

## OUTLINE

Sony ECM-88 Series lavalier microphones are extremely miniature, omni-directional electret condenser microphones ideal for quality-critical applications in broadcasting, theatre and field productions. As well as offering a high sensitivity, flat-and-wide frequency response and low noise characteristics, these microphones also provide other significant enhancements.

A water-resistant architecture reduces the risk of water or perspiration entering the microphone capsule. The capsule itself is just 3.5 x 3.5 x 16.8 mm, allowing for easy, natural-looking concealment in both television and stage productions. Whenever size, quality and reliability are of paramount importance, the Sony ECM-88 Series offers the perfect solution.

### **FEATURES**

### Dual-Diaphragm Mechanism (Fig 1)

The ECM-88 Series electret condenser microphone uses a dual-diaphragm mechanism, which contributes to their high sensitivity and low inherent noise characteristics. The diaphragm and backplates are fixed vertically to the microphone capsule, which effectively reduces the mechanical noise caused by cable vibration and friction. In addition, the diaphragm for each microphone uses a rectangular 'tray' instead of a fragile ring, which minimises deformation of the diaphragm to maintain sound quality.

### Flat-and-Wide Frequency Response (Fig 2)

The ECM-88 Series provides a flat-and-wide frequency response (20 Hz to 20 kHz), which provides natural sound reproduction. This enables the operator to add sound effects easily during the mixing process.

### Ultra-Compact Microphone Capsule

The microphone capsule of the ECM-88 Series is also ultra compact, at just  $3.5\times3.5\times16.8$  mm (5/32 x 5/32 x 11/16 inch). This miniature design makes it extremely easy to conceal.

### Water-Resistant Design

A water-resistant architecture is used within each microphone capsule, helping to prevent water or perspiration from entering the capsule and, in turn, reducing the possibility of damage to the diaphragm. This architecture allows ECM-88 Series lavalier microphones to maintain sound clarity in almost any application or environment, from theatre productions to location-based recording.

### Choice of Models

The ECM-88 Series consists of four models: the ECM-88B, ECM-88BC, ECM-88BPT and ECM-88FPT. This gives users the flexibility to choose the most appropriate microphone colour and connector for their specific requirements.

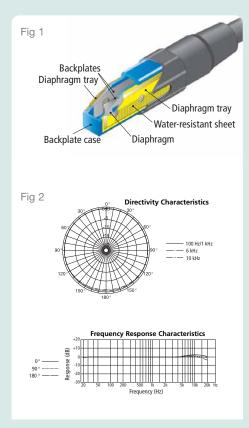


ECM-88B Black-coloured model supplied with a DC-78 DC Power Supply Unit. Two-way powering possible - internal AAsize (LR6) alkaline-battery operation or external DC (12 to 48 V) operation.

ECM-88BC Black-coloured model supplied with a Sony 4-pin connector (SMC9-4P), for use with the Sony WRT-8B/822B wireless bodypack transmitter. The cable is 1.2 metres (3.9 feet) long.

ECM-88BPT Black-coloured model supplied without a connector (pigtail), enabling users to choose the connectors according to their transmitter.

**ECM-88BFPT** Beige-coloured model supplied without a connector (pigtail).



# ECM-88 Series

ECM-88B/ECM-88BC/ECM-88BPT/ECM-88FPT

**ELECTRET CONDENSER MICROPHONE** 

# OPTIONAL ACCESSORIES

### DC-78 DC Power Supply Unit\*

- Designed for use with the ECM-88B/88BC and other Sony lavalier microphones equipped with an SMC9-4P connector.
- Two-way powering: can be powered using either an AA-size (LR6) alkaline battery or an external DC (12 to 48 V) power supply.
- Supplied with an SMC9-4S input connector and an XLR 3-pin output connector.
- Mass: approximately 130 g (4.6 oz) including battery.
- Dimensions: 20 cm diameter x 144 cm (13/16-inch diameter x 5 3/4 inches)
- Battery life: approximately 6,000 hours
- \* The ECM-88B is supplied with the DC-78

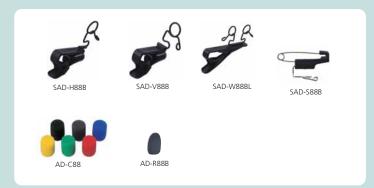
### **AD-KIT88B Microphone Accessory Kit**

 Includes four types of microphone clips (single/horizontal, single/vertical, double/horizontal and safety-pin type tie clip) and six urethane windscreens (red, yellow, green, blue, grey and black).

Each item contained in the AD-KIT88B kit is also available separately.

SAD-H88B Single/Horizontal-type tie clip (6) SAD-V88B Single/Vertical-type tie clip (6) SAD-W88BL Double/Horizontal-type tie clip (6) SAD-S88B Safety-pin type microphone holder (6) AD-C88 Colour urethane windscreen (2 sets) AD-R88B Black urethane windscreen (12)







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# **SPECIFICATIONS**

Capsule type Electret condenser   Directivity
Frequency response  Sensitivity (at 1 kHz) Output impedance (at 1 kHz) Dynamic range Signal-to-noise ratio Inherent noise Wind noise Wind noise Wind noise external magnetic field Maximum input sound  20 Hz to 20 kHz 100 Ω ±208 (when used in combination with the DC-78) -38 dB¹ (12.6 mV) 100 Ω ±20% (when used in combination with the DC-78) 2.5 kΩ ±30%  By dB or more (8 dB or more (A-weighted, 1 kHz, 1Pa.)  Fractional Maximum input sound  125 dB SPL** or less (when using the supplied windscreen)  Fractional Maximum input sound  125 dB SPL**  125 dB SPL**  126 dB SPL**  127 dB SPL**  128 dB SPL**  129 dB SPL**  120 dB SPL**  120 dB SPL**  120 dB SPL**  121 dB SPL**
Sensitivity (at 1 kHz) -52 dB* $\pm 2$ dB (when used in combination with the DC-78) -38 dB¹ (12.6 mV) 100 $\Omega$ $\pm 20\%$ (when used in combination (at 1 kHz) with the DC-78) 2.5 k $\Omega$ $\pm 30\%$ Dynamic range 99 dB or more Signal-to-noise ratio Inherent noise 26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.) 45 dB SPL** or less (when using the supplied windscreen) 1nduction noise from external magnetic field (when used in combination with the DC-78) Maximum input sound 125 dB SPL**
Output impedance (at 1 kHz) 100 $\Omega$ ±20% (when used in combination with the DC-78) 2.5 k $\Omega$ ±30% 2.5 k $\Omega$ ±30% 99 dB or more Signal-to-noise ratio 68 dB or more (A-weighted, 1 kHz, 1Pa.) 101 nherent noise 26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.) 102 dB SPL** or less (when using the supplied windscreen) 103 dB SPL** or less (when using the supplied windscreen) 104 dS dB SPL** or less (when used in combination with the DC-78) 105 dB SPL**
Dynamic range 99 dB or more  Signal-to-noise ratio 68 dB or more (A-weighted, 1 kHz, 1Pa.)  Inherent noise 26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.)  Wind noise 45 dB SPL** or less (when using the supplied windscreen)  Induction noise from external magnetic field (when used in combination with the DC-78)  Maximum input sound 125 dB SPL**
Signal-to-noise ratio Inherent noise Wind noise Induction noise from external magnetic field Maximum input sound  68 dB or more (A-weighted, 1 kHz, 1Pa.)  26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.)  45 dB SPL** or less (when using the supplied windscreen)  5 dB SPL** or less (when using the supplied windscreen)  125 dB SPL**  125 dB SPL**
Inherent noise 26 dB SPL** or less (A-weighted, 1 kHz, 1Pa.) Wind noise 45 dB SPL** or less (when using the supplied windscreen) Induction noise from external magnetic field (when used in combination with the DC-78) Maximum input sound 125 dB SPL**
Wind noise  45 dB SPL** or less (when using the supplied windscreen) Induction noise from external magnetic field Maximum input sound  45 dB SPL** or less (when using the supplied windscreen)  5 dB SPL** or less (when used in combination with the DC-78)  125 dB SPL**
Induction noise from external magnetic field (when used in combination with the DC-78)  Maximum input sound 125 dB SPL**
external magnetic field (when used in combination with the DC-78)  Maximum input sound 125 dB SPL**
Maximum input sound 125 dB SPL**
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pressure level
Cable length ECM-88B/88BPT/88FPT: 2.5 m (8.2 feet)
ECM-88BC: 1.2 m (3.9 feet)
Output connector ECM-88B: XLR-3-12C (when used with the supplied DC-78)
ECM-88BC: Sony SMC9-4P
ECM-88BPT/88FPT: no connector (pigtail)
Power requirements DC 1.1 to 10.0 V
Dimensions 3.5 x 3.5 x 16.8 (h) mm (5/2 x 5/2 x 11/16 inch)
(microphone capsule) Clip attachment area: 3.9 mm (5/32 inch) diameter
Mass ECM-88B: 32 g (1.1 oz) (including microphone cable)
162 g (5.7 oz) with the supplied DC-78
ECM-88BC: 22 g (0.7 oz) (including microphone cable)
ECM-88BPT/88FPT: 20 g (including microphone cable)
Supplied accessories   ECM-88B S.H. tie clip (1), S.V. tie clip (1), D.H. tie clip (1),
S: Single type urethane windscreen (1), DC-78 DC power supply unit (1),
D: Double type type microphone case (1), ferrite clamp (1),
H: Horizontal operating instructions (1)
V: Vertical type ECM-88BC/88BPT S.H. tie clip (1), S.V. tie clip (1),
urethane windscreen (1), ferrite clamp (1), operating
instructions (1)
ECM-88FPT Ferrite clamp (1), operating instructions (1)

- \* 0 dB = 1V/Pa., at 1 kHz
- \*\* 0 dB SPL =  $20\mu$  Pa.

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- Sony Prime Support Services: Fully integrated and customised support for products and systems throughout their operational life, combining proactive and reactive technical services.

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