



# MX200 Series

## Overhead Microphones

Online user guide for Shure Microflex MX200 Series overhead microphones.  
Version: 6 (2020-B)

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# MX200 Series Overhead Microphones

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## General Description

Shure Microflex® MX200 Series microphones are miniature electret condenser microphones designed for miking choirs and performance groups. They are typically suspended over the heads of the performers. Their high sensitivity and wide frequency range make them suitable for recording, as well as sound reinforcement applications. An attached 101 mm (4 in.) gooseneck allows them to be easily aimed at the sound source.

- Wide dynamic range and frequency response for accurate sound reproduction
- Interchangeable cartridges that provide a choice of polar pattern for each application
- White or black finish that blends unobtrusively with most surroundings
- RF filtering

## Model Variations

Microflex MX202 microphones are available in black or white with a choice of in-line preamplifier or plate-mount preamplifier.

The polar pattern of the included cartridge is indicated by a model number suffix:

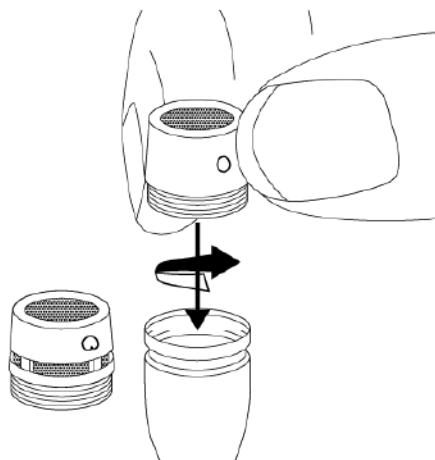
**/C** Cardioid

**/S** Supercardioid

**/MS** Mini-shotgun

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## Interchangeable Cartridges



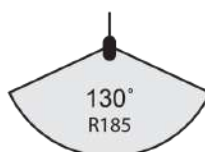
Microflex microphones use interchangeable cartridges that allow you to choose the polar pattern for different installations.



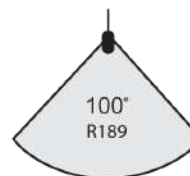
Omnidirectional



Supercardioid



Cardioid

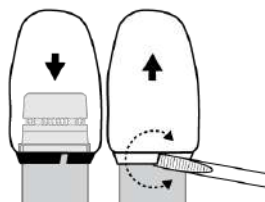


Mini-shotgun

### Cartridge Polar Patterns

## Snap-Fit Windscreen

- Snap into the groove below the cartridge.
- To remove, spread the gap with a screwdriver or thumbnail.
- Provides 30 dB of "pop" protection.



## Preamp Gain

If necessary, the preamplifier gain can be reduced by 12 dB. Contact an authorized Shure service center for information.

## RFI Filtering

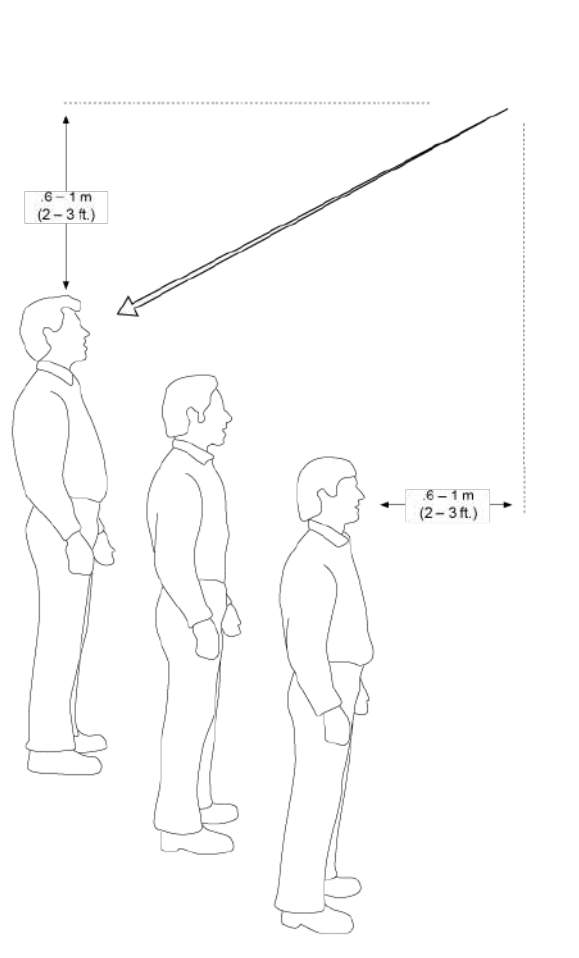
**Important:** Microphones must be used with the RK100PK or RK202PK plate-mounted preamp to optimize RF immunity.

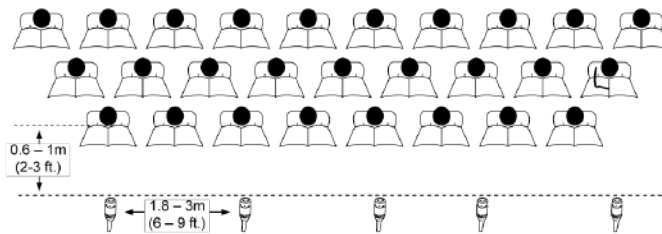
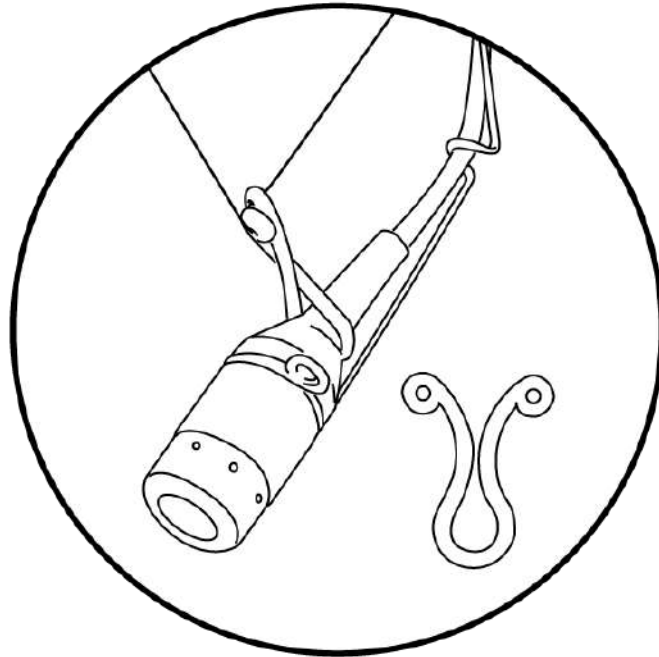
## Microphone Placement

The microphone is most stable when the gooseneck is bent into a "lazy S" shape. Use the supplied hanging clip and heavy thread or monofilament fishing line to suspend the microphone at a specific location.

- For choir installations, hang a microphone 0.6 to 0.9m (2 to 3 ft.) in front of the first row, and 0.6 to 0.9m (2 to 3 ft.) over the heads of the singers in the last row. Aim the microphone at the back row.
- When miking groups that move or vary in size, use a boom stand and the supplied stand adapter.

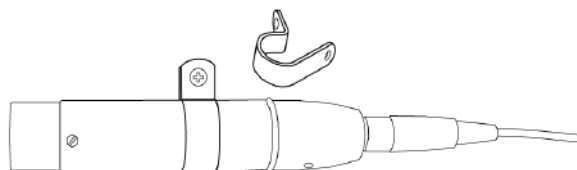
- If four or more microphones will be open at once, an automatic mixer, such as the Shure SCM810 or SCM410, is recommended. Set up the automatic mixer so that all overhead microphones gate on simultaneously.





## Permanent Installation

### Installing the In-Line Preamp

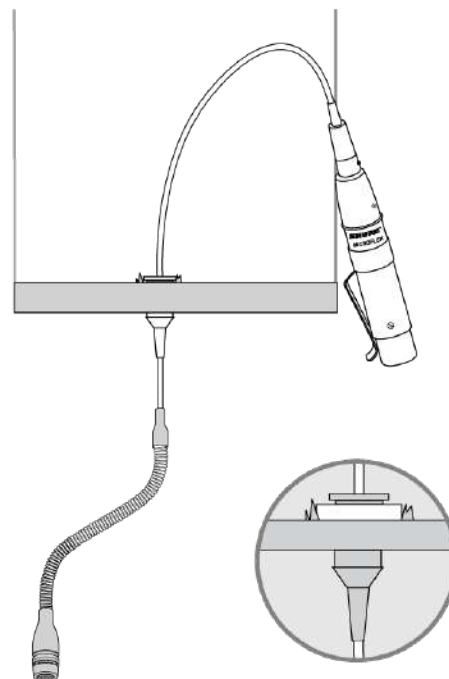
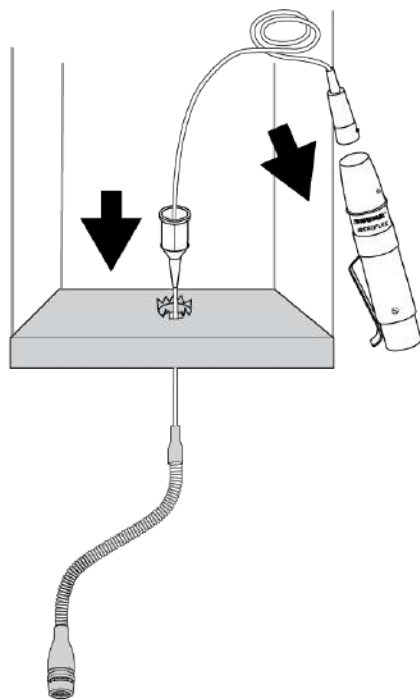
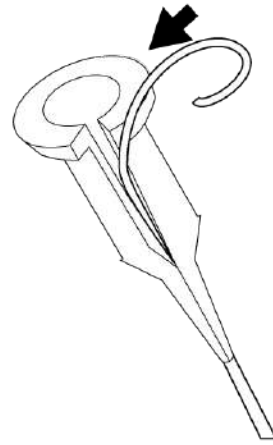
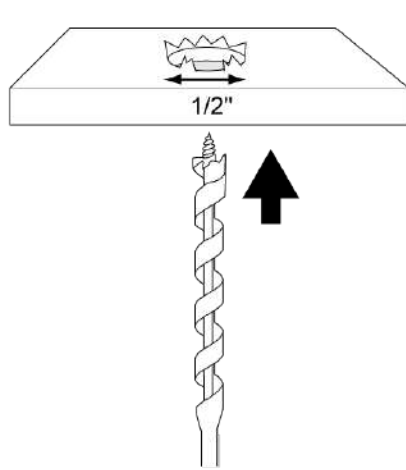


Use the two supplied mounting clamps to hold the preamp in place on a wall or ceiling.

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## Ceiling Tile Installation

1. Drill a 1/2 in. hole into the ceiling tile. CAUTION: To avoid tile damage, use a 1/2 in. augur bit and drill very slowly.
2. Unplug the mini 4-pin connector from the preamp and feed the cable through the hole.
3. Place the rubber grommet, tip down, over the cable and position it to suspend the microphone at the appropriate height.
4. Fit the grommet securely into the hole. For 5/8 in. ceiling tile, use the supplied washer.
5. Reconnect the preamp.



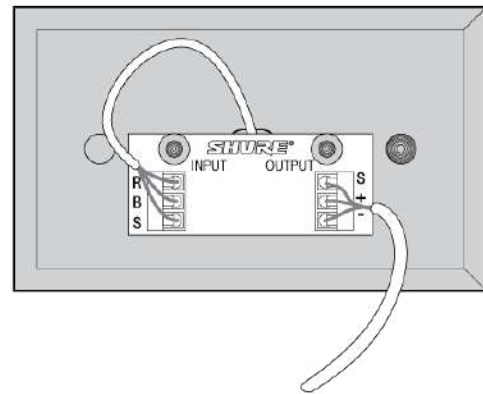
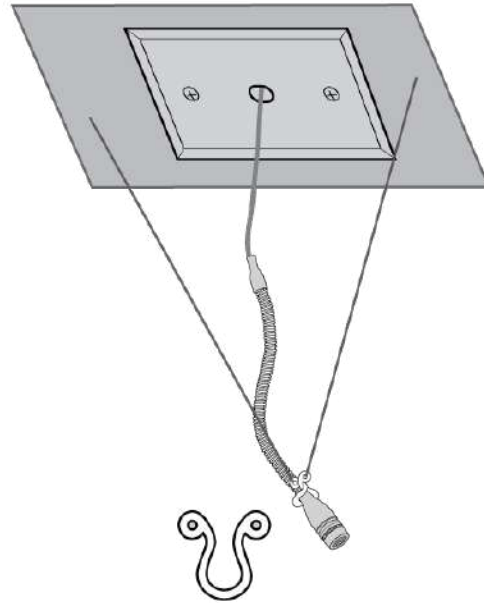
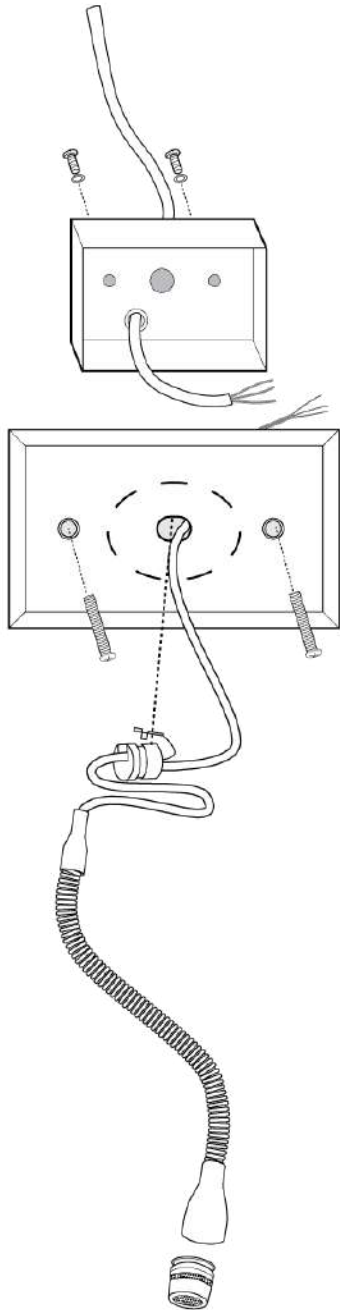


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## Plate Mount Preamp Installation

The plate-mounted preamp allows you to mount the preamp in an electrical box and use conduit to run cable through ceilings and walls.

1. Remove preamp housing by removing two phillips head screws.
2. Remove knock-out from the hole in the center of the cover plate (if present).
3. Cut cable to desired hanging length, allowing for a 76 to 101 mm (3 to 4 in.) service loop.
4. Clamp strain relief around cable and insert strain relief into hole in plate.
5. Connect cable leads to input terminal block (B = Black, R = Red, S = Shield).
6. Using professional-quality, two-conductor, shielded microphone cable, thread output cable from outside of preamp through hole with black bushing.
7. Connect cable to output terminal block (Pin 2 = +, Pin 3 = -, Shield = S).
8. Reattach the preamplifier housing.



## Specifications

### Type

Electret Condenser

### Frequency Response

50–17000 Hz

## Polar Pattern

|                  |               |
|------------------|---------------|
| <b>MX202B/C</b>  | Cardioid      |
| <b>MX202B/S</b>  | Supercardioid |
| <b>MX202B/MS</b> | Mini-shotgun  |

## Output Impedance

180  $\Omega$ 

## Output Configuration

Active Balanced

## Sensitivity

@ 1 kHz, open circuit voltage

|                      |                    |
|----------------------|--------------------|
| <b>Cardioid</b>      | -35 dBV/Pa (18 mV) |
| <b>Supercardioid</b> | -34 dBV/Pa (21 mV) |
| <b>Mini-shotgun</b>  | -33 dBV/Pa (22 mV) |

1 Pa=94 dB SPL

## Maximum SPL

1 kHz at 1% THD, 1 k $\Omega$  load

|                      |        |
|----------------------|--------|
| <b>Cardioid</b>      | 124 dB |
| <b>Supercardioid</b> | 123 dB |
| <b>Mini-shotgun</b>  | 121 dB |

## Self Noise

A-weighted

|                      |           |
|----------------------|-----------|
| <b>Cardioid</b>      | 28 dB SPL |
| <b>Supercardioid</b> | 27 dB SPL |
| <b>Mini-shotgun</b>  | 26 dB SPL |

## Signal-to-Noise Ratio

Ref. 94 dB SPL at 1 kHz

|                      |       |
|----------------------|-------|
| <b>Cardioid</b>      | 66 dB |
| <b>Supercardioid</b> | 68 dB |
| <b>Mini-shotgun</b>  | 68 dB |

## Dynamic Range

1 k $\Omega$  load, @ 1 kHz

96 dB

## Common Mode Rejection

10 Hz to 100 kHz

45 dB, minimum

### Clipping Level

at 1% THD

-6 dBV (0.5 V)

### Polarity

|                  |   |
|------------------|---|
| <b>3-pin XLR</b> | Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector |
|------------------|---|

### Environmental Conditions

|                              |                      |
|------------------------------|----------------------|
| <b>Operating Temperature</b> | -18–57°C (0–135°F)   |
| <b>Storage Temperature</b>   | -29–74°C (-20–165°F) |
| <b>Relative Humidity</b>     | 0–95%                |

### Power Requirements

Phantom Power

11–52 V DC, 2.0 mA

**Note:** Yellowing of any plastic material can be caused from cigarette smoke, ultra violet rays, and other chemical interactions. Once plastic has yellowed, there typically is no cleaning method that will restore the whiteness.

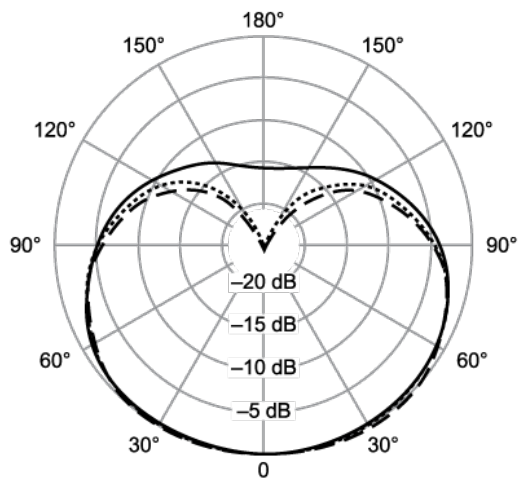
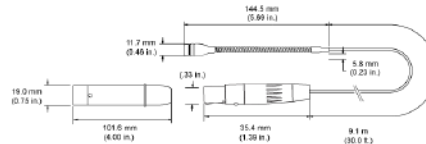
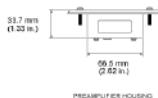
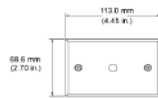
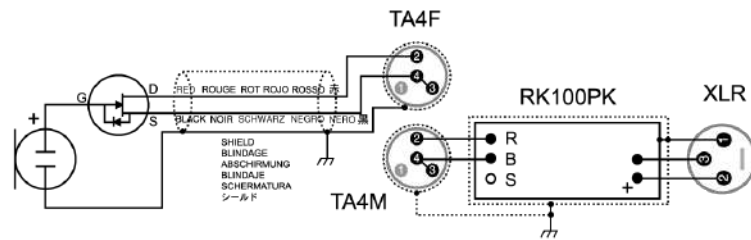
## Furnished Accessories

|  |         |
|--|---------|
| <b>Black Snap-Fit Foam Windscreens (4) for BETA98, BETA98A, BETA98/S, BETA98D/S, BETA98H/C, MX183, MX184, MX185, MX202, WH30, WL183, WL184 and WL185</b> | RK183WS |
| <b>White Snap-Fit Windscreen</b>   | 95B2064 |
| <b>Preamplifier Kit, Plate Mounted, White (MX202BP and MX202WP)</b>  | RK202PK |
| <b>Stand Adaptor (MX202B and MX202W)</b>   | 65B1752 |

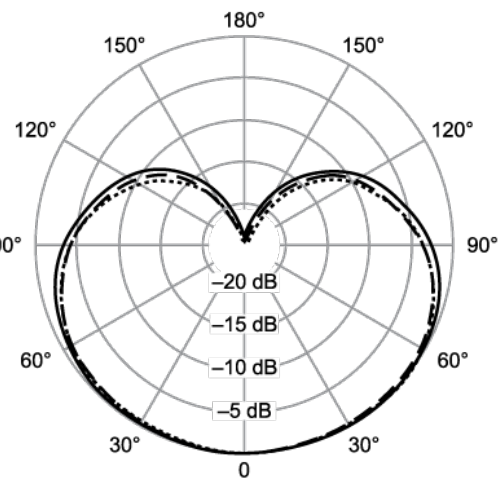
## Replacement Parts

|  |        |
|--|--------|
| <b>Strain Relief (MX202BP and MX202WP)</b> | 80A479 |
| <b>Clamp (MX202B and MX202WP)</b>          | 80A476 |
| <b>Hang Clip</b>                           | 80B489 |

# Wiring Diagram

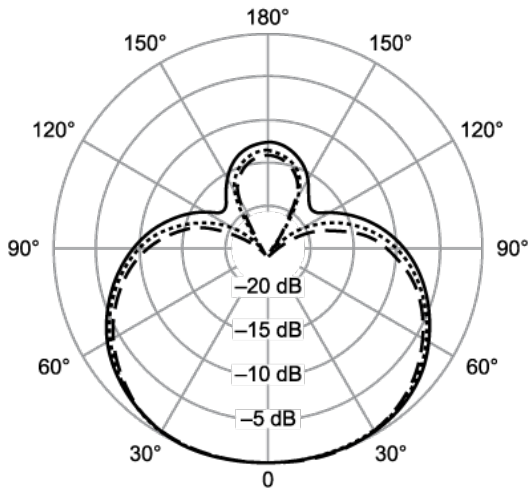


——— 250 Hz  
 ..... 500 Hz  
 - - - - 1000 Hz

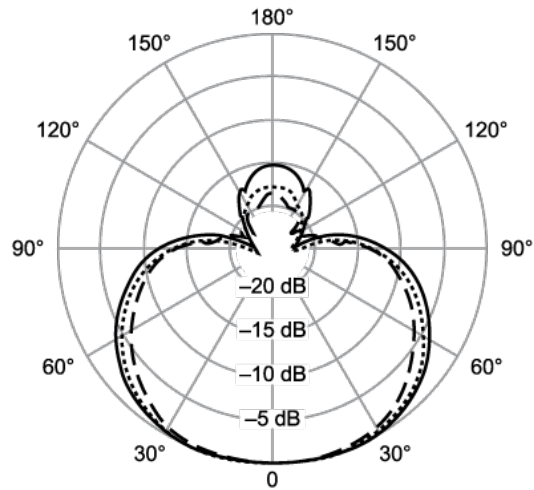


——— 2500 Hz  
 ..... 6400 Hz  
 - - - - 10000 Hz

## Cardioid

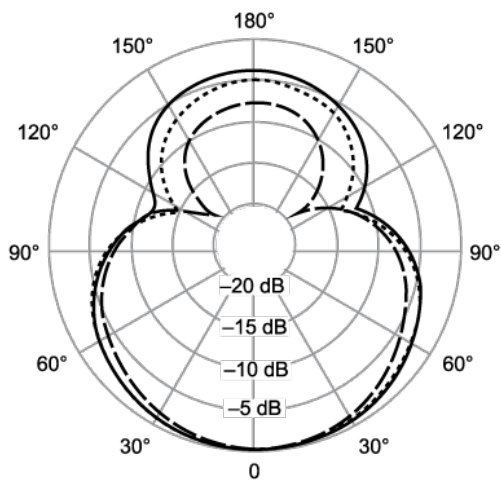


— 250 Hz  
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 - - - 1000 Hz

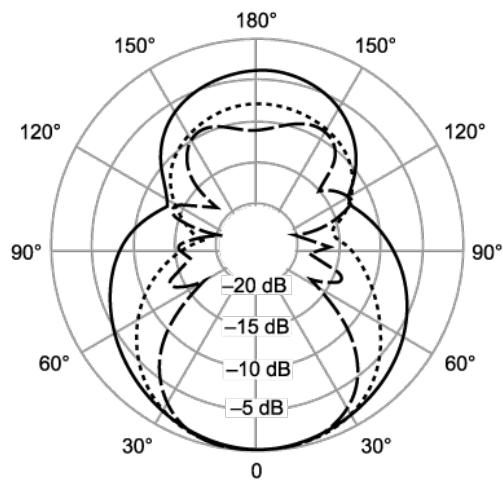


— 2500 Hz  
 ..... 6400 Hz  
 - - - 10000 Hz

## Supercardioid

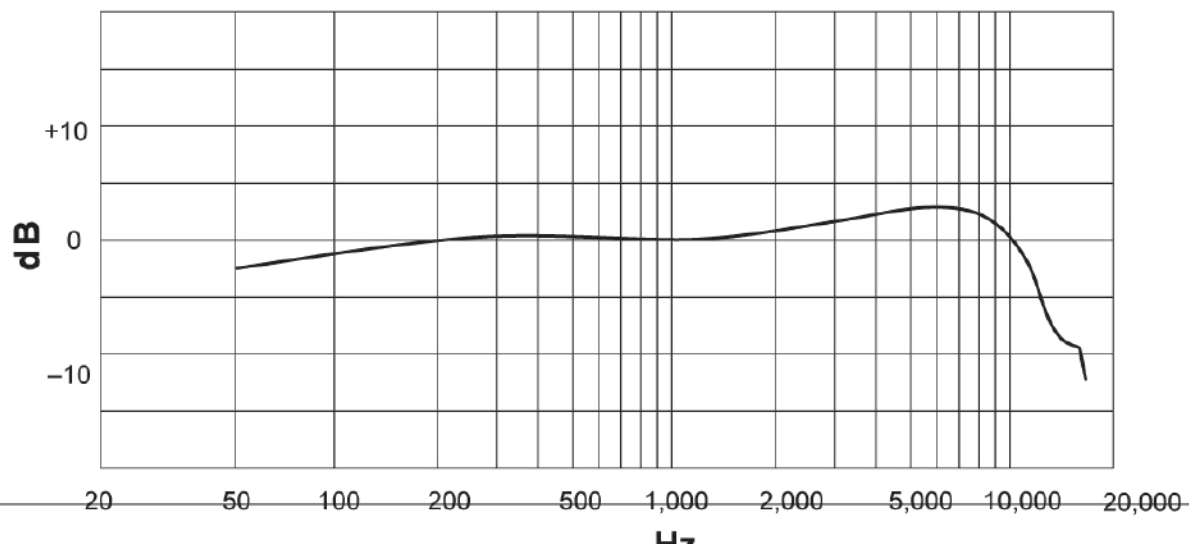
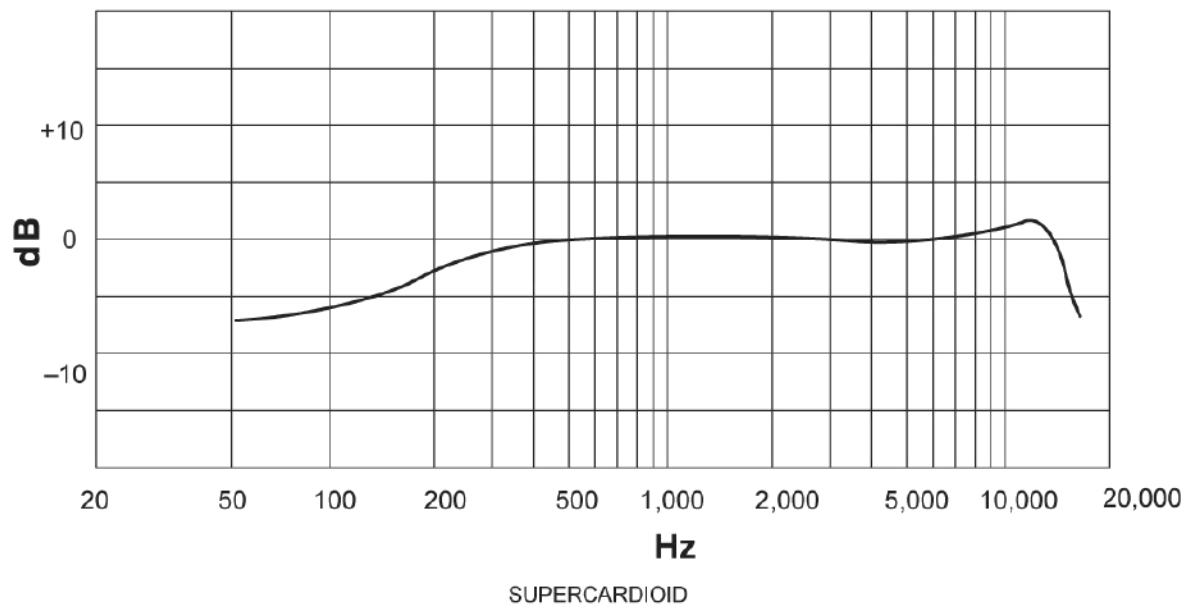
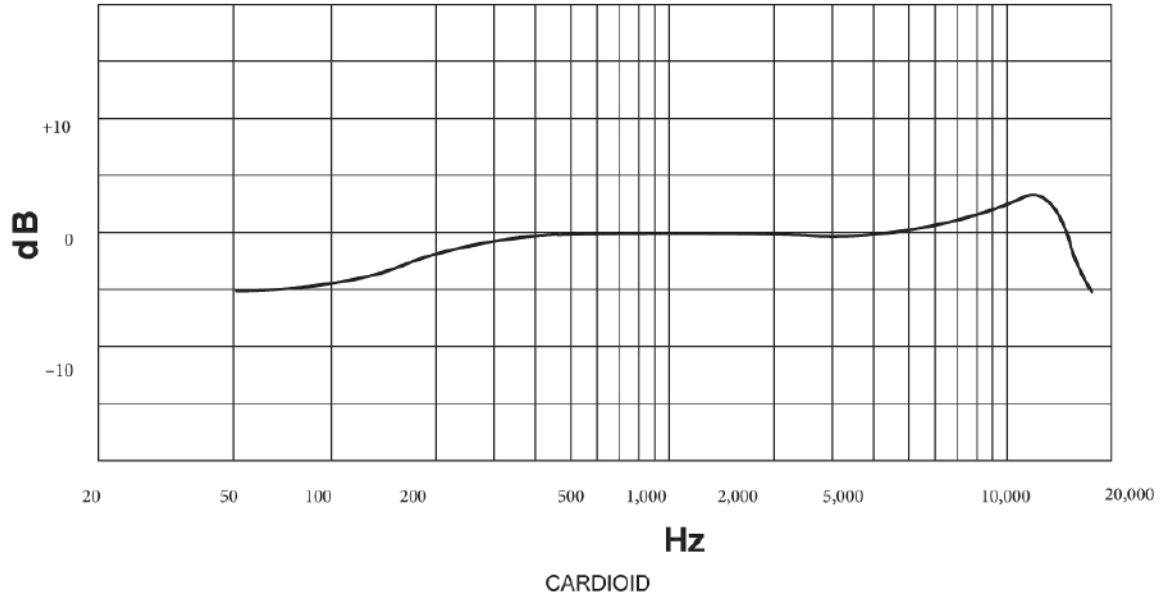


— 250 Hz  
 ..... 500 Hz  
 - - - 1000 Hz



— 2500 Hz  
 ..... 6400 Hz  
 - - - 10000 Hz

## Mini-shotgun



# Certifications

This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

The CE Declaration of Conformity can be obtained from: [www.shure.com/europe/compliance](http://www.shure.com/europe/compliance)

Authorized European representative:

Shure Europe GmbH

Headquarters Europe, Middle East & Africa

Department: EMEA Approval

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