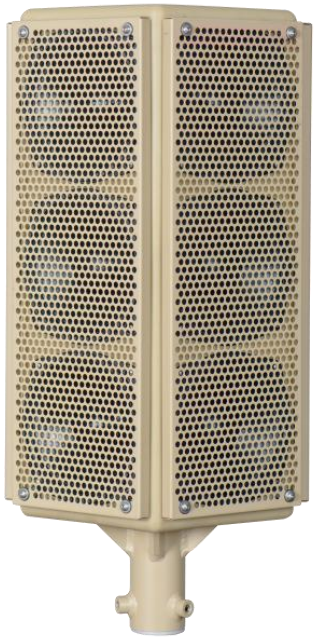
MA-1

1600W Omni Directional Loudspeaker

High Power Speaker Array

Features:

- 143 dB SPL peak acoustic output
- 1.13-mile radius
- STI 0.91 out of 1.0
- UL1480A listed
- Hazardous Location Certified: Class I Division 2 (CID2), Groups A, B, C, and D outdoor wet listed
- 5-, 3-, 2-, and 1-sided configurations available



Description:
The HyperSpike® MA-1 is a customizable, omni-directional high power speaker array that broadcasts live and pre-recorded voice commands and tones over a 4 square mile area. Leading the industry in voice intelligibility, the MA-1 speaker design achieves an exceptional STI of 0.91/1.0, ensuring commands are clearly heard, even in high noise environments. The battle tested MA-1 comes with a waterproof, rugged, and UV-resistant enclosure; ensuring durability in harsh environments.

Input Voltage	41 VRMS Multi Channel 90 VRMS Single Channel
Input Power	320 W, max per side, continuous alert tone
Frequency Response	125 Hz – 8 kHz
Beam Width	120° – 360°
Dimensions	12.8” DIA x 26.2” H
Weight	5S – 50 lbs (21.8 kg) 3S – 31 lbs (14.1 kg) 2S – 24 lbs (10.1 kg) 1S – 16 lbs (7.3 kg)
Certifications	CID2 – Groups A, B, C, and D UL1480A Listed CSA C22.2 No. 205 CAN/CSA C22.2 No. 213-15 ANSI/ISA 12.12.01-2015
Environmental	-20°C to 60°C

Impedance/Power Rating:

MA-1 90105A 90162A	Impedance (Ω per channel)	Power (Watts)	Directionality
-801	5	1600	360°
-802	8	960	230°
-803	12	640	185°
-804	24	320	120°
MA-1 Multi Channel 90223A	**Impedance (Ω per channel)**	**Power (Watts)**	**Directionality**
-801	6	1600	360°
-802	6	960	230°
-803	6	640	185°
-804	6	320	120°

Architect and Engineer Specifications:
The High Power Speaker Array shall be a HyperSpike® model 90_____-80__-__, providing alarm tone, pre-recorded or live voice announcements at ___ dB, measured at 1 meter from the source. The emitter shall be a ___ sided unit weighing no more than 50 lbs (21.8 kg) with one (1) 2” outside diameter (OD) pipe and pedestal, pole, or wall mounting hardware. The emitter shall be able to transmit an 80 dB (LAeq) audible signal up to 1,969 feet and operate at a power of 320 W to 1600 W. Equipment shall be suitable for indoor or outdoor wet locations and approvals shall include UL1480A listing with Class I Division 2, Groups A, B, C, and D Hazardous Location Certification; or Non-Hazardous locations only.

Models:

90XXXA-80X-0X-L

CERTIFICATION:
N/A – Not certified *(90162A only)*
L – 1480A and Class I Division 2 certified

COLOR CODE:
02 – Tan
04 – Gray

CONFIGURATION:
801 – 5 sided
802 – 3 sided
803 – 2 sided
804 – 1 sided

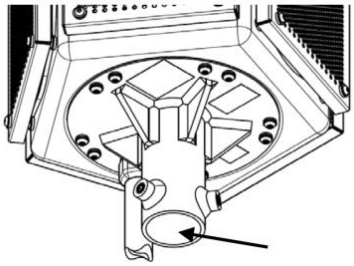
PRODUCT:
90105A – MA-1 Single-Channel
90223A – MA-1 Multi-Channel
90162A – MA-1 Connectorized

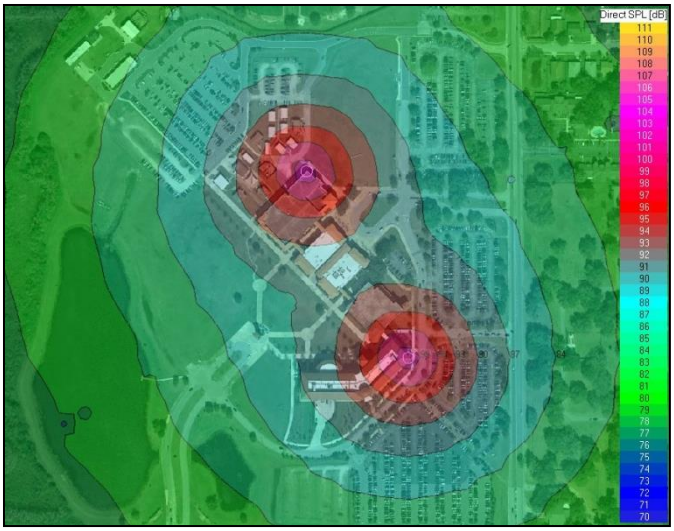
Accessories:

- 92010A-801 Tripod, Heavy Duty, with bag
- 90209A-802 Mounting Kit, HS-Series Emitter Pole Mount
- 90209A-803 Mounting Kit, Emitter Wall Mount
- 90209A-804 Mounting Kit, 10 Foot Roof Mount
- 74014A-SK15 Mounting Kit, Emitter Ceiling Mount, ECC
- 90171A-801 Standalone Amplifier Crown 4002 Xti
- 90202A-801 Amplification Pod
- 90100A-801 Audio Optimizer Software
- 90078A-SK06 MA-Series individual replacement loudspeaker service kit
- 42155A-XXX Connectorized Cable – length and gauge vary
- 74009A-ACC-804-02 MA-1 Tan Speaker Cover
- 74009A-ACC-804-04 MA-1 Gray Speaker Cover

Mounting:

The MA-1 comes standard with a mounting adaptor that accepts a 2” diameter pole and has 2 – 3/8” screws to lock the unit in place.

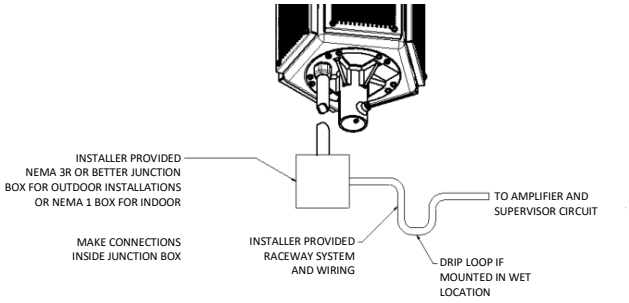




College campus overlay using two MA-1 5-sided emitters.

Cable Routing Single- and Multi-Channel Systems:

All single- and multi-channel MA-1 systems come with a 10-foot long ¾” flexible conduit and 11-foot 14 AWG leads. The connection at the end of the conduit requires an installer-supplied junction box with a rating suitable for the installation environment of the box.

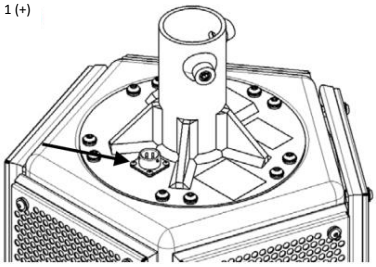


Cable Routing Connectorized Systems:

The connectorized MA-1 systems have a four-pin connector that provides audio to the speaker from the amplifier. Included with the unit is a speaker cable used to connect the unit to a customer-supplied amplifier or an optional HyperSpike® amplifier.



Pin A – Channel 1 (-)
Pin B – Channel 1 (+)
Pin C – N/A
Pin D – N/A



Wiring Single- and Multi-Channel Systems:
The single-channel MA-1 has 14 AWG leads coming out of the speaker as depicted below. The red/black pair is used for attaching to the customer-supplied amplifier or the optional HyperSpike® amplifier kit, and the blue/yellow pair is used for a supervision circuit.

The multi-channel MA-1 has a red and black twisted pair of 18 AWG wires coming from each face of the speaker. The total number of pairs coming out of the speaker will depend on the number of faces populated. Each pair has an impedance of 6 ohms and a power rating of up to 320 watts. These leads may be attached to a customer-supplied amplifier or the optional HyperSpike® amplifier kit.

