Miniature Lavalier Condenser Microphones

INTRODUCTION
The MCE 5, 6 and 10 series lavalier microphones are high quality, miniature, condenser microphones designed and engineered to meet the most critical demands of broadcast, recording and sound reinforcement applications either in the studio or on-location. Each microphone possesses extraordinary sonic quality that captures speech, vocal or instrumental music with startling accuracy under extremely high sound pressure level situations. The MCE 5, 6 and 10 are designed with rugged, ultra-reliable cable strain reliefs which dramatically reduce "cable borne" noise and vibration. The MCE series are available in a wide range of cable and pre-amp options for both wireless and "hard wired" applications. A wide range of precision engineered accessories are available for lavalier, musical instrument mounts and sound reinforcement installations. The MCE series accessories are housed in low-profile, non-glare black anodized finished material designed to stand the most rigorous physical and environmental conditions.

MCE 5 DESCRIPTION
The MCE 5 is a high output omnidirectional condenser microphone with a durable and miniature design. It’s wide range frequency response has been fine tuned to accurately reproduce speech during lavalier applications where the greatest vocal intelligibility is desired. The specially designed cable and strain relief system reduce undesirable "cable borne" noise and vibration while it’s small size and black anodized finish makes the MCE 5 visually unobtrusive. A miniature, detachable windscreen is supplied with each microphone designed to reduce wind related noise by as much as 20 dB. Various versions with different terminations are available for a variety of interfaces, including wireless applications. The most popular version, the MCE 5.11 N(C) is terminated in a 3 pin XLR connector and can be battery or 12-48 volt phantom powered.

FEATURES
- Wide frequency response tailored for maximum speech intelligibility
- Consistent omnidirectional polar response
- Extremely small unobtrusive design
- Rugged, reliable cable strain relief yields reduced "cable borne" noise and vibration
- High sound pressure level capability
- Battery or phantom powerable
- Quickly interfacable with wireless bodypack transmitters
- Wide array of cable terminations for various applications

APPLICATIONS
The MCE5’s startling sonic accuracy, fine tuned frequency response and unobtrusive, non-glare design make it a natural choice for the most demanding on air lavalier applications where maximum vocal intelligibility and minimal visual profile are desired. With a wide array of accessories, the MCE 5 may be set-up for single or dual lavalier applications either in the studio or on location.
FREQUENCY RESPONSE CURVE (± 2.5 dB)

This frequency response curve corresponds to typical machine run specifications from a standard MCE 5.

MODELS

MCE 5  Condenser, omnidirectional, clip-on lavaliere microphone. 7 mm diameter, 23 mm long. Matte black finish. Designed for use in TV and radio broadcasting and film and video production. Terminated in a 8 pin DIN connector which interfaces with the MES 5 VN (C) power supply. Supplied with a 4' cable, WS 5 windscreen, ZWS 5 foam windscreen and MKV 5/1 tie-clip holder.

MCE 5-3M  Same as the MCE 5 supplied with a 10' cable instead of the 4' cable.

MCE 5.1N(K)  Same as the MCE 5 terminating in a 1/4" phone connector. The connector incorporates the power supply operable by a 5.6 volt battery (supplied). Supplied with a 10' cable, WS 5, ZWS 5 foam windscreen and MKV 5/1 tie-clip holder.

MCE 5.3  Same as the MCE 5, but frequency response with bass roll-off.

MCE 5.4  Same as MCE 5, but higher sensitivity. In conjunction with MA 5 T 12 N(C),1 adapter recommended for Nagra and Stellavox tape recorders.

MCE 5.5  For direct interface with Nagra SN model.

MCE 5.6  Same as MCE 5.4, for direct interface with Stellavox and Nagra tape recorders.

MCE 5.9  Same as the MCE 5 terminated open-ended for use with any wireless transmitter (with appropriate connector for interface). Supplied with a 10' cable, WS 5 windscreen, ZWS 5 foam windscreen and MKV 5/1 tie-clip holder.

MCE 5.11N(C)  Same as the MCE 5 terminating in a 3 pin XLR connector. The connector incorporates the power supply operable by a 5.6 volt battery (supplied) or any 12-48 volt phantom power supply. Supplied with a 10' cable, WS 5 windscreen, ZWS 5 foam windscreen, MHV 5 power supply belt-clip and MKV 5/1 tie-clip holder.

MCE 5.14  Same as the MCE 5.9 terminating in a 4 pin miniature connector for direct interface with beyerdynamic wireless transmitters TS 42, 10-10 ... 30 and TS 185. Supplied with a 4' cable, WS 5 windscreen, ZWS 5 foam windscreen and MKV 5/1 tie-clip holder.

MCE 5.14S  Same as the MCE 5.14, but with ON/OFF switch.

SPECIFICATIONS

Model | Operating principle | Polar pattern | Frequency response | Sensitivity at 1 kHz | EIA sensitivity rating | Nominal impedance | Load impedance | Signal to noise ratio | Max. SPL at 1 kHz and THD ≤ 1% | Operating voltage | Current consumption | Operating time | Case | Case finish | Cable length | Connector | Dimensions | Weight |
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<tbody>
<tr>
<td>MCE 5, MCE 5.3</td>
<td>electret condenser</td>
<td>omnidirectional</td>
<td>20-20.000 Hz</td>
<td>7 mV/Pa</td>
<td>-48 dBm</td>
<td>800 ohms</td>
<td>≥ 3000 ohms</td>
<td>≥ 1000 ohms</td>
<td>116 dB</td>
<td>9 volts</td>
<td>1.3 mA</td>
<td>approx. 90 h</td>
<td>brass</td>
<td>black chromium plated</td>
<td>1.3 m</td>
<td>male DIN connector</td>
<td>length 23 mm, diameter without windscreen 7 mm, diameter with windscreen 10.6 mm</td>
<td>6.5 g with clip-on clasp and windscreen (w/o. cable and connector)</td>
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<tr>
<td>MCE 5.4, MCE 5.6</td>
<td>electret condenser</td>
<td>omnidirectional</td>
<td>20-20.000 Hz</td>
<td>14 mV/Pa</td>
<td>-36 dBm</td>
<td>200 ohms</td>
<td>≥ 1000 ohms</td>
<td>≥ 1000 ohms</td>
<td>117 dB</td>
<td>9 volts</td>
<td>2.7 mA</td>
<td>approx. 40 h</td>
<td>brass</td>
<td>black chromium plated</td>
<td>1.3 m</td>
<td>see wiring Diagram</td>
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<tr>
<td>MCE 5.1, MCE 5.11</td>
<td>electret condenser</td>
<td>omnidirectional</td>
<td>20-20.000 Hz</td>
<td>14 mV/Pa</td>
<td>-36 dBm</td>
<td>200 ohms</td>
<td>≥ 1000 ohms</td>
<td>≥ 1000 ohms</td>
<td>117 dB</td>
<td>5.6 volts</td>
<td>1.8 mA</td>
<td>approx. 60 h</td>
<td>brass</td>
<td>black chromium plated</td>
<td>3 m</td>
<td>2-conductor Jack</td>
<td>6.35 mm, resp. 3 pin XLR plug, built-in battery</td>
<td></td>
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<tr>
<td>MCE 5.5</td>
<td>electret condenser</td>
<td>omnidirectional</td>
<td>20-20.000 Hz</td>
<td>7 mV/Pa</td>
<td>-50 dBm</td>
<td>61 dB</td>
<td>61 dB</td>
<td>116 dB</td>
<td>7 volts</td>
<td>5 volts</td>
<td>≤ 2 mA</td>
<td></td>
<td>brass</td>
<td>black chromium plated</td>
<td></td>
<td>special connector for Nagra SN</td>
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FURNISHED ACCESSORIES

- WS 5: removable wire-mesh windscreen
- ZWS 5: polyurethane foam windscreen
- MHV 5: belt carrier-clip for the power supply found on the MCE 5.11 N(C) only
- MKV 5/1: tie-clip holder
- Leatherette storage case

DIMENSIONS

In inches (millimeters in brackets)

1.023 (26)
MCE 6 DESCRIPTION
The MCE 6 is a miniature, high output omnidirectional condenser microphone capable of accurately reproducing signals generating very high sound pressure levels. The MCE 6 is specifically designed for "close miking" of musical instruments where sound pressure levels may exceed 146 dB without exhibiting overload or distortion. A complete array of precision engineered accessories are available for interfacing the MCE 6 with a variety of acoustic, brass and stringed instruments. Its small size and minimal profile is visually unobtrusive and will not hamper a musician's performance when the microphone is placed on, or inside the musical instrument. The MCE 6's wide range frequency response insures startlingly accurate acoustical pick-up of the instrument's tonal character and harmonics without any coloration.

APPLICATIONS
The MCE 6 is sensitive enough to capture the rich subtle character and intricate harmonics of the cello, violin, upright acoustic bass, acoustic guitar and flute while also able to accurately reproduce sound pressure levels in excess of 146 dB when mounted within the bell of a saxophone, French horn, trumpet, tuba or trombone. When used with a wireless body-pack transmitter the MCE 6 can provide significantly increased stage mobility during live performances.

FEATURES
- High sound pressure level capability without overload or distortion
- Good gain before feedback
- Wide range frequency response for accurate musical instrument reproduction
- Easily interfaces with wireless pocket transmitters
- Extremely small size
- Non-glare black anodized finish
- Wide array of instrument mounting accessories available
- Battery of phantom powerable

FREQUENCY RESPONSE CURVE
Identical to MCE 5

MODELS
MCE 6
The same microphone as the MCE 5 but specifically designed to handle very high sound pressure levels up to 146 dB. Supplied with a 4' cable, WS 5 windscreen, ZWS 5 foam windscreen and MKV 5/1 tie-clip holder.

MCE 6.1N(K)
Same as the MCE 6 terminating in a 2 conductor 1/4" phone connector. The connector incorporates the power supply operable by a 5.6 volt battery (supplied). Supplied with a 10' cable, WS 5 windscreen, ZWS 5 foam windscreen and MKV 5/1 tie-clip holder.

MCE 6.9
Same as the MCE 6 terminated open-ended for use with any wireless transmitter (when interfaced with the proper connector). Supplied with a 10' cable.

MCE 6.11N(C)
Same as the MCE 6 terminating in a 3 pin XLR connector. The connector incorporates the power supply operable by a 5.6 Volt battery (supplied) or any 12-48 volt phantom power supply. Supplied with a 10' cable, WS 5 windscreen, ZWS 5 foam windscreen, MHV 5 belt carrier-clip for the power supply and MKV 5/1 tie-clip holder.

SPECIFICATIONS
Compared with the MCE 5 the sensitivity of the MCE 6 cartridge is reduced by appr. 30 dB. So the max. SPL handling capacity is increased by the same amount.

FURNISHED ACCESSORIES
see MCE 5

DIMENSIONS
see MCE 5

SPECIAL ACCESSORIES

MA 5 T 12 N (CF)
Adapter for connecting the clip-on-microphone MCE 5.4 to Nagra and Stellavox tape recorders. For 12V-"AB" powering. With XLR female connector on equipment side. On special request also available with male XLR connector (MA 5 T 12 N (CM)).

MA 5 P 48 N (CF)
Adapter for connecting the clip-on-microphone MCE 5/MCE 5.3/MCE 5.4 to 48V phantom supplies. Cannon female XLR connector on equipment side. On special request also available with male XLR-connector (MA 5 P 48 N (CM)).
MCE 10 DESCRIPTION
The MCE 10 is a durable miniature hypercardioid, unidirectional microphone with very high sensitivity and excellent gain before feedback. Its wide range frequency response is designed to accurately reproduce speech, vocal or musical instruments in broadcast, recording and critical sound reinforcement applications whether they be in the studio, on the stage or in-field productions.

APPLICATIONS
The MCE10's hypercardioid polar pattern, high sensitivity, wide frequency response and extremely small size make it one of the most versatile microphones available. The small size and hypercardioid polar pattern are intended for lavaliers and sound reinforcement applications where high sensitivity and isolation from other sound sources are desired. The MCE 10 is especially effective in theater sound applications as an overhead or "plant" microphone. The MCE10 can also be mounted to musical instruments (with optional adapters or suspension mount) for critical recording and live sound reinforcement. Its high sensitivity and unobtrusive design also makes the MCE 10 a superb choice for choir reinforcement applications.

FEATURES
- Hypercardioid polar response provides excellent gain before feedback.
- High sensitivity captures even the subtest of signal sources
- Wide range frequency response
- Extremely small size for a directional microphone
- Non-glare black anodized finish
- Battery or phantom powerable
- Easily interfaces with wireless body-pack transmitters
- Lavalier or instrument mounting capabilities

FREQUENCY RESPONSE CURVE (± 2.5 dB)

POLAR PATTERN

SPECIFICATIONS
- Transducer type: Electrostatic
- Operating principle: Pressure gradient
- Frequency response: 40-20000 Hz
- Polar pattern: Hypercardioid
- Attenuation at 120° (1 kHz): >20dB
- Open circuit voltage at 1 kHz: 8mV/Pa → -42 dBV
- Nominal impedance: 700Ω
- Load impedance: ≥2700Ω
- Max. SPL at 1kHz and THD≤1%: 116 dB
- Signal-to-noise ratio rel. to 1Pa: appr. 61 dB
- A-weighted equivalent SPL: 26 dB
- Supply voltage: 8V-18V
- Current consumption: approx. 1.4mA at 9V
- Case: Brass
- Case finish: matte black
- Male connector: according to models (refer to MCE 5/6)
- Net weight (less cable): 15 grams
MODELS
MCE 10  Condenser, hypercardioid, clip-on lavalier microphone, 9 mm diameter and 30 mm long. Matte black anodized, non-clare finish designed for theater musicals, live TV productions and church installations. The MCE 10 is designed to be used when feedback problems exist from simultaneous sound sources. Terminated in a 6 pin DIN connector which interfaces with the MES 5 VN(C) power supply. Supplied with 4' cable, WS 10 wire mesh windscreen, ZWS 10 foam windscreen and MKV 10/1 tie-clip holder.
MCE 10.1N(K) Same as the MCE 10 terminating in a 2 conductor 1/4" phone connector. The connector incorporates the power supply operable by a 5.5 Volt battery (supplied). Supplied with a 10' cable, WS 10 wire mesh windscreen, ZWS 10 foam windscreen and MKV 10/1 tie-clip holder.
MCE 10.9 Same as the MCE 10 terminated open-ended for use with any wireless transmitter (when interfaced with the appropriate connector), supplied with a 10' cable, WS 10 wire mesh windscreen, ZWS 10 foam windscreen and MKV 10/1 tie-clip holder.
MCE 10.11(C) Same as the MCE 10 terminating in a 3 pin XLR-connector. The connector incorporates the power supply operable by a 5.5 Volt battery (supplied) or any 12-48 Volt phantom power supply. Supplied with a 10' cable, WS 10 wire mesh windscreen, ZWS 10 foam windscreen, MHV 5 belt carrier-clip for the power supply and MKV 10/1 tie-clip holder.
MCE 10.14 Same as the MCE 10.9 terminating in a 4 pin miniature connector for direct interface with beyerdynamic wireless transmitters TS 42, TS 10, TS 30 and TS 185. Supplied with a 4' cable, WS 10 windscreen, ZWS 10 foam windscreen and MKV 10/1 tie-clip holder.
MCE 10.14S Same as the MCE 10.14 but with ON/OFF switch.

SPECIAL MODELS
SHM 10/300N(C).15 The MCE 10 mounted on a gooseneck, 8 mm dia., 300 mm long, with 5/8" thread and 4' cable terminating in a 3 pin XLR connector. Operable by any phantom power supply between 12 and 48 Volt
SHM 10/500N(C).15 Same as the SHM 10/300, but gooseneck 500 mm long

FURNISHED ACCESSORIES
WS 10 removable wire mesh windscreen
ZWS 10 polyurethane foam windscreen
MKV 10/1 tie/pel clip holder for one MCE 10. The clip rotates for better microphone directionality
MHV 5 belt carrier-clip for the power supply found on the MCE 10.11 N(C) only.
Leatherette storage case

OPTIONAL ACCESSORIES
MKV 10/2 tie/pel clip holder for two MCE 10. The clip rotates for better microphone directionality.
Same as the MCE 5 optional accessories.

DIMENSION
In millimeters (inches in brackets)

WIRING DIAGRAM
OPTIONAL ACCESSORIES
for MCE 5, MCE 6 or MCE 10

MKV 5/1D  Similar tie-clip to the MKV 5/1 except that the mic can be rotated on tie-clip for better microphone directionality
MKV 5/2  Tie/Lapel clip designed to hold two MCE 5 or MCE 6
MSV 5/1  Stick pin holder for one MCE 5, MCE 6 or MCE 10
MSV 5/2  Stick pin holder for two MCE 5, MCE 6 or MCE 10
MAG 5.1  Acoustic guitar clip for MCE 5, MCE 6 or MCE 10
MGH 5  Violin, viola or cello mount for MCE 5, MCE 6 or MCE 10
MFH 5  Flute mount for the MCE 5, MCE 6 or MCE 10
MTH 5  Trumpet, saxophone or trombone suspension mount for the MCE 5, MCE 6 or MCE 10
MES 5 VN(C)  Battery operated power supply (9 volt) for the MCE 5, MCE 6 and MCE 10. 6 pin DIN input and 3 pin XLR output. The MES 5 VN(C) can also be used as a pre-amp adapter for any 48 volt phantom power supply. Features include ON/OFF switch and battery condition led. Supplied with ZHV 5 belt carrier-clip.

WIRING DIAGRAM FOR MCE 5, MCE 6