on" position.
2. Check for power to the stock horn wires. Attach a test light or volt meter to the stock horn wires at terminals 85 & 86 of the relay. You should have power when the horn button is pushed with the ignition on, if not check the wires, connections and the stock horn fuse (located in the fuse box).

"ALL I HEAR IS A CLICKING NOISE COMING FROM THE RELAY WHEN I PUSH THE HORN BUTTON"

1. Using a test light or volt meter test for power at relay terminal 30 or 87 coming from the battery pos.(+) terminal through the 30 amp fuse (provided).If no power check fuse and connections.
2. Test for power coming out of the opposite relay terminal 87 or 30 with the ignition switch in the "on" position and the horn button is pushed. If there is no power the relay is faulty and must be replaced.
3. Test for power at the compressor pos (+) terminal with ignition "on" and horn button pushed. If there is no power check the wire from relay and connections. If there is power check the compressor ground (-) wire connections, be certain you have a good metal connection to the frame, many times paint will prevent the terminal from making a solid connection. If these seem to check out O.K. you can test the compressor running jumper or test wires from the battery + and - directly to the compressor's terminals

"THE COMPRESSOR RUNS BUT THE HORNS DON'T BLOW OR SOUND WEAK"

1. Check for a kinked, pinched, cut or split hose, even a partially kinked or crimped hose will cause weak or non working horns.
2. Check to be sure all hose connections are secure.
3. Check for sufficient air supply. Disconnect the air supply hose from the "Y" connector, turn on the ignition and push the horn button, place your finger over the hose from the compressor, you should feel some pressure and flow (the compressor only generates 3 cfm at 12-15 psi).
4. If there is no air coming from the compressor check the electrical connections at the compressor. Pos (+) to the relay and neg (-) to ground. If the connections have been accidentally reversed the compressor will suck air instead of blowing it.

"I HAVE AIR COMING OUT OF THE HOSE BUT THE HORNS SOUND WEAK OR STILL DON'T BLOW"

Occasionally during shipping a small piece of packing material may become lodged in one or both of the horns diaphragms or "reeds". This may also occur after a period of time from an accumulation of road dirt, bug residue and water. Regular use will generally blow this debris from the horns, however periodic cleaning may be required and will keep them sounding their loudest and best. You can clean them out by: This first method is a quick and easy thing to try and works 70% of the time.

1. Remove the two hoses from the horns by prying them off the hose barb with a blade screwdriver at the edge of the hose.
2. Spray a small amount of WD-40 or similar penetrating oil into each horns air inlet, using a high pressure "shop" air or blow gun give a blast of air into each inlet. This will dislodge most debris and lubricate the diaphragms. It should produce an extremely loud noise!.
3. Re-attach the hoses and try the horns again
4. Also check that there is a minimum of 1/2" clearance between the front or open end of the horn and the front cover, if not remove the cover, re-bend the spring clips that attach it and replace it to get the proper clearance.
5. If it does not help try removing the horn set from the motorcycle. Mix 2-3 ounces of dish soap in a bucket of hot water. Place the horn set in the soapy water (submerge them) for about 15 minutes. Remove the horns from the water and blow into the air fitting on each horn with a high pressure air "blow gun".

If you are still having difficulties and require further technical assistance please call us direct
Monday thru Friday 7 am to 3:30 pm CST. at 1-262-763-8222