

Wheelock

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Thank you for using our products.

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

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

MODEL:

STH-15S-ULC	Grey	ULC Listed under CAN/ULC-S541-2016 for Speaker Appliances
STH-15SR-ULC	Red	ULC Listed under CAN/ULC-S541-2016 for Speaker Appliances

GENERAL:

Wheelock STH-15S-ULC and STH-15SR-ULC Horn Speakers are Listed for indoor fire protection service under Standard ULC-S541-2016 (Speakers for Fire Alarm and Signaling Systems). 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, 0.48 to 15 Watts for use with either 25VRMS or 70VRMS audio systems. The 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 STH-15 input is compatible with standard DC supervision of circuit wiring by a Fire Alarm Control Panel (FACP). A capacitor is internally wired in series with the multi-tap impedance matching transformer for this purpose.

CAUTION: Do not change factory applied finishes. "DO NOT PAINT".

ATTENTION: Ne pas modifier les finitions appliquées en usine. "NE PAS PEINTURER"

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO COMPLY WITH ANY OF THE FOLLOWING INSTRUCTIONS, 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:

Table 1: Wattage Selector Switch Settings and dBA				
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	1.83W	93
6	Not Used	Not Used	7.0W	99
7	Not Used	Not Used	13.9W	102

NOTES:

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

IMPORTANT: 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.

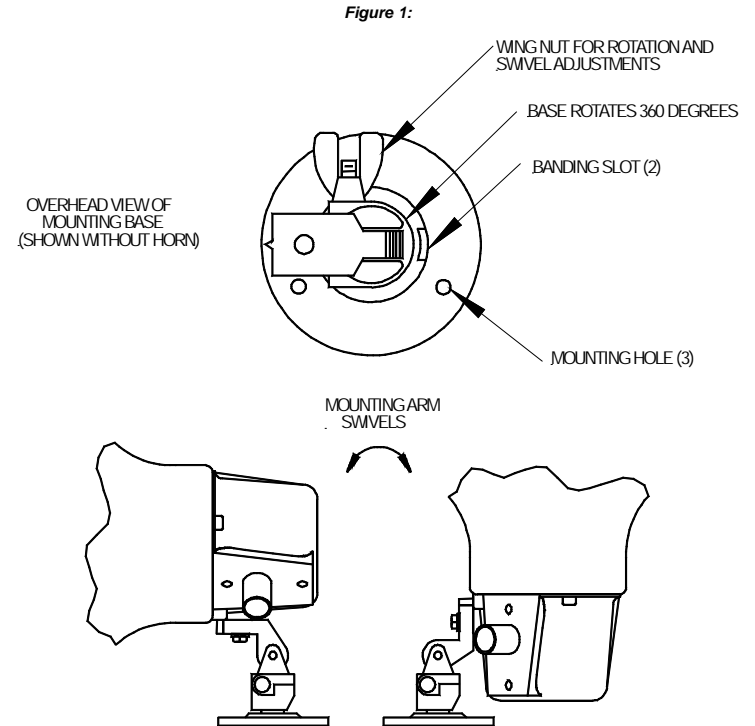
NOTE: STH-15 Horn Speaker is not intended for use in hazardous locations.

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.

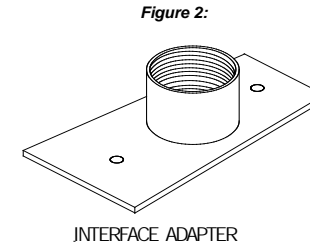
MOUNTING INFORMATION:

The STH-15 Horn Speaker 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).



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

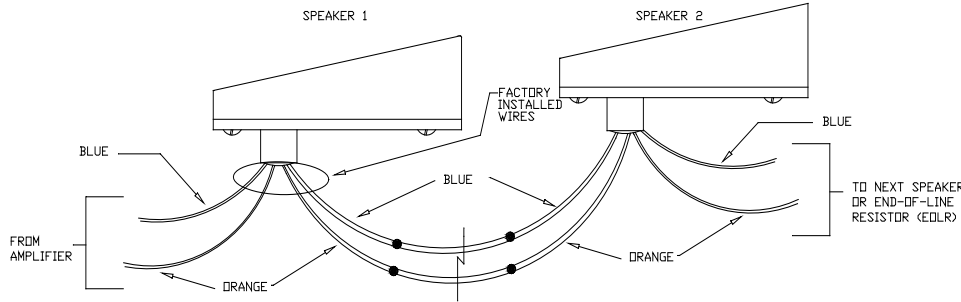


All installations shall be in accordance with:

- 1) In Canada, CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations, Section 32; and the Canadian Standard for the Installation of Fire Alarm Systems - CAN/ULC-S524.
- 2) In the United States, the National Electrical Code, NFPA 70, and the National Fire Alarm and Signaling Code NFPA 72.

WIRING INFORMATION:

Figure 3: Wiring Diagram



IMPORTANT: Break IN/OUT wire runs to provide for supervision of ALL connections.

APPLICATION NOTES:

1. STH-15 Horn Speakers are ULC Listed for indoor/outdoor use with a temperature range of -40°F to 151°F (-40°C to 66°C) and maximum humidity of 95% RH.
2. A blocking capacitor for DC supervision of audio lines by the FACP is factory wired in series with the speaker input.
3. 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.
4. 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. 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.
5. Do not over tighten screws or terminals. Excessive torque may affect operation. When using power tools, ensure the torque is set to the lowest setting available.

IMPORTANT: 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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IMPORTANT: READ SEPARATE "GENERAL INFORMATION" SHEET FOR INFORMATION ON THE PLACEMENT, LIMITATIONS, INSTALLATION, FINAL CHECKOUT, AND PERIODIC TESTING OF NOTIFICATION APPLIANCES.

Limited Warranty

Cooper Wheelock 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), Underwriters' Laboratories (UL), Underwriters' Laboratories of Canada (ULC), 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). Cooper Wheelock 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 three years from date of manufacture (as determined by date code). Correction of defects by repair or replacement shall be at Cooper Wheelock'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 COOPER WHEELOCK IS INSTALLED IN THE PRODUCT. THE FOREGOING LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY SOFTWARE REQUIRED FOR THE OPERATION OF OR INCLUDED IN A PRODUCT. COOPER WHEELOCK MAKES NO REPRESENTATION OR WARRANTY OF ANY OTHER KIND, EXPRESS, IMPLIED OR STATUTORY WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER.

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