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**INSTALLATION INSTRUCTIONS
STH-4R24MCCH-110R/G/A/B CLUSTER SPEAKER DUAL STROBE ASSEMBLY**

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

MODELS:

<i>Table 1: Models</i>					
Model	Strobe 1 & 3 Candela	Strobe 2 Candela	Strobe 1 & 3 Lens Color	Strobe 2 Lens Color	Number of Speakers
STH-4R24MCCH-110R	110	135/177	Red	Clear	4
STH-4R24MCCH-110G	110	135/177	Green	Clear	4
STH-4R24MCCH-110A	110	135/177	Amber	Clear	4
STH-4R24MCCH-110B	110	135/177	Blue	Clear	4

GENERAL:

The Cluster Speaker Dual Strobe Assembly is designed for *indoor ceiling mounting*, in high ambient noise level environments. The Cluster Speaker Dual Strobe is a speaker/visual alerting system that is equipped with 4 UL Listed STH-15SR supervised horn loudspeakers, a UL Listed RSS-24MCCH Strobe, and a non-UL-approved 110 candela strobe with a colored lens, mounted to a NEMA Type 1 galvanized steel enclosure (10"W X 10" L X 6"D). The High Candela Strobe is mounted to a 3 9/16" deep backbox, which is then mounted to the steel enclosure. The speakers and MCCH strobe are pre-wired to the internal terminal block, and the 110 candela strobe is connected to a pair of wire leads. The speakers can be wired for one or two speaker circuit operation. The strobes are configured for connection to independent notification appliance circuits (NAC).

The STH-15SR loudspeaker provides multiple power requirements with high dBA output at each power tap. STH-15SR 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 and RSS-110R/G/A/B 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 RSS-24MCCH Appliances are UL Listed under Standard 1971 (Emergency Devices for the Hearing Impaired) for Indoor Fire Protection Service. The RSS-110R/G/A/B models are not UL Listed. The strobes use a xenon flashtube with solid state circuitry enclosed in a polycarbonate 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.

For additional information, see the Installation Instruction Sheet for the STH-15SR (P82697) and the RSS-24MCCH (P84442) and Data Sheet (P84738) for the RSS-110R/G/A/B.

⚠ 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 and Strobe Numbering

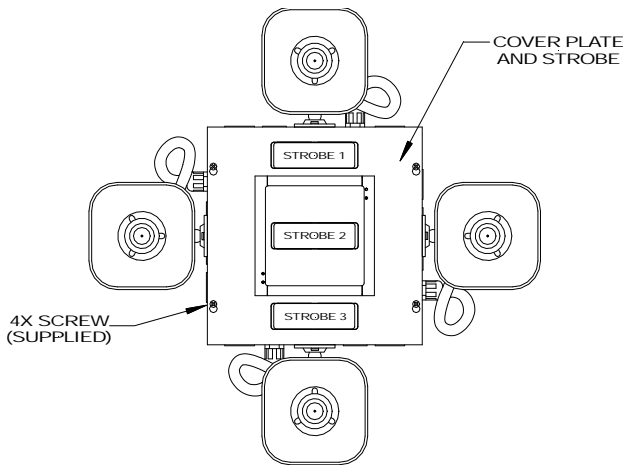
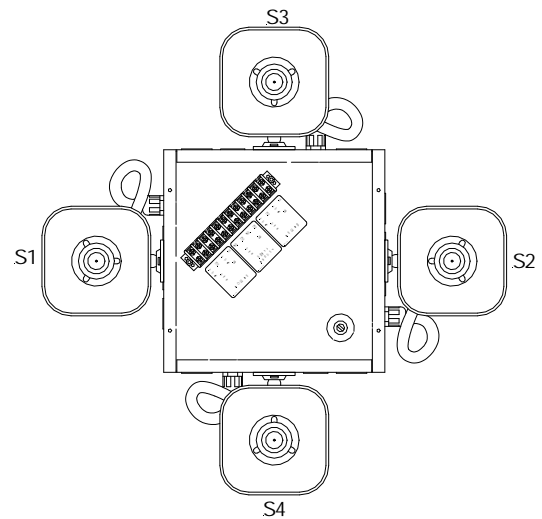


Figure 2: Speaker Numbering



WIRING INFORMATION:

Model	Circuit 1	Circuit 2
STH-4R24MCCH-110R/G/A/B	S1, S2	S3, S4

Figure 3: Wiring Diagram for Two Audio Circuits

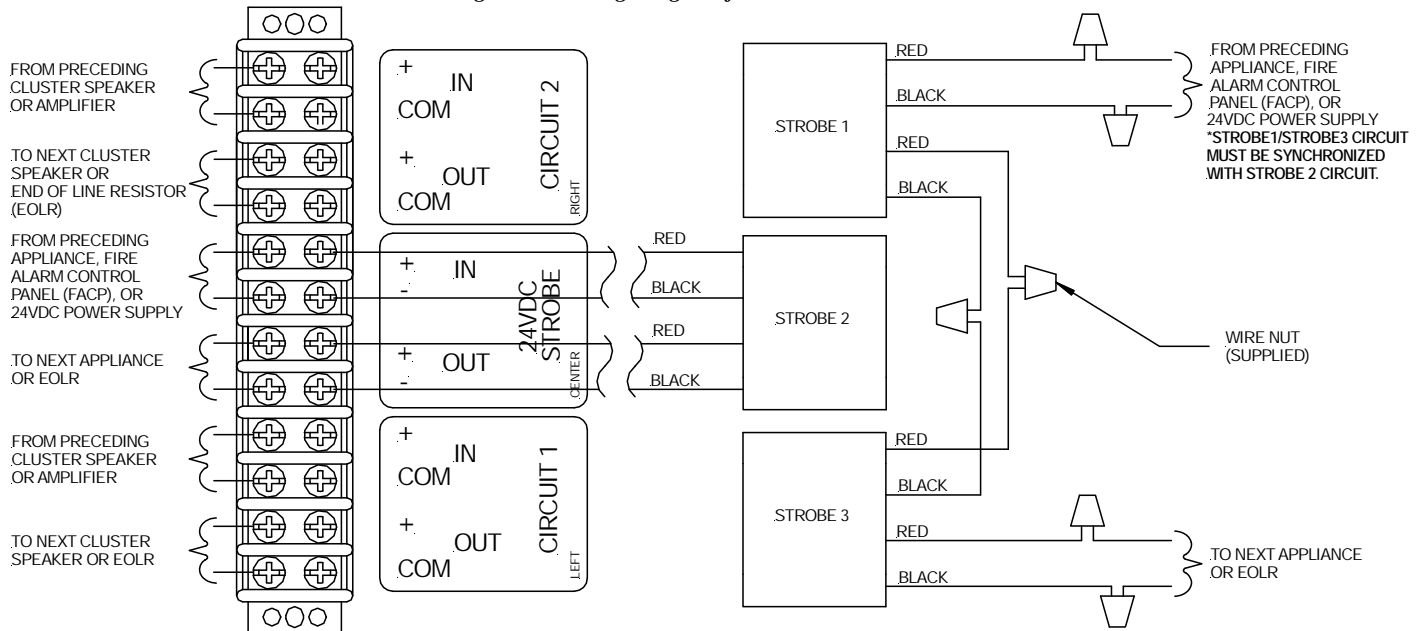
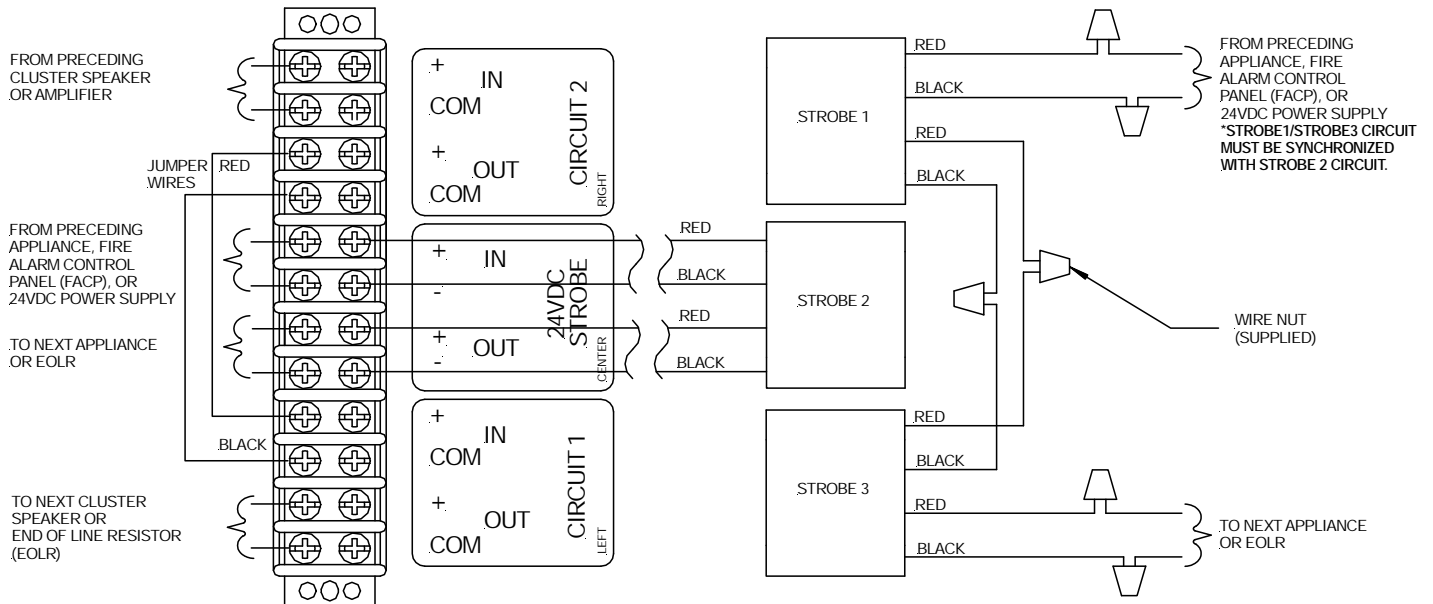


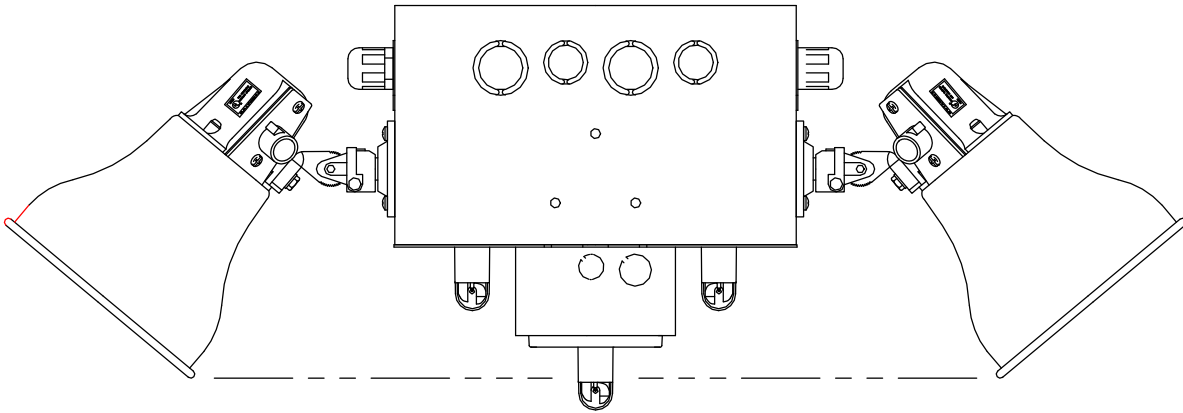
Figure 4: Wiring Diagram for One Audio Circuits



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

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