

# MX391

Surface Mount Microphones

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

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### 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:

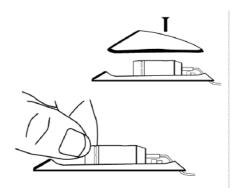
IC Cardioid

IS Supercardioid

**IO** Omnidirectional

/N Cartridge not included

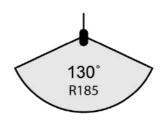
### Interchangeable Cartridges



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







Supercardioid

Cardioid

**Cartridge Polar Patterns** 

# RFI Filtering

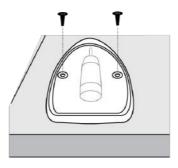
Important: Microphones must be used with the RK100PK or RK202PK plate-mounted preamp to optimize RF immunity.

### 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.

5. 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

 $180\;\Omega$ 

### **Output Configuration**

Active Balanced

#### Sensitivity

@ 1 kHz, open circuit voltage

| C 7,44,4 4,44,4 4,45 |                     |
|----------------------|---------------------|
| 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 $\Omega$  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 $k\Omega$ load, @ 1 kHz

96 dB

#### Common Mode Rejection

45 dB, minimum

#### Clipping Level

at 1% THD

-6 dBV (0.5 V)

#### **Polarity**

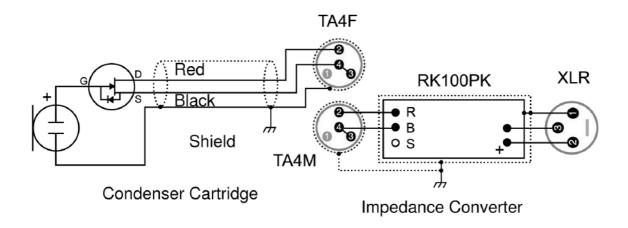
Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output XLR connector

#### **Environmental Conditions**

| ETHIOTICAL CONTACTOR                     |                      |
|--|----------------------|
| 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: <a href="www.shure.com/europe/compliance">www.shure.com/europe/compliance</a>

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