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**INSTALLATION INSTRUCTIONS
 STH-15 HORN SPEAKER WITH MULTI-TAP TRANSFORMER
 AND CAPACITOR FOR LINE SUPERVISION**

Use this product according to this instruction manual. Please keep this instruction manual for future reference.

MODELS:

STH-15S	Grey	UL Listed under UL 1480 for Speaker Appliances
STH-15SR	Red	UL Listed under UL 1480 for Speaker Appliances

GENERAL:

The STH-15 is designed for multiple power requirements with high dBA output at each power tap. STH-15 models offer a choice of field selectable taps, 1 to 15 Watts for either 25VRMS or 70VRMS audio systems. The Series STH-15 design incorporates a compression driver, mounted on a double re-entrant horn for maximum output at minimum power across a frequency range of 400 to 4,000Hz. The speaker line inputs are compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP). A capacitor is wired in series with the multi-tap transformer for this purpose.

NOTE: All **CAUTIONS** and **WARNINGS** are identified by the symbol . All warnings are printed in bold capital letters.

WARNING: PLEASE READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO COMPLY WITH ANY OF THE FOLLOWING INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

SPECIFICATIONS:

Setting	70V	dB	25V	dB
1	0.9W	93	Not Used	Not Used
2	1.8W	96	Not Used	Not Used
3	3.8W	96	0.48W	90
4	7.5W	99	0.94W	90
5	15.0W	102	1.8W	93
6	Not Used	Not Used	7.5W	99
7	Not Used	Not Used	15.0W	102

NOTES:

1. Power Handling Capacity (RMS): 15W
2. Sound Dispersion: 70 Degrees
3. Constant Voltage Line: 25V or 70V
4. Frequency Response: 400 - 4,000Hz (@ Full Rated Output)
5. Sound Level (Peak): 120dB @ 15W, 1 Meter
6. Dimensions: 7-7/8W X 8-3/4H X 9-5/16L

CAUTION: Do not place switch in settings marked "not used". Failure to comply with these restrictions may cause damage to components and will void the warranty.

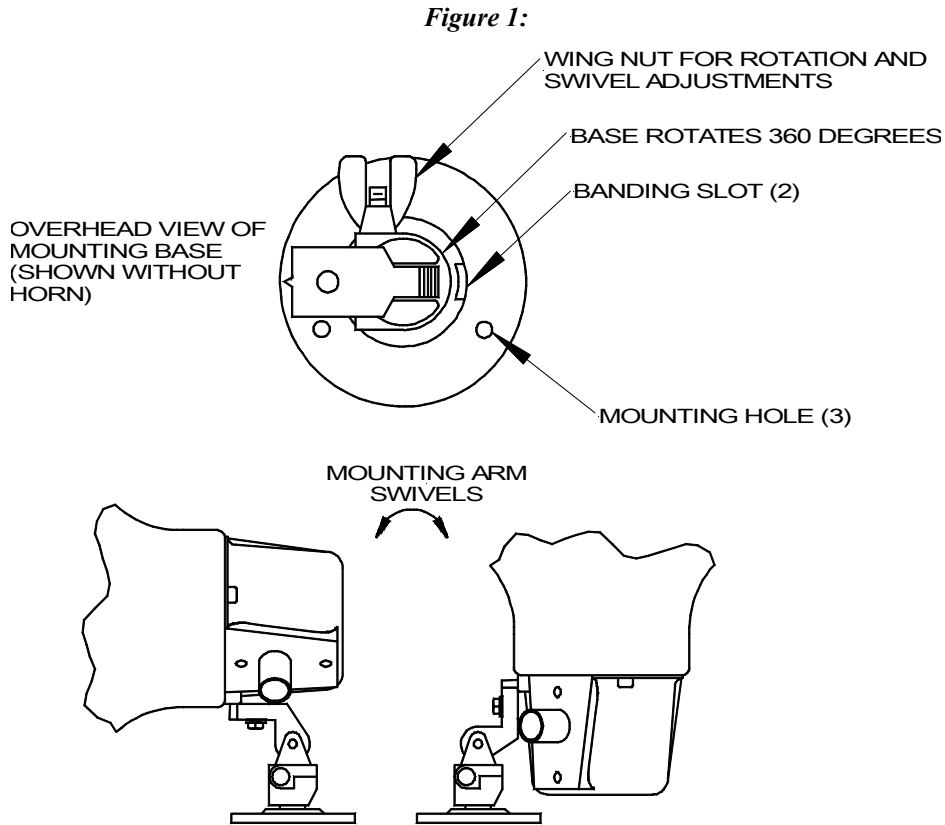
INSTALLATION INFORMATION:

There is a slotted shaft, underneath the cable entrance interface adapter, which operates a 7-position selector switch. Remove the interface adapter and set the switch for the desired wattage at the specified speaker line voltage (25V or 70V). Adjust the switch by turning the slotted shaft until the end of the slot which is opposite the flat on the shaft points to the desired number. The wattage provided at each selector number is shown on the decal affixed to the rear of the housing.

MOUNTING INFORMATION:

The horn speakers may be wall mounted by simply using the holes in the swivel base to locate and drill mounting holes. Mount the base to the surface with appropriate hardware. Slots are also provided in the base for banding straps, to allow mounting to beams, poles, and girders. The mounting base is also fully adjustable in both the vertical and horizontal planes (See Figure 1).

⚠ CAUTION: These devices are not intended for use in hazardous locations as defined by the National Electrical Code (NEC) and by the National Fire Protection Association (NFPA).

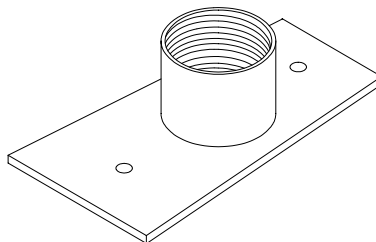


NOTE: Loosening the wing nut will allow for both pitch and rotation of the unit.

⚠ CAUTION: When adjusting horn position, be careful not to lose adjusting hardware.

The interface adapter (mounted to the horn) permits conduit connection. The interface adapter is threaded for standard 1/2" pipe, and will accommodate BX cable, flexible or rigid conduit and matching connectors. The interface adapter is shown in Figure 2 below.

Figure 2: Interface Adapter



WIRING INFORMATION:

UL Listed Models

Remove the Interface Adapter, to expose the two (2) screw terminals, and connect the audio installation wires as shown in Figure 3. The terminals are numbered (1 and 2) to indicate phasing, which should be maintained throughout the system. For example: In an installation with multiple horns, connect the same color audio wire to all number 1 terminals and another color audio wire to all number 2 terminals to ensure proper phasing, as shown in Figure 4. Mount Interface Adapter or clear plastic shield back on horn.

Figure 3: Wiring

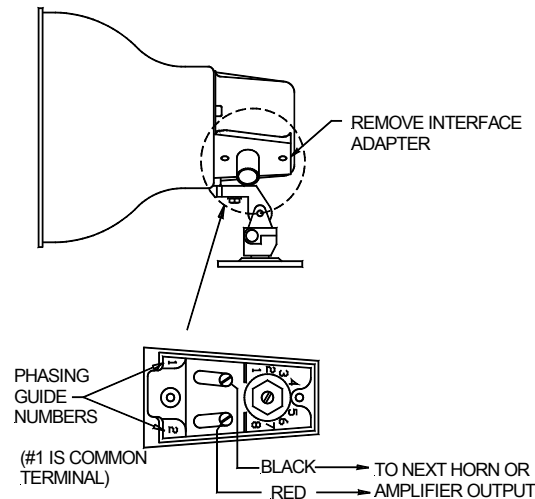
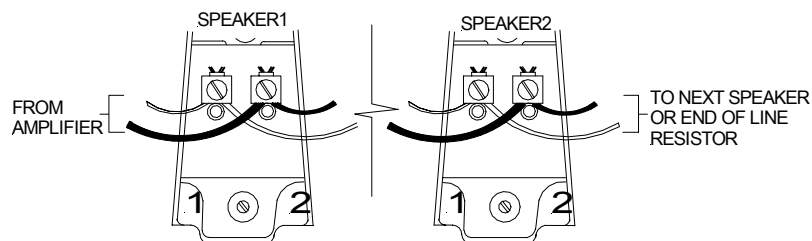


Figure 4: Wiring Diagram



⚠ CAUTION: Break wire run to provide supervision of connection.

APPLICATION NOTES:

1. STH-15 Horn Speakers are UL Listed for indoor/outdoor use with a temperature range of -31°F to 150°F (-35°C to 66°C) and maximum humidity of 95% RH.
2. Each doubling of rated watts increases sound output by 3 dBA. Field selectable wattage selection switches are provided on each unit. The following wattage selections are available (Ref. 70 Volt): 0.9W, 1.8W, 3.8W, 7.5W, 15.0W. Frequency range of speakers is 400-4,000Hz.
3. A blocking capacitor for DC supervision of audio lines by the FACP is factory wired in series with the speaker input.

⚠ CAUTION: Excessive bass energy can damage horn voice coils, especially at high power levels. To avoid possible damage, an amplifier with a bass roll-off filter (horn protect circuit) should be used.

⚠ CAUTION: Always operate audio amplifiers and speakers within their specified ratings. Excessive input may distort sound quality and may damage audio equipment. Do not exceed +130% of speaker input voltage per UL 1480. Improper input voltage can damage speaker. If distortion is heard, check for clipping of the audio appliance with an oscilloscope and reduce the amplifier input level or gain level to eliminate any clipping.

⚠ CAUTION: Check the installation instructions of the manufacturers of other equipment used in the system for any guidelines or restrictions on wiring and/or locating Notification Appliance Circuits (NAC) and notification appliances. Some system communication circuits and/or audio circuits, for example, may require special precautions to assure electrical noise immunity (e.g. audio crosstalk).

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