

## RF Wireless Systems | 5000 Series Hand-Held Transmitters



#### **Common Features**

- Interchangeable microphone heads: 5 condenser capsules and 1 dynamic capsule
- Battery status transmitted to suitable receivers
- Quick change accupack or battery pack
- Sensitivity switchable in 5 steps
- HiDyn *plus*™ noise reduction system
- 16 switchable carrier frequencies in a 24 MHz window, PLL-controlled
- MZQ 5000 stand mount included in the delivery

 $The \ battery \ box/accupack \ and \ microphone \ head \ are \ not \ included \ in \ the \ delivery. \ Please \ order \ separately!$ 

#### **Recommended Accessories**

■ B 5000-1 battery box	Cat. No. 005273
■ BA 5000-1 accupack (incl. charging adaptor)	Cat. No. 005274
L 50 charger for 2 accupacks	Cat. No. 003554
■ ME 5005 condenser mic head, super-cardioid	Cat. No. 003760
■ ME 5005 e condenser mic head, super-cardioid	Cat. No. 005249
■ ME 5004 condenser mic head, cardioid	Cat. No. 003762
■ ME 5009 condenser mic head, wide cardioid	Cat. No. 003763
■ ME 5002 condenser mic head, omni	Cat. No. 003761
MD 5005 dynamic mic head, super-cardioid	Cat. No. 003823
KK 104 S (Neumann) condenser mic head, cardioid	
KK 105 S (Neumann) condenser mic head, super-cardioid	
KEN 5000 identification rings, colour-coded (for mic heads)	Cat. No. 053246
MZQ 5000 stand mount	Cat. No. 050493
MZW 5000 ant foam windshield, anthracite	Cat. No. 003824
MZW 5000 bl foam windshield, blue (with 5 identification rings)	Cat. No. 003825
MZW 5000 ye ditto, yellow	Cat. No. 003826
MZW 5000 gr ditto, green	Cat. No. 003827
MZW 5000 rd ditto, red	Cat. No. 003828
MZW 5000 wt ditto, white	Cat. No. 003829

#### Technical Data SKM 5000 UHF-a

50 mW (-3 dB)
16
450-960 MHz
24 MHz
wideband FM
± 40 kHz / ± 56 kHz
HiDyn <i>plus</i> ™
70-20,000 Hz
>117 dB(A) <sub>rms</sub>
< 1 % (typ. 0.3 %)
able in 5 steps of 10 dB
. B 5000-1 battery box
2. BA 5000-1 accupack
1. B 5000-1 > 4.5 hrs
2. BA 5000-1 > 6 hrs
th: 257 mm, Ø: 44 mm
approx. 220 g

Technical Data SKM 5000 VH	F-C
RF output power	50 mW (–3 dB)
Transmission frequencies	
Frequency range	138-250 MHz
Switching bandwidth	7 MHz
Modulation	wideband FM
Nominal/peak deviation	± 40 kHz / ± 56 kHz
Noise reduction system	HiDyn <i>plus</i> ™
AF frequency response	70-20,000 Hz
Signal-to-noise ratio	>117 dB(A) <sub>rms</sub>
THD (at nominal deviation)	<1 % (typ. 0.3 %)
Sensitivity	adjustable in
	5 steps of 10 dB
Power supply	1. B 5000-1 battery box
	2. BA 5000-1 accupack
Operating time	1. B 5000-1 > 4.5 hrs
	2. BA 5000-1 > 6 hrs
Dimensions	ength: 257 mm, Ø: 44 mm
Weight incl. power pack	approx. 220 g

Product Variants	
■ SKM 5000-UHF-A: 450–570 MHz	Cat. No. 005541
SKM 5000-UHF-B: 550-690 MHz	Cat. No. 005542
SKM 5000-UHF-C: 670-820 MHz	Cat. No. 005543
SKM 5000-UHF-D: 800-960 MHz	Cat. No. 005380
SKM 5000-UHF-A-A: 450-562 MHz	Cat. No. 005546
SKM 5000-UHF-A-B: 538-692 MHz	Cat. No. 005547
■ SKM 5000-UHF-A-C: 668-812 MHz	Cat. No. 005548
SKM 5000-UHF-A-D: 788-960 MHz	Cat. No. 005382
SKM 5000-UHF-N-A: 450-562 MHz	Cat. No. 009448
■ SKM 5000-UHF-N-B: 538-692 MHz	Cat. No. 009449
SKM 5000-UHF-N-C: 668-812 MHz	Cat. No. 009450
SKM 5000-UHF-N-D: 788-960 MHz	Cat. No. 009451
■ SKM 5000-UHF-N-BK-A: 450-562 MHz	Cat. No. 009452
■ SKM 5000-UHF-N-BK-B: 538-692 MHz	Cat. No. 009453
■ SKM 5000-UHF-N-BK-C: 668-812 MHz	Cat. No. 009454
■ SKM 5000-UHF-N-BK-D: 788–960 MHz	Cat. No. 009455
SKM 5000-UHF-C-A: 450-570 MHz	Cat. No. 005461
SKM 5000-UHF-C-B: 550-690 MHz	Cat. No. 005544
■ SKM 5000-UHF-C-C: 670-820 MHz	Cat. No. 005545
■ SKM 5000-UHF-C-D: 800-960 MHz	Cat. No. 005381



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SKM 5000 dimensions

#### Technical Data ME 5005e/ME 5005

Transducer principle	condenser
Pick-up pattern	super-cardioid
Max. SPL	158 dB / 154 dB

#### Technical Data ME 5004

Transducer principle	condenser
Pick-up pattern	cardioid
Max. SPL	139 dB

#### Technical Data ME 5009

Transducer principle	condenser
Pick-up pattern	wide cardioid
Max. SPL	140 dB

#### Technical Data ME 5002

Transducer principle	condenser
Pick-up pattern	omni-directional
Max. SPL	138 dB

#### Technical Data MD 5005

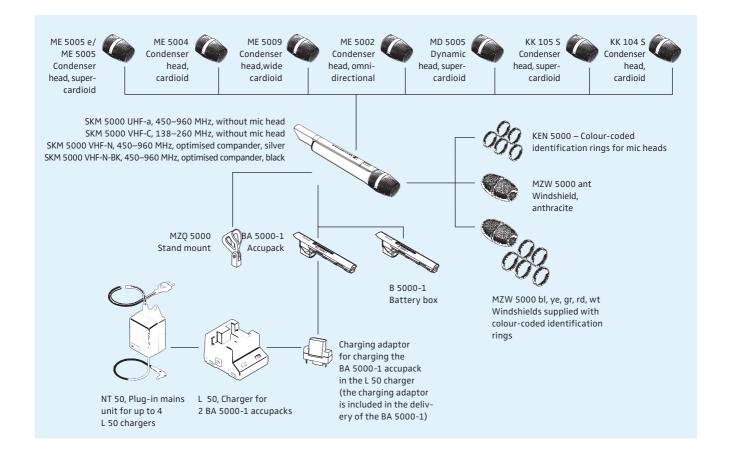
Transducer principle	dynamic
Pick-up pattern	super-cardioid
Max. SPL	163 dB

#### Technical Data KK 105 S (Neumann)

Transducer principle	condenser
Pick-up pattern	super-cardioid
Max. SPL	155 dB

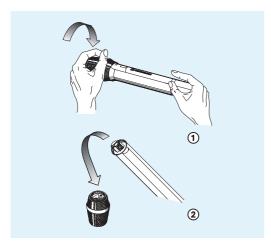
#### Technical Data KK 104 S (Neumann)

Transducer principle	condenser
Pick-up pattern	cardioid
Max. SPL	153 dB





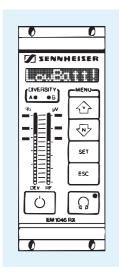
### RF Wireless Systems | 5000 Series Hand-Held Transmitters



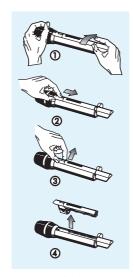
Changing the microphone head

The SKM 5000 versions provide for extremely reliable and flexible use of hand-held Mikroport transmitters. Their interchangeable microphone heads let you choose between five condenser microphone heads with different pick-up patterns and a super-cardioid dynamic head. Together with the EM 1046 receiver system, the SKM 5000 hand-held transmitters can prove their strong points.

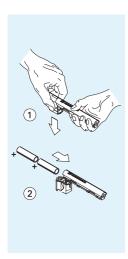
Via the Mikroport computer display you can monitor all channels. The radio links are exceptionally reliable and can be used in large multi-channel systems. Since its launch in 1993, the slim hand-held transmitter has been extremely popular with demanding TV productions and shows. For discriminating users worldwide the SKM 5000 is the top choice.



Warning status on the EM 1046



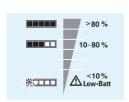
Removing the battery box



Replacing the B 5000-1 hatteries



BA 5000-1 status indicator



B 5000-1 status indicator

#### Power supply

The variants of the SKM 5000 can be optionally powered by a rechargeable accupack or batteries. In a BA 5000-1, two rechargeable NiMH batteries are integrated whilst the B 5000-1 battery box takes two miniature (AA) cells. The B 5000-1 battery box has a 3-step LC display for monitoring the battery status at the transmitter. The BA 5000-1 provides a check of the battery status with a 6-step LCD. If only one LCD segment is showing, it flashes as a warning. The remaining operating time is then 20 minutes maximum.

In addition, the 3000 and 5000 series receivers can be used for remotely checking the battery status. If the display of the receiver indicates "Low Batt", about 20 minutes of operation are left. The accupack is charged from the L 50 automatic charger which is also used for the accupacks of the SK 50 / SK 250 bodypack transmitters. The BA 5000-1 is inserted in the L 50 by means of a charging adaptor supplied with the accupacks.

#### General information on the use of hand-held transmitters

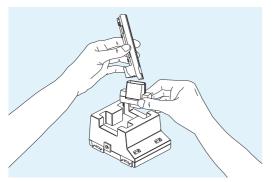
The specific fields of application for hand-held transmitters are where the bodypack transmitter/clip-on microphone combination is not suitable. If, for example, it is not possible to attach an SK 50 / ME 102 combination because speakers change, the SKM 5000 can be rapidly passed to and fro between presenter and questioner in the audience. However, a hand-held transmitter also provides different acoustic characteristics from a clip-on microphone with bodypack transmitter: it can be moved closer to the mouth as a result of which ambient noise can be better suppressed.

On a musical stage, excellent results are achieved even when a clip-on microphone is used when the voice is trained. On a rock 'n' roll stage, in contrast, the monitor system is so loud that it is not possible to use clip-ons. The situation in chat shows with loud audience noise presents similar problems. It is specifically when the microphone is used not only for programme sound but is also for public address that the sound quality is preserved by using the SKM 5000 hand-held transmitter.

The SKM 5000 is capable of accommodating even the highest sound pressure levels (maximum sound pressure level 163 dB with the MD 5005 dynamic microphone head). Due to its insensitivity to pop and handling noise, the SKM 5000 has proved its worth in tough use.



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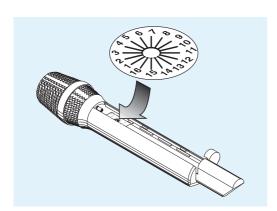
BA 5000-1, charging adaptor, charger (from top to bottom)

#### Pick-up patterns/handling

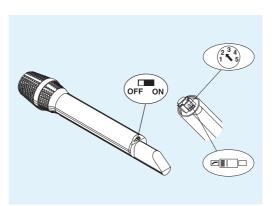
The most frequently used pick-up pattern is the super-cardioid which is particularly sensitive to sound coming from the front. The tip of the microphone should therefore always point towards the mouth. This position optimally suppresses ambient noise. The ME 5002 microphone head with omni-directional pattern picks up sound equally from all directions. With favourable acoustics it can therefore pick up the voices of both interviewer and interviewee.

Besides its directional pattern a super-cardioid microphone exhibits another typical characteristic: the proximity effect. At close talking distances the bass frequencies are enhanced, a singer's voice sounds fuller and warmer. The ME 5005 e microphone head has been optimised for vocal applications. If a neutral sound is required irrespective of the talking distance a microphone head with wide cardioid, cardioid or omni-directional pick-up pattern is the better choice. Radio sound mixers prefer the wide cardioid pattern.

If questions from the audience are to be integrated into a discussion, the SKM 5000 can be used as a wireless boom microphone. Although it is not possible to have the same long operating distances as in the case of a gun microphone, the sound operator can easily control the speaking distance with the SKM 5000 mounted on a short boom. An antenna is integrated into the body of the SKM 5000. Please take care, therefore, that the user does not clamp the hand-held transmitter with both hands or press it against the body. This distinctly reduces the radiated power of the antenna.



SKM 5000 channel switching



Switches for on/off, sensitivity, bass attenuation



Super-cardioid directivity. For more information on pick-up patterns and pop sounds please refer to the chapter "Planning Theory"



ME 5002 mic head with omni-directional pick-up pattern