

*Thank you for using our products.*  
**INSTALLATION INSTRUCTIONS**  
**CLUSTER SPEAKER STROBE ASSEMBLY**

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

**MODELS:**

Model	Number of Speakers *
STH-2R24MCCH(X) STH-2G24MCCH(X)	2
STH-3R24MCCH(X) STH-3G24MCCH(X)	3
STH-4R24MCCH(X) STH-4G24MCCH(X)	4
STH-90-R24MCCH(X)	2

\* Each Speaker is a STH-15 UL Listed under UL 1480 for Speaker Appliances.  
G= Grey, R=Red (X) = Lens color (A=amber, B=blue, G=green, R=red)

**GENERAL:**


The Cluster Speaker Strobe Assembly is designed for *indoor ceiling mounting or indoor wall mounting*, in high ambient noise level environments. The Cluster Speaker Strobe is a speaker/visual alerting system, equipped with up to 4 UL Listed STH-15SR supervised horn loudspeakers and a UL Listed High Candela Strobe, mounted to a NEMA galvanized steel enclosure, 10"W X 10" L X 6"D. The Strobe is mounted to a 4" deep backbox, which is then mounted to the steel enclosure. Speakers and Strobe are pre-wired to the internal terminal block. The speakers can be wired for one or two speaker circuit operation.


The STH-15 loudspeaker provides multiple power requirements with high dBA output at each power tap. STH-15 offers a choice of field selectable taps, 1 to 15 Watts for either 25VRMS or 70VRMS audio systems. The Series STH design incorporates a compression driver, mounted on a double re-entrant horn for maximum output at minimum power across a UL rated frequency range of 400 to 4,000Hz and an anechoic range of 400 to 14,000Hz. The speaker line inputs are compatible with standard supervision of circuit wiring by a Voice Control Panel. A capacitor is wired in series with the multi-tap transformer for this purpose. Each loudspeaker meets or exceeds the UL Standard 1480 (Speakers for Fire Protective Signaling Systems).

The RSS-24MCCH Strobes can provide a non-synchronized strobe signal when connected directly to a Fire Alarm Control Panel (FACP), or provide a synchronized strobe signal when used in conjunction with a Sync Module (SM) or Dual Sync Module (DSM). The Series RSS Strobe Appliances are UL Listed under Standard 1971 (Emergency Devices for the Hearing Impaired) for Indoor Fire Protection Service. The Series RSS Strobe Appliance with amber, blue, green or red lens is UL Listed under Standard 1638 (Visual Signaling Appliance) for Private Mode Emergency General Utility Signaling. The strobe uses a Xenon flashtube with solid state circuitry enclosed in a rugged Lexan® lens to provide maximum visibility and reliability for effective visible signaling. All inputs are polarized for compatibility with standard reverse polarity supervision of circuit wiring by a FACP.

**NOTE:** "Lexan" is a registered trademark of General Electric Company.

For additional information, see the Installation Instruction Sheet P82697 for the STH-15, P84442 for the RSS-24MCCH or the P84517 for the RSS-24MCCH with colored lens.

**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.**

**INSTALLATION INSTRUCTIONS:**

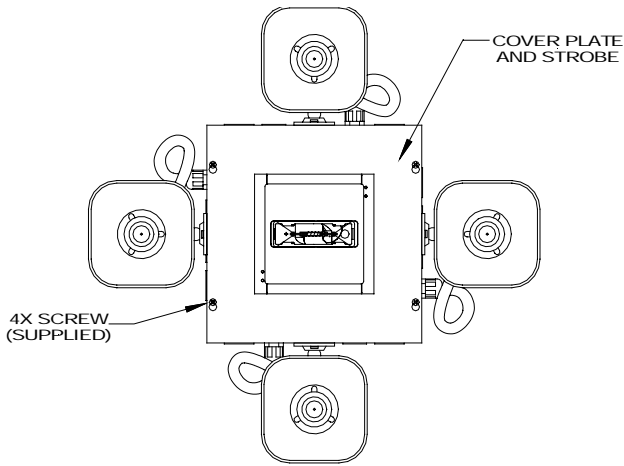
**SPEAKER WATTAGE SELECTOR SWITCH SETTING:** (See Installation Sheet P82697)

1. Remove the cable entrance interface adaptor and gasket.
2. Adjust the Speaker Wattage Selector Switch for the desired dB and wattage setting for each speaker.
3. Replace the cable entrance interface adaptor and gasket.

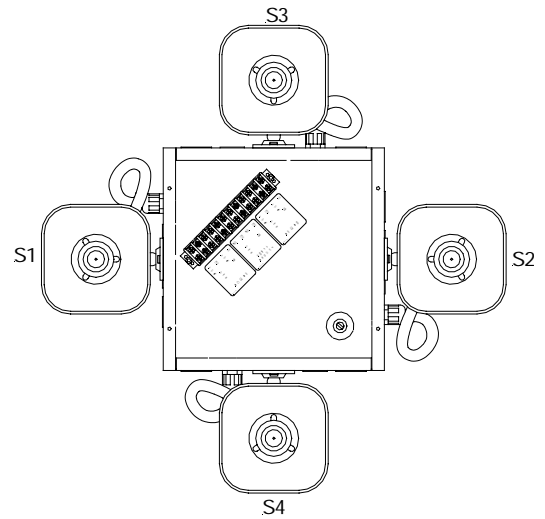
**MOUNTING INSTRUCTIONS:**

1. Loosen the 4 Phillips screws holding the cover plate and the RSS-24MCCH Strobe to the enclosure box. (See Figure 1)
2. Remove the cover plate.
3. Mount the speaker assembly to the desired location.
4. Punch out desired knockouts and attach conduit and fittings.
5. Connect all field wiring as per wiring information in Figure 3 or 4.
6. Replace cover plate to the enclosure box and tighten the 4 Phillips screws.
7. Adjust the angle for the speakers to point to the desired direction. Be sure that the speakers do not block the strobe view. (See Figure 5)

**Figure 1: Phillips Screw Location**



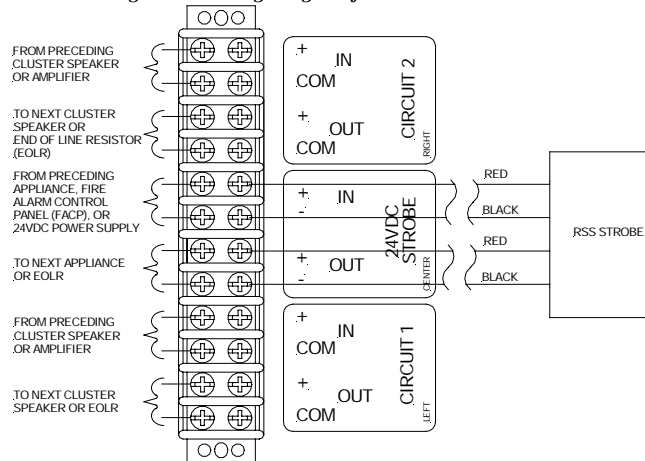
**Figure 2: Speaker Numbering**



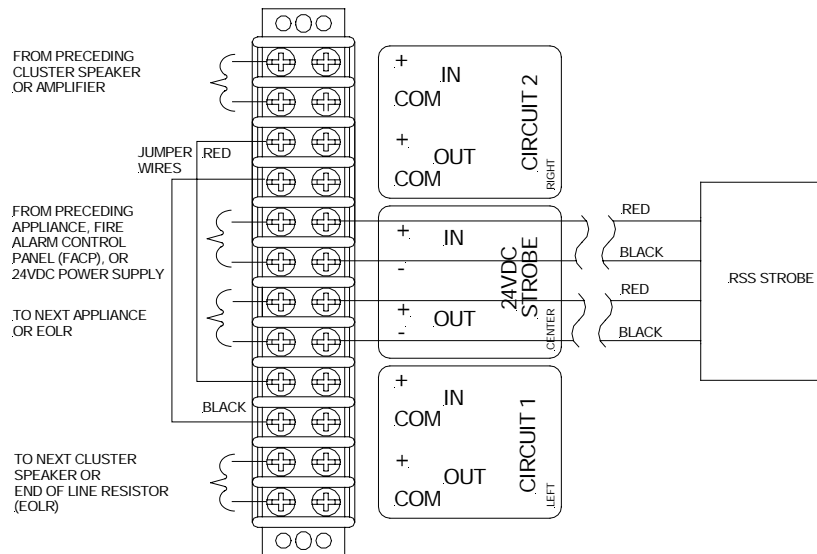
Model	Circuit 1	Circuit 2
STH-2R24MCCH	S1	S2
STH-2G24MCCH		
STH-3R24MCCH	S1, S2	S3
STH-3G24MCCH		
STH-4R24MCCH	S1, S2	S3, S4
STH-4G24MCCH		
STH-90-R24MCCH	S1	S3

**WIRING INFORMATION:**

**Figure 3: Wiring Diagram for Two Audio Circuits**



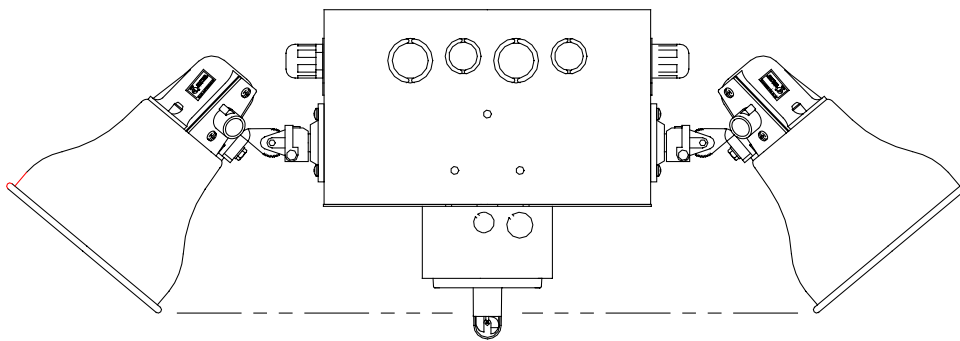
**Figure 4: Wiring Diagram for One Audio Circuits**



**NOTES:**

1. Strip leads 3/8 inches and connect to screw terminals. Cluster Speaker Strobes have in-out wiring terminals that accepts two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal.
2. Break all in-out wire runs on supervised circuits to assure integrity of circuit supervision. The polarity shown in the wiring diagram is for operation of the appliances. The polarity is reversed by the Fire Alarm Control Panel (FACP) during supervision.
3. All models are for indoor use with a temperature range of +32° F to +120° F (0° C to +49° C) and maximum humidity of 85% RH.

*Figure 5: Cluster Speaker Strobe Unit*



**CAUTION:** If Cluster Speaker Strobe assemblies are operated within 10 Feet of a person's ear, they can produce a sound pressure level that exceeds the maximum 120dBA permitted by NFPA and OSHA rules. Exposure to such sound levels can result in damage to a person's hearing.

**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 cross talk).

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