SHURE®

LEGENDARY
PERFORMANCE™

WIRED MICROPHONE
MICROFLEX SERIES

MX200 SERIES
USER GUIDE

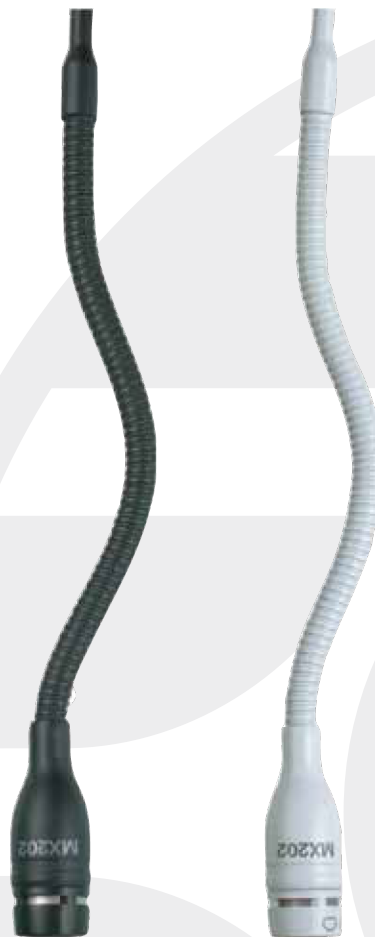**Le Guide de l'Utilisateur**

Bedienungsanleitung

Guia del Usuario

Guida dell'Utente

Manual do Usuário

取扱説明書

MX200
Overhead Microphones

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
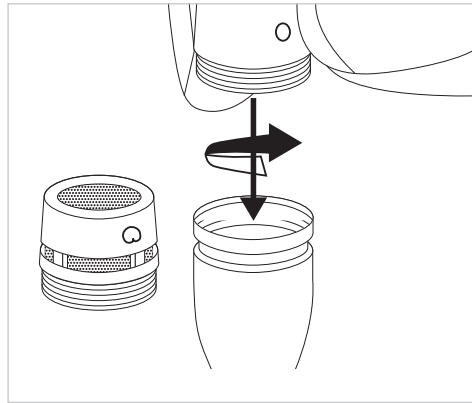- RF filtering

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
/N Cartridge not included

Interchangeable Cartridges

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

360°
R183
Omnidirectional

115°
R184
Supercardioid

130°
R185
Cardioid
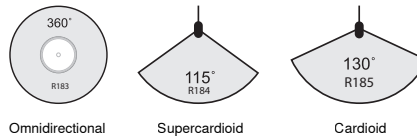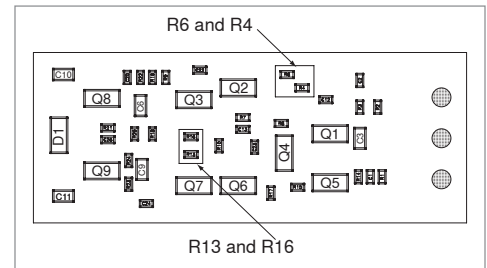
Cartridge Polar Patterns

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.
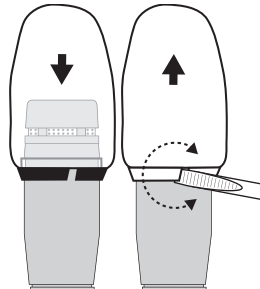
Preamp Gain

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

R6 and R4

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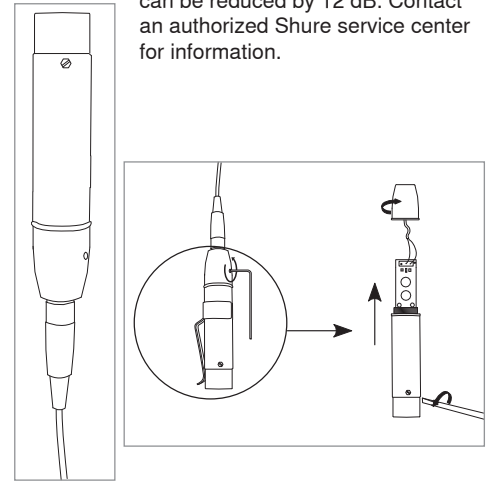
GAIN SETTING		
	12 dB	0 dB
R6	10k	0 Ω
R4	10k	20k
R16	0 Ω	10M
R13	DNP	301 Ω

RFI Filtering

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

Microphone Placement

The microphone is most stable when the goose-neck 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.

.6 – 1 m
(2 – 3 ft.)

.6 – 1 m
(2 – 3 ft.)

0.6 – 1m
(2-3 ft.)

1.8 – 3m
(6 – 9 ft.)
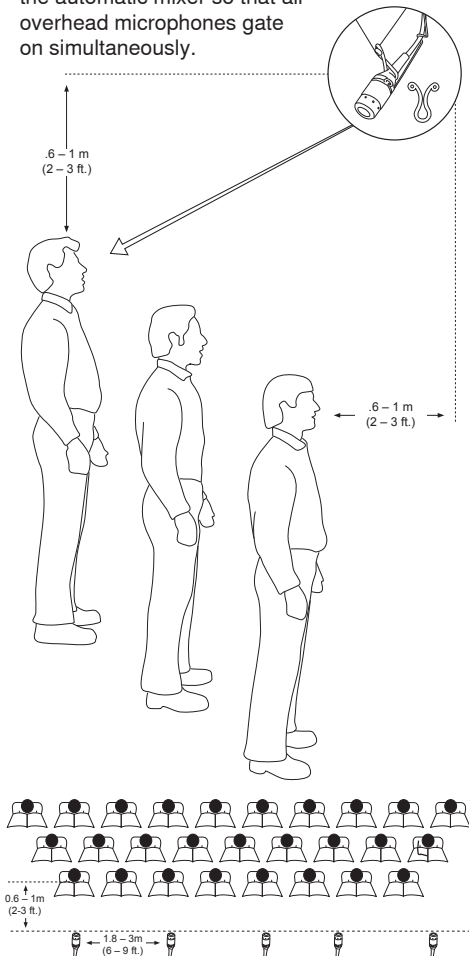
Permanent Installation

Installing the In-Line Preamp
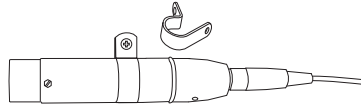
Use the two supplied mounting clamps to hold the preamp in place on a wall or ceiling.

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 suppled washer.
5. Reconnect the preamp.
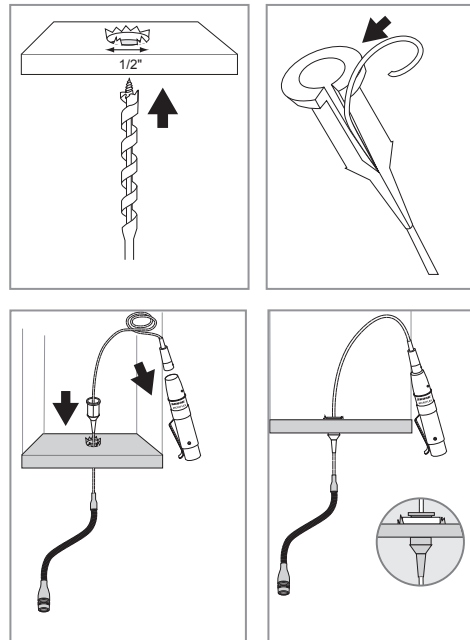
The plate-mounted preamp allows you to mount the preamp in an electical box and use conduit to run cable through ceilings and walls.

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.
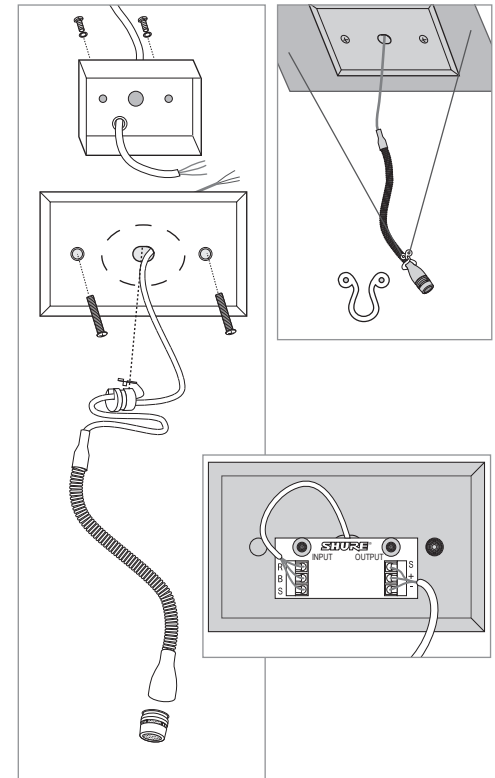
Specifications

Type
Condenser (electret bias)

Frequency Response
50–17000 Hz

Polar Pattern
MX202B/C, MX202W/C: Cardioid
MX202B/S, MX202W/S: Supercardioid

Output Impedance
EIA Rated at 150 Ω (180 Ω actual)

Output Configuration
Active balanced

Sensitivity (at 1 kHz , open circuit voltage)
Cardioid: –35 dBV/Pa (18 mV)
Supercardioid: –34 dBV/Pa (21 mV)
1 Pascal=94 dB SPL

Maximum SPL (1 kHz at 1% THD, 1 kΩ load)
Cardioid: 124 dB
Supercardioid: 123 dB

Equivalent Output Noise (A-weighted)
Cardioid: 28 dB SPL
Supercardioid: 27 dB SPL

Signal-to-Noise Ratio (referenced at 94 dB SPL at 1 kHz)
Cardioid: 66 dB
Supercardioid: 68 dB

Dynamic Range (1 kΩ load at 1 kHz)
96 dB

Common Mode Rejection (10 Hz to 100 kHz)
45 dB minimum

Preamplifier Output Clipping Level (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.

Cable
9 m (30 ft)

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 Vdc phantom, 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.

Accessories

Furnished Accessories

Black Snap-Fit Foam Windscreens (4) for Beta 98, Beta 98A, Beta 98/S, Beta 98D/S, Beta 98H/C, MX183, MX184, MX185, MX202, WH30, WL183, WL184 and WL185	**RK183WS**
White Snap-Fit Windscreen	**95B2064**
Preamplifier Kit, Plate Mounted, White (MX202BP and MX202WP)	**RK202PK**
Stand Adaptor (MX202B and MX202W)	**65B1752**

Optional Accessories

Small Black Desk/Table Stand for MX202 Microphones	**A202BB**

Replacement Parts

RFI Resistant, Inline Preamp for all MX Models (Black)	**RK100PK**
RFI Resistant, Inline Preamp for all MX Models (White)	**RK100PKW**
Black or White Omnidirectional Cartridge for all MX- (Microflex®) Models and WL183	**R183B**
White Omnidirectional Cartridge for MX- (Microflex®) Models	**R183W**
Black or White Supercardioid Cartridge for all MX- (Microflex®) and WL183, WL184 and WL185 Models	**R184B**
White Supercardioid Cartridge for MX- (Microflex®) Models	**R184W**
Black or White Cardioid Cartridge for WL185 and all MX- (Microflex®) Models	**R185B**
White Cardioid Cartridge for MX- (Microflex®) Models	**R185W**
Strain Relief (MX202BP and MX202WP)	**80A479**
Clamp (MX202B and MX202WP)	**80A476**
Hang Clip	**80B489**

CARDIOID

dB, +10, 0, −10

Hz: 20, 50, 100, 200, 500, 1,000, 2,000, 5,000, 10,000, 20,000

180°, 150°, 150°, 120°, 120°, 90°, 90°, 60°, 60°, 30°, 30°, 0
−20 dB, −15 dB, −10 dB, −5 dB

— 250 Hz
- - - 500 Hz
— — 1000 Hz

— 2500 Hz
- - - 6400 Hz
— — 10000 Hz

SUPERCARDIOID

dB, +10, 0, −10

Hz: 20, 50, 100, 200, 500, 1,000, 2,000, 5,000, 10,000, 20,000

180°, 150°, 150°, 120°, 120°, 90°, 90°, 60°, 60°, 30°, 30°, 0
−20 dB, −15 dB, −10 dB, −5 dB

— 250 Hz
- - - 500 Hz
— — 1000 Hz

— 2500 Hz
- - - 6400 Hz
— — 10000 Hz

OMNIDIRECTIONAL

dB, +10, 0, −10

Hz: 20, 50, 100, 200, 500, 1,000, 2,000, 5,000, 10,000, 20,000

180°, 150°, 150°, 120°, 120°, 90°, 90°, 60°, 60°, 30°, 30°, 0
−20 dB, −15 dB, −10 dB, −5 dB

— 250 Hz
- - - 500 Hz
— — 1000 Hz

— 2500 Hz
- - - 6400 Hz
— — 10000 Hz