
MX400 Series -- Gooseneck Microphones

General Description

Shure Microflex® MX400S Series microphones are miniature gooseneck-mounted electret condenser microphones designed primarily for speech and vocal pickup. They can be mounted on lecterns, pulpits, or conference tables. All models include a preamplifier and are available with interchangeable cardioid, supercardioid, or omnidirectional cartridges.

MX400 microphones are available with 305 mm (12 in.) or 457 mm (18 in.) goosenecks, with or without a mute switch. They are available in supercardioid, cardioid and omnidirectional polar patterns.

- "S" models include a mute button and LED.
- "D" models include a desktop base with programmable mute button and LED and logic input and output.
- "SE" models feature a surface mount flange with side-exit cable.

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

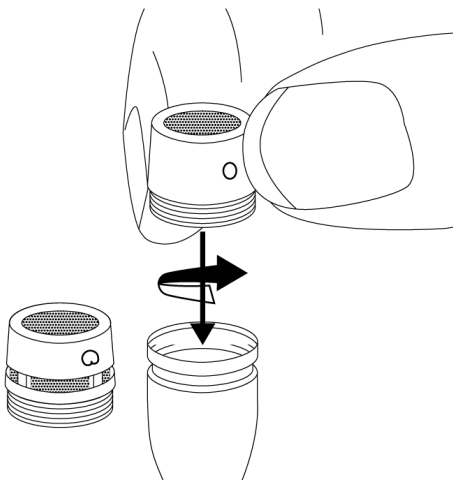
/C Cardioid

/S Supercardioid

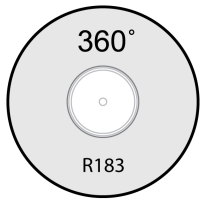
/O Omnidirectional

/N Cartridge not included

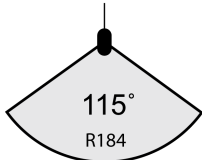
Interchangeable Cartridges



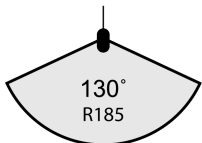
Microflex microphones use interchangeable cartridges that allow you to choose the polar pattern for different installations.



Omnidirectional



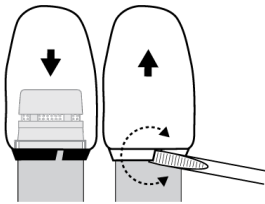
Supercardioid



Cardioid

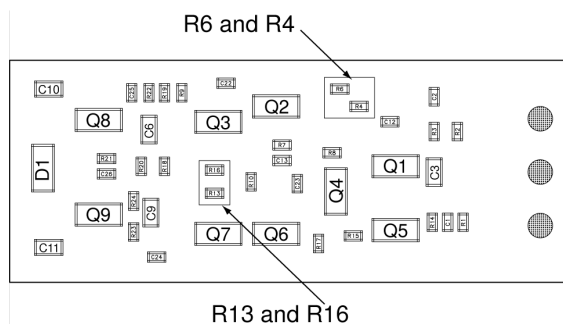
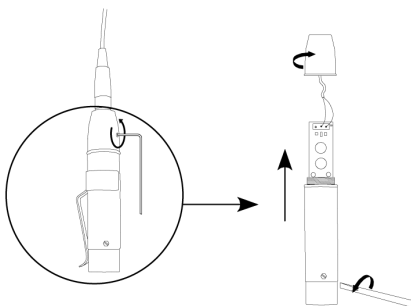
Snap-Fit Windscreen

- 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

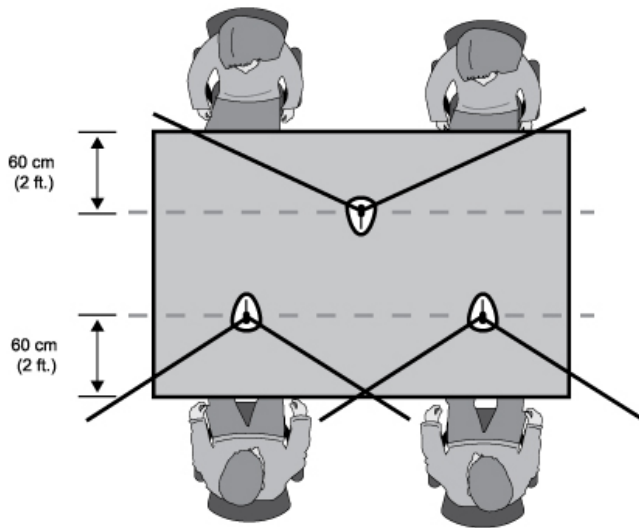
If necessary, the preamplifier gain can be reduced by 12 dB. Contact an authorized Shure service center for information.



GAIN SETTING		
	12 dB	0 dB
R6	10k	0 Ω
R4	10k	20k
R16	0 Ω	10M
R13	DNP	301 Ω

Microphone Placement

- Aim the microphone toward the desired source, such as the talker.
- Aim it away from any unwanted source, such as a loudspeaker.
- Place the microphone within 15 to 30cm (6 to 12 in.) of the desired sound source.
- Always use the supplied windscreen or optional metal windscreen to control breath noise.
- If four or more microphones will be open at the same time, use of an automatic mixer, such as the Shure SCM810 or SCM410, is recommended.

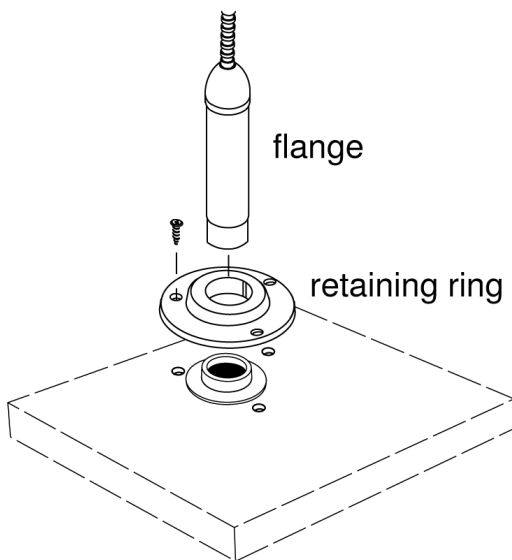
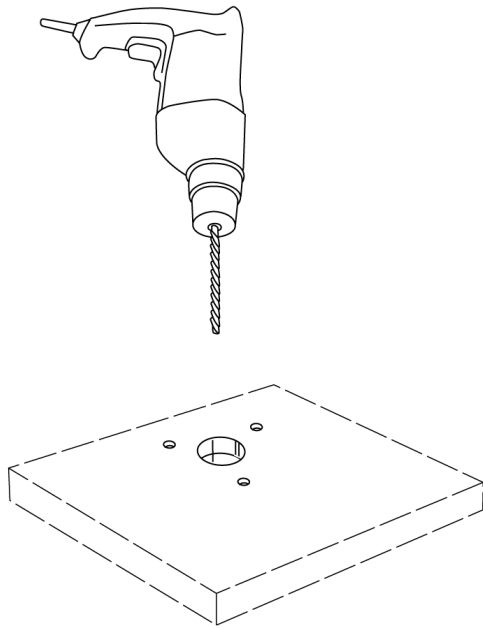


Permanent Installation

Mount the microphone using one of the following methods.

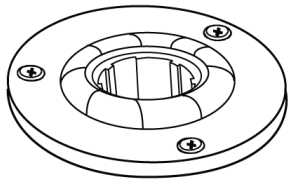
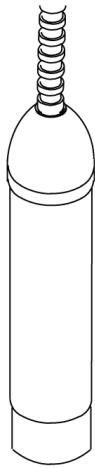
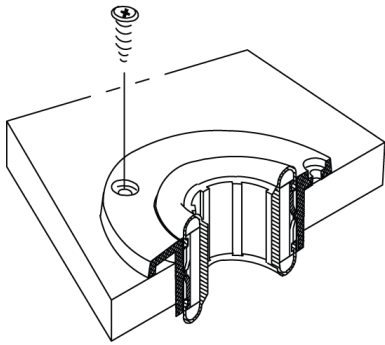
Flange

1. Drill a 22 mm (7/8 in.) diameter hole in the desired location.
2. Trace and drill three starter holes for the supplied screws using the flange as a template.
3. Insert the preamplifier through the mounting flange.
4. Slip the mounting flange retaining ring over the bottom of the preamplifier and slide it up until it is flush to the bottom of the flange. Then press the ring firmly into place.
5. Secure the flange to the mounting surface with three screws.



Shock Mount

1. Drill a 44mm(1-3/4 in.) diameter hole in desired mounting surface.
2. Mark and drill starter holes for screws, using shock mount as a template.
3. Secure shock mount to mounting surface with screws.
4. Thread the supplied adapter onto the MX400 microphone before inserting it into the shock mount.



Specifications

Cartridge Type

Electret Condenser

Frequency Response

50–17000 Hz

Polar Pattern

MX412/C, MX418/C	Cardioid
MX412/S, MX418/S	Supercardioid

Output Impedance180 Ω **Output Configuration**

Active Balanced

Sensitivity

@ 1 kHz, open circuit voltage

Cardioid	-35 dBV/Pa(18 mV)
Supercardioid	-34 dBV/Pa(21 mV)

1 Pa=94 dB SPL

Maximum SPL1 kHz at 1% THD, 1 k Ω load

Cardioid	124 dB
Supercardioid	123 dB

Equivalent Output Noise

A-weighted

Cardioid	28 dB SPL
Supercardioid	27 dB SPL

Signal-to-Noise Ratio

Ref. 94 dB SPL at 1 kHz

Cardioid	66 dB
Supercardioid	68 dB

Dynamic Range1 k Ω load, @ 1 kHz

96 dB

Common Mode Rejection

10 Hz to 100 kHz

45 dB, minimum

Preamplifier Output Clipping Level

at 1% THD

–6 dBV (0.5 V)

Polarity

Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector

Mute Switch

MX412S/MX418S

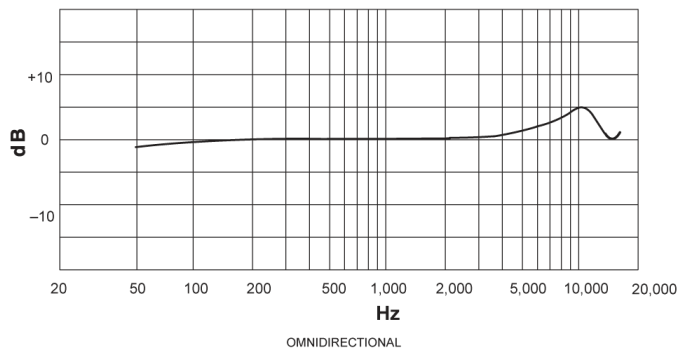
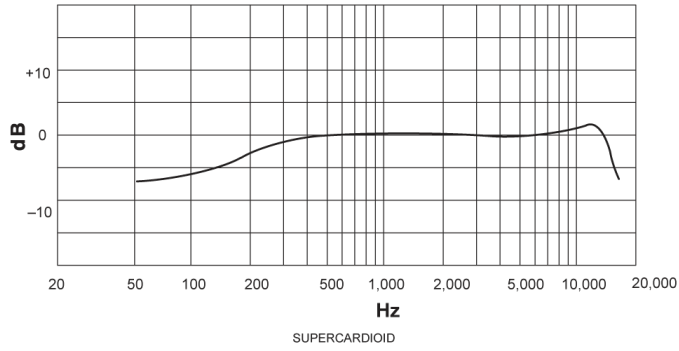
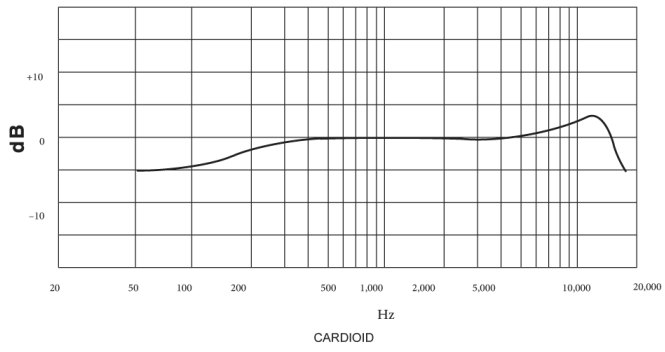
–50 dB minimum

Environmental Conditions

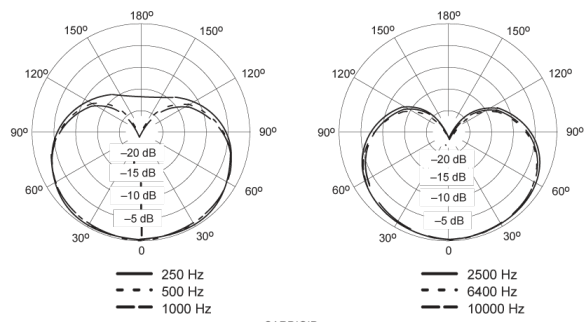
Operating Temperature	–18–57°C (0–135°F)
Storage Temperature	–29–74°C (–20–165°F)
Relative Humidity	0–95%

Power Requirements

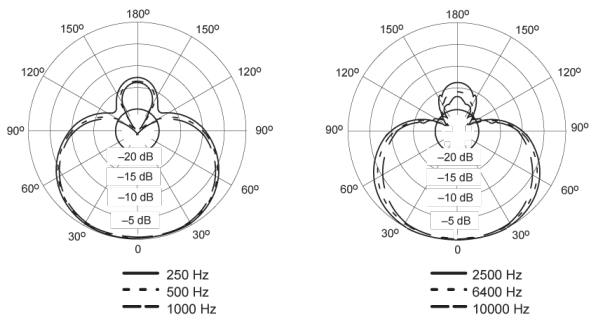
11–52 V DC, 2.0 mA



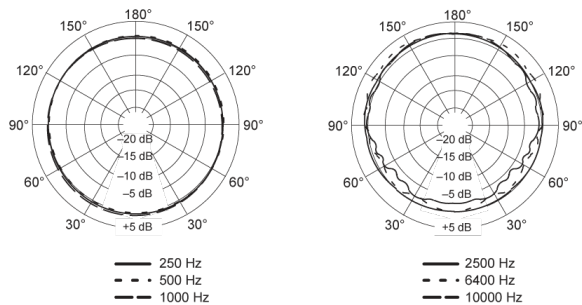
TYPICAL FREQUENCY RESPONSE



CARDIOID



SUPERCARDIOID



OMNIDIRECTIONAL

Certifications

Meets essential requirements of all applicable European Directives.

Eligible for CE marking.

The CE Declaration of Conformity can be obtained from Shure Incorporated or any of its European representatives. For contact information please visit www.shure.com

The CE Declaration of Conformity can be obtained from: www.shure.com/europe/compliance

Authorized European representative:

Shure Europe GmbH

Headquarters Europe, Middle East & Africa

Department: EMEA Approval

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