

# MKH 30 P48

Bedienungsanleitung  
Instructions for use  
Notice d'emploi  
Istruzioni per l'uso  
Instrucciones para el uso



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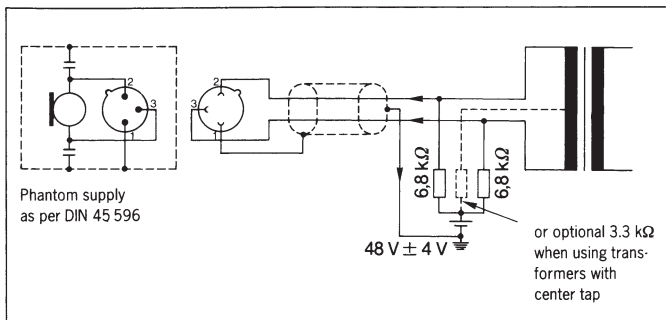
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## **Brief description**

The MKH 30 P 48 is a high-frequency condenser microphone with bilateral characteristics. Its features include:

- Symmetrical, bi-directional (figure-eight) characteristic
- Very low noise level, making possible high-dynamic recordings
- Undistorted transmission of sound pressures up to 142 dB
- Frequency response range 40 to 20 000 Hz
- Electronically balanced output
- Defeatable roll-off filter
- Pad switch (-10 dB attenuation)

## Putting into service



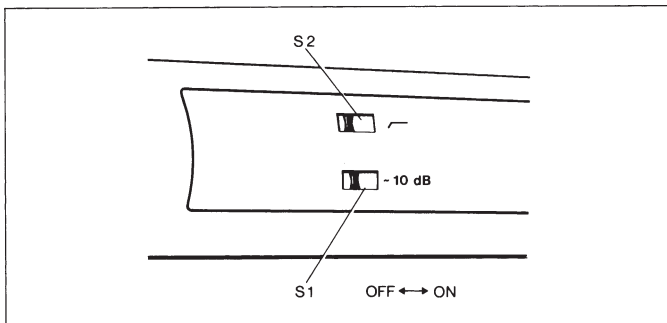
## Power supply and connections

The MKH 30 P 48 is designed for use with phantom power supply between 44 and 52 V, as prescribed in DIN 45 596.

Plug:	3-pole XLR
Wiring:	balanced
Impedance:	150 $\Omega$
Min. terminating impedance:	1000 $\Omega$

See page 20 for powering and connection possibilities.

**Note:** Extension cables should if possible be inserted between the power supply unit and the audio recorder or mixer. Total cable length should not exceed 200 m. At greater lengths the cable capacitance will affect microphone frequency response at the upper end of the response range.



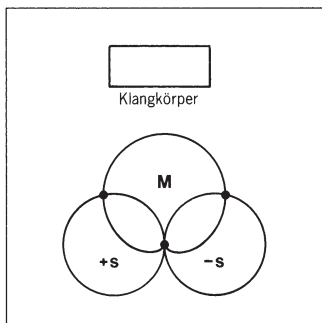
## Setting the pre-attenuation and roll-off filter

### Pre-attenuation **S 1**

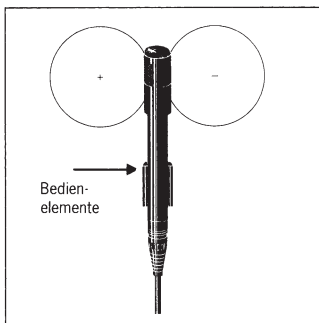
Pad switch **S 1** is used to attenuate microphone sensitivity by 10 dB. This feature should be used only when the microphone input at downline equipment is not designed to handle the high microphone output voltages generated at high sound pressure levels (which would result in distortion).

### Setting the roll-off filter **S 2**

The MKH 30 P 48 is equipped with a switchable roll-off filter to compensate for the proximity effect which is common for microphones and to avoid low-frequency interference due to footfall vibration. The filter design is such that the proximity effect is compensated for at distances from 40 to 60 cm. The effect of the roll-off filter on the frequency response is shown on page 18. Regardless of the setting of switch **S 2**, a cut-off filter is effective below 30 Hz to suppress disturbances due to low-frequency air or body noises (subsonic signals).



Principle used in MS stereophonic recording



### Setting up the microphone

An important field of application for the MKH 30 P 48 is in MS (mid-side) stereophonic recordings; this microphone distinguishes itself with particularly good monaural compatibility.

Two microphones are required for this type of recording:

- 1 microphone with bi-directional characteristic to record the side signal (S)
- 1 microphone with cardioid, supercardioid or bi-directional characteristic to record the signal at the center (M)

Possible microphone combinations:

- MKH 30 P 48 +
- MKH 20 P 48 (omnidirectional) or
- MKH 40 P 48 (cardioid) or
- MKH 30 P 48 (bi-directional)

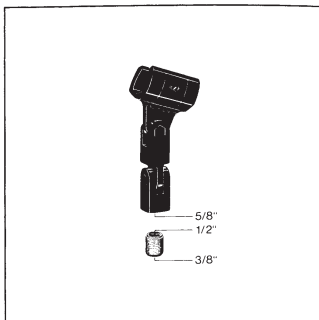
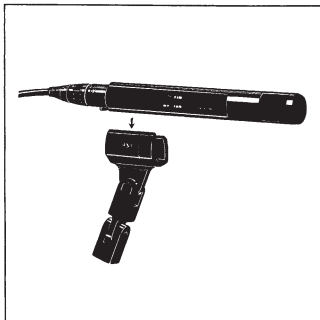
The S-microphone (MKH 30 P 48) is to be positioned in front of the sound source in such a way that the "+" side is to the left (switches visible).

The left (L) and right (R) signals are derived from the MS signal by addition and subtraction:

$$L = M + S$$

$$R = M - S$$

## Mounting the microphone



The stand socket is equipped with a threaded, interchangeable insert to adapt to stands with 3/8", 1/2" or 5/8" threads.

## Technical data

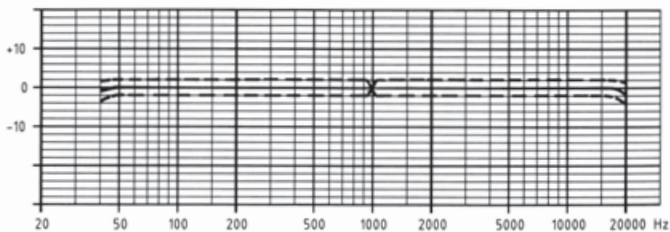
Acoustic principle .....	pressure-gradient receiver
Directional characteristics .....	bilateral (figure-eight)
Frequency response range .....	40 to 20.000 Hz
Free-field, no-load transmission factor at 1 kHz .....	25 mV/Pa (8 mV/Pa) $\pm$ -32 dBV (-42 dBV)
Equivalent sound pressure level	
as per DIN 45 500, curve A .....	13 dB (18 dB)
as per DIN 45 405/CCIR 468 .....	22 dB (28 dB)
Max. sound pressure level .....	134 dB (142 dB)
Output .....	balanced
Nominal impedance .....	150 $\Omega$
Min. terminating impedance .....	1000 $\Omega$
Pre-attenuation .....	10 dB, defeatable
Low-cut filter .....	12 dB/oct below 30 Hz
Roll-off filter (switch setting "f") .....	additional 4 dB attenuation at 50 Hz
Power supply .....	Phantom supply as per DIN 45 596
Supply voltage .....	44 to 52 V
Supply current .....	2 mA
Dimensions (mm) .....	25 $\varnothing$ x 150
Weight .....	110 g
Standard equipment .....	one MKH 30 P 48 microphone one MZQ 31 stand adapter one MZW 41 windscreen

Values in brackets with pad switch in position -10 dB

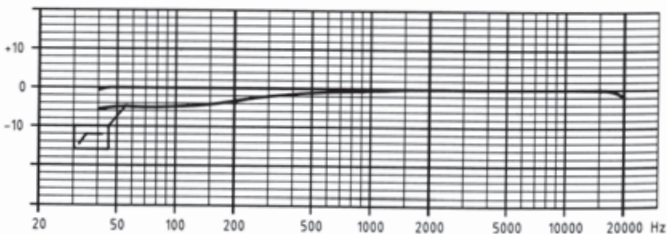
We reserve the right to adopt changes, particularly in the interest of technical progress.



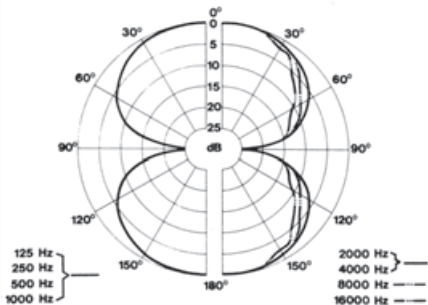
## dB Frequency response



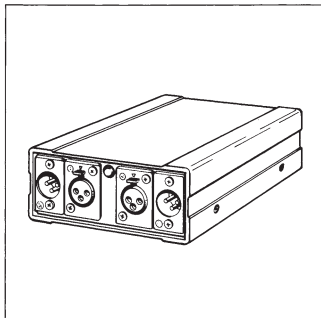
## dB Effect of the roll-off filter



## Polar diagram



## Recommended accessories



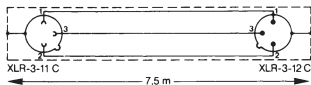
### MZN 16 P 48 U power supply

(Art.No. 1241)

Power supply for 48 V phantom supply (DIN 45 596). Allows simultaneous supply of two microphones. Required line voltage: 95 to 265 V/50 – 60 Hz.

### KA 7 U connector cable

(Art.No. 1777)

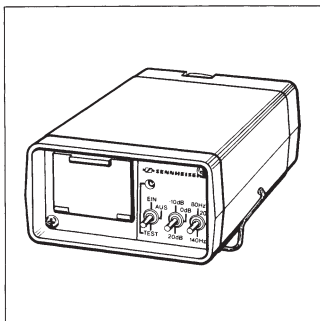


Three-conductor, shielded cable;  
7.5 m long.

### Suspension MZS 40

(Art.No. 03017)

Features high damping of structure-borne noise.



### Battery-powered supply adapter MZA 14 P 48 U

(Art.No. 2034)

Adapter to supply a MKH 30 P 48 microphone, independent of a line power source. The MZA 14 P 48 U contains a voltage converter which boosts the voltage of a 9 V battery to 48 V. Battery life: approx. 25 hours. Output suitable for connection to balanced and unbalanced microphone inputs. Special features: defeatable 10 dB and 20 dB pre-attenuation; switchable low-cut filter. Dimensions: 140 x 46 x 76 mm.

### Stand holder MZQ 31

(Part. No. 35972)

Enables microphone adjustment in any direction.

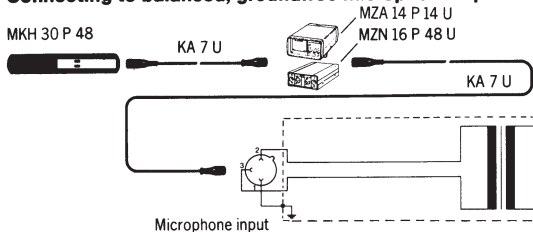
### Twin clip MZD 30

(Art.No. 02990)

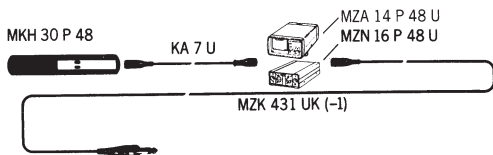
For mechanical connection of a MKH 30 with MKH 20 or MKH 40 when used for MS-stereo recordings (Blumlein configuration).

## Powering and connection possibilities

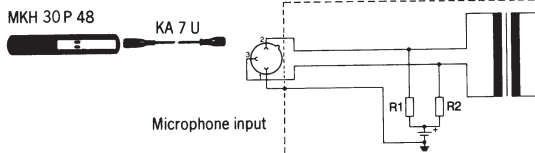
### Connecting to balanced, groundfree microphone inputs



### Connecting to unbalanced microphone inputs



### Connecting to mixers and audio recording decks with phantom voltage supply







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