



MX391

Surface Mount Microphones

The Shure small, surface-mounted electret condenser microphone series, MX391, user guide.
Version: 5 (2019-J)

Table of Contents

MX391 Surface Mount Microphones	3	Microphone Placement	4
General Description	3	Permanent Installation	4
Model Variations	3	Preamp Gain	5
Interchangeable Cartridges	3	Specifications	5
RFI Filtering	4	Furnished Accessories	7
		Certifications	7

MX391

Surface Mount Microphones

General Description

Shure Microflex® MX391 Series microphones are small, surface-mounted electret condenser microphones designed for mounting on conference tables, stage floors, and lecterns. Their high sensitivity and wide frequency range make them especially suitable for picking up speech and vocals in sound reinforcement and recording applications.

- Flat frequency response across the vocal range for uncolored sound
- Interchangeable cartridges that provide a choice of polar pattern for each application
- Sleek, low-profile design for unobtrusive appearance
- RF filtering

Model Variations

Microflex MX391 microphones are available in black or white.

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

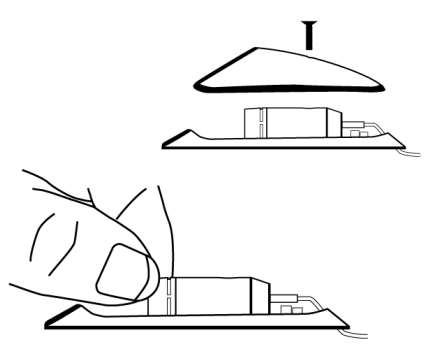
/C Cardioid

/S Supercardioid

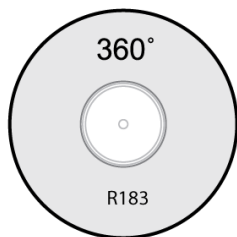
/O Omnidirectional

/N Cartridge not included

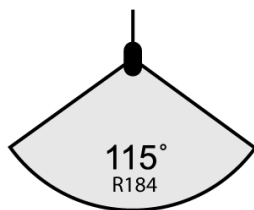
Interchangeable Cartridges



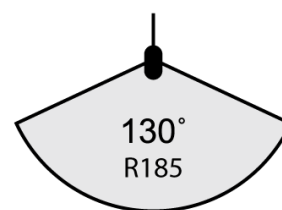
Microflex microphones use interchangeable cartridges that allow you to choose the polar pattern for different installations.



Omnidirectional



Supercardioid



Cardioid

Cartridge Polar Patterns

RFI Filtering

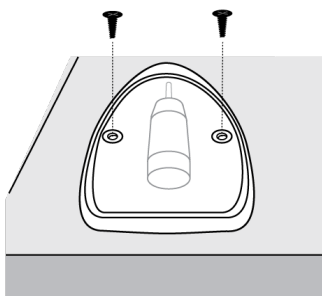
Important: Microphones must be used with the RK100PK or RK202PK plate-mounted preamp to optimize RF immunity.

Microphone Placement

For best low-frequency response and rejection of background noise, place the microphone on a large, flat surface, such as a floor, table, or lectern.

To reduce reverberance, avoid reflective surfaces above or to the side of the microphone, such as beveled sides of pulpits or overhanging shelves.

Permanent Installation



1. Remove grille.
2. Place housing in position and mark location of screw holes and bottom cable exit hole.
3. Drill starter hole for each screw and a 1/2 in. bottom exit hole for the mic cable.
4. Insert 4-pin mini-connector and cable through cable hole.

- Replace grille with screw. Do not overtighten.

Do not attempt to detach the cable from the microphone, as damage may result.

Preamp Gain

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

Specifications

All measurements taken with microphone mounted on a wooden surface (76 x 76 cm)

Type

Electret Condenser

Frequency Response

50–17000 Hz

Polar Pattern

MX391/C	Cardioid
MX391/S	Supercardioid
MX391/O	Omnidirectional

Output Impedance

180 Ω

Output Configuration

Active Balanced

Sensitivity

@ 1 kHz, open circuit voltage

Cardioid	–30 dBV/Pa(33.5 mV)
Supercardioid	–28 dBV/Pa(38.5 mV)
Omnidirectional	–22 dBV/Pa(81.4 mV)

1 Pa=94 dB SPL

Maximum SPL

1 kHz at 1% THD, 1 k Ω load

Cardioid	119 dB
Supercardioid	118 dB
Omnidirectional	111 dB

Self Noise

A-weighted

Cardioid	23 dB SPL
Omnidirectional	15 dB SPL
Supercardioid	21 dB

Signal-to-Noise Ratio

Ref. 94 dB SPL at 1 kHz

Cardioid	71 dB
Omnidirectional	80 dB
Supercardioid	73 dB

Dynamic Range

1 k Ω load, @ 1 kHz

96 dB

Common Mode Rejection

45 dB, minimum

Clipping Level

at 1% THD

–6 dBV (0.5 V)

Polarity

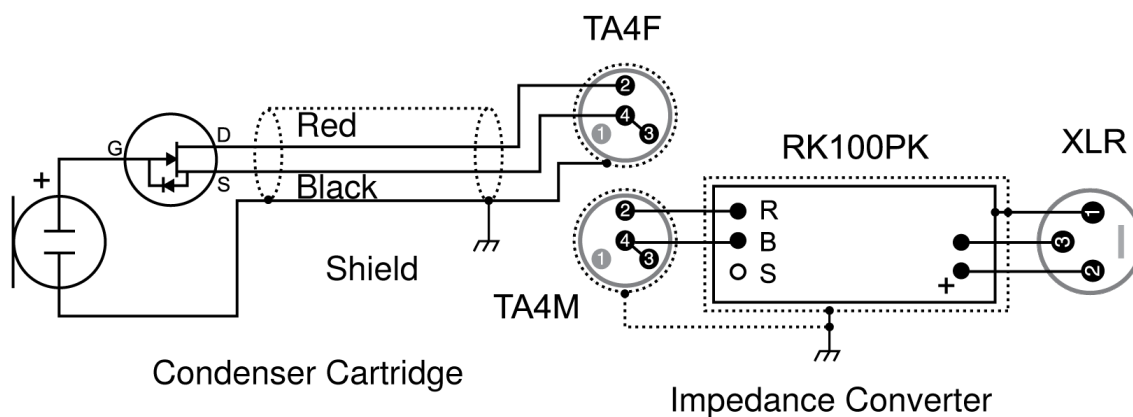
Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector

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



Microphone Wiring Diagram

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

Carrying/Storage Bag	95A2313
RFI Resistant, Inline Preamp for all MX Models (Black)	RK100PK
Allen wrench (No. 4)	80A67

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

Jakob-Dieffenbacher-Str. 12

75031 Eppingen, Germany

Phone: +49-7262-92 49 0

Fax: +49-7262-92 49 11 4

Email: info@shure.de