

Electret Condenser Microphone

Operating Instructions

Mode d'emploi

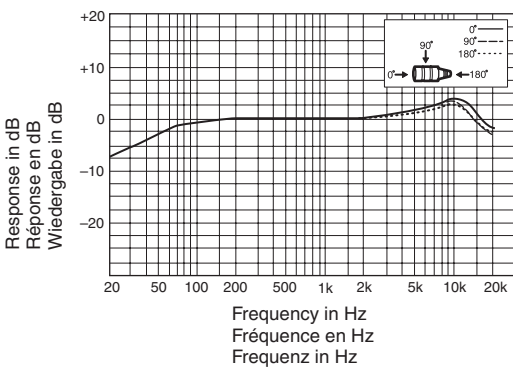
Bedienungsanleitung

ECM-77B

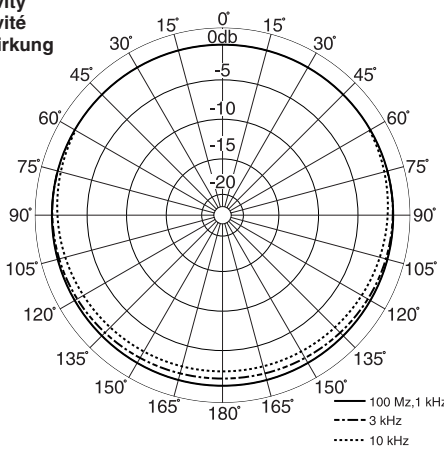


Sony Corporation © 2003 Printed in Japan

Frequency response
Réponse en fréquence
Frequenzgang



Directivity
Directivité
Richtwirkung



English

Before operating the unit, please read this manual thoroughly. This manual should be retained for future reference.

For the customers in Europe

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community.

Compliance with this directive implies conformity to the following European standards:

- EN55103-1: Electromagnetic Interference (Emission)
 - EN55103-2: Electromagnetic Susceptibility (Immunity)
- This product is intended for use in the following Electromagnetic Environments: E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors), E4 (controlled EMC environment, ex. TV studio).

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

Attention:

The electromagnetic fields at the specific frequencies may degrade the intended performance level of analog audio signals.

FEATURES

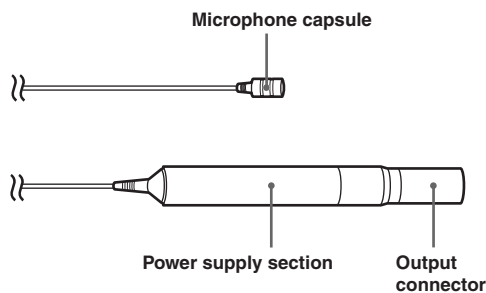
- Omni-directional characteristics with wide frequency range (40–20,000 Hz)
- Two-way powering system using an internal battery or external power supply.
- Ideal design for professional application in radio and TV studios or other audio fields because of its high quality performance and its extremely compact size.
- Easy handling carrying case.

PRECAUTIONS

- The microphone should never be dropped or subjected to any excessive shock.
- Keep the microphone away from extremely high temperatures (above 60°C or 140°F)
- If the microphone is placed too near the speakers, a howling effect (acoustic feedback) may occur. In this case, decrease the speaker volume until the howling stops.

• Microphone and recording instruments should be turned on 10 minutes before they are actually used. This assures stable performance of the microphones and instruments.

PARTS IDENTIFICATION



Supplied accessories

Wind screen

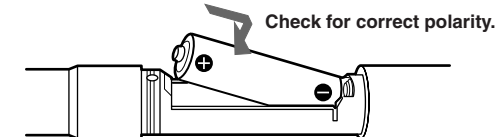


Microphone holders



BATTERY OPERATION

- 1 Open the battery compartment by turning the sleeve counterclockwise.
- 2 Insert an IEC designation R6 or LR6 (size AA) battery into the battery compartment.



- 3 Close the compartment by turning the sleeve clockwise. Be sure to close the sleeve firmly, otherwise malfunction or noise may occur due to the loose fit.

Notes

- If the microphone is not to be used for a long time, remove the battery to avoid any possibility of corrosion.
- In case of battery leakage, wipe off any deposit in the battery compartment.
- Battery life depends on the battery type being used. Refer to the "Battery life" in "Specifications" below. When the battery is exhausted, sensitivity will be decreased and distortion will be heard. When this occurs, replace with a new battery.

CONNECTIONS

The output connector of the microphone is the Cannon XLR-3-12C type. Connect the microphone plug to the microphone input of a mixer or a tape recorder. The microphone cable is 3m (10 feet) long.

If a longer cable is necessary, an extension cable up to 200 m (660 feet) may be used without affecting sound quality or performance. Use a cable with a Cannon XLR-3-11C connector at one end and an appropriate plug at the other end which matches the input equipment.

Note

If cable connector connection is necessary, note that there are two basic types connections, balanced to ground and unbalanced to ground, and solder connections carefully. Poor soldering may cause hum pick up.

EXTERNAL POWER SUPPLY

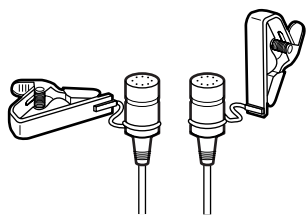
The ECM-77B is designed for external powering (12 to 48 V DC) as well as internal battery power. The external power supply system consists of a DC power source, standard two conductor shielded microphone cable, and center-tapped transformer of the microphone. Use an external power supply unit available in marketplace.

Notes

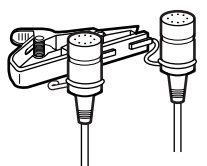
- When an external power supply is used, the internal battery is not discharged. However, if an exhausted battery is installed while operating with external power supply, sensitivity will be decreased and noise/distortion will be heard.
- For extending the cable between the power supply and the microphone, use a balanced-type cable.

MORE ABOUT MICROPHONE USE

- To eliminate the effect of wind or breath noise, cover the microphone with the supplied wind screen. This will attenuate wind or breath noise by 14 dB.
- The supplied microphone holders are convenient for attaching the microphone to clothing. Be careful not to cover the microphone head.



The double-clip microphone holder attaches two microphones to allow more stable operation.



• Attach the microphone with cellophane or vinyltape to the inside of an instrument such as a guitar, bass, etc., to obtain a high quality sound. Be sure to place a rubber or felt cushion between the microphone and instrument.

SPECIFICATIONS

General

| | |
|----------------------------|---|
| Type | Electret condenser microphone |
| Power supply | Battery: IEC designation R6 or LR6 (size AA) External power: 12 to 48 V DC |
| Microphone output terminal | Cannon XLR-3-12C type |
| Microphone cable | Approx. 2.0 mm dia., 3 m long (3/32 inch dia., 10 feet long) |
| Dimensions | Microphone: Approx. 5.6 mm dia. x 12.5 mm (1/4 dia. x 1/2 inches) Power supply section: Approx. 20 mm dia. x 133 mm (1 3/16 dia. x 5 1/4 inches) |
| Mass | Microphone: Approx. 1.5 g (0.053 oz) Power supply section: Approx. 120 g (4.2 oz) (including cable, not including battery) |
| Finish | Black chromium finish (microphone capsule section) Satin-nickel finish (power supply section) |
| Supplied accessories | Carrying case (1) Microphone holder (3) Wind screen (1) Operating Instructions (1) Warranty booklet (1) |

Performance

| | |
|--|--|
| Frequency range | 40–20,000 Hz |
| Directivity | Omni-directional |
| Output impedance | 150 ohms ±20% (1 kHz), balanced |
| Sensitivity (deviation ±2 dB) | Open circuit voltage: –52.0 dB (2.51 mV, 0 dB = 1 V/1 Pa, 1 kHz) Effective output level: –49.8 dBm (0 dBm = 1 mW/1 Pa, 1 kHz) Recommended load impedance is more than 3 kohms. |
| Signal-to-noise ratio | More than 64 dB (1 kHz, 1 Pa) |
| Inherent noise | Less than 30 dB SPL (0 dB = 20µPa) |
| Wind noise*1 | Less than 40 dB SPL (with wind screen) |
| Induction noise from external magnetic field*2 | Less than 5 dB SPL/1 × 10 ⁻⁷ T |
| Maximum input sound pressure level (1 kHz, 1%) ^{*3} | 120 dB SPL (20.0 Pa) |
| Dynamic range | More than 90 dB |
| Environmental temperatures | –20°C to +60°C (–4°F to 140°F) for storage 0°C to 60°C (+32°F to 140°F) for operation |

- *1 Wind noise is the value measured by applying a wind velocity of 2 m/sec. (6.6 ft./sec.) from all directions to the microphone. The mean value is taken and converted to the equivalent input sound level. 0 dB SPL = 20µPa
- *2 The external magnetic field induction noise is measured with the microphone placed in an alternating magnetic field of 50 Hz, 1 milligauss. 0 dB SPL = 20µPa
- *3 The maximum noise value is taken and then converted to the equivalent input sound level. 0 dB SPL = 20µPa

Power requirements

| | |
|---------------------------|---|
| Normal operating voltage | 1.5 V DC at battery operation |
| Minimum operating voltage | 1.1 V DC at battery operation |
| External power supply | 12 to 48 V DC |
| Current drain | Less than 0.2 mA (1.5 V DC) (with battery) Less than 2.0 mA (with external power supply) |
| Battery life | R6 manganese battery: Approx. 5,000 hours LR6 alkaline battery: Approx. 6,000 hours |

Design and specifications subject to change without notice.

Note

Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

For Customer in China

根据中华人民共和国信息产业部第39号令《电子信息产品污染控制管理办法》及标准中要求的“有毒有害物质或元素名称及含量”等信息，本产品相关信息请参考以下链接：
<http://pro.sony.com.cn>

制造商: 索尼公司
原产地: 日本
总经销商: 索尼(中国)有限公司
进口商地址: 北京市朝阳区东三环北路霞光里18号佳程大厦A座25层

出版日期: 2009年3月

Français

Avant la mise en service de l'appareil, lire attentivement ce mode d'emploi et le conserver pour toute référence ultérieure.

Pour les clients en Europe

Ce produit portant la marque CE est conforme à la Directive sur la compatibilité électromagnétique (EMC) émise par la Commission de la Communauté européenne.

La conformité à cette directive implique la conformité aux normes européennes suivantes :

- EN55103-1 : Interférences électromagnétiques (émission)
 - EN55103-2 : Sensibilité électromagnétique (immunité)
- Ce produit est prévu pour être utilisé dans les environnements électromagnétiques suivants : E1 (résidentiel), E2 (commercial et industrie légère), E3 (urbain extérieur) et E4 (environnement EMC contrôlé, ex. studio de télévision de ce).

Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japon.

Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

Attention:

Les champs électromagnétiques à fréquences spécifiques peuvent dégrader le niveau de performance prévu des signaux audio analogiques.

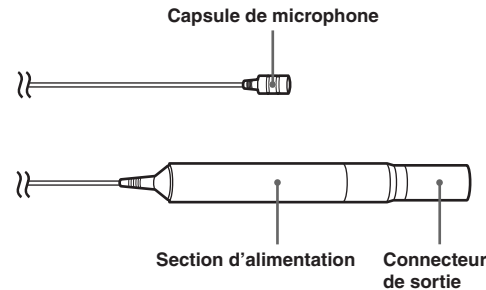
CARACTERISTIQUES

- Caractéristiques omni-directionnelles avec large gamme de fréquences (40–20,000 Hz).
- Deux possibilités d'alimentation: soit par batterie interne, soit par alimentation extérieure.
- Conception idéale pour les travaux professionnels en studio de radio ou de télévision et autres applications audio en raison de ses performances de haute qualité et de sa remarquable compacité.
- Etui de transport très pratique.

PRECAUTIONS

- Ne jamais laisser tomber le microphone ni le soumettre à des chocs.
- Tenir le microphone à l'écart de toute source de température élevée (au-dessus de 60°C ou de 140°F).
- Si le microphone est placé trop près des enceintes, une réaction acoustique (hurlement) se produira. Dans ce cas, réduire le volume des enceintes de manière à supprimer ce phénomène.
- Le microphone et les appareils d'enregistrement doivent être mis sous tension 10 minutes avant leur utilisation proprement dite afin d'assurer la stabilité de leur fonctionnement.

IDENTIFICATION DES ELEMENTS

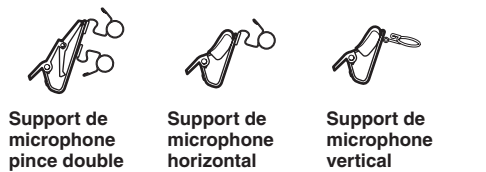


Accessoires fournis

Paravent

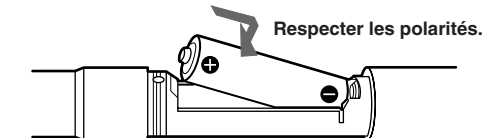


Pincettes de microphone



FONCTIONNEMENT SUR PILE

- 1 Ouvrir le logement pile en tournant la douille dans le sens inverse des aiguilles d'une montre.
- 2 Installer une pile R6 ou LR6 selon la désignation IEC (format AA) dans le logement.



- 3 Refermer le logement en tournant la douille dans le sens des aiguilles d'une montre. Refermer convenablement la douille; faute de quoi, une défaillance ou des parasites se produiraient.

Remarques

- Si l'on prévoit de ne pas utiliser le microphone pendant longtemps, en retirer la pile pour éviter toute possibilité de corrosion.
- En cas de fuite d'électrolyte, essayer convenablement tout dépôt dans le logement.
- La durée de vie de la pile dépend de son type. Voir "Autonomie de la pile" sous "Spécifications" ci-après. Lorsque la pile est déchargée, sa sensibilité diminue et le son est déformé. Dans ce cas, remplacer la pile par une neuve.



