

## Stereo Condenser Microphone

The MC 833 is a general-purpose stereo condenser microphone. It offers without an additional matrix:

1. true MS-recording
2. true XY-recording
3. mono recording

The microphone is equipped with three true condenser systems (no electret). The polar pattern of each cartridge is cardioid and almost independent of the frequency.

The middle system supplies the mono-signal or the M-signal with MS stereophony. The system located to the left and right of the middle system are switched together to form a figure of eight polar pattern and supply the S-signal. At XY stereophony only the two side system are used. They can be mechanically adjusted. Therefore, at XY recording the recording angle can be continuously varied over a large range.

### MS STEREO RECORDING

For MS stereo recordings the switch in the body of the microphone has to be in position MS. The M-signal is recorded by the middle system. The two external systems are mechanically adjusted to 180° and supply the S-signal with a figure-of-eight characteristic which is transverse to the microphone axis.

By selecting a different angle than 180°, the amount of the S-signal can be reduced, but the optimum signal-to-noise ratio is obtained at 180°. Therefore, if the recording angle shall be

changed by varying the share of the S-signal, the best results are obtained by using an external matrix-amplifier.

For MS-stereo recording with the MC 833, however, a matrix amplifier is not necessary, as the microphone supplies already a MS signal.

#### Pin-configuration of the microphone plug for MS stereophony:

M (mid channel, red): pin 1 (ground), 4 (+), 5 (-)

S (side channel, yellow): pin 1 (ground), 2 (+), 3 (-)

Two microphone inputs with 12 to 48 V phantom power are necessary.

### XY STEREO RECORDING

For XY stereo recording the switch has to be adjusted to XY. The two side systems are used (cardioid polar pattern). The angle of both systems relevant to each other can be mechanically adjusted from 60° ( $\pm 30^\circ$  against axis) to 180°. The range of 60° to 140° is marked red and shows the preferred recording angle (acc. to Williams).

A matrix amplifier is also not required for XY stereo recording as the microphone supplies an XY signal.

#### Pin-configuration of the microphone plug for XY stereophony:

R (right channel, red): pin 1 (ground), 4 (+), 5 (-)

L (left channel, yellow): pin 1 (ground), 2 (+), 3 (-)

Two microphone inputs with 12 to 48 V phantom power are necessary.

## MONO RECORDING

Mono recording can be derived from the MS or XY signal.

### Switch position to MS:

The M signal is a true mono signal. The polar pattern of the microphone is a cardioid in this case. The red marked plug of the split cable is used (or a mono-cable connected to pin 1, 4 and 5 of the microphone plug).

One microphone input with phantom power of 12 to 48 V is necessary.

In special cases like dialogues between two persons, it is recommended to use the S-signal. Here the polar pattern is a figure of eight.

### Switch position to XY:

A mono signal can be produced out of the XY signal by inter-connecting both channels. By means of a relevant mechanical adjustment of the angle of both systems against each other, the polar pattern can be varied from broad cardioid up to omnidirectional.

## SPECIFICATIONS (measured per channel)

Transducer type	True condenser
Polar pattern	Cardioid
Frequency response	30 - 20 000 Hz
Sensitivity (0dBV $\pm$ 1 V/Pa)	25 mV/Pa $\Delta$ -32 dBV $\pm$ 2 dB ( $\pm$ 1 dB between L + R)
Source impedance	180 $\Omega$
Load impedance	> 1 k $\Omega$
Max. SPL at f=1 kHz, THD < 1% load impedance 1000 $\Omega$	128 dB
Max. SPL at f= 1kHz, THD < 1% load impedance 2700 $\Omega$	132 dB
Inherent noise voltage	approx. 8 $\mu$ Vs
Signal-to-noise ratio	70 dB
Equivalent noise level, A-weighted	17 dB
Total dynamic range at 2700 $\Omega$ load impedance	115 dB
Supply voltage	11 to 52 V phantom power
Current consumption	approx. 4.2 mA
Temperature range	Up to + 70 °C
Wiring	Electronically balanced, transformerless
Dimensions	Length 237 mm Width 80/36 mm Shaft diameter 33 mm
Weight	280 g
Connector	XLR 7 pole plug

## FURNISHED ACCESSORIES

Mic clip MKV 11

## OPTIONAL ACCESSORIES

Cable B 7 - 586.00 - 00  
(split red/yellow)  
MVK N (C/7) - N (C/7),7,5

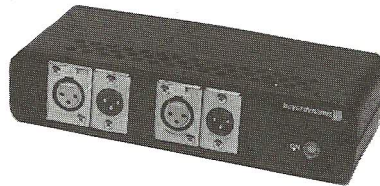
Windscreen KWS 833

Power supply MSG 248, Module No. 2

## POWER SUPPLYS

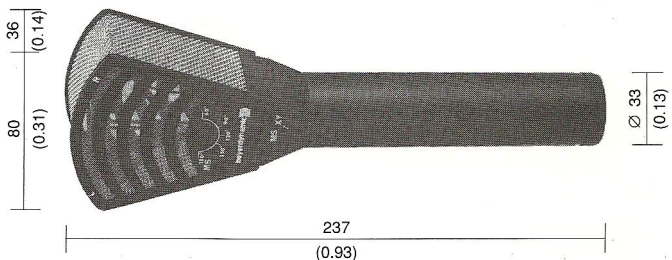


MSG 248



## DIMENSIONS

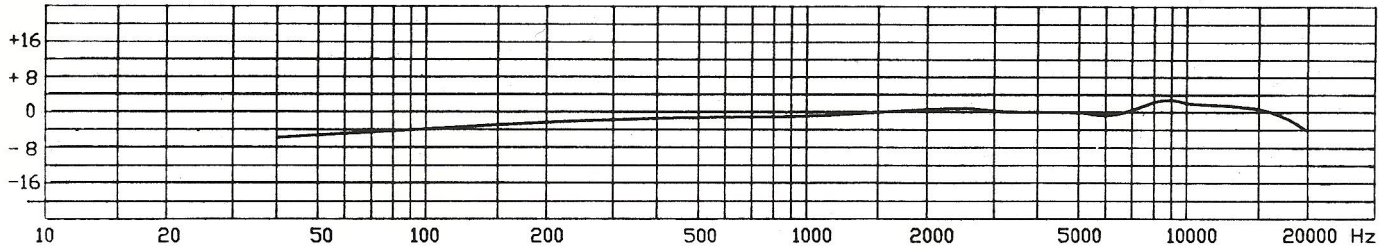
In millimeters (inches in brackets)



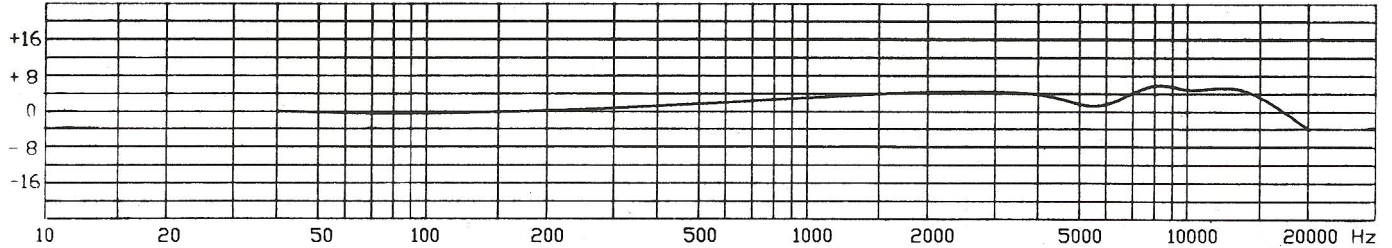
## FREQUENCY RESPONSE CURVES ( $\pm 2.0$ dB)

Measuring distance

MC 833 Cardioid

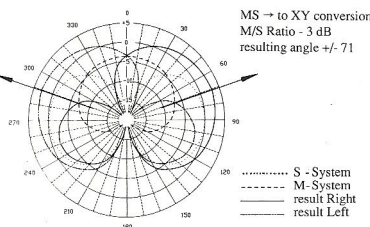
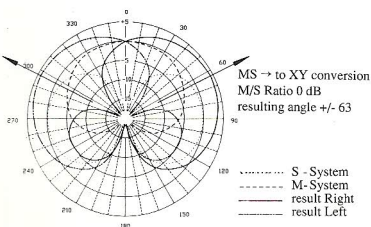
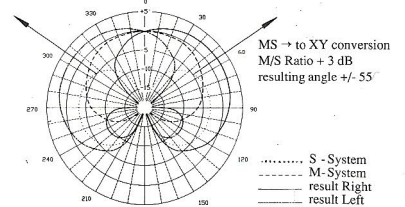
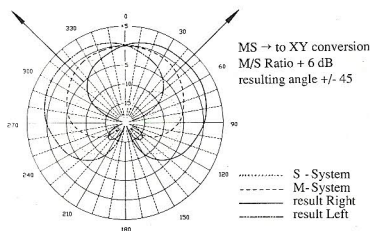
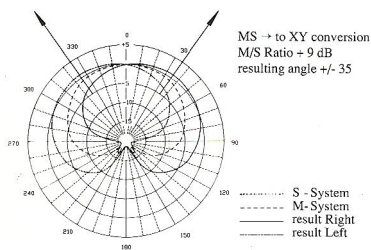
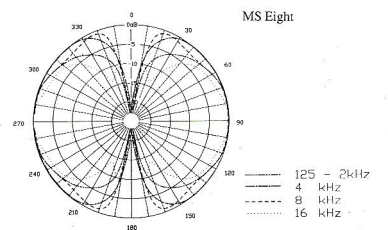
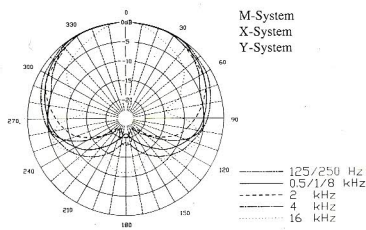


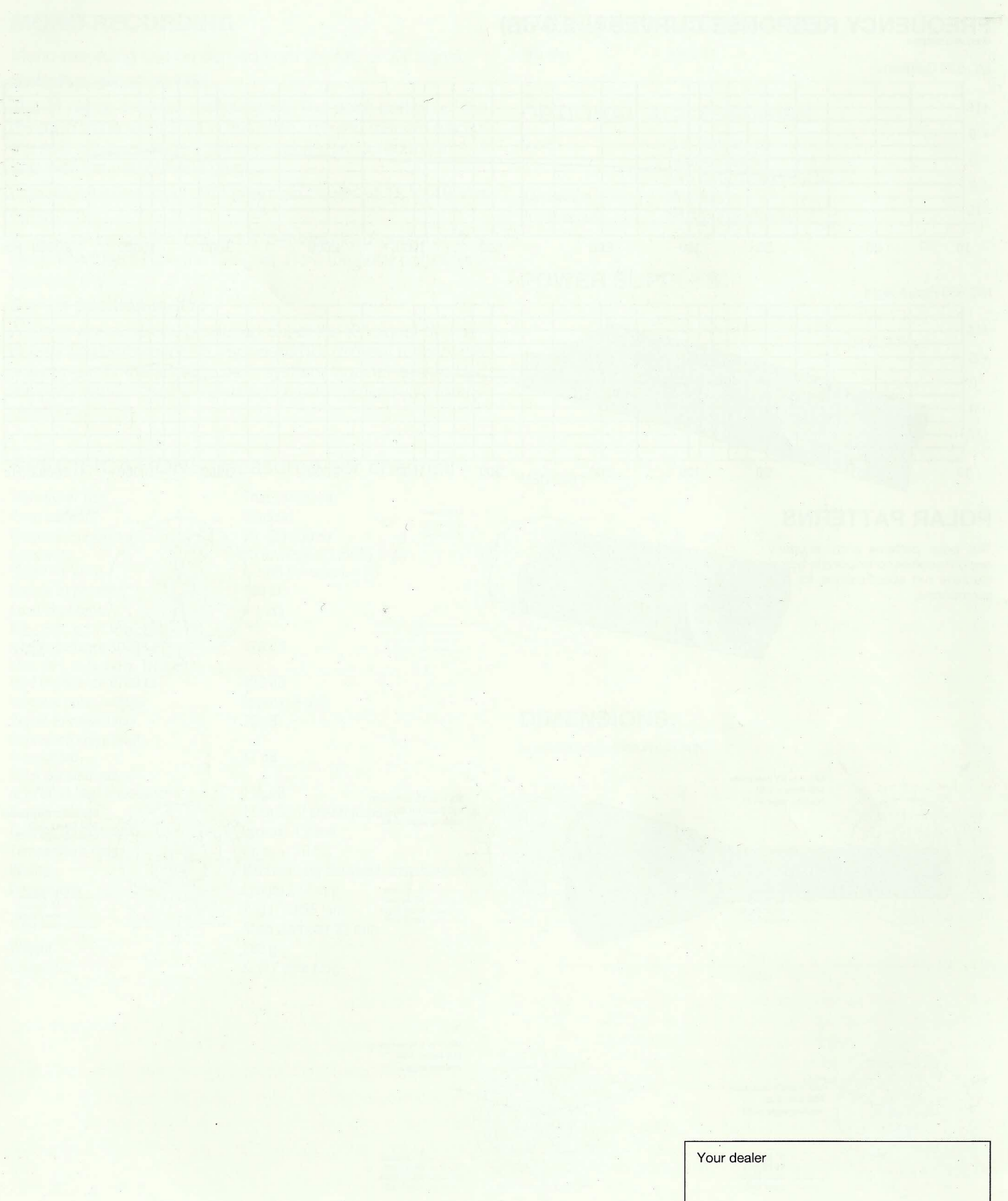
MC 833 Figure-eight



## POLAR PATTERNS

This polar patterns and frequency response curves correspond to typical machine run specifications for this microphone.





Subject to change without notice

Your dealer