

GENERAL INSTRUCTIONS KAHLENBERG AIR HORNS

1. GENERAL DESCRIPTION OF THE HORN:

The Kahlenberg air horn is of the diaphragm type and consists of three principal parts, the horn body, projector, and bracket.

Kahlenberg air horns are made in a wide variety of configurations with up to eight (8) projectors on one unit and five (5) diaphragm sizes. Integral valves are treated with a separate instruction sheet when necessary.

2. INSTALLATION:

WARNING: These air horns produce extreme loudness, which can cause permanent hearing damage. All personnel involved in the operation and maintenance of this equipment must wear hearing protectors when testing near horns. Permanent hearing loss may occur if testing near the horn without hearing protection.

For mounting the air horn, a supporting bracket with drilled boltholes is provided. On the larger models provision is also made for attaching a steadying bracket near the top of the horn.

When the air horn is installed, or when the air connections are opened, or when air pipes are altered, care must be taken to thoroughly blow out all chips, water, and dirt from the lines before they are connected to the whistle valve. After this is done, protection for the air horn and valve is normally provided by a Kahlenberg combination strainer and water settling chamber (M-100 or M-101) which should be installed in the air pipe leading to the whistle valve and located inside to prevent freezing, and in a convenient position for draining. For Models S-0A, D-0A, and T-0A, when used with Kahlenberg Compressor Systems, or when using nylon or similar plastic tubing, a strainer such as the M-100 or M-101 may not be necessary if oil and/or condensation are not present in the air supply.

As a general rule, size of pipe between air tank and whistle valve should not be less than ½" pipe size. If pipe is over 50 feet long, use ¾", and over 100 feet long, use 1". For air pressures less than 250 lbs. on large vessels use pipe one size larger than size given. For Models S-0A, D-0A, T-0A, S-1 and D-1, smaller tubing may be used and is typically 5/16" for S-0A, D-0A and T-0A. For Model S-1 and D-1 installations, 3/8" outside diameter tubing may be used for installations requiring less than 30 feet of tube from air receiver to whistle valve. When installations do not fall well within general guidelines as stated above, exact pipe size calculations for specific installations can be obtained by calling the Kahlenberg sales department.

IMPORTANT: To avoid a "Tail" (slow cut off) on the whistle blast, the length of pipe or tube between horn and whistle valve should be as short as possible, preferably not over 36 inches.

3. CARE OF AIRHORN:

The air horn should be inspected externally at regular intervals for loose bolts, loose cap screws, gasket leaks, etc. Internal inspection is not required unless the horn does not blow with its normal tone. In such case, determine which of the horns, if the horn is of the multiple type, is off tone, and remove the cap screws holding the cover on the back of the horn body or chamber. Carefully remove and inspect the diaphragm, clean it off, and wipe out any water and dirt which may have accumulated in the horn chamber and make sure that the air passage hole, which is small in size and through which the air enters the horn chamber, is not blocked or partially blocked by dirt or chips. If necessary, check the air passages through the bracket and other parts of the horn and blow them out with air.

If the diaphragm is bent, cracked, or otherwise damaged, it should be replaced with a new one. Inspect the narrow sounding rim in the body against which the diaphragm presses for burrs or chips embedded on this narrow and important face. Avoid any damage to this face. Do not file or scrape this surface. Inspect also the wide seat in the body against which the rim of the diaphragm fits. See that it is clean, smooth, and free from dirt and embedded chips because the diaphragm must seat against this uniform and true. Likewise, inspect the seat in the cover, which comes in contact with the diaphragm. To reassemble the horn, put the diaphragm back in carefully and then put the cover on, inserting the series of cap screws around the rim of the cover and pulling these screws down carefully and evenly. They should be tightened firmly, but not too tight.

Special attention is called to the following, -- on most air horn models there is a small breathing hole provided in the back cover. This hole also acts as a drain for water accumulating from condensation or sweating. The hole is drilled through the back of the cover at a point below and in line with the center of the circular Kahlenberg stainless steel name plate which is located in the center of the back cover of each horn. Make sure this hole is open and clear and not clogged with dirt or paint. Putting the cover back on the airhorn body with the name plate reading horizontal, or as nearly horizontal, as the bolt holes permit, automatically brings this vent-drain hole in the lowest or proper gravity draining position.

If trouble is experienced with the tone of one of the horns on a multiple horn, and it cannot be remedied in the field by inspection of the interior of the horn and proceeding as described above, this projector and body should be removed and returned to the Kahlenberg factory or the airhorn body assembly, (body, cap, and diaphragm) replaced with a new assembly. If necessary, the entire horn, less whistle valve, may be returned to the factory for repairs.

4. CLEANING OF CHROME PLATED AIR HORNS:

Chrome plated air horns require special care of the exterior surfaces. Especially when operating in saltwater environments, the horn should be routinely washed down with fresh water once a week, or as soon as possible after salt water has been in contact with the finish. This practice will drastically improve the lifetime of the finish. Water entering the interior of the horn will not damage the unit, however, directing a stream of water directly into the sound producing diaphragm may briefly clog the horn with water.

Only if saltwater spots cannot be removed with a soft cloth, soap, and fresh water, the chrome should be polished using a non-abrasive polishing product such as "Flitz" or "Simi-chrome" chrome polish. After polishing or routine cleaning, a pure carnauba car wax or polymer can be applied also. Be sure to buff off excess wax immediately.

BE CERTAIN NOT TO USE A WAX CONTAINING ABRASIVES SUCH AS COLLINITE #850 METAL WAX. OBVIOUS ABRASIVE SCRATCHES ON CHROME FINISH WILL VOID ALL WARRANTY CLAIMS.

5. WORKING PRESSURE: For Models S-0A, D-0A, and T-0A, the working pressure range is 50 to 200 lbs. per square inch. The working pressure range for all other models is 100 to 250 p.s.i.. If air pressure to the horn exceeds these working pressure ranges, use a reducing valve between air tank and horn and reduce the pressure.

6. ORDERING REPAIR PARTS: When ordering airhorn repair parts, refer to the Airhorn Parts List. Give quantity wanted, the part number, name of part and the model number and serial number of the horn. The latter numbers are stamped on the circular stainless steel name plate located in the center of the back cover on each horn body. "Zero Series Horns" may have the serial number stamped on the underside of the horn body assembly.

When ordering whistle valve repair parts, refer to the Whistle Valve Parts List. Give quantity wanted, the part number, name of part, and the model number and serial number of the whistle valve from the name plate, which is attached to whistle valves of the electric solenoid type. In the case of plain manual whistle valves give the pipe thread size and the name of the valve, which is usually cast in letters on the surface of the valve body.

Kahlenberg Industries, Inc.
P.O. Box 358, 1700 12th St.
Two Rivers, WI 54241 U.S.A.
Ph: 920-793-4507
Fx: 920-793-1346
www.kahlenberg.com