

# MCE 86 MCE 87

## CONDENSER MICROPHONES

**beyerdynamic**

### FEATURES

- High sensitivity
- Excellent off-axis rejection
- Rugged yet lightweight design
- Non-glare Nextel® finish
- Phantom power 8 - 48 V (MCE 86)
- Battery power 1.5 V (MCE 86 S, MCE 87 S)
- No electromagnetic interference (MCE 87 VS)
- Direct DC supply by camcorder or external battery (MCE 87 VS)

### APPLICATIONS

The MCE 86 and MCE 87 shotgun microphones can be used for video recordings, lecterns or theatre applications.

The microphones are extremely light and rugged and therefore ideal for mounting onto cameras or camcorders. They can be used for outdoor applications and in studios with fishpole booms or as handhelds.

The electrostatic transducer element and the hypercardioid/lobe polar pattern result in an excellent polar pattern with high sensitivity. Due to its construction and integrated active filter the microphone is insensitive towards wind and vibrations caused by zoom motors. Each sound source is reproduced absolute clearly.

Weighing only 92 g, the MCE 86 is one of the lightest shotgun microphones of all. The MCE 87 S with 130 g and the MCE 87 VS with 95 g do not affect the camera guide either. Due to the rugged construction and non-glare Nextel-finish the microphones are insensitive to mechanical strains. The MCE 86 can be powered from each balanced phantom powered input. If phantom power is not available the MCE 86 S version should be used. This microphone can be phantom powered or battery powered with an integrated 1.5 V battery.

The MCE 87 S microphone is useful when electromagnetic interferences occur. It can be connected to unbalanced XLR or mini jack inputs. It is powered by an 1.5 V battery. If the camera has an output for external devices (5-9 V, 2.5 mm jack), the MCE 87 VS can be used.

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## APPLICATIONS

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Each MCE 86 version has a transformer-balanced output, allowing the operation with long cables. Each MCE 87 version is equipped with an unbalanced output, however, they are extremely sensitive to crosstalk of the viewfinder.

All battery powered versions have an ON/OFF-switch and battery condition LED. The average battery expectancy is 80 hrs.

There are two different elastic suspensions available suppressing footfall sound or vibrations of zoom motors. The EA 86 elastic suspension can be mounted directly onto the camera. At its bottom the EA 86 has a 3/8" internal thread for the mounting on stands or fishpole booms.

The EA 19/25 is supplied with the MKV 11 microphone clamp and enables the mounting on standard stands or fishpole booms with 3/8" thread.

In addition to camera or interview applications the MCE 86 is suitable for lecterns. Due to its polar pattern it is very insensitive to feedback and the volume does not change considerably with close talking.

The MCE 86 is also used for miking choirs or music groups or in theatres etc. Furthermore, the MCE 86 can be used as overhead microphone for miking drums.

## VERSIONS

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- MCE 86 Condenser microphone (back electret), hypercardioid/lobe. . . . . Order # 447.021
- MCE 86.01 incl. EA 86 elastic suspension . . . . . Order # 405.701
- MCE 86.02 incl. EA 86 elastic suspension and MKV 11 microphone clamp . . . . . Order # 405.580
- MCE 86 S.01 incl. EA 86 elastic suspension, for phantom or battery supply (switch) . . . . . Order # 406.074
- MCE 86 S.02 incl. EA 19/25 elastic suspension and MKV 11 microphone clamp,  
for phantom or battery supply (switch) . . . . . Order # 406.066
- MCE 87 S Battery supply (switchable), incl. EA 86 elastic suspension and  
MWK N(C)-K2 coiled cable (XLR - Mini Jack) . . . . . Order # 418.374
- MCE 87 VS for direct connection to camcorders (direct supply). . . . . Order # 427.721

## OPTIONAL ACCESSORIES

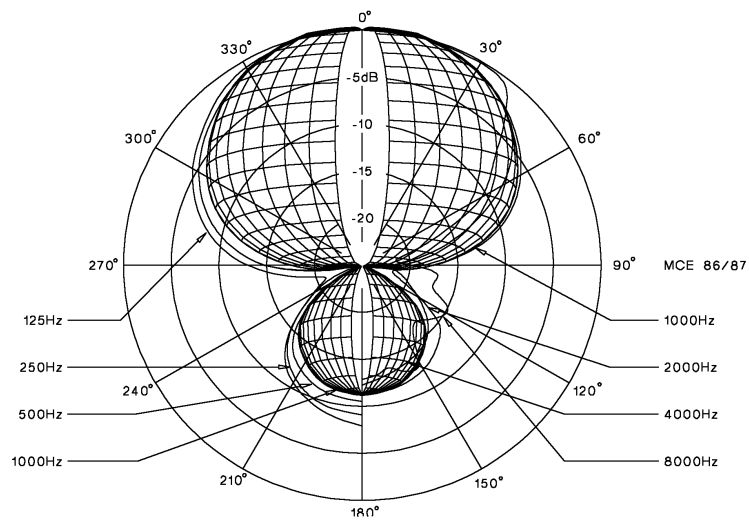
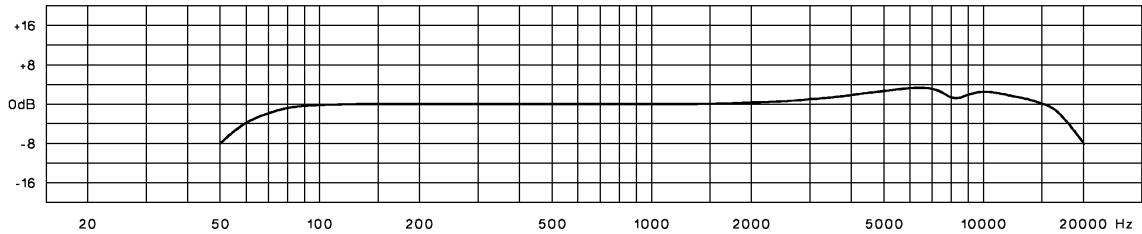
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- Highly flexible cables with industry standard Neutrik jack and XLR connectors
- MKV 8 Microphone clamp . . . . . Order # 407.216
- MSG 248 Power supply unit for 2 microphones, for balanced inputs . . . . . Order # 100.927
- MSG 248.1 Power supply unit for 2 microphones, for balanced  
and unbalanced inputs. . . . . Order # 100.943
- MZA 716 Fishpole boom incl. MZG 2, 0.96 - 3.15 m. . . . . Order # 140.848
- MZA 717 Fishpole boom, 0.61 - 1.59 m . . . . . Order # 400.807
- MZA 718 Fishpole boom, 0.93 - 3.20 m . . . . . Order # 406.260
- MZG 1 Stand adapter for SWS 86. . . . . Order # 271.624
- MZG 2 Angle mount for a fishpole boom . . . . . Order # 234.249
- MZP 86 Pistol grip handle for EA 86 . . . . . Order # 407.666
- KWS 86 Set incl. KWS 86 basket-type windscreen, EA 86 elastic suspension,  
MZP 767 pistol grip handle. . . . . Order # 431.265
- SWS 86 Softie, incl. MZP 767 pistol grip handle . . . . . Order # 421.278
- WJ 726 Windjammer. . . . . Order # 421.251
- WS 716 Windscreen, charcoal-grey . . . . . Order # 134.538

## FREQUENCY RESPONSE & POLAR PATTERN

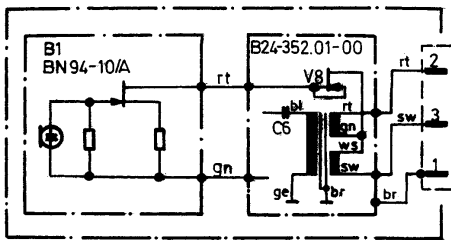
This frequency response curve (measuring tolerance  $\pm 2.5$  dB) and polar pattern correspond to a typical production sample for this microphone.

Frequency response curve  $\pm 2.5$  dB    0 dB  $\hat{=}$  4.2 mV/Pa    MCE 86/87

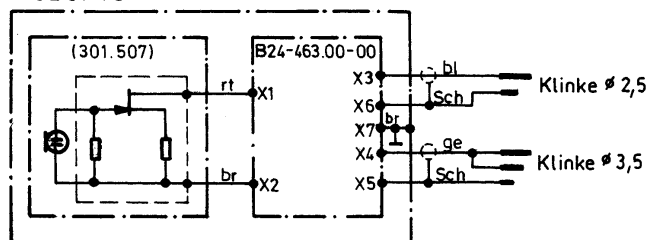


## WIRING DIAGRAM

MCE 86



MCE 87 VS



## TECHNICAL SPECIFICATIONS

Type	MCE 86	MCE 86 S
Transducer type	Condenser (back electret)	Condenser (back electret)
Operating principle	Pressure gradient	Pressure gradient
Frequency response	50 - 18,000 Hz	50 - 18,000 Hz
Polar pattern	Hypercardioid/lobe	Hypercardioid/lobe
Open circuit voltage at 1 kHz (0 dB = 1V/Pa)	4.2 mV/Pa $\pm$ -47 dBV	4.2 mV/Pa $\pm$ -47 dBV
Nominal impedance	190 $\Omega$	190 $\Omega$
Load impedance	1000 $\Omega$	1000 $\Omega$
Max. SPL at 1 kHz	138 dB	138 dB
Signal-to-noise ratio rel. to 1 Pa	61 dB	61 dB
A-weighted equivalent SPL	25 dB	25 dB
Noise voltage	3.8 $\mu$ Vs	3.8 $\mu$ Vs
Male connector	3-pin XLR	3-pin XLR
Supply voltage	8 - 48 V phantom	8 - 48 V phantom or 1.5 V battery (LR6 AA) (switchable)
Current consumption	2.7 - 3.2 mA	2.7 - 3.2 mA
Length	253 mm	310 mm
Diameter	25/21 mm	25/21 mm
Weight without cable	92 g	130 g

Type	MCE 87 S	MCE 87 VS
Transducer type	Condenser (back electret)	Condenser (back electret)
Operating principle	Pressure gradient	Pressure gradient
Frequency response	50 - 18,000 Hz	50 - 18,000 Hz
Polar pattern	Hypercardioid/lobe	Hypercardioid/lobe
Open circuit voltage at 1 kHz (0 dB = 1V/Pa)	4.2 mV/Pa $\pm$ -47 dBV	12 mV/Pa $\pm$ -38 dBV
Nominal impedance	190 $\Omega$	50 $\Omega$
Load impedance	1000 $\Omega$	1000 $\Omega$
Max. SPL at 1 kHz	138 dB	122 dB
Signal-to-noise ratio rel. to 1 Pa	61 dB	61 dB
A-weighted equivalent SPL	25 dB	25 dB
Noise voltage	3.8 $\mu$ Vs	11 $\mu$ Vs
Male connector	3-pin XLR	3-pin XLR
Supply voltage	1.5 V battery (LR6 AA) (switchable)	5 - 9 V DC
Current consumption	20 mA (1.5 V)	3.5 mA
Length	310 mm	255 mm
Diameter	25/21 mm	25/21 mm
Weight without cable	120 g	95 g with cable and connector