



The new Dimension of Studio Recording

MKH 800 TWIN



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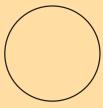
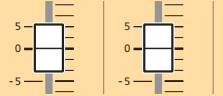
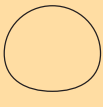
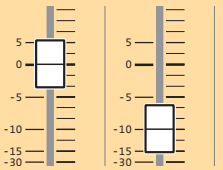
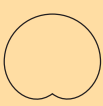
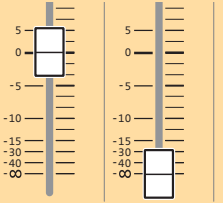

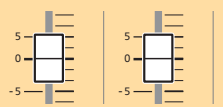
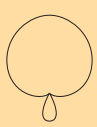
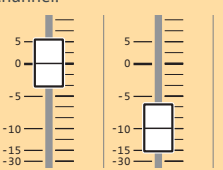
The MKH 800 TWIN is a universal studio condenser microphone of exceptional quality. It includes a dual capsule consisting of two symmetrical push-pull transducers with high linearity. This is a "side fire" microphone with the two cardioid pick-up patterns of the transducer aligned back-to-back across the axis of the microphone. The signals of both transducers are not combined in the microphone in order to generate differing pick-up patterns but are available separately as two channels at the microphone output. This allows the pick-up patterns of the MKH 800 TWIN to be remotely adjusted. The signals can be combined in any desired way in the mixing console in order to create all pick-up patterns from omni-directional to figure-8 with an infinite number of intermediate stages. Based on the legendary MKH 800, this microphone opens up to a new dimension of studio recordings.

Features

- The remote adjustability and the variable pick-up patterns make the MKH 800 TWIN a universal main microphone, soloist microphone or supporting microphone.
- The pick-up patterns can be set and optimised under monitoring conditions. In other words, it is not necessary to fix the pick-up patterns definitively before recording.
- A wide range of mixes for stereo and surround are possible (including in parallel).
- Saving of the microphone signals in two channels also allows an unlimited range of mixes to be realised at a later date.
- The high sensitivity ensures interference-free signal paths as a result of high signal levels. The inherent noise of downstream microphone amplifiers is thus of minor importance.
- Very low inherent noise prevents the masking of filigree sound structures. The depth of the acoustic can be heard more clearly too.
- High linearity of the transducers minimises the signal distortions and ensures the transparency of the sound even at high sound levels.
- The frequency response extends to 50 kHz, thus improving the resolution for complex acoustic details.
- Stable pick-up patterns minimise sound distortion in the direct and diffuse field.
- Negative acoustic effects caused by the housing and the sound inlet basket are minimised.
- The small, slim design and the optionally dark housing design (Nextel) make it visually unobtrusive.

Technical Data

Pick-up pattern	2 x cardioid
Frequency response	30–50,000 Hz
Sensitivity (no load) at 1000 Hz	40 mV/Pa (–28 dBV) ±1 dB
Output impedance at 1000 Hz	100 Ω
Max. SPL at 1000 Hz	134 dB (100 Pa)
Max. output voltage	4 V
Min. load impedance	2 kΩ
Equivalent noise level	12 dB (A-weighted) / 20 dB (CCIR-weighted)
Noise voltage	3 µV (A-weighted) / 8 µV (CCIR-weighted)
Dynamic range	122 dB (A-weighted) / 114 dB (CCIR-weighted)
Power supply	P48 phantom powering
Supply voltage	48 ± 4 V
Supply current	2 x 3.1 mA
Connector	XLR-5M
Connector assignment	1: Ground/housing / 2: Front channel: (+) / 3: Front channel: (–) 4: Rear channel: (+) / 5: Rear channel: (–)
Dimensions	27 mm x 136 mm
Weight	172 g
Storage temperature range	–20 °C to +70 °C

Pick-up pattern	Setting
	<p>► Set the amplification to the same value in both channels.</p> 
	<p>► Set the amplification in the rear channel lower than in the front channel.</p> 
	<p>► Activate the front channel only.</p> 
	<p>► Set the amplification to the same value in both channels.</p>  <p>► Invert the phase of the rear channel.</p> <p><input type="checkbox"/> Phase <input checked="" type="checkbox"/></p>
	<p>► Set the amplification in the rear channel lower than in the front channel.</p>  <p>► Invert the phase of the rear channel.</p> <p><input type="checkbox"/> Phase <input checked="" type="checkbox"/></p>

Remote adjustment of the pick-up patterns:

The two signals of the MKH 800 TWIN allow the remote adjustment of the pick-up patterns at the mixing console. The two microphone signals (front and rear) are routed to separate channels and summed together. The sum signal is then distributed over the stereo channels as usual using the pan control.

- The pan control of both channels has to be aligned identically for correct operation.

The wide cardioid pattern of the MKH 800 is, for example, the result if the rear channel has 10 dB less amplification than the front channel. The pick-up pattern becomes more omni-directional at higher amplification and more cardioid at lower amplification.

At the same time, the rear attenuation (180° attenuation) of the microphone changes. It is the direct result of the amplification ratio between the front and the rear channel, i.e. 10 dB in the example of the wide cardioid pattern.

The super-cardioid pattern of the MKH 800 is, for example, the result if the amplification of the rear channel is 10 dB lower than that of the front channel and if the phase of the rear channel is inverted. At higher amplification, the pick-up pattern tends towards the figure-8 pattern, otherwise the pattern becomes more cardioid.

The cancellation angle at which the microphone is especially insensitive also changes. It is 180° in the case of the cardioid pattern, 120° for the super-cardioid pattern and 90° for the figure-8 pattern. If the MKH 800 TWIN is used as a supporting microphone, the attenuation between different groups of instruments in an orchestra can for example be optimised in this way. Here, too, the rear attenuation is the result of the amplification ratio between the front and the rear channel, i.e. 10 dB in the case of the super-cardioid pattern.

***Wide cardioid:** Pattern between omni-directional and cardioid

****Super-cardioid:** Pattern between cardioid and figure-8

Delivery includes

- MKH 800 TWIN studio condenser microphone
- MZS80 shock mount
- AC 20 adaptor cable (1 x XLR-5 socket to 2 x XLR-3 connector)
- MZQ 80 microphone clamp
- Aluminium transport case

Accessories/Spare parts

- MZP 40 popperstopper..... Art.-Nr. 003132
- MZW 80-ANT foam windshield Art.-Nr. 003780
- MZS 80 shock mount Art.-Nr. 003685
- MZQ 80 microphone clamp Art.-Nr. 050174
- 6595 AC 20 adaptor cable Art.-Nr. 006595