

UL Listed 250W Medium Power Speaker Arrays Hyperspike® Series

Overview

EDWARDS brand Model 250 Hyperspike Series UL Listed Medium Power loudspeakers employ HyperSpike® technology to deliver lightweight and acoustically sophisticated solutions for large indoor and smaller outdoor mass notification installations.

These rugged units are among the industry's smallest in physical size, yet they reproduce some of the clearest and loudest audio signals available for this range of service.

These UL Listed units are omni-directional loudspeakers that produce 360 degrees of acoustic energy. The high fidelity output remains intelligible over up to a quarter mile from the device. It is rated for indoor or outdoor use.

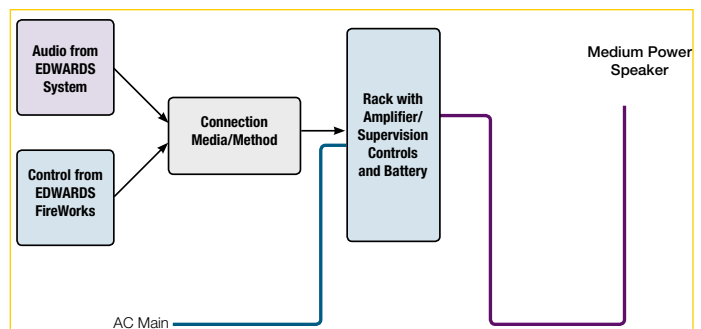
The unique design of Hyperspike Series Medium Power loudspeakers allow for a 100 percent up-time duty cycle. When powered from an AC source, they can be powered and ready to perform 24/7. This makes them ideally suited for daily activation, as well as emergency use.

Hyperspike Series UL Listed Medium Power loudspeakers can be permanently installed, or configured for portable use. They can be powered from a local audio power amplifier for paging applications, as well as from EDWARDS fire alarm systems for fully integrated UL Listed applications.

Standard Features

- 113 dB SPL Peak Acoustic Output
- 1/4 Mile Radius Communication Range
- Wide Frequency Range: 175 Hz - 8 KHz
- 250 W Peak Power
- Highly intelligible audio performance
- 24/7/365 duty cycle
- Easy, flexible installation
- Lightweight, rugged design
- UL/ULC and CSFM listed
- Four power taps 40W, 90W, 125W, 250W

Typical Deployment



UL250 speaker requires supervision to comply with listing requirements.

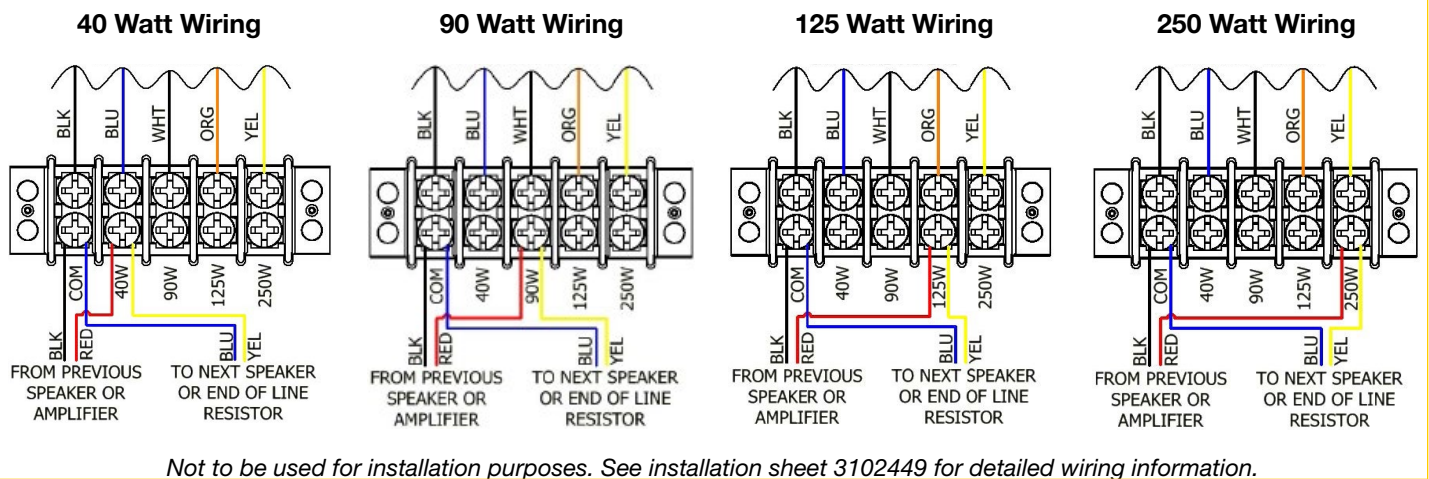
Application

For optimal performance and safety when installing in permanent locations, Hyperspike Series Medium Power Loudspeakers should be mounted above personnel: typical 20 feet (6.1 m) above floor level. For portable or vehicle-mounted applications the loudspeaker head should be at least 15 feet (4.57 m) above grade and away from people when active. For all installations, it is crucial to have clear, open space around the speaker head. Loudspeaker output is best via line-of-sight.

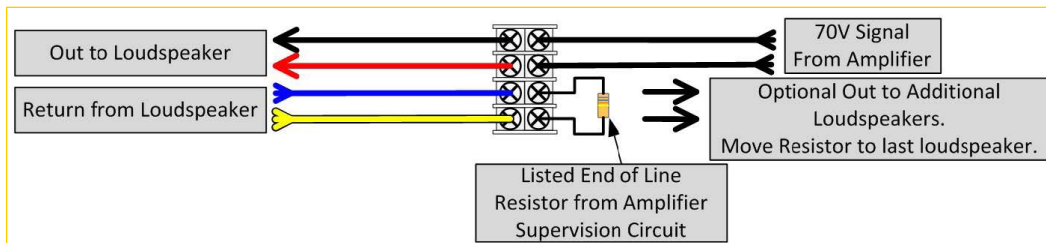
Typical applications for MN-HSMx25P5N loudspeakers are:

Large indoor open areas	Factories
Production facilities	Industrial complexes
Refineries	Power plants
Schools	Parking lots
Military bases	Force protection
Ships	Piers
Docks	Camp Grounds

Internal Wiring



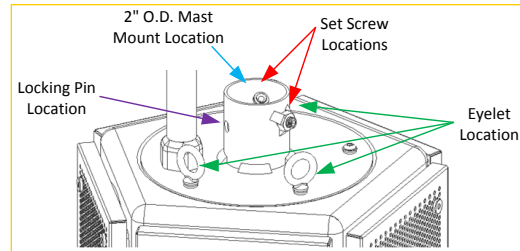
Example Wiring Terminations in Installer-supplied Junction Box



Installation and Mounting

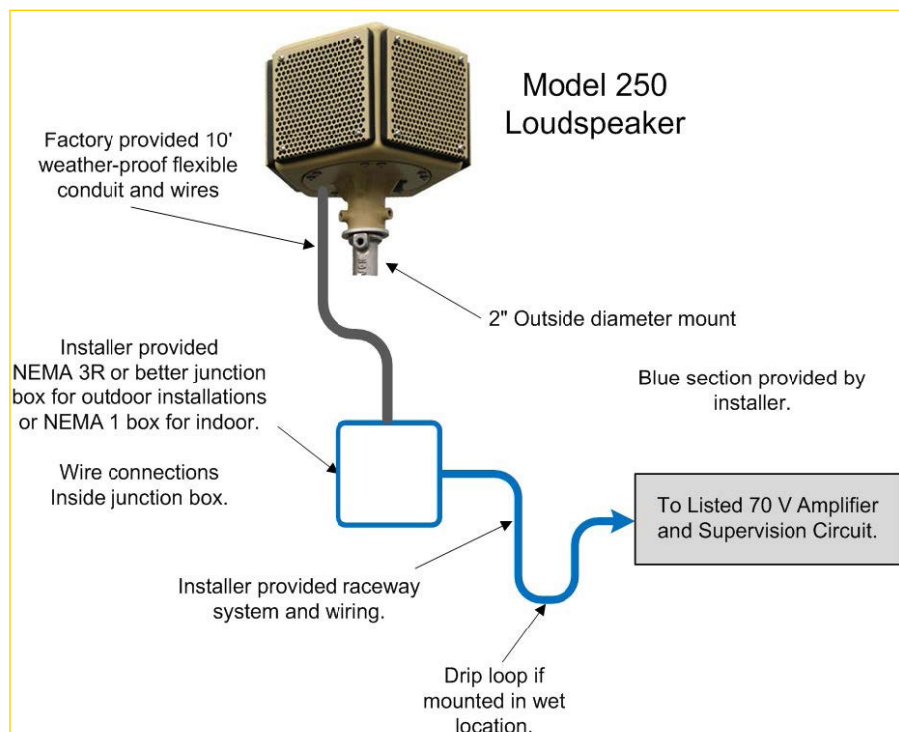
All models can be mounted indoors or outdoors. Mounting options include mast mount or use of safety cable.

Standard 2 inch outer diameter mast mount for use on top of pole or suspended from overhead pole or three eyelets provided for safety cable use for suspended installation as well. Refer to installation manual for details.



A 10 ft., nominal 3/4-inch plastic flexible conduit with four 14 AWG electrical leads is preinstalled through the mounting plate of the Model 250. The connection at the end of the 10 foot flexible conduit requires an installer supplied junction box with a rating suitable for the installation environment of the box. Installation of a 4-position terminal block is recommended, but wire nuts may also be used. Installation must be compliant with UL1480, section 4.3.b.i) or ii).

Field Wiring



Specifications

The UL Listed Model 250 has four field selectable power taps that run off of a 70VRMS audio system. The taps can easily be changed among the 40W, 90W, 125W and 250W power ratings. The speaker has an integrated blocking capacitor that allows the fire alarm control panel to conduct circuit supervision. Each speaker meets UL Standard 1480 (Speakers for Fire Protective Signaling Systems) and ULC S541 (Speakers for Fire Alarm Systems)

Acoustic Specifications		UL 1480 (Reverberation)	ULC S541 (Anechoic)
70V Tap setting		Sound Pressure Level @ 10ft (dBA)	Sound Pressure Level @ 10ft (dBA)
40W		103	105
90W		106	108
125W		108	110
250W		111	113
Directionality: SPL does not change with direction			
Power Requirements			
Power		Adjustable Tap Setting	
Input Voltage		70VRMS	
Physical Specifications			
Dimensions - Emitter		12.4" Dia. x 8.0" H (31.5cm Dia x 20.3cm H)	
Weight - Emitter		20lbs (9.1kg)	
Housing Material		Composite	
Housing Color		Gray/Tan/Red	
Environmental			
Operating Temperature Range		-4 °F - 140°F (-20°C to 60°C)	
Operating Humidity Range		0-95% Non-Condensing	
Ingress Protection		NEMA3R	
Certification			
UL 1480		Fire Alarm, Emergency, & Commerical Use	
ULC S541		Fire Alarm & Equipment	
CSFM		California State Fire Marshal Listed	

Ordering Information

Medium Power Speaker Arrays

MN-HSMT25P5N	Tan	Hyperspike Series Medium Power Omni-directional loudspeaker assembly. Four wattage taps: 40 W, 90 W, 125 W, and 250 W. Meets UL Standard 1480 (Speakers for Fire Protective Signaling Systems) and ULC S541 (Speakers for Fire Alarm Systems).
MN-HSMG25P5N	Gray	
MN-HSMR25P5N	Red	

Extended Warranties

MN-	Hyperspike Series 650 and 250 Class extended warranty - 2 years total.
HSMP650EXWARR2	Must be ordered when MPSA is ordered.

Accessories, spare parts

MN-AUDSOF1	Hyperspike Series audio optimization software package
MN-HSLPMK1	Hyperspike Series Emitter (loudspeaker) pole-mount kit. Bolts to steel or wooden pole. Additional support and guy wires may be necessary.
MN-HSPM16	Hyperspike Series portable tripod mast. Extends up to 16'
MN-HSPM33	Hyperspike Series Portable mast & guy wire unit. Extends up to a maximum 33' (10M)
MN-HSTEP1	Heavy duty foldable tripod with 3ft extension and carrying bag. Suggested use with 1600 watt HPSA or UL Listed 250 Watt MPSA demonstration kits. Not to be used with 3200 watt or 6400 watt systems.
MN-HSTPMS1	Hyperspike Series Emitter (loudspeaker) tripod mounting system. 10' tripod with 14' mast. Additional support and guy wires may be necessary. ECC cannot be mounted to this unit.
MN-HSWB1	Hyperspike Series Emitter head (loudspeaker) wall-mount bracket & installation kit

Third-party Compatibility

The EDWARDS UL250 Speaker has been thoroughly tested with Edward amplifiers. Third-party amplifiers with 70V output may be used, but compatibility has not been investigated with any amplifiers supplied by manufacturers other than EDWARDS.

EDWARDS recommends de-rating the third-party amplifiers by at least 25 percent in order to have confidence that the system will function as intended. Thorough and complete testing of third-party amplifiers with this speaker is recommended before placing the system into service.

The table below shows the four available wattage taps and the minimum recommended third-party amplifier power to drive the speaker at those wattages.

MN-HSM Series wattage tap	Recommended minimum third-party amplifier power rating
40	55
90	120
125	170
250	350