

INSTRUCTIONS FOR USE
MIKROPORT BODY-PACK TRANSMITTER

SK 50
SK 250

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1. BRIEF DESCRIPTION

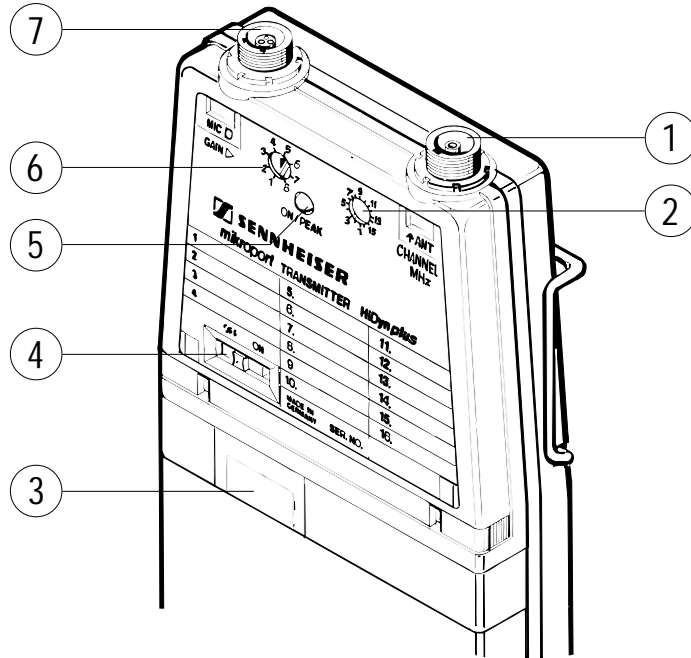
MODELS	FREQUENCY RANGE	SWITCHING BAND WIDTH	CHANNELS
SK 50 UHF	450 bis 960 MHz	24 MHz	16
SK 250 UHF	450 bis 960 MHz	24 MHz	16
SK 50 VHF (1)	138 bis 160 MHz	22 MHz	16
SK 50 VHF (2)	153 bis 181 MHz	28 MHz	16
SK 50 VHF (3)	174 bis 202 MHz	28 MHz	16
SK 50 VHF (4)	195 bis 223 MHz	28 MHz	16
SK 50 VHF (5)	223 bis 260 MHz	37 MHz	16
SK 250 VHF (1)	138 bis 170 MHz	38 MHz	16
SK 250 VHF (2)	170 bis 225 MHz	55 MHz	16
SK 250 VHF (3)	210 bis 260 MHz	50 MHz	16

In combination with a connected microphone, the transmitter can be used as a cordless microphone. Its flat shape and small dimensions make this design especially well - suited for particular applications in which an inconspicuous appearance is required, as is the case with film and television productions, for example. To reduce interference and to improve the signal-noise ratio, SK 50 and SK 250 transmitters are equipped with the "HiDyn *plus*" noise reduction system. In combination with a receiver which is also equipped with this system (e.g. EM 1046), a connection can be established, which is characterised by excellent operational reliability and supreme transmission quality.

FEATURES:

- Metal injection-moulded casing with quick-change energy pack
- State-of-the-art PLL technology, 16 switchable channel
- Sennheiser "HiDyn *plus*" compander
- Signal-to-noise ratio > 108 dB (A)
- Integratal voltage converter for constant output power through to complete discharge of the battery or rechargeable battery
- Operating time display with blinking warning
- Battery status transmission to the receiver
- Operating and peak deviation indicator

2. CONTROLS AND CONNECTIONS



- 1 ANTENNA SOCKET
- 2 CHANNEL SELECTION SWITCH
- 3 OPERATING TIME DISPLAY
- 4 ON / OFF SWITCH
- 5 OPERATING / PEAK DEVIATION INDICATOR
- 6 SENSITIVITY SELECTOR SWITCH FOR MICROPHONE INPUT
- 7 MICROPHONE INPUT

3. MICROPHONE SELECTON

The MKE 2-4, MKE 102-4 (omnidirectional polar pattern) and MKE 40-4 (cardioid polar pattern) Lavalier clip-on microphones are available. They are equipped with a special Lemo plug. The plug is disconnected by unscrewing the threaded collar.

The voltage necessary to operate these microphones is available at the microphone input of the transmitter. Dynamic microphones and other low-impedance sources can be connected through an external coupling condenser of approx. 10 μ F (+pole on contact 2).

4. USING FOR THE FIRST TIME

4.1. B 50 / B 250 QUICK-CHANGE ENERGY PACK

Insert the batteries as described on page 22, Fig. 2 and Fig. 3. After insertion of the batteries, the cover of the quick-change energy pack is to be snapped into place. The LED display on the front side of the energy pack (Fig. 1) serves as a battery control display.

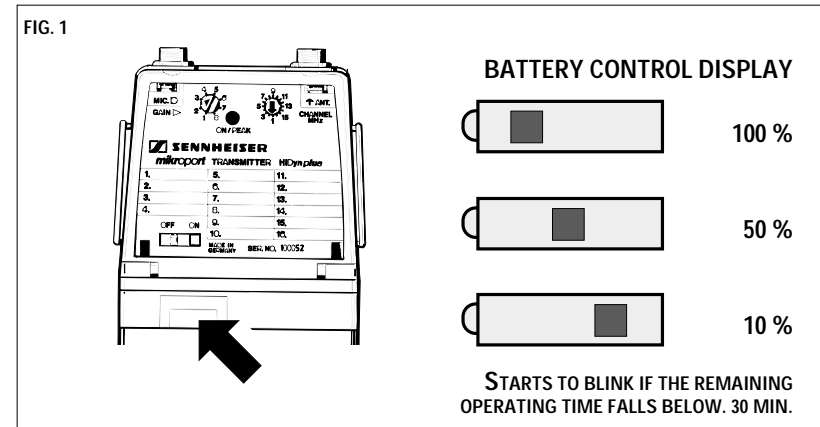


FIG. 2
**QUICK-CHANGE ENERGY PACK
 B 50**

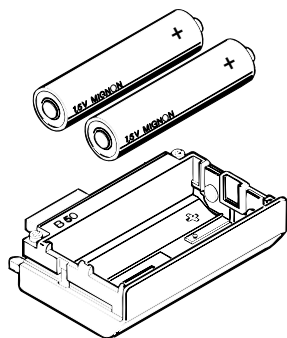
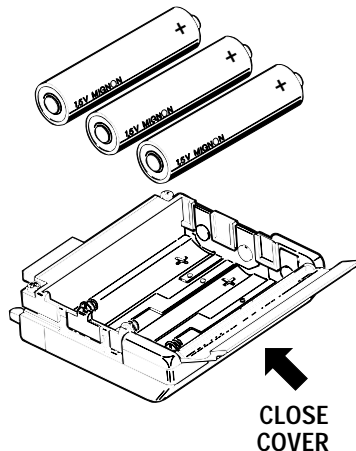


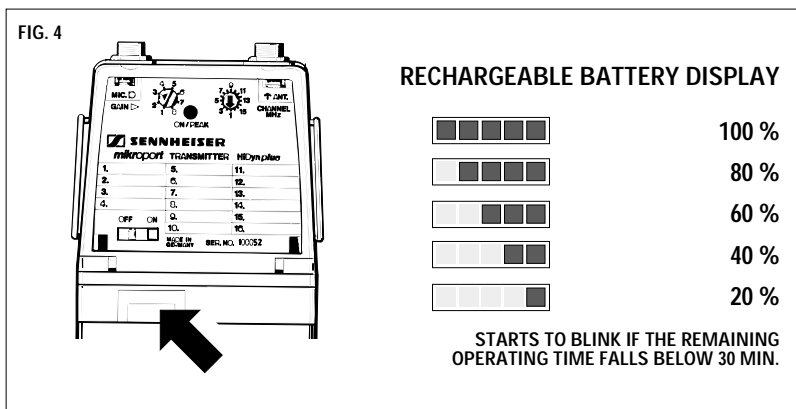
FIG. 3
**QUICK-CHANGE ENERGY PACK
 B 250**



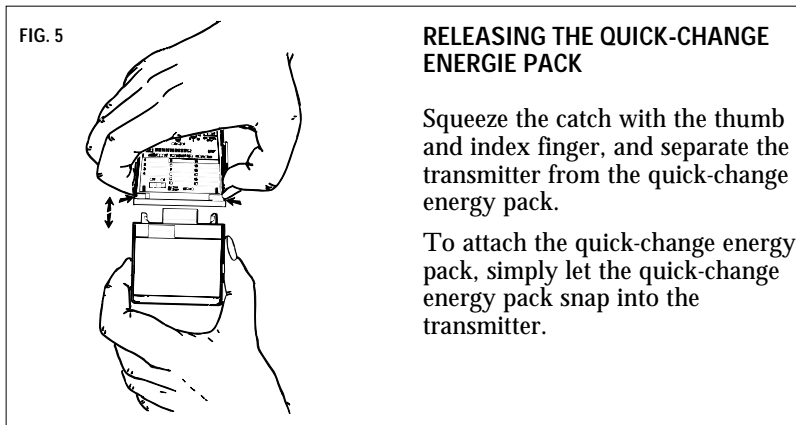
NOTE:
 ALKALINE-MANGANESE BATTERIES OF THE "MIGNON" LRC AA TYPE
 ARE TO BE USED EXCLUSIVELY. PERFECT FUNCTIONING OF THE
 TRANSMITTER IS GUARANTEED ONLY WITH THIS TYPE OF BATTERY.

4.2. BA 50 / BA 250 QUICK-CHANGE ENERGY PACK

The LCD display on the front side of the energy pack (Fig. 4) serves as a battery control display.



In addition to the visual display on the quick-change energy pack, the transmitter communicates the status of the batteries or the rechargeable batteries to the EM 1046 for presentation on the receiver display.

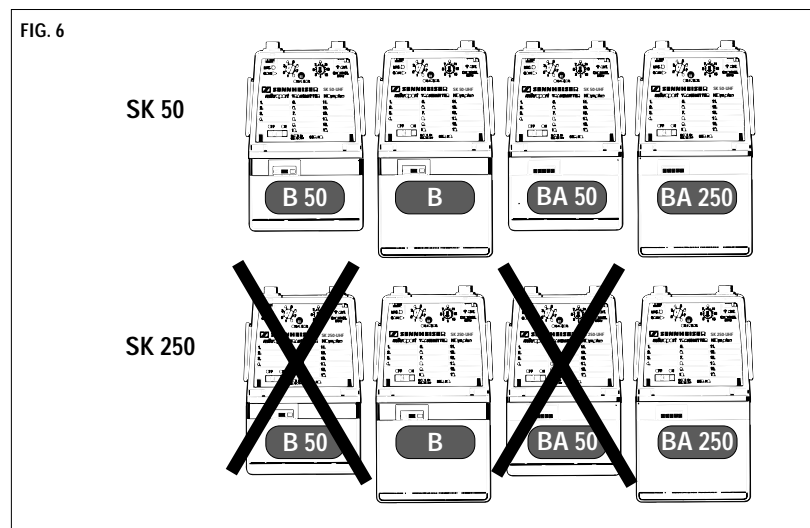


**RELEASING THE QUICK-CHANGE
 ENERGIE PACK**

Squeeze the catch with the thumb and index finger, and separate the transmitter from the quick-change energy pack.

To attach the quick-change energy pack, simply let the quick-change energy pack snap into the transmitter.

4.3. POSSIBLE COMBINATIONS OF TRANSMITTERS WITH THE QUICK-CHANGE ENERGY PACK



The SK 250 / B 50 and SK 250 / BA 50 combinations are not possible because the power of the battery / rechargeable battery pack is not adequate for this transmitter.

5. CHANNEL SELECTION

To select the appropriate channel or the appropriate frequency in accordance with the type plate, move the channel selection switch 2 to the desired position.

6. SWITCHING ON

After attaching the quick-change energy pack, the transmitters is switched on by moving the operating switch 4 into the "ON" position. The red operating indicator 5 lights up. Should the operating indicator not light up, check the quick-change energy pack.

7. SENSITIVITY SELECTOR SWITCH

The sensitivity selector switch 6 can be used to adapt the gain of the microphone input in 8 steps to the level of the sound expected. This setting is to be made in combination with a receiver which has a peak indicator available, such as the EM 1046. The sensitivity is set correctly when the "peak" indicator 5 lights up brightly during level peaks. The microphone is to be held or mounted in its position for later use when setting. The corresponding display on the EM 1046 receiver indicates a maximum deviation of approx. 125 %.

In practice, the following guide values have proven themselves for the adjustment of the sensitivity setting:

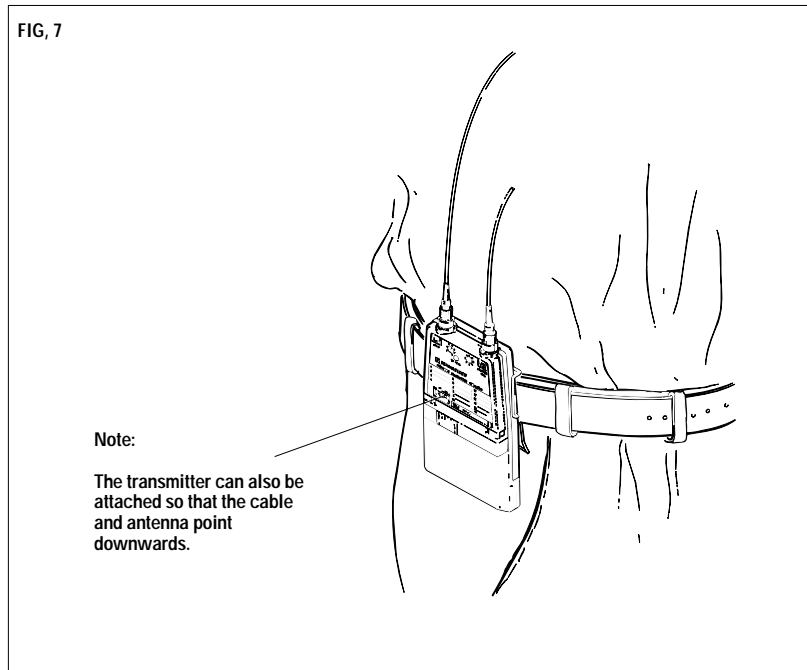
- Position 2,3 = Loud voices, songs, theatre
- Position 3,4,5 = Normal voices, talkshows, interviews
- Position 6,7 = Soft voices
- Position 8 = Use only for connection with a dynamic microphone !

8. ATTACHMENT OF THE BODY-PACK TRANSMITTER

Its small dimensions and flat form make it possible to carry the transmitter easily in a jacket pocket or trousers pocket. The device is to be protected against falling out by a tight gripping clip with which the transmitter can also be attached to the waistband or to a belt (Page 26, Fig. 7). To attach the transmitter with the connections facing downwards, simply reverse the clips.

The nylon transmitter pouch with Velcro closure (accessory) provides effective protection against moisture for actors who perspire heavily.

FIG, 7



Note:

The transmitter can also be attached so that the cable and antenna point downwards.

9. LICENSING REGULATIONS

The type plate contains the channel data and the transmit frequency data as well as the BZT approval, which you require for your application for the licence from the Post Office. It is located on the underside of the device.

10. TECHNICAL DATA

Transmit frequencies	16	
Frequency range	450 - 960 MHz	
Switching band width	24 MHz	
Frequency stability	± 5 ppm	
Spurious and emissions	< 4 nW	
Modulation	FM	
Nominal / peak deviation	± 40 kHz / ± 56 kHz	
Companer	Sennheiser HiDyn plus	
Input sensitivity for peak deviation	13.2 mV - 1.55 V	
	8-position switch	
Audio frequency range	70 Hz - 20 kHz	
Dynamics	110 dB(A) eff.	
THD	< 0.3 % (nominal peak / 1 kHz)	
Connections	AF: Lemo special (3-pin)	
	RF: Lemo special Koax	
Dimensions with power pack	94 x 60 x 17 mm with B 50 / BA 50	
	116 x 60 x 17 mm with B 250 / BA 250	
Weight with power pack	approx. 197 g with B 50 / BA 50	
	approx. 230 g with B 250 / BA 250	
	SK 50 UHF	SK 250 UHF
RF output power	50 mW / -3 dB	250 mW / -1 dB
Operating time with primary cells	B 50: > 4.5 h	cannot be used
	B 250: > 9 h	B 250: > 3 h
Operating time with rechargeable battery	BA 50: > 3 h	cannot be used
	BA 250: > 5 h	BA 250: > 2.5 h
Delivery includes for SK 50 UHF	1 SK 50 UHF body-pack transmitter	
	1 marking set	
	1 antenna (aligned)	
	1 instructions for use	
Delivery includes for SK 250 UHF	1 SK 250 UHF body-pack transmitter	
	1 marking set	
	1 antenna (aligned)	
	1 instructions for use	

Erros and omissions excepted. Subject to alterations and corrections.

11. TECHNICAL DATA

SK 50 VHF

Transmit frequencies	16
Frequency range	SK 50 VHF (1) 138 ... 160 MHz SK 50 VHF (2) 153 ... 181 MHz SK 50 VHF (3) 174 ... 202 MHz SK 50 VHF (4) 195 ... 223 MHz SK 50 VHF (5) 223 ... 260 MHz
Switching band width	SK 50 VHF (1) 22 MHz SK 50 VHF (2) 28 MHz SK 50 VHF (3) 28 MHz SK 50 VHF (4) 28 MHz SK 50 VHF (5) 37 MHz
Frequency stability	± 10 ppm
Spurious and emissions	< 4 nW
Modulation	FM
Nominal / peak deviation	± 40 kHz / ± 56 kHz
Compander	Sennheiser HiDyn <i>plus</i>
Input sensitivity for peak deviation	13 mV - 1.55 V 8-position switch
Audio frequency range	70 Hz - 20 kHz
Dynamics	110 dB(A) eff.
THD	< 0.3 % (nominal peak / 1 kHz)
Connections	AF: Lemo special (3-pin) RF: Lemo special Koax
Dimensions with power pack	94 x 60 x 17 mm with B 50 / BA 50 116 x 60 x 17 mm with B 250 / BA 250
Weight with power pack	approx. 197 g with B 50 / BA 50 approx. 230 g with B 250 / BA 250
RF output power	50 mW / -2 dB
Operating time with primary cells	B 50: > 6 h B 250: > 13 h
Operating time with rechargeable battery	BA 50: > 4 h BA 250: > 6.5 h
Delivery includes	1 SK 50 VHF body-pack transmitter 1 marking set 1 antenna (aligned) 1 instructions for use

11. TECHNICAL DATA

SK 250 VHF

Transmit frequencies	16
Frequency range	SK 250 VHF (1) 138 ... 170 MHz SK 250 VHF (2) 170 ... 225 MHz SK 250 VHF (3) 210 ... 260 MHz
Switching band width	SK 250 VHF (1) 38 MHz SK 250 VHF (2) 55 MHz SK 250 VHF (3) 50 MHz
Frequency stability	± 10 ppm
Spurious and emissions	< 4 nW
Modulation	FM
Nominal / peak deviation	± 40 kHz / ± 56 kHz
Compander	Sennheiser HiDyn <i>plus</i>
Input sensitivity for peak deviation	13 mV - 1.55 V 8-position switch
Audio frequency range	70 Hz - 20 kHz
Dynamics	110 dB(A) eff.
THD	< 0.3 % (nominal peak / 1 kHz)
Connections	AF: Lemo special (3-pin) RF: Lemo special Koax
Dimensions with power pack	116 x 60 x 17 mm with B 250 / BA 250
Weight with power pack	approx. 230 g with B 250 / BA 250
RF output power	250 mW / -1 dB
Operating time with primary cells	B 50: cannot be used B 250: > 2.5 h
Operating time with rechargeable battery	BA 50: cannot be used BA 250: > 2.5 h
Delivery includes	1 SK 250 VHF body-pack transmitter 1 marking set 1 antenna (aligned) 1 instructions for use

Erros and omissions excepted. Subject to alterations and corrections.

