

GEBRAUCHSANLEITUNG  
INSTRUCTIONS FOR USE  
NOTICES D'EMPLOI  
ISTRUZIONI PER L'USO  
INSTRUCCIONES PARA EL USO  
GEBRUIKSAANWIJZING  
BRUKSANVISNING

# SKM 5000



## Contents

Brief description .....	12
Models .....	12
Suitable receivers .....	13
How to switch on .....	13
Channel selection .....	13
Noise suppression .....	13
How to open the SKM 5000 .....	14
Remove the power supply unit .....	14
Insert the batteries .....	14
Battery/rechargeable battery operation ...	15
Indication of the residual operating time .	15
Recharge with the battery charger L 50 ..	16
Change the microphone heads .....	16
Adjust the sensitivity .....	17
Switch on the roll-off filter .....	17
Function of the impact-sound filter .....	18
Frequency response / directivity .....	18
Technical data .....	19

Accessories .....	60
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# SKM 5000

You have chosen a handheld transmitter SKM 5000 and with this a consequent and promising concept including a modern design, high-tech electronics and an universal power supply.

You should read carefully the following information in order to become acquainted with your new handheld transmitter and to be able to profit from it.

## Features

The easy handling and flexible adaptation to every recording situation stand the test especially in the daily routine:

- newly developed especially small condenser microphone capsules. For different application omnidirectional, cardioid and supercardioid capsules are optionally to be screwed on. A dynamic transducer working as a supercardioid is available for extremely high sound pressures.
- 16 transmitter frequencies which are switchable within the transmitter ensure a quick reaction in case of transmission difficulties caused by common channel interferences.
- 5-step AF preamplification in 10 dB steps for an extended level control limit of a sound pressure of 151 dB.
- Optional battery/rechargeable battery operation with indication of the residual operating time in the receiver, too.
- High volume range and minimum residual noise thanks to the Sennheiser noise suppression system HiDyn<sup>plus</sup>®.

## Models

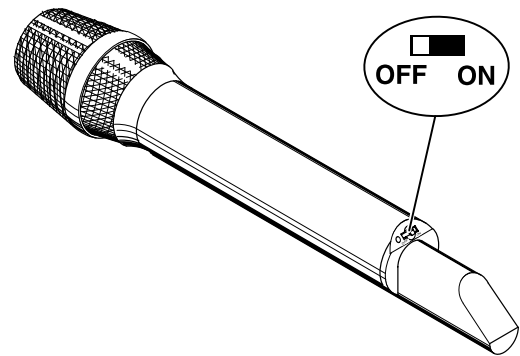
- SKM 5000 UHF-A
- SKM 5000 VHF

## Suitable receivers

- system EM 1046 (resp. EM 203)
- EM 3532, EM 3031, EM 3032
- EK 3041-U

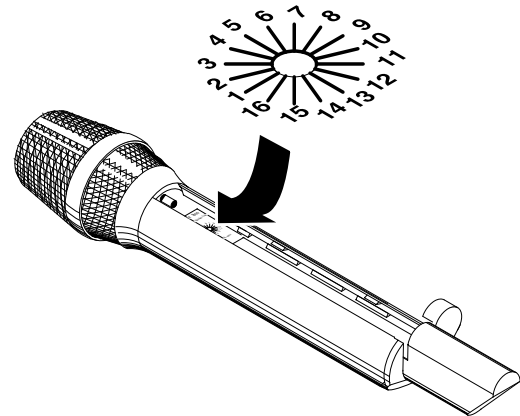
## How to switch on the SKM 5000

The handheld transmitter SKM 5000 is switched on with the switch on the handle. The green LED next to it indicates that the handheld transmitter is ready for operation.



## Channel selection

After having removed the power supply unit (see next page) the channel selector switch is accessible. Select one of the 16 channels with a small screw driver (breadth: 2mm) as adjustment tool. The exact channel for the transmitter frequencies is given on the sticker in the microphone handle below the channel selector switch.



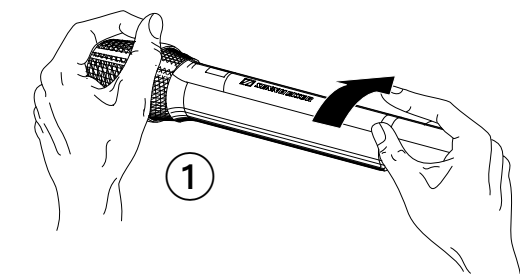
## Hints

- ▶ The transmitter frequency must correspond to the received frequency selected at the receiver!
- ▶ The antenna is positioned at the end of the handheld transmitter SKM 5000 within the handle.  
**For not reducing the power do not touch the handle end during operation!**
- ▶ The indication of the residual operating time only works together with the 3000 and 5000 series receivers.

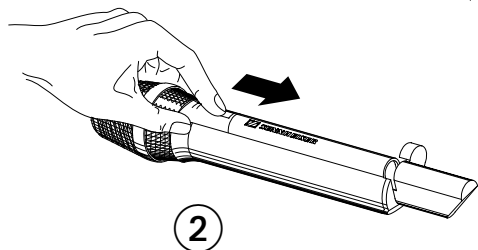
## Noise suppression

The handheld transmitter SKM 5000 is equipped with the Sennheiser noise suppression system HiDyn<sup>plus</sup>®. Suitable receivers, too, must therefore be equipped with HiDyn<sup>plus</sup>®.

## How to open the SKM 5000

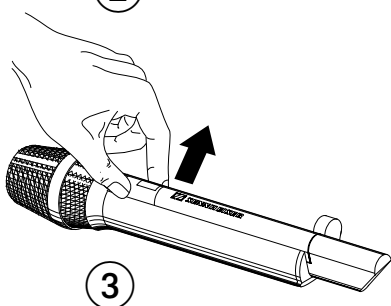


- ① Turn the locking at the microphone of the SKM 5000 in direction of arrow.

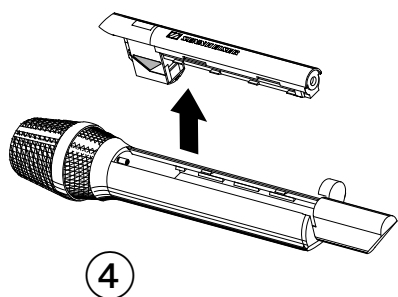


## Remove the power supply unit

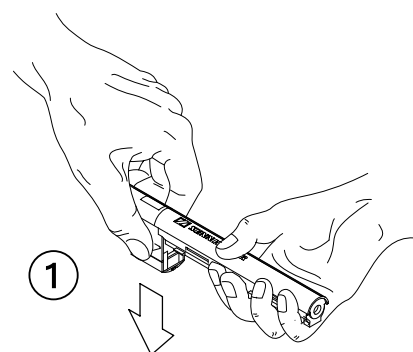
- ② Push the battery compartment B 5000 or the rechargeable battery unit BA 5000 to the back.



- ③ Lift up the battery compartment or the rechargeable battery unit and



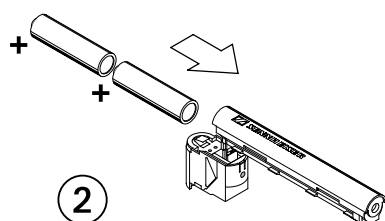
- ④ remove it.



## Insert the batteries

- ① Press down the front cover. The compartment opens and the cover swings down.

- ② Insert the batteries.



- Pay attention to the polarity of the batteries!
- Use only alkali-manganese batteries. Otherwise the total operating time is drastically reduced (see technical data).

Battery or rechargeable battery operation ?

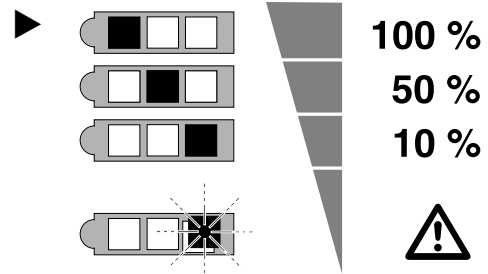
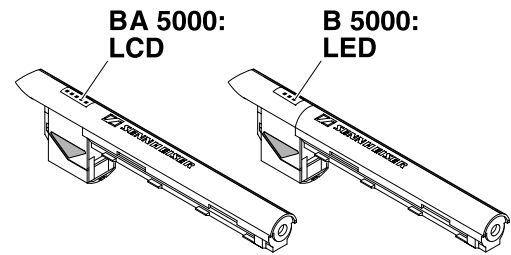
For regular operation you should use non-polluting rechargeable batteries (BA 5000) instead of batteries.

Indication of the residual operating time on the power supply unit

► B 5000

The LED indication on the top side of the battery compartment B 5000 indicates the residual battery operating time in 3 steps in %.

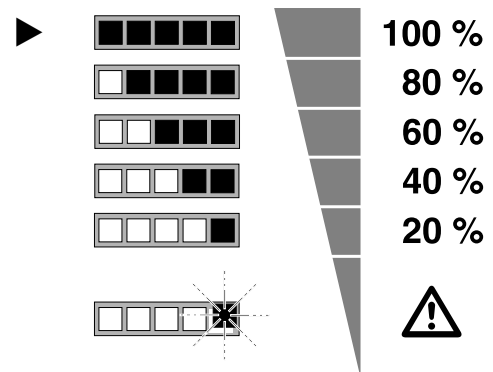
**If the third LED blinks up the residual operating time is only approx. 30 minutes. The batteries should now be replaced!**



► BA 5000

The LED indication on the top side of the rechargeable battery unit BA 5000 indicates the residual rechargeable battery operating time in 5 steps in %.

**If the fifth LED blinks up the residual operating time is only approx. 30 minutes. The rechargeable battery unit should now be replaced.** (How to charge in the battery charger L 50 see next page).

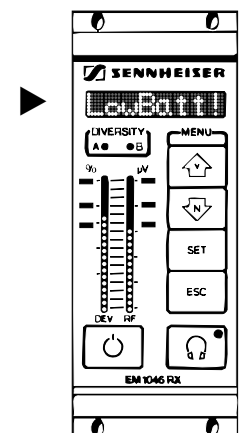


... Indication at the EM 1046 (EXAMPLE)

The display of an EM 1046-RX-module (channel module), too, indicates the residual operating time in %. The residual operating time of approx. 30 minutes (see above) is indicated by the blinking warning signal „LowBatt“.

Hint

► You will find a corresponding description in the instructions for the EM 1046 / EM 3031 / EM 3032 / EM 3532 / EK 3041.



Recharge with the battery charger L 50

Up to two rechargeable battery units BA 5000 can be charged in the battery charger L 50. The suitable charging adapter has to be inserted in the battery charger. This adapter adapts the corresponding charging contacts to the rechargeable battery unit BA 5000.

The battery charger L 50 ensures an especially careful and secure charging of the rechargeable batteries BA 5000 according to the  $\Delta U$ -method. The instructions for the battery charger give more details of the charging procedure itself.

The battery charger L 50 and the suitable battery adapter are available as accessories.

Change the microphone heads

The microphone head of the SKM 5000 can be changed according to the use in different situations.

- ① Unscrew the threaded joint
- ② Pull off the microphone head.

There are four different microphone heads for the varying fields of application:

ME 5002	Condenser microphone head with omnidirectional characteristic
ME 5004	Condenser microphone head with cardioid characteristic
ME 5005	Condenser microphone head with supercardioid characteristic very insensitive to feedbacks
MD 5005	Dynamic microphone head with supercardioid characteristic for high sound pressure levels, very insensitive to feedbacks
ME 5009	Condenser microphone head with broad cardioid characteristic

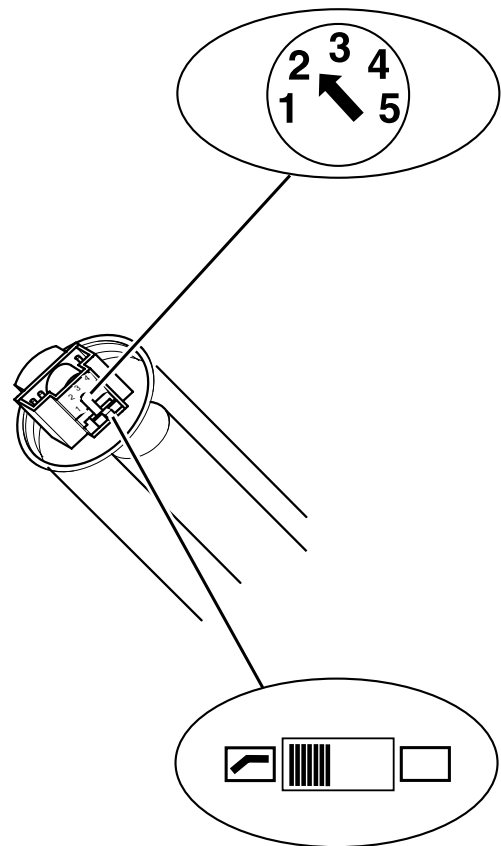
## Adjust the sensitivity

For the SKM 5000 the sensitivity of the microphone can be adopted for each recording situation in steps of 10 dB.

The selector switch becomes accessible when unscrewing the microphone head. (→ CHANGE THE MICROPHONE HEADS).

### Position Situation

- |     |                                                                 |
|-----|-----------------------------------------------------------------|
| 5   | normal voices, e.g. discussion,<br>speaking distance approx. 1m |
| 3-4 | normal, low voices for close<br>talking                         |
| 2   | loud voices, close-talking in<br>noisy environment, too         |
| 1   | very loud voices, vocal music,<br>close-miking.                 |

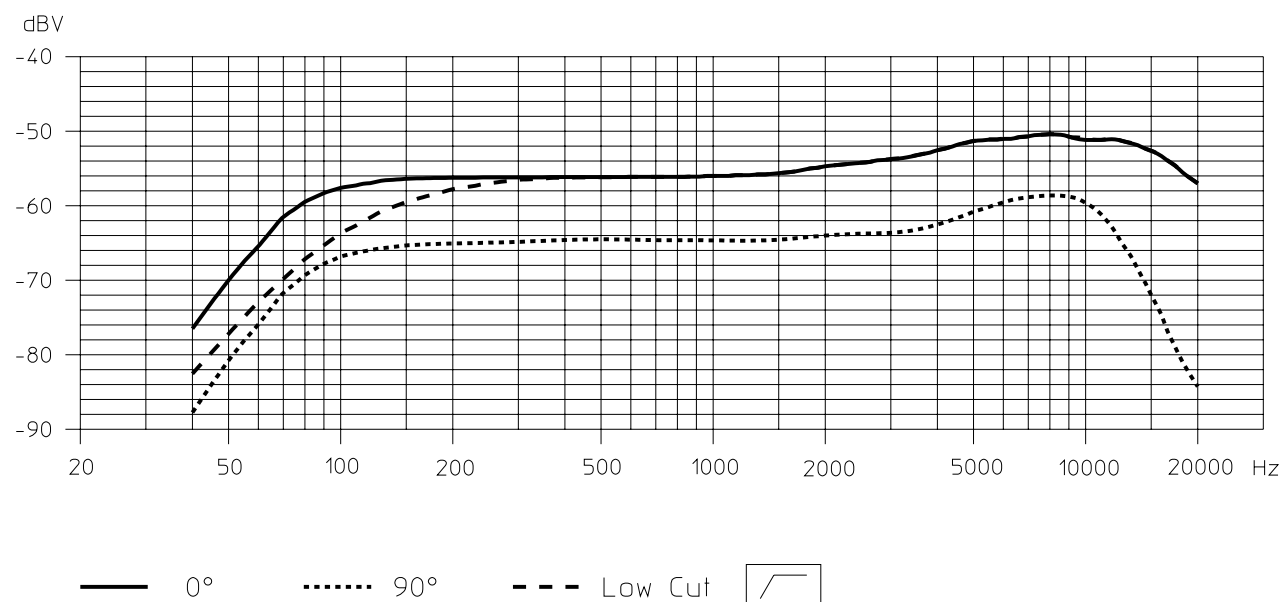


## Switch on the roll-off filter

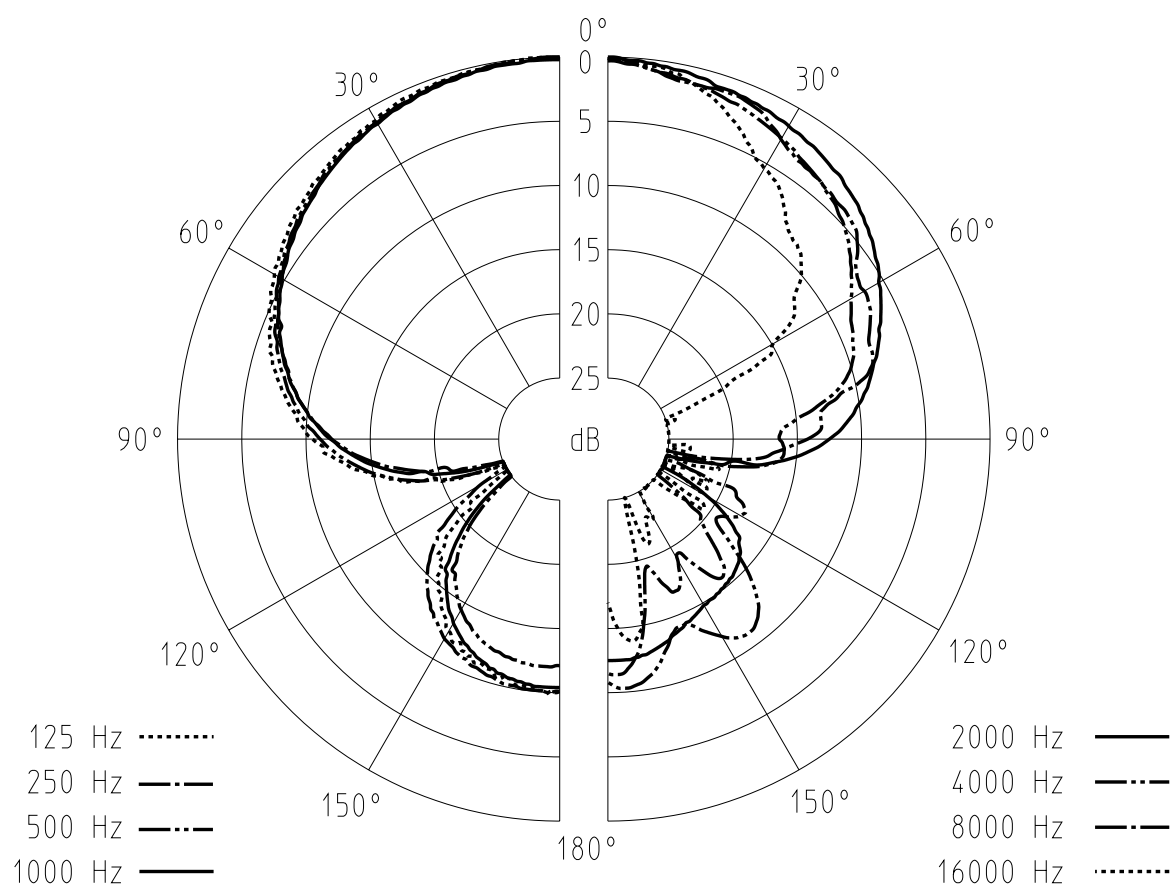
Below the selector switch for the sensitivity there is situated a further sliding switch. It serves for the additional connection of a filter which attenuates undesired low frequency noises like those caused by machines, by wind and sound impacts. Below approx. 200 Hz this filter attenuates with 6 dB/octave.



# Overall frequency response, Function of the roll-off filter with condenser microphone head ME 5005 (supercardioid)



## Polar pattern of the SKM 5000 with condenser microphone head ME 5005 (supercardioid)



## Technical data of the SKM 5000 UHF-A

RF-output	50 mW (-3dB)
Switching bandwidth	24 MHz
Frequency range	450 - 960 MHz
Volume of sound	> 117 dB (A) eff
Stability of the frequency	$\pm 5$ ppm
Operating time	> 4 h with B 5000 > 4 h with BA 5000

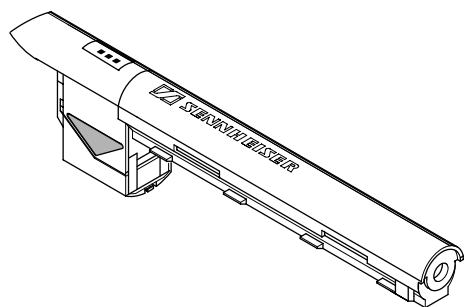
## Technical data of the SKM 5000 VHF

RF-output	50 mW (-3dB)
Switching bandwidth	14 MHz
Frequency range	138 - 260 MHz
Volume of sound	> 110 dB (A) eff
Stability of the frequency	$\pm 10$ ppm
Operating time	> 4.5 h with B 5000 > 6.5 h with BA 5000

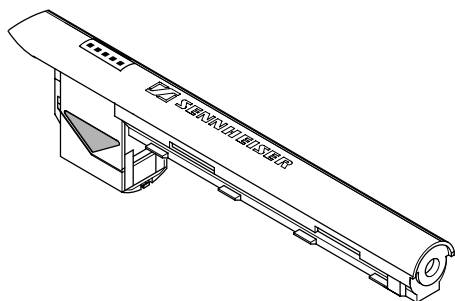
## Technical data for both SKM 5000 UHF / VHF

Transmitter frequencies	16
Spurious sideband	< 4 nW
THD (nominal deviation)	< 1%
nominal dev. / max. dev.	$\pm 40$ kHz / $\pm 56$ kHz FM
max. SPL	154 dB
Noise suppression system	Sennheiser HiDyn <sup>plus</sup> ®
Power supply	B 5000 (batteries) or BA 5000 (rechargeable battery unit)
Dimensions	length: 257 mm, Ø: 44 mm
Weight incl. power supply unit	approx. 220 g
AF transmission range	80 - 20,000 Hz
Delivery includes	<ul style="list-style-type: none"><li>- Hand-held transmitter without microphone head and power pack – microphone head and power pack should be ordered separately!</li><li>- quick-release clamp MZQ 5000</li><li>- case and instructions for use</li></ul>

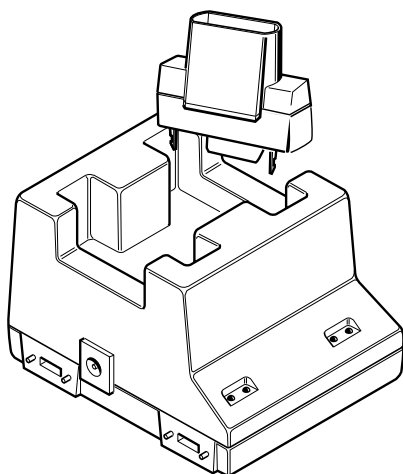
Subject to alterations, error excepted



B 5000      Batteriefach  
Battery compartment  
Compartiment des piles  
Pile  
Pilas  
Batterijvak  
Batterifacket



BA 5000      Akkupack  
Rechargeable battery unit  
Accu  
Pacchetto di accumulatori  
Conjunto de acumuladores  
Accupack  
Ackumulatormodulen



L 50      Ladegerät mit passendem  
Ladeadapter  
Battery charger and suitable  
battery adapter  
L'appareil de recharge avec  
adaptateur correspondant  
L'apparecchio di ricarica con  
l'apposito adattatore  
Cargador con el adaptador de  
carga correspondient  
Laadapparaat en de passende  
laadadapter  
Laddningsaggregatet med  
lämplig laddningsadapter

MZW 5000      Windschutz  
Wind-shield  
Bonneste anti-vent  
Cuffia antivento  
Caperuza antiviento  
Windbeschermingskorfie

# BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION



## ZULASSUNGSURKUNDE

Zulassungsnummer: A109897D

Zus. Kennzeichen: RF

Objektbezeichnung: SKM 5000

Zulassungsinhaber: Sennheiser electronic KG  
Im Wennebostel

D-30900 Wedemark

Zulassungsart: Allgemeinzulassung

Objektart: Drahtloses Handmikrofon des nichtöffentlichen mobilen  
Landfunks der Rundfunkanstalten

Die Funkanlage erfüllt die Anforderungen der Richtlinie FTZ 17 TR 2019,  
Ausgabe November 1987 und FTZ 17 R 2032, Ausgabe November 1986

Saarbrücken, den 08.02.94



Im Auftrag

*Urig*  
Urig

# BUNDESAMT FÜR ZULASSUNGEN IN DER TELEKOMMUNIKATION

Federal Approvals Office For Telecommunications Of The Federal Republic Of Germany



## EG-BAUMUSTERBESCHEINIGUNG EC TYPE-EXAMINATION CERTIFICATE

Registrier-Nr.: B128550H  
Registration no.:

Benannte Stelle: Bundesamt für Zulassungen in der Telekommunikation  
Notified body:

Bescheinigungsinhaber: Sennheiser electronic KG  
Certificate Holder: Im Wennebostel  
D-30900 Wedemark

Produktbezeichnung: SKM 5000 VHF  
Designation of product:

Produktbeschreibung: Handmikrofonsender einer drahtlosen Mikrofon-  
Product description: anlage des nichtöffentlichen mobilen


Angewandte Normen: prETS 300 445  
Used norms:

Klasse: 1  
class:

Diese Bescheinigung ist erstellt in Übereinstimmung mit der Richtlinie 89/336/EWG (Amtsblatt der Europäischen Gemeinschaften Nr. L 139 v. 23. Mai 1989)  
This certificate is issued according to the directive 89/336/EWG (Official Journal of the European Communities L 139 from 23. May 1989)

Ort, Datum: Saarbrücken, 01.08.1996  
Place, Date:

Im Auftrag:  
On Behalf of  
the Directory:

  
Siegfried Blümel



Bundesamt für Zulassungen in der Telekommunikation, Talstraße 34-42, D-66119 Saarbrücken, Tel.: +49 6 81 5 98-0, Fax: +49 6 81 5 98-18 00

Aktuelle Informationen zu Sennheiser-Produkten erhalten Sie auch im Internet unter „<http://www.sennheiser.com>“.

Up to date information on Sennheiser products can also be found on the Internet under “<http://www.sennheiser.com>”.

Vous trouverez également toutes les informations actuelles relatives aux produits Sennheiser sur Internet, sous “<http://www.sennheiser.com>”.

Informazioni attuali sulla gamma di prodotti Sennheiser sono disponibili anche in Internet al sito „<http://www.sennheiser.com>“.

También en Internet, bajo „<http://www.sennheiser.com>“ obtendrá Vd. informaciones actuales sobre los productos Sennheiser.

Actuele informatie met betrekking tot Sennheiser producten vindt u ook op Internet onder “<http://www.sennheiser.com>“.



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