

Thank you for using our products.

**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:

| <i>Table 1: Wattage Selector Switch Settings and dBA</i> | | | | |
|--|----------|----------|----------|----------|
| Setting | 70V | dB | 25V | dB |
| 1 | 0.9W | 91 | Not Used | Not Used |
| 2 | 1.8W | 93 | Not Used | Not Used |
| 3 | 3.8W | 96 | 0.48W | 87 |
| 4 | 7.5W | 98 | 0.94W | 90 |
| 5 | 15.0W | 101 | 1.8W | 93 |
| 6 | Not Used | Not Used | 7.5W | 98 |
| 7 | Not Used | Not Used | 15.0W | 100 |

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.

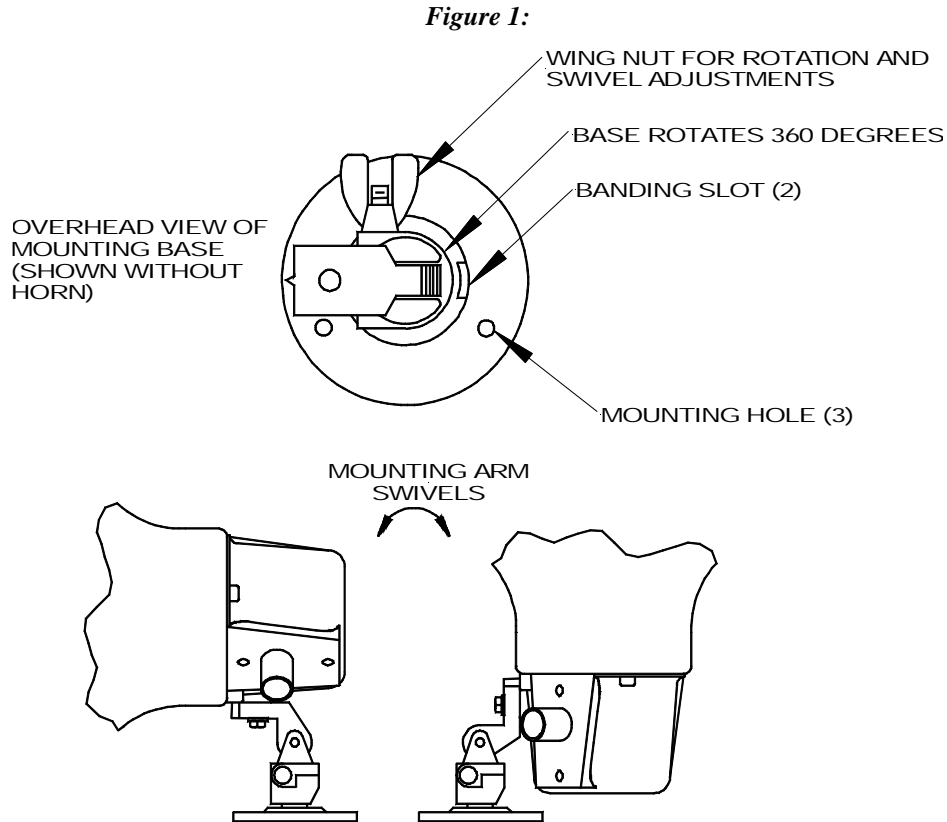
INSTALLATION INFORMATION:

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).

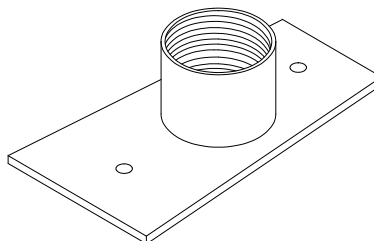


NOTE: Loosening the wing nut will allow for both pitch and rotation of the unit.

⚠ 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

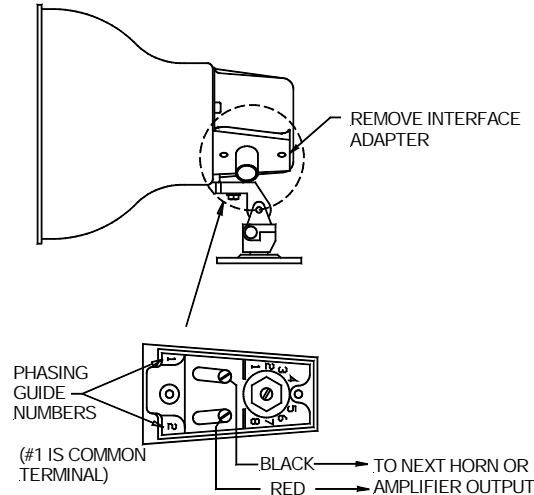
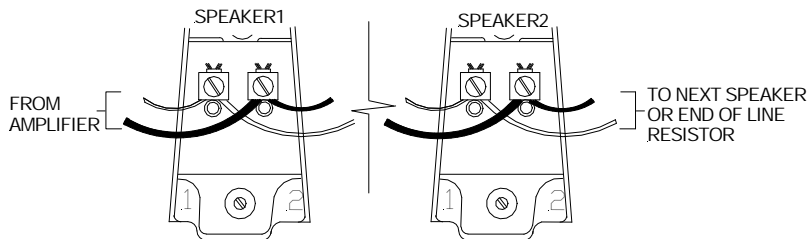


Figure 4: Wiring Diagram



⚠ 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).

ANY MATERIAL EXTRAPOLATED FROM THIS DOCUMENT OR FROM COOPER NOTIFICATION MANUALS OR OTHER DOCUMENTS DESCRIBING THE PRODUCT FOR USE IN PROMOTIONAL OR ADVERTISING CLAIMS, OR FOR ANY OTHER USE, INCLUDING DESCRIPTION OF THE PRODUCT'S APPLICATION, OPERATION, INSTALLATION AND TESTING IS USED AT THE SOLE RISK OF THE USER AND COOPER NOTIFICATION WILL NOT HAVE ANY LIABILITY FOR SUCH USE.

LIMITED WARRANTY

Cooper Wheelock, Inc. dba Cooper Notification and Cooper Notification, Inc. (each, a "Seller") products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with these instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriter's Laboratories (UL), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ). Seller products when properly specified, applied, installed, operated, maintained and operationally tested as provided above are warranted against mechanical and electrical defects for a period of (a) three (3) years from date of manufacture with respect to MEDC and Seller Industrial Signals and Seller Fire and Security Notification Appliances and Devices, or (b) one (1) year from date of manufacture with respect to Waves and SafePath Voice Evacuation and Mass Notification Systems (date of manufacture is determined by date code.) Correction of defects by repair or replacement shall be at Seller's sole discretion and shall constitute fulfillment of all obligations under this warranty. THE FOREGOING LIMITED WARRANTY SHALL IMMEDIATELY TERMINATE IN THE EVENT ANY PART NOT FURNISHED BY SELLER IS INSTALLED IN THE PRODUCT. THE FOREGOING LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY SOFTWARE REQUIRED FOR THE OPERATION OF OR INCLUDED IN A PRODUCT. SELLER MAKES NO REPRESENTATION OR WARRANTY OF ANY OTHER KIND, EXPRESS, IMPLIED OR STATUTORY WHETHER AS TO MECHANABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER.

USERS ARE SOLELY RESPONSIBLE FOR DETERMINING WHETHER A PRODUCT IS SUITABLE FOR THE USER'S PURPOSES, OR WHETHER IT WILL ACHIEVE THE USER'S INTENDED RESULTS. THERE IS NO WARRANTY AGAINST DAMAGE RESULTING FROM MISAPPLIACATION, IMPROPER SPECIFICATION, ABUSE, ACCIDENT OR OTHER OPERATING CONDITIONS BEYOND SELLER'S CONTROL.

SELLER DOES NOT WARRANT THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE OR THAT THE SOFTWARE WILL MEET ANY OTHER STANDARD OF PERFORMANCE, OR THAT THE FUNCTIONS OR PERFORMANCE OF THE SOFTWARE WILL MEET THE USER'S REQUIREMENTS. SELLER SHALL NOT BE LIABLE FOR ANY DELAYS, BREAKDOWNS, INTERRUPTIONS, LOSS, DESTRUCTION, ALTERATION, OR OTHER PROBLEMS IN THE USE OF A PRODUCT ARISING OUT OF OR CAUSED BY THE SOFTWARE.

THE LIABILITY OF SELLER ARISING OUT OF THE SUPPLYING OF A PRODUCT, OR ITS USE, WHETHER ON WARRANTIES, NEGLIGENCE, OR OTHERWISE, SHALL NOT IN ANY CASE EXCEED THE COST OF CORRECTING DEFECTS AS STATED IN THE LIMITED WARRANTY AND UPON EXPIRATION OF THE WARRANTY PERIOD ALL SUCH LIABILITY SHALL TERMINATE. SELLER IS NOT LIABLE FOR LABOR COSTS INCURRED IN REMOVAL, REINSTALLATION OR REPAIR OF A PRODUCT BY ANYONE OTHER THAN SELLER OR FOR DAMAGE OF ANY TYPE WHATSOEVER, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFIT OR INCIDENTAL, INDIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES. THE FOREGOING SHALL CONSTITUTE THE SOLE REMEDY OF THE PURCHASER AND THE EXCLUSIVE LIABILITY OF SELLER.

IN NO CASE WILL SELLER'S LIABILITY EXCEED THE PURCHASE PRICE PAID FOR A PRODUCT.

LIMITATION OF LIABILITY

SELLER'S LIABILITY ON ANY CLAIM OF ANY KIND, INCLUDING NEGLIGENCE AND BREACH OF WARRNTY, FOR ANY LOSS OR DAMAGE RESULTING FROM, ARISING OUT OF, OR CONNECTED WITH THIS CONTRACT, OR FROM THE MANUFACTURE, SALE, DELIVERY, RESALE, REPAIR OR USE OF ANY PRODUCT COVERED BY THIS ORDER SHALL BE LIMITED TO THE PRICE APPLICABLE TO THE PRODUCT OR PART THEREOF WHICH GIVES RISE TO THE CLAIM. SELLER'S LIABILITY ON ANY CLAIM OF ANY KIND SHALL CEASE IMMEDIATELY UPON THE INSTALLATION IN THE PRODUCT OF ANY PART NOT FURNISHED BY SELLER. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY CLAIM OF ANY KIND UNLESS IT IS PROVEN THAT ITS PRODUCT WAS THE DIRECT CAUSE OF SUCH CLAIM. FURTHER, IN NO EVENT, INCLUDING IN THE CASE OF A CLAIM OF NEGLIGENCE, SHALL SELLER BE LIABLE FOR INCIDENTAL, INDIRECT, CONSEQUENTIAL, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE PRECEDING LIMITATION MAY NOT APPLY TO ALL PURCHASERS.