

**INSTALLATION INSTRUCTIONS
FOR 3H, 4H, 4M, and 6H Air Horns**

Address all communications and shipments to:



FEDERAL SIGNAL CORPORATION
Electrical Products Division
Service Department
2645 Federal Signal Drive
University Park, IL 60466-3195

FOR REFERENCE ONLY
PLEASE SEE UPDATED DOCUMENT

**INSTALLATION INSTRUCTIONS
FOR
3H, 4H, 4M, AND 6H AIR HORNS**

SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to follow all instructions shipped with the products. This device is to be installed by qualified personnel who are trained in pipefitting and electrical wiring, and are familiar with national as well as local codes.

The selection of the mounting location for the device, its controls and routing of the pipe is to be accomplished under the direction of the facilities engineer and the safety engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

- Read and understand all instructions before installing or operating this equipment.
- Optimum sound distribution will be severely reduced if any objects are in front of the horn. You should ensure that the front of the horn is clear of any obstructions.
- All effective warning horns produce loud sounds which may cause, in certain situations, permanent hearing loss. You should take appropriate precautions such as wearing hearing protection when testing the horn.
- After installation, ensure that all bolts and threaded joints have been tightened.
- Establish a procedure to routinely check the sound system for proper activation and operation.
- Provide a copy of these instructions to the safety Engineer, operator(s), and maintenance personnel.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the device.
- Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

A. GENERAL.

These air horns utilize stainless steel diaphragms and corrosion resistant castings finished with a gray polyester coating. They are capable of being operated on air pressure of 20 to 150 p.s.i.g., but are tuned for optimum audibility at 80 to 90 p.s.i.g.

The Model 3H horn is tuned to a frequency of 750Hz. It has a female 3/8 I.P.S threaded opening for connection to the compressed air system, and is light enough to be supported by the pipe to which it is connected.

The Model 4H horn is tuned to 450Hz and the Model 4M horn is tuned to 340Hz. Both horns have a female 1/2 I.P.S. threaded opening for connection to the compressed air system, and are provided with a mounting ear on each side of the casting that includes a hole for 5/16 inch bolts.

The Model 6H horn is tuned to a frequency of 295Hz. It has a female 3/4 I.P.S. threaded opening for connection to the compressed air system and is provided with a mounting ear on top of the casting that includes two mounting holes for 1/2 inch bolts. It also contains a mounting flange around the pipe opening with four mounting holes for 1/2 inch bolts.

B. INSTALLATION.

1. Determine the location of the horn and air valve, and layout the airline to them from the air source. For optimum performance the air line should be as short and as straight as possible. Angles and bends should be avoided as much as possible, but where unavoidable, it is recommended that long sweep elbows be used to maximize air flow to the horn.

NOTE

The valve to actuate the horn should be located as close to the horn as possible. The farther it is located from the horn the longer it will take to obtain full volume when activated and the longer it will take to stop sounding when deactivated.

2. Before attaching the horn to the air line, blow out the air line to remove any debris that may have accumulated during assembly. Failure to do so may cause the debris to become lodged in the air valve or between the horn's diaphragm and body which will restrict movement of the diaphragm and significantly affect horn performance.

3. It is recommended that a pipe union be used when connecting the horn and air valve to the air line. This will allow for easier removal of the horn and air valve should service be required.

C. OPERATION.

WARNING

These horns produce very loud sounds. Appropriate hearing protection should be worn while verifying horn operation.

Operate the air valve and verify that the horn sounds. Also verify that the sound is smooth with no distortion. Release the air valve.

SAFETY MESSAGE TO MAINTENANCE PERSONNEL

- Read and understand all instructions before performing any maintenance to this unit.
- Optimum sound distribution will be reduced if the horn becomes clogged with a foreign substance. Periodic checks should be performed to ensure foreign substances are not packed into horn.
- Any maintenance must be performed by qualified personnel trained in pipe fitting and electrical wiring in accordance with national and local codes.
- Never alter the unit in any manner. Safety in hazardous locations may be endangered if additional openings, or alterations are made to the unit in these locations.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

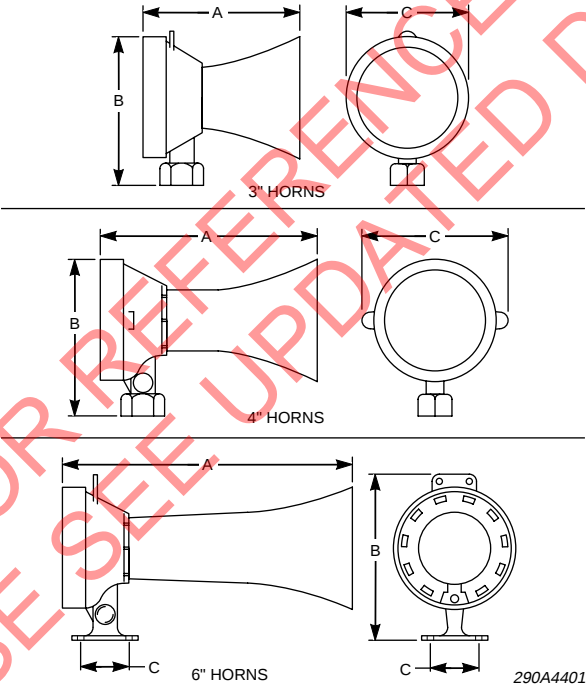
D. REPLACEMENT PARTS.

Description	Part Number
Retaining Ring, 3H	K8271A009
Retaining Ring, 4H	K8271A011
Retaining Ring, 4M	K8271A034
Retaining Ring, 6H	K8271C023
Diaphragm, 3H	K8271A020
Diaphragm, 4H	K8271A013
Diaphragm, 4M	K8271A072
Diaphragm, 6H	K8271A077
Locking Screw, 3H, 4H, 4M	K7000A070-16
Locking Screw, 6H	K7002A046-12
Jam Nut, 3H, 4H, 4M	K7059A016

E. SPECIFICATIONS.

Model	Pipe Size (in.)	Air Consumption (cubic ft/sec)	Frequency (Hz)	dBA@ 10 ft.
3H	3/8	0.2	750	112
4H	1/2	0.25	450	117
4M	1/2	0.25	340	117
6H	3/4	0.45	295	122

Model	Dimensions (in)			Weight (lbs)	Air Valve to Be Used
	A	B	C		
3H	4-7/8	4-3/4	3-7/8	3.5	EVS
4H	7-7/8	5-5/8	5	5	EVM
4M	11-1/4	5-9/16	5	7.5	EVM
6H	12-3/8	9-1/2	2-3/16	21	EVL



FOR REFERENCE ONLY
PLEASE SEE UPDATED DOCUMENT

FOR REFERENCE ONLY
PLEASE SEE UPDATED DOCUMENT

2561771A
REV. A 1201
Printed in U.S.A.