

**beyerdynamic** ))))

**Gebrauchsanweisung  
Operating Instructions  
Mode d'emploi**

**MV 100**





# beyerdynamic microphone preamplifier MV 100

The most critical part of any sound recording system is the microphone preamplifier. The advent of the DAT, DCC and BETACAM formats has created a need for mic preamplifiers of equally high standards. The MV 100 is a dual high quality versatile channel package which also provides phantom supply for condenser microphones. It operates with two V-batteries or with NiCad accumulators. For fixed operation a the MV 100 can be powered with the power supply LG 100.

## Operation

### 1. IDENTIFICATION

The serial number appears on the bottom of the preamplifier. Please take care that it corresponds to the data on your guarantee certificate or receipt.

### 2. WARRANTY

The warranty is valid for a period of one year starting from the date of purchase and covers parts and labour, shipping costs not included. Repair work covered by the warranty should be referred to the beyerdynamic service-department; under certain circumstances repairs under guarantee may be carried out by authorized beyerdynamic agents.

- Never try to repair your MV 100 yourself, it could render the warranty null and void.

### 3. POWER SUPPLY

The MV 100 can be powered by two 9 V alkaline batteries (DURACELL MN 1604 or equivalent) or by two NiCad rechargeable accumulators (SANYO N-6 PT CADNICA or equivalent). Place batteries or accumulators in the two compartments at the back (12) of the MV 100.

- Be sure to follow the + and - polarities.
- Never leave batteries or accumulators in the battery compartment when the MV 100 is left unused for several days.
- Use only top quality alkaline batteries or accumulators.

### 4. OPERATING WITH BATTERIES OR ACCUMULATORS

When using dynamic microphones or line level, push the „POWER“ switch (5) from the center „OFF“ position to the left, when using condenser microphones push the switch to the position „48 V“. This turns on the 48 V phantom supply. The „ON“ LED (6) must light up. In the „48 V“ position the use of dynamic microphones is possible. The phantom supply, however, reduces the service life of the batteries considerably.



## 5. BATTERY INDICATION

The red „LO“ LED (4) will light up when the total battery voltage drops to 14 V. (See Power Consumption)

## 6. POWER CONSUMPTION

The consumption of the MV 100 is proportional to the type of batteries/accumulators and the type of microphones used. The table below illustrates expected operating times:

Power	Alkaline		NiCad accumulators	
Microphones	Dynamic	48 V	Dynamic	48 V
Batt. LO (14 V)	440 min.	300 min.	180 min.	120 min.
Reserve (12 V)	200 min.	140 min.	15 min.	10 min.
Total	640 min.	440 min.	195 min.	130 min.

## 7. EXTERNAL POWER

The MV 100 can also be powered from an external DC power pack via the „DC IN“ (9) jack. The optional accessory LG100 power pack operates at 24 V DC, 80 mA. When an external supply is connected, the internal battery is automatically disconnected.

Correct polarity of the DC connector must be observed.

Center pin        = +  
Outside collar    = -

## 8. PHANTOM POWERING

The 48 V position on the front panel (see 4.) allows direct connection of condenser microphones, and the MV 100 supplies the required phantom powering.

## 9. GAIN SELECTOR

The gain switch (2) has three positions. The steps correspond to the sensitivity of different microphones. The signal can be amplified to match the gain levels required by different types of DAT recorders.

## 10. OVERLOAD INDICATOR

The two „OVERLOAD“ LEDs (1) indicate the limit of 6 dB before the clipping point. The overload reference is proportional to the DC voltage. Thus the lower the power supply voltage, the higher the possibility of the „OVERLOAD“ LEDs lighting up.

## 11. LOW CUT FILTER

The „LF CUT“ switch (3) allows filtering of very low frequencies (e.g. close-talking or wind noise in outside recordings). To turn on this filter, move the „LF CUT“ switch to the right to the „ON“ position.

- Use this filter only if necessary!

## 12. INPUT CONNECTIONS

The two input connectors (8) „LEFT IN“ and „RIGHT IN“ are XLR type and are located on the right side of the MV 100. Inputs are balanced electronically. To connect with an unbalanced device, connect Pin 1 (ground) and pin 3.

## 13. UNBALANCED LINE OUT

The stereo output „LINE OUT“ (7) is intended for the connection of a DAT recorder or similar devices with 3.5 mm stereo mini-jack. The output impedance of „LINE OUT“ is 50  $\Omega$ s. Therefore, headphones for monitoring purposes can be connected.

## 14. UNBALANCED OUTPUTS

The outputs „LEFT OUT“ (10) and „RIGHT OUT“ (11) are found on the left of the MV 100. They are RCA (phono) connectors and are connected with the corresponding standard cables.

## 15. RECOMMENDATIONS

The characteristics of the MV 100 enable its user to connect it to any professional microphone. The quality of the sound obtained thus greatly depends on the choice of microphones and on how they are positioned. It is then of the utmost importance to clearly define the type of situation to be recorded when choosing the microphones and to determine their correct positioning for optimal results.

- Adjustment of the „GAIN“ and the choice of gain positions also depend on the type of microphone used, as well as the nature of the source of sound. Several test sessions are thus highly recommended in order to determine the best way to proceed with the recording.
- One of the simplest methods is to use high level (i.e. fortissimo in classical music), adjust the „GAIN“ switch until „OVERLOAD“ LEDs turn on at the highest sound levels and to push the button backwards one position. The fine adjustment is made with the input control on the DAT recorder.
- Avoid extreme adjustments such as: Gain of the DAT recorder 10% and a pre-attenuation of 60 dB or a pre-attenuation of 20 dB and gain control switched to maximum. The control of the DAT recorder should be in the center. This method enables optimal calibration for signal to noise ratio, and at the same time protects against overloading the system.

- When using DAT recorders, noise is so low that we recommend to set the gain 10 dB lower. Ground noise is not audible and there is an additional overloading security of 10 dB if an unexpected higher level occurs which could lead to audible distortions otherwise.

## SPECIFICATIONS

### SUMMARY OF CHARACTERISTICS

Frequency response	20 Hz to 22 kHz, +/- 0.5 dB
Crosstalk	60 dB
THD	< 0.03% at 10 dBu
Noise 60 dB gain	> -128 dBu, 20 Hz to 20 kHz, 150 $\Omega$ source

### INPUTS

Type	electronically balanced, XLR connectors
Impedance	5 k $\Omega$ s, 20 Hz to 20 kHz
Gain	20 dB, 40 dB, 60 dB
Lo cut filter	18 dB/oct, -6dB at 120 Hz
Overload indicator	6 dB before clipping level
Mic power	phantom 48 V

### OUTPUTS

Unbalanced	3.5 mm mini-jack stereo or cinch connector, nominal level: 0 dBu, max. +15 dBu
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### POWER AND DIMENSIONS

Batteries	2 x 9 V alkalines (DURACELL MN 1604 or equivalent), or NiCad rechargeable (SANYO N-6 PT CADNICA or equivalent)
Battery Life	24 V DC, 80 mA 6 to 10 hours with alkaline batteries, 1.5 to hours with NiCad
Indicator	low batteries at 14 V expected usage: minimum two hours with alkaline batteries and minimum 10 minutes with NiCad
Dimensions Gewicht	146 x 85 x 40 mm 435 g with batteries



# Préamplificateur microphone beyerdynamic MV 100

La qualité de tout enregistrement, dépend principalement des caractéristiques du préampli micro utilisé. Les formats d'enregistrement DAT, DCC et BETACAM exigent une nouvelle génération de préamplis micro. Le MV 100 de beyerdynamic répond en tout points à ces nouvelles exigences. Ce préampli micro portable de très haut de gamme dispose de deux canaux avec possibilité d'alimentation Phantom pour les micros condensateur. Le MV 100 est alimenté par 2 piles 9 V ou 2 accus NiCad. Lors d'une utilisation stationnaire il peut être branché sur l'alimentation LG 100 ( option ).

## Mode d'emploi

### 1. Identification

Le numéro de série apparaît sur la plaque d'identification placée sous l'appareil. Vérifiez que ce numéro soit identique sur votre carte de garantie ou sur votre facture d'achats.

### 2. Garantie

La garantie accordée par beyerdynamic est d'un an à compter de la date d'achat. Elle couvre pièces et main d'oeuvre tandis que les frais d'envoi restent à la charge du client. Les réparations sous garantie ne doivent être réalisées que par le service après-vente de beyerdynamic.

- Toute intervention dans l'appareil par vous-même ou par un service après-vente indépendant met fin à toute obligation de garantie de la part de beyerdynamic.

### 3. Alimentation

L'alimentation du MV 100 se fait soit avec 2 piles alcalines 9 V ( Type Duracell MN 1604 ou similaire ) soit avec deux accus nickel-cadium rechargeables ( Type Sanyo N-6 PT NiCad ou similaire ). Les piles ou accus doivent être placés dans les deux tiroirs ( 12 ) situés sur le dos de l'appareil.

- Veillez à respecter la polarité + et -
- Ne laissez jamais les piles ou les accus dans l'appareil si vous ne vous en servez pas pendant plusieurs jours.
- N'utilisez que des piles alcalines ou des accus de première qualité.

### 4. Mise sous tension avec piles ou accus

Si vous travaillez avec des microphones dynamiques, mettez le commutateur POWER ( 5 ) sur DYN. La LED verte ON indique la mise en service. Pour les microphones à condensateur ayant besoin d'une alimentation Phantom, ce commutateur doit être mis sur 48 V. Dans cette position on peut également travailler avec des microphones dynamiques mais la durée de vie des piles ou des accus sera sensiblement réduite.

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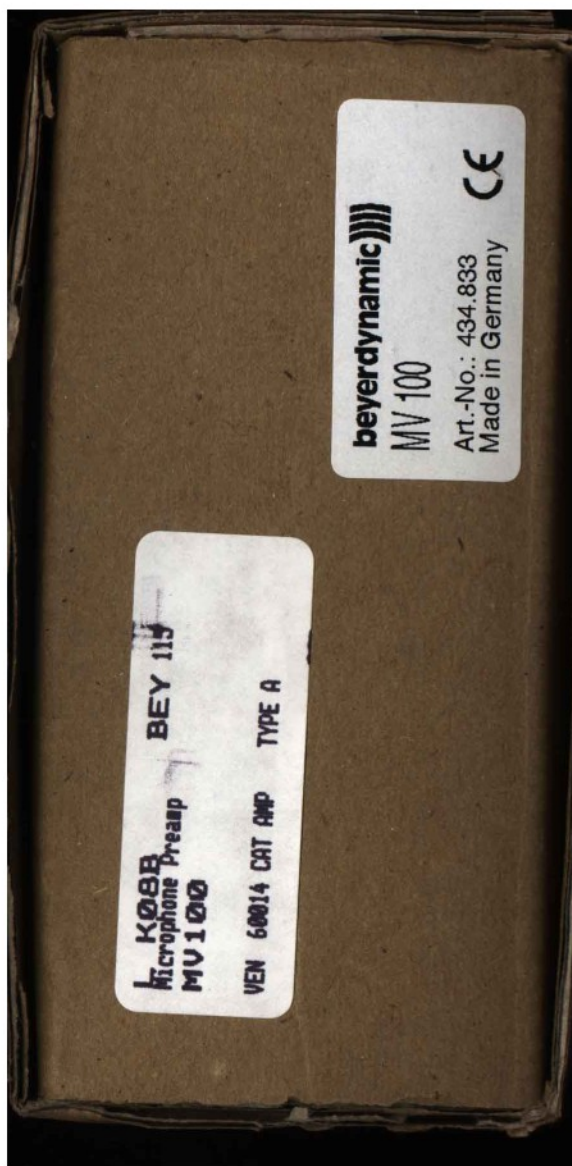
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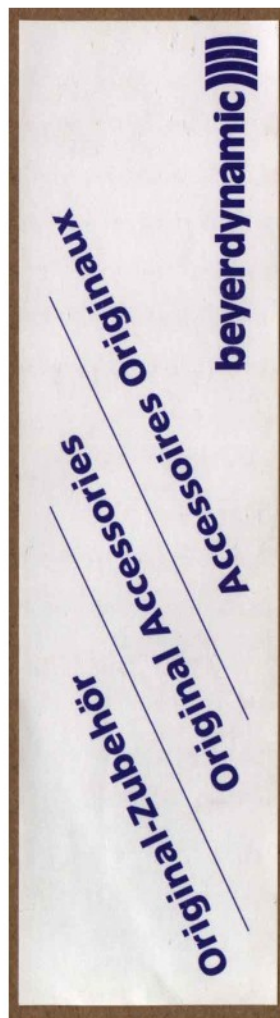
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