

## Monitor Series

■ Coaxial design, small size and a wealth of mounting options make the Mackie Industrial MR3STK (black) and MR3SWTK (white) compact coaxial loudspeakers ideal for use in business music systems.

■ The woofer is a high-excursion, carbon fiber design. The dome tweeter uses an efficient Ferrofluid® cooled coil. Together they provide natural, smooth sound reproduction and high resistance to weather.

■ Installation of the MR3STK is fast and efficient using the accompanying MA3-5 (MA3-5W, white) adjustable mounting bracket. Two M6 and two 3/8" threaded inserts add to the speaker's flexibility. Connections are made to recessed color-coded, spring-loaded terminals. Wattage taps, voltage adjustments and 4-ohm operation are selectable by means of two detented rotary switches. The enclosure is constructed of high density, scratch resistant polystyrene and includes a protective perforated steel grille and connection cover. Available in black (MR3STK) or white (MR3SWTK).

■ The MR3STK is a part of Mackie Industrial's Monitor Series, which includes two-way constant directivity, compact speakers in easily installed enclosures.

■ This Mackie Industrial product is covered by an exclusive, one-time, NO FAULT repair policy in addition to a five year limited warranty.

## Compact Coaxial Speaker



## Features

- 4.75" high-efficiency carbon fiber woofer
- Coaxial, Ferrofluid® cooled, 0.5" titanium metalized dome tweeter
- Built-in, multi-tap constant voltage transformer
- Built-in, LICC low inductance passive crossover
- Lightweight, UV/weather resistant, high density polystyrene, trapezoidal shaped enclosure for multiple applications and minimum visual intrusion
- Articulated surface mount hardware (MA3-5, black, or MA3-5W, white) included
- Integrated mounting points for use with optional mounting hardware
- Exclusive Mackie Industrial - one-time, NO FAULT repair policy
- Five year limited warranty

- Foreground/Background Music
- Distributed Speech Reinforcement
- AV Production/Playback
- Near-field Monitoring

# MR3STK Compact Coaxial Speaker

## Specifications

### System

Freq. Range (-10 dB):	140Hz–21kHz
Freq. Response (-3 dB):	180Hz–19kHz
Horz. Coverage Angle (-6 dB):	110° averaged 800Hz to 16kHz
Vert. Coverage Angle (-6 dB):	110° averaged 800Hz to 16kHz
Directivity Factor; Q (DI):	8.5 (9.3) averaged 800Hz to 16kHz
System Sensitivity <sup>1</sup> :	89 dB, 1W @ 1m
Rated Maximum SPL:	108 dB, @ 1m
System Nominal Impedance:	4Ω (bypassed)
System Input Power Rating <sup>2</sup> :	35W IEC, 140W Peak
Recommended Amplifier <sup>3</sup> :	250W
Constant Voltage:	25V, 50V, 70V, 100V
Power Taps:	1W, 2.5W, 5W, 10W, 20W
Crossover:	6.0kHz

### Transducers

Low-Frequency:	4.75" (120mm) carbon fiber woofer
High-Frequency:	0.5" (13mm) titanium metalized dome, Ferrofluid cooled

### Physical

Enclosure:	45° back angles, high density polystyrene
Attachment Inserts:	2 points M6 threaded on back 2 points 3/8" threaded on top and bottom
Color:	Matte black, white (MR3SWT), scratch resistant paint
Grille:	Matching perforated steel grille
Input Connectors:	Push connector plate
Dimensions (HxWxD):	8.27" x 5.91" x 5.31" (210mm x 150mm x 135mm)
Net Weight:	5.5 lb. (2.5 kg)

### Options

MA 3-6, MA 3-6W	U-bracket, black (W-white)
MA-7B, MA-7W	Wall-mount support bracket (B-black, W-white)

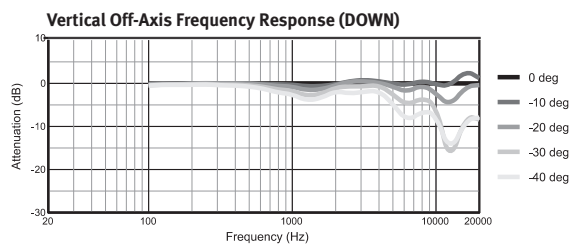
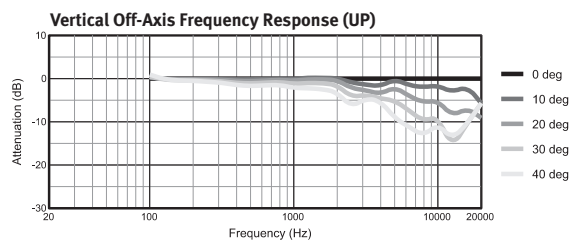
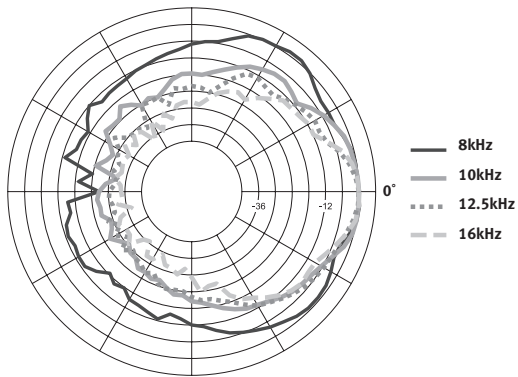
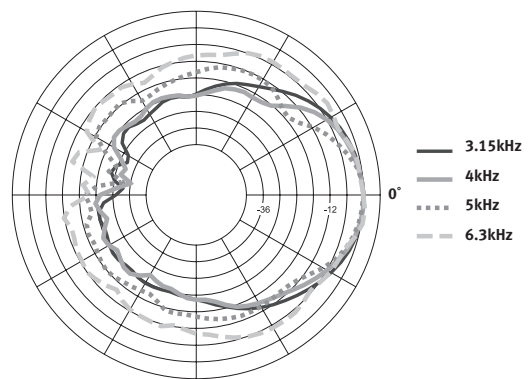
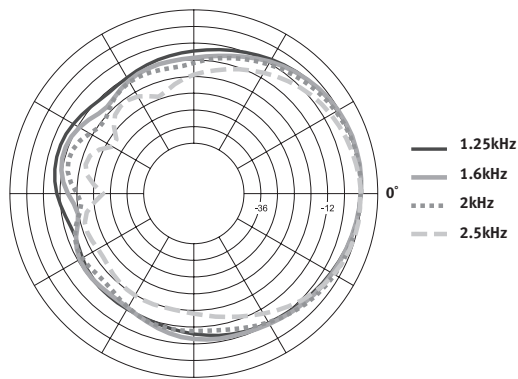
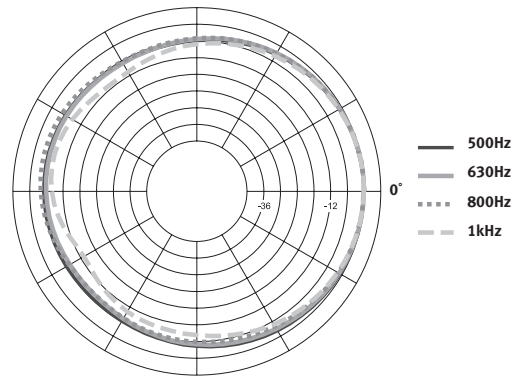
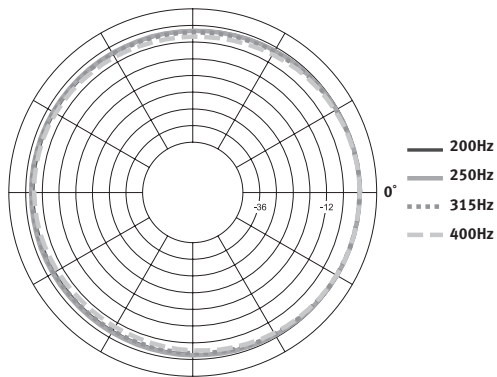
<sup>1</sup> Measured on axis in the far field with 1 watt (2.00 V RMS, 4) input and referenced to 1 meter distance using the inverse square law. Listed sound pressure represents an average from 300Hz to 3kHz.

<sup>2</sup> IEC Spectrum, Peak for 2 hours with +4.5 dB crest factor.

<sup>3</sup> Recommended Amplifier is a power capability value that should be taken as a guide.

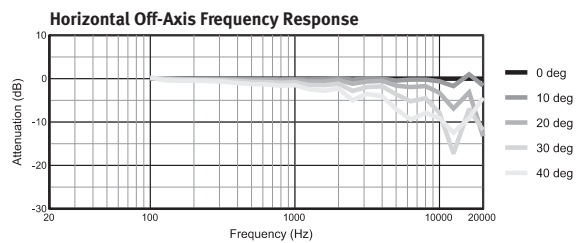
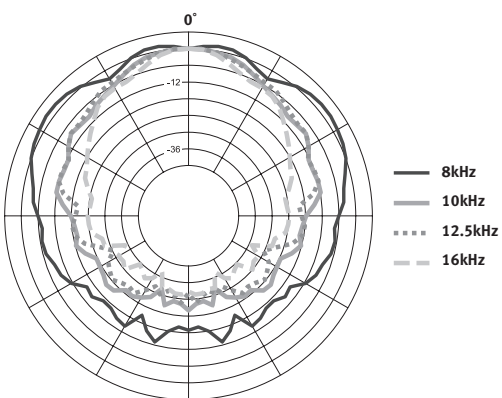
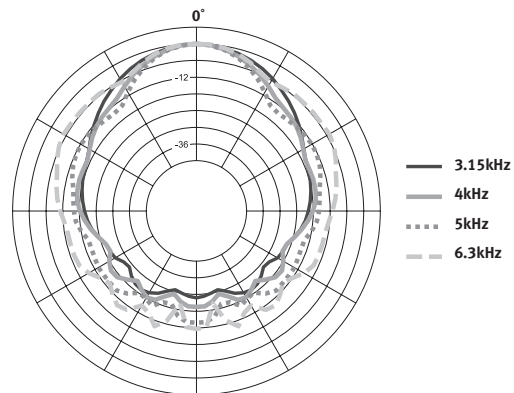
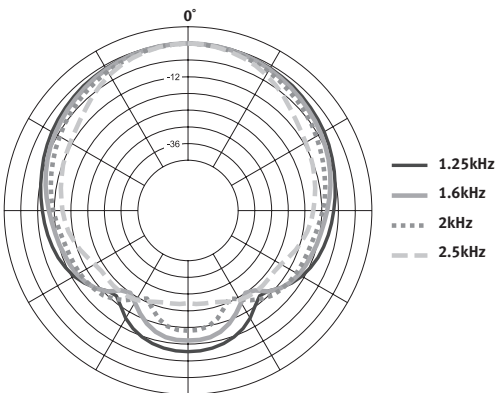
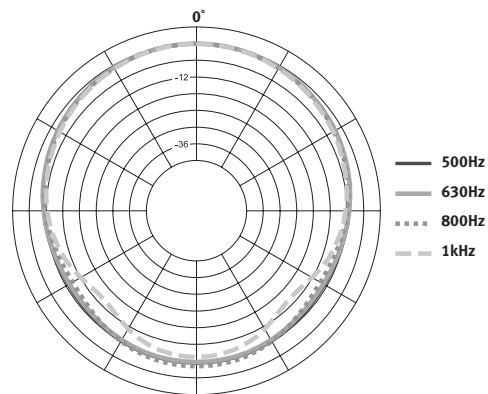
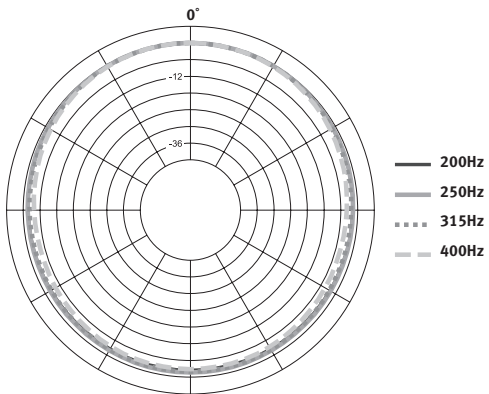
# MR3STK Compact Coaxial Speaker

## Monitor 3STK Vertical Polars



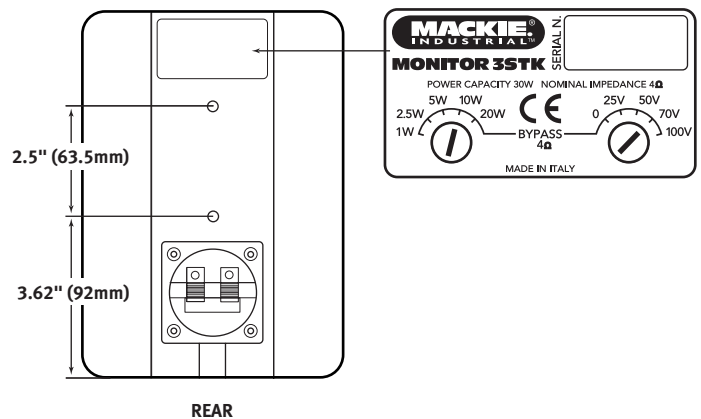
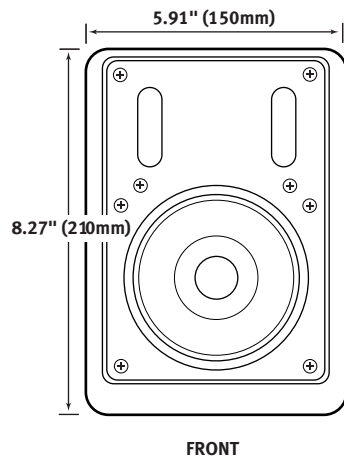
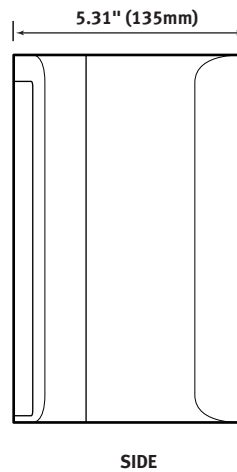
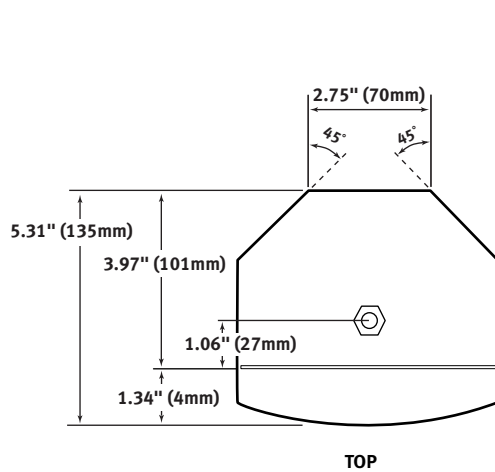
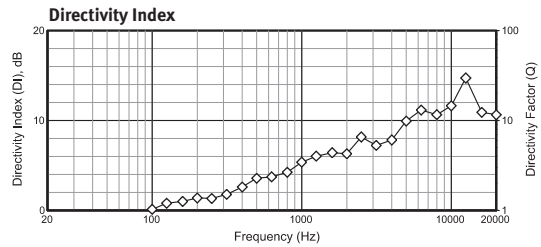
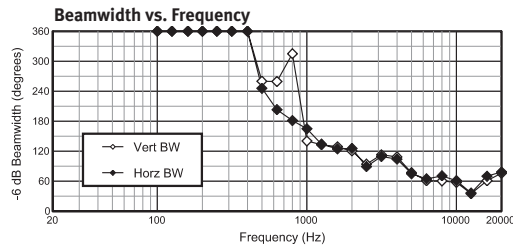
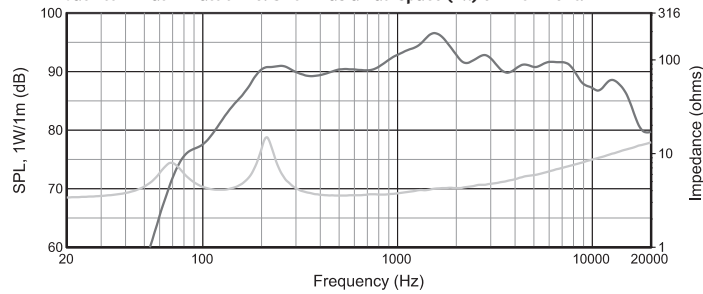
# MR3STK Compact Coaxial Speaker

## Monitor 3STK Horizontal Polars



# MR3STK Compact Coaxial Speaker

Frequency response is measured on-axis at a distance referenced back to 1m at 1-watt drive. Shown as a half space ( $2\pi$ ) environment.



# MR3STK Compact Coaxial Speaker

## Architects' and Engineers' Specifications

The two-way loudspeaker system shall be self-contained and consist of the following components: (1) a low-frequency driver; (2) a high-frequency dome tweeter driver that is coaxial with the low-frequency driver; (3) a two-way crossover network; (4) a constant voltage transformer; (5) a vented enclosure.

The low-frequency transducer shall be a cone type loudspeaker having a carbon fiber cone with a diameter of at least 4.75 inches (120mm). It shall present a nominal load impedance of 8 ohms to the crossover network.

The high-frequency driver shall be a titanium metalized dome tweeter having a diameter of at least 0.5 inches (13mm). Its voice coil shall be treated with Ferrofluid® to aid in cooling. It shall present a nominal load impedance of 8 ohms to the crossover network.

The system shall be crossed over by an internal, high-level, passive network having a response of 12 dB/octave. The nominal crossover frequency shall be 6kHz. The low-pass section of the network shall have minimum inductance in series with the low-frequency driver. A dynamic high-frequency protection circuit based on a low-value, low-mass filament resistor shall limit the current available to the high-frequency driver. The crossover network shall present a nominal 4-ohm load impedance to the power amplifier or built-in constant voltage transformer.

The constant voltage transformer shall have multiple power taps at 1, 2.5, 5, 10 and 20 Watts. It shall also have voltage taps at 25, 50, 70 and 100 volts. Two detented rotary switches shall be provided on the input panel to adjust the power and voltage taps of the transformer. The voltage tap switch shall have a position to bypass the transformer and allow the loudspeaker to present a 4-ohm load to a directly coupled power amplifier.

The enclosure shall be a vented design. It shall be constructed using high density polystyrene and finished with black (or white), scratch resistant paint. It shall be trapezoidal in shape with 45° angled sides. A full size, detachable, perforated steel grille, finished in black (or white) scratch resistant paint shall be provided. At least 4 reinforced threaded metal sockets (3/8" and M6) for attaching optional mounting hardware shall be provided. The overall dimensions of the enclosure shall not exceed (HxWxD) 8.27" x 5.91" x 5.31" (210mm x 150mm x 135mm). The total weight of the loud-

## (continued Architects' & Engineers' Specs)

speaker shall not exceed 5.5 lbs. (2.5 kg). Connections to the loudspeaker shall be two color coded, spring loaded push connectors.

The loudspeaker system shall have an overall frequency response of at least 140Hz–21kHz when measured to –10 dB and at least 180Hz–19kHz when measured to –3 dB. It shall have a nominal average coverage pattern of at least 110° horizontal by 110° vertical to –6 dB when measured between 800Hz and 16kHz. Calculated 1W/1m sensitivity shall be at least 89 dB when measured in the far field between 300Hz and 3kHz. Maximum SPL shall be at least 108 dB at 1m. The loudspeaker shall be rated for continuous operation at 35W IEC with 140W peaks.

The two-way loudspeaker system shall be a model MR3STK (MR3SWTK - white) manufactured by Mackie Industrial.



[www.mackieindustrial.com](http://www.mackieindustrial.com)

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Electronic files for this product available at:  
[www.mackieindustrial.com](http://www.mackieindustrial.com)

This Specification Sheet

MR3STK.PDF

Quick-Start Manual

MR3STKQS.PDF

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part no. 910-178-10 Rev.C