

SONY®

ELECTRET CONDENSER MICROPHONE

ECM-44BMP

ECM-77BMP

ECM-166BMP

SERVICE MANUAL

1st Edition (Revised 1)

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

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This section is extracted
from operation manual.

1. OPERATION

SONY

3-860-338-04(1)

Electret Condenser Microphone

Operating Instructions
Manual de instrucciones
Mode d'emploi
Bedienungsanleitung
取扱説明書

ECM-166BMP/122BMP/121BMP/77BMP/
44BMP

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English

The ECM-166BMP/122BMP/121BMP/77BMP/44BMP Electret Condenser Microphone is designed for use with a transmitter having a 3-pole minijack with a lock mechanism used in a Sony 800-MHz band wireless microphone system.

Connecting to the Transmitter (See fig. A.)

- 1 Connect the output connector of the microphone to the input connector of the transmitter.
- 2 Turn the lock ring to lock.
- 3 Set the PHASE switch of the transmitter as follows.
ECM-166BMP/122BMP/121BMP: =
ECM-77BMP/44BMP: φ

Specifications

General

Type
Electret condenser

Power requirements
3 to 10 V DC (supplied from an external device, such as a Sony transmitter)

Current consumption
0.4 mA or less

Cable
ECM-166BMP/122BMP/121BMP/44BMP:
2.3mm ($\frac{3}{32}$ inches) dia., 2-conductor shielded cable
ECM-77BMP: 2mm ($\frac{1}{16}$ inches) dia., 2-conductor shielded cable

Cable length
ECM-166BMP/122BMP/77BMP/44BMP: Approx. 1.2 m (3.9 feet)
ECM-121BMP:
Approx. 0.2 m ($7\frac{7}{8}$ inches)

Connector
3-pole mini phono plug (3.5 mm ($\frac{9}{32}$ inches) dia.) with a lock mechanism

Mass (microphone only, without cable)
ECM-166BMP: Approx. 3.5 g (0.12 oz)
ECM-122BMP/121BMP:
Approx. 3 g (0.1 oz)
ECM-77BMP: Approx. 1.5 g (0.05 oz)
ECM-44BMP: Approx. 2 g (0.07 oz)

Dimensions (microphone only)

ECM-166BMP:
12.5 dia. × 23.5 mm
($\frac{1}{2}$ dia. × $1\frac{5}{16}$ inches)

ECM-122BMP/121BMP:
8.5 dia. × 17.0 mm
($\frac{11}{32}$ dia. × $1\frac{1}{16}$ inches)

ECM-77BMP:
5.6 dia. × 12.5 mm
($\frac{1}{4}$ dia. × $\frac{1}{2}$ inches)

ECM-44BMP:
8.5 dia. × 14.5 mm
($\frac{11}{32}$ dia. × $1\frac{9}{32}$ inches)

Accessories supplied
Holder clip (1)
Wind screen (1)
Operating Instructions (1)

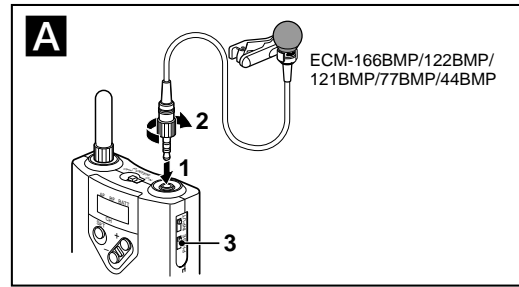
Performance

Frequency range
ECM-166BMP/122BMP/
121BMP:
100 to 10,000 Hz
ECM-77BMP:
40 to 20,000 Hz
ECM-44BMP:
40 to 15,000 Hz

Directivity
ECM-166BMP: Uni-directional
ECM-122BMP/121BMP/
77BMP/44BMP: Omni-directional

Output impedance
2.5 kohms ±30% at
1000 Hz, unbalanced

Design and specifications are subject to change without notice.



日本語

エレクトレットコンデンサーマイクロホンECM-166BMP/122BMP/121BMP/77BMP/44BMPは、ソニー800MHz帯ワイヤレスマイクロホンシステムのロック付き3極ミニジャック仕様トランスミッター専用です。

トランスミッターへの接続 (図A参照)

- 1 トランスミッターの入力コネクタにマイクの出力コネクタを接続する。
- 2 ロックリングを回してロックする。
- 3 PHASEスイッチを次のように設定する。
ECM-166BMP/122BMP/121BMP: =
ECM-77BMP/44BMP: φ

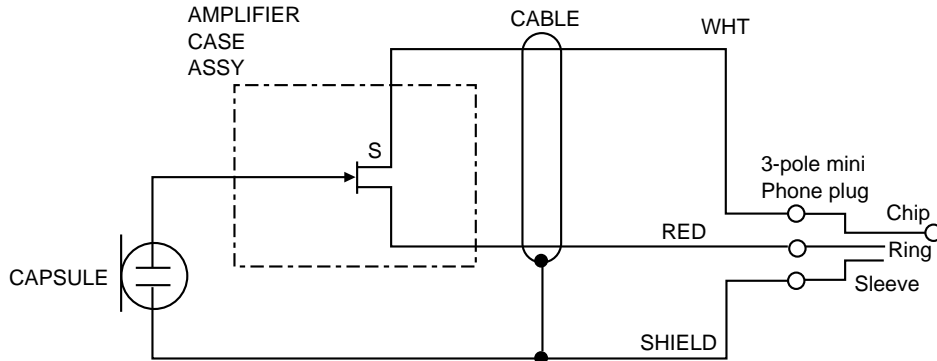
主な仕様

定格	外形寸法 (マイク本体)
形式	ECM-166BMP: φ12.5×23.5mm
電源	ECM-122BMP/121BMP: φ8.5×17.0mm
DC3~10V (ソニーワイヤレストランスミッターなど外部から供給)	ECM-77BMP: φ5.6×12.5mm
消費電流	ECM-44BMP: φ8.5×14.5mm
0.4mA以下	付属品
ケーブル	ホルダークリップ (1) ウインドスクリーン (1) 取扱説明書 (1)
ECM-166BMP/122BMP/ 121BMP/44BMP: φ2.3mm、2芯シールド	
ECM-77BMP: φ2mm、2芯シールド	性能
ケーブル長	周波数特性
ECM-166BMP/122BMP/ 77BMP/44BMP: 約1.2m	ECM-166BMP/122BMP/ 121BMP: 100~10,000Hz
ECM-121BMP: 約0.2m	ECM-77BMP: 40~20,000Hz
コネクタ	ECM-44BMP: 40~15,000Hz
ロック付き3極ミニプラグ (φ3.5)	指向特性
質量 (マイク本体、ケーブル含まず)	ECM-166BMP: 単一指向性
ECM-166BMP: 約3.5g	ECM-122BMP/121BMP/ 77BMP/44BMP: 全指向性
ECM-122BMP/121BMP: 約3g	出力インピーダンス
ECM-77BMP: 約1.5g	2.5 kΩ ±30% (1000Hz)、不 平衡型
ECM-44BMP: 約2g	

仕様および外観は、改良のため予告なく変更することがありますが、ご了承ください。

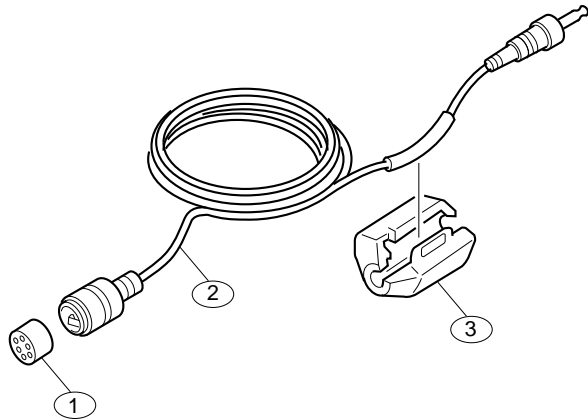
2. ECM-44BMP

2-1. SCHEMATIC DIAGRAM



2-2. SPARE PARTS

NO.	Part No.	SP	Description
1	A-4510-056-A	s	CAPSULE ASSY
2	A-8315-472-A	s	CASE ASSY, AMPLIFIER
3	1-500-249-21	s	BEAD, FERRITE (CASE) (For CE model only)



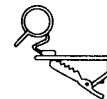
2-3. ACCESSORIES SUPPLIED

Q'ty	Part No.	SP	Description
1pc	X-3167-902-1	s	SCREEN ASSY, WIND
1pc	X-2537-903-1	s	CLIP ASSY, HOLDER, HORIZONTAL
1pc	3-860-338-04	s	MANUAL, INSTRUCTION

WIND SCREEN ASSY



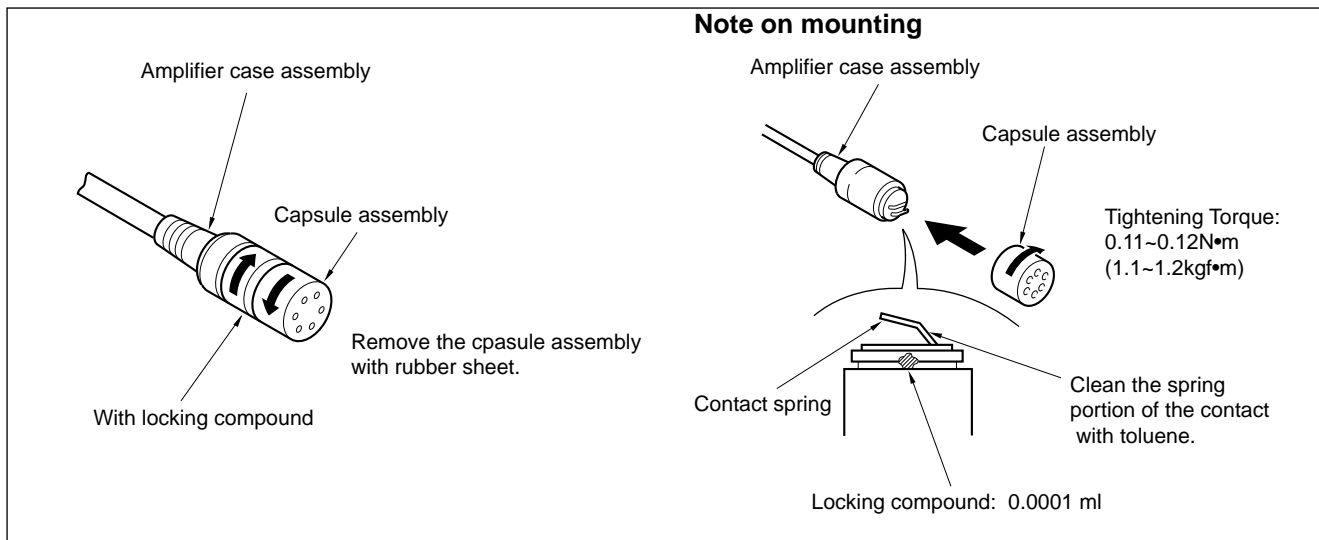
HORIZONTAL CLIP ASSY



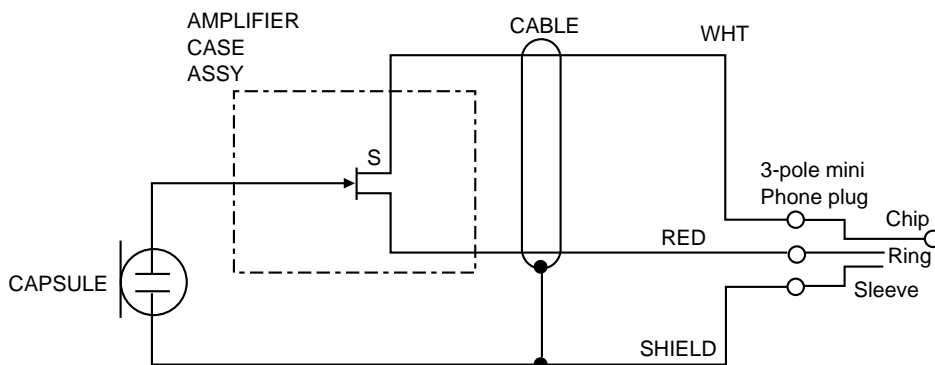
3. ECM-77BMP

3-1. SERVICE INFORMATION

Microphone Capsule Removal

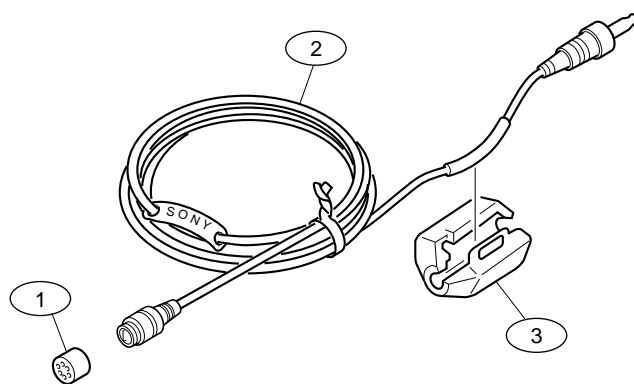


3-2. SCHEMATIC DIAGRAM



3-3. SPARE PARTS

NO.	Part No.	SP	Description
1	A-4510-050-A	s	CAPSULE ASSY
2	A-8320-067-A	s	CASE ASSY, AMPLIFIER
3	1-500-249-21	s	BEAD, FERRITE (CASE) (For CE model only)



3-4. ACCESSORIES SUPPLIED

Q'ty	Part No.	SP	Description
1pc	X-5237-404-1	s	SCREEN ASSY, WIND
1pc	X-5237-410-1	s	CLIP ASSY, HOLDER, HORIZONTAL
1pc	3-860-338-04	s	MANUAL, INSTRUCTION

WIND SCREEN ASSY



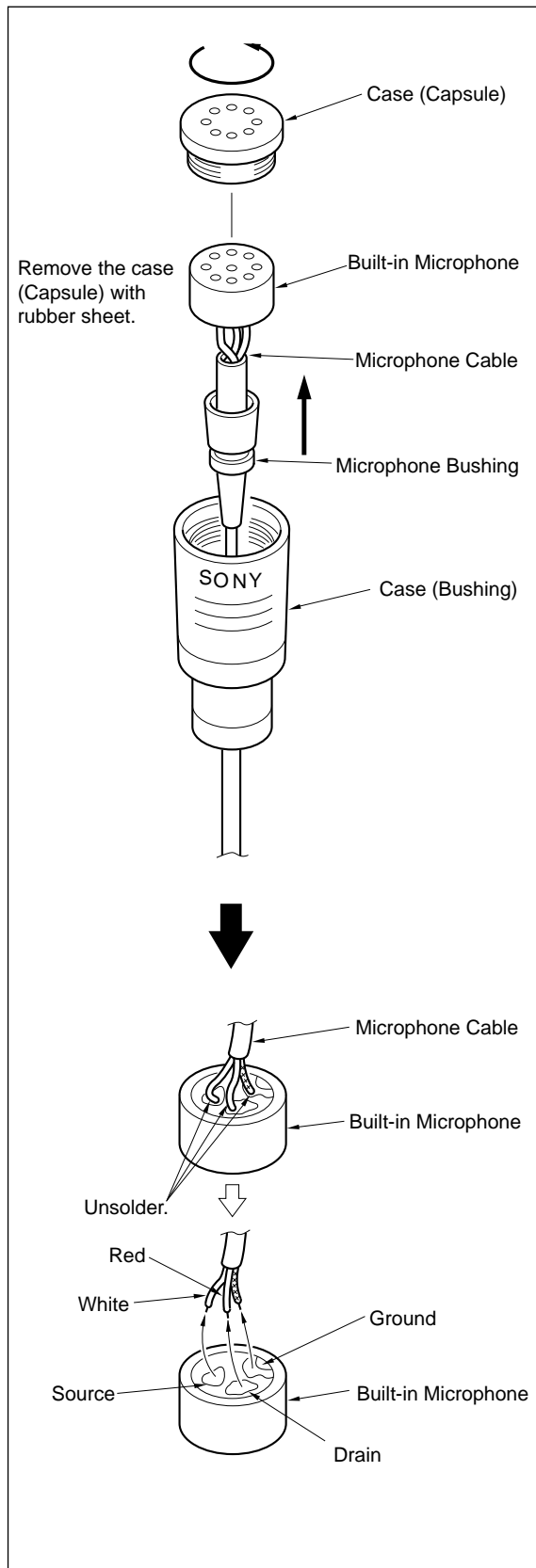
HORIZONTAL CLIP ASSY



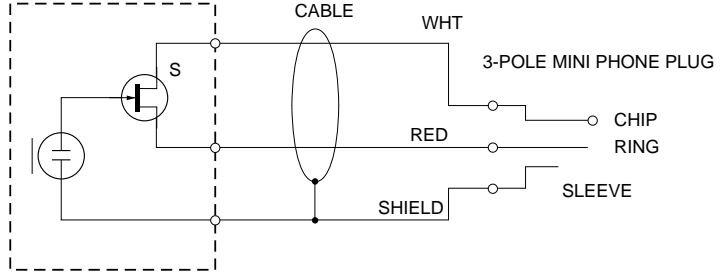
4. ECM-166BMP

4-1. SERVICE INFORMATION

Built-in Microphone and Microphone Cable



4-2. SCHEMATIC DIAGRAM



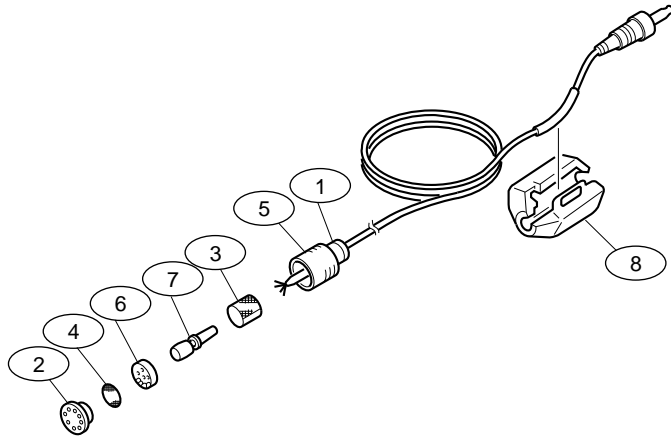
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4-3. SPARE PARTS

INDEX

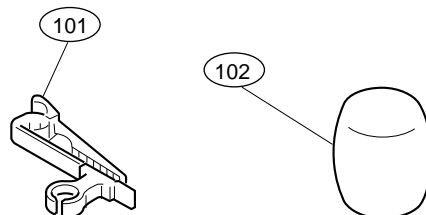
NO.	Part No.	SP	Description
1	1-776-837-41	s	CORD WITH CONNECTOR
2	2-538-949-01	s	CASE (CAPSULE)
3	2-538-950-01	s	SCREEN, SIDE
4	2-538-951-01	s	SCREEN, TOP
5	2-540-961-01	s	CASE (BUSHING)
6	8-814-227-00	s	MICROPHONE BUILT-IN
7	2-523-605-00	s	BUSHING, MICROPHONE
8	1-500-249-21	s	BEAD, FERRITE (CASE)

(For CE model only)



4-4. ACCESSORIES SUPPLIED

Index no.	Part No.	SP	Description
101	X-2536-801-1	s	CLIP, ASSY, HOLDER
102	2-539-598-01	s	SCREW, WINDOW
-	3-860-338-04	s	MANUAL, INSTRUCTION



ECM-44BMP (SY, CE)
ECM-77BMP (UC, CE)
ECM-166BMP (UC, CE) J,E
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