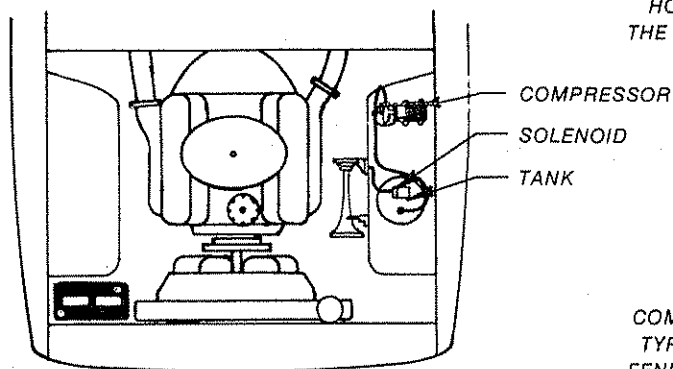


Over 50 Years of Sound Protection
GROVER AIR HORNS

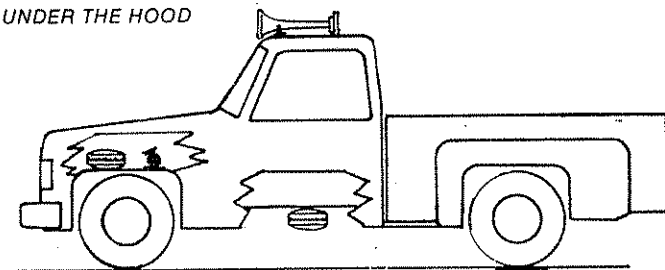
INSTALLATION INSTRUCTIONS

FIRST LAY OUT TANK, COMPRESSOR, AND HORN. LOOK AT POSSIBLE PLACEMENT FOR EACH COMPONENT. THE COMPRESSOR SHOULD BE MOUNTED IN A WEATHER RESISTANT COMPARTMENT, SUCH AS IN THE ENGINE COMPARTMENT OR TRUNK. IT SHOULD BE MOUNTED UPRIGHT, A SLIGHT ANGLE IS OKAY (**REMEMBER, THERE IS OIL IN IT!**). BEFORE USE, CHECK OIL LEVEL AT THE BRASS FILLER PLUG ON THE BODY. IF NECESSARY, FILL TO LEVEL USING 40 wt. OIL. **NOTE: THIS COMPRESSOR IS TO BE USED WITH AN AIR RESEVOIR.** MOUNT TANK WHERE ROOM ALLOWS. IT MAY BE MOUNTED UPSIDE DOWN OR SIDWAYS. IF THERE IS NO ROOM IN THE ENGINE COMPARTMENT, THE HORN(S) AND TANK MAY BE MOUNTED UNDER THE FLOORBOARD OR DIRECTLY TO THE FRAME.



TYPICAL MOUNTING ARRANGEMENT
 IN THE ENGINE COMPARTMENT

HORN MAY BE MOUNTED ON
 THE ROOF OR UNDER THE HOOD

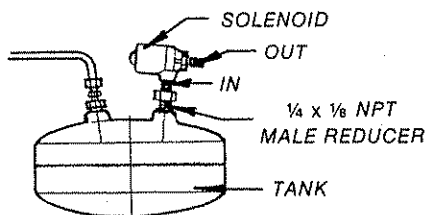


COMPLETE HORN KIT WILL
 TYPICALLY FIT ON INNER
 FENDER, UNDER THE HOOD

TANK CAN BE MOUNTED
 UNDER THE FLOORBOARD

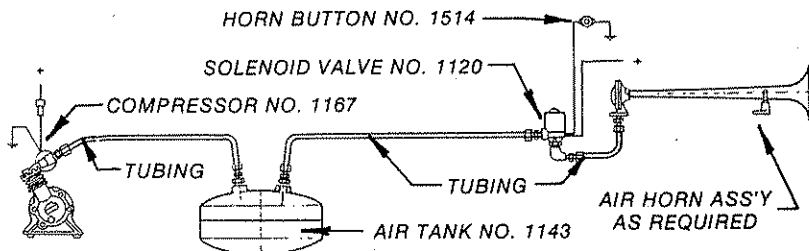
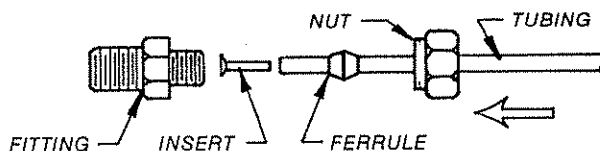
MOUNT HORN(S) UNDER THE HOOD, ON THE FRAME, OR ON THE ROOF. **NOTE: THE HORN SHOULD HAVE A SLIGHT DOWNWARD ANGLE TO ALLOW ANY WATER OR CONDENSATION TO RUN OUT.**

THE SOLENOID VALVE CAN BE HARD MOUNTED DIRECTLY TO THE TANK, (USING A 1/4 x 1/8 NPT MALE REDUCER BUSHING), TO THE BOTTOM OF THE HORN, OR REMOTE IF NECESSARY.



CONTINUE TUBING FROM TANK TO SOLENOID VALVE, AND FROM SOLENOID TO HORN. (IF HARD MOUNTING SOLENOID TO TANK, INSTALL TUBING DIRECTLY FROM VALVE TO HORN).

INSTALL NYLON TUBING FROM THE COMPRESSOR TO THE TANK USING THE PROVIDED NUT, FERRULE, AND TUBE INSERT. (SEE DIAGRAM)



IMPORTANT!! USE TEFLON TAPE OR SEALER AT ALL CONNECTIONS!!!!

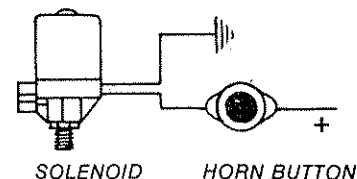


PRODUCTS COMPANY 3424 E. OLYMPIC BOULEVARD • LOS ANGELES, CA 90023
 AIR HORNS • AIR COMPRESSORS • AIR VALVES & EQUIPMENT • AUTOMOTIVE • MARINE • INDUSTRIAL

2005

ELECTRICAL CONNECTIONS

THE SOLENOID IS 12V D.C. BOTH LEADS ARE THE SAME COLOR, SO THEIR POLARITY DOES NOT MATTER. CONNECT ONE WIRE TO GROUND (PREFERABLY TO THE CHASSIS), ATTACH THE SECOND TO THE BUTTON AND THEN TO POWER. (MAKING THE POWER CONSTANT AND COMPLETING THE CIRCUIT BY GROUNDING THROUGH THE BUTTON WILL ALSO WORK.)



THE STOCK HORN BUTTON ON YOUR VEHICLE CAN BE USED BY DISCONNECTING THE WIRE AT THE ELECTRIC HORN AND USING IT AS THE POWER LEAD TO THE SOLENOID. THE ELECTRIC HORN MUST BE DISCONNECTED. (NOTE: FOR MARINE USE THIS VALVE CAN BE ACTIVATED FROM MULTIPLE LOCATIONS.)

THE COMPRESSOR: THE ORANGE WIRE IS POSITIVE, IT CAN BE CONNECTED TO ANY 12V POWER SOURCE USING A 10 AMP FUSE. (IF IGNITION OPERATION IS DESIRED, CONNECT TO POWER SIDE OF THE ALTERNATOR.)

THE SYSTEM IS NOW READY

TROUBLESHOOTING

COMPRESSOR KEEPS RUNNING: THE COMPRESSOR SHOULD RUN LESS THAN 10 MINUTES USING A STOCK TANK. (TIME IT!) IF IT DOES NOT SHUT OFF, DISCONNECT THE POWER AND CHECK THE SYSTEM FOR AIR LEAKS. THIS IS DONE BY PLACING SOAPY WATER ON ALL THE TUBE CONNECTIONS. IF BUBBLING OCCURS, THERE IS A LEAK. MAKE NECESSARY CORRECTIONS.

IF THE COMPRESSOR CONTINUES TO RUN, CHECK SHUT OFF SWITCH OPERATION BY FIRMLY HOLDING THUMB OVER THE AIR OUTLET. THIS SHOULD STOP THE COMPRESSOR. IF NOT, THE SHUT OFF SWITCH MAY NEED REPLACEMENT.

HORN DOES NOT SOUND: CHECK THE TANK FOR AIR. CHECK AIR LINES FOR ANY KINKS OR LEAKS. CHECK FUSE. CHECK SOLENOID AND COMPRESSOR FOR PROPER OPERATION. IF AIR IS REACHING THE HORN BUT MAKING NO SOUND, A REBUILD KIT IS NECESSARY.

WARRANTY

Grover Products Company Manufacturer guarantees Air Compressor Model No. 1393 for a period of one year after date of shipment from its factory will be free of defects in material and workmanship, subject only to the following:

Grover Products Company Manufacturer guarantees Air Compressor Model No. 1167 for a period of 90 days after date of purchase will be free of defects in material and workmanship, subject only to the following:

1. Manufacturer's Liability under this warranty (and under any other warranty, express or implied, statutory or otherwise) is limited to repair or at Manufacturer's option, replacement of all parts which are shown to have been defective when shipped, and then only if Manufacturer is notified of such defects within such warranty period and such defective parts are promptly delivered to its factory, at 3424 East Olympic Boulevard, Los Angeles, California, transportation charges prepaid. Manufacturer's liability hereunder shall not be enforceable until such equipment has been fully paid for. Except to the extent expressly assumed herein, Manufacturer's liability for incidental and consequential damages is hereby excluded to the full extent permitted by applicable law, and in no event, shall Manufacturer's liability in damages

exceed an amount equal to the value of the repair or replacement of the part or parts proved to be defective and to have caused the alleged damage. Manufacturer's liability as stated herein cannot be altered or enlarged except by a writing signed by an officer of Manufacturer.

2. Replacement parts will be invoiced in the regular way with invoices subject to adjustment after the parts claimed defective are examined at our factory. Grover Products Company reserves the right to make such changes in details of design, construction or product arrangement as shall, in its judgement, constitute an improvement over former practice.

RETURNED GOODS: Written permission must be obtained before returning any material for any reason. Material returned for credit will be subject to factory inspection. In-warranty product, in original cartons, or current design will be subject to a rehandling charge less freight originally allowed. All material must be shipped transportation charges prepaid.

PRODUCTS WHICH ARE OBSOLETE OR MADE TO SPECIAL ORDER ARE NOT RETURNABLE.

TECHNICAL DATA

Model 1167 for air horn and other air operated accessories.

Models 1366 and 1393 for water under pressure to trailers, campers, and boats.

Voltage: 12 volt D.C.

Amperage: Approximately 6 amp

Outlet: 1/4" copper tube fitting

MODEL	1393	1167
Type	Oil Type	Oil Type
Output P.S.I.	On - 20# Off - 40#	On - 85# Off - 100#
Overall Dimensions	4" wide x 6" long x 6 3/4" high	4" wide x 6 1/4" long x 6 1/4" high
Weight	5 lbs 4 ozs	5 lbs
Warranty	1 year	90 days



GROVER
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