

SONY®

# Sony Lavalier Microphones



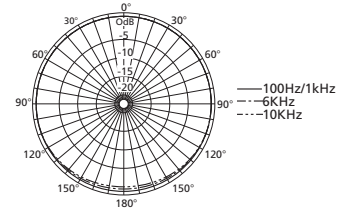
ECM-88 Series  
ECM-77 Series  
ECM-66 Series  
ECM-55 Series  
ECM-44 Series  
ECM-166 Series  
ECM-310 Series

# ECM-88 series

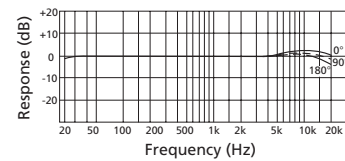


## FEATURES

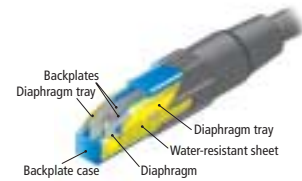
- Ultra-miniature, omni-directional electret condenser microphone.
- Designed for quality-critical applications in broadcasting, theater, and field productions.
- Flat-and-wide frequency response provides natural sound reproduction to enable the addition of sound effects during the mixing process.
- Water-resistant design maintains sound clarity in almost any application or environment.
- Dual-diaphragm mechanism contributes to the high sensitivity, wide dynamic range, and low-noise characteristics.
- Low cable-noise characteristics.
- Miniature design makes it easy to conceal in a stage costume.
- Four models available:
  - ECM-88B:** Black-colored model supplied with a DC-78 DC Power Supply Unit. Two-way powering possible - internal AA-size (LR6) alkaline-battery operation or external DC (12 to 48 V) operation.
  - ECM-88BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.
  - ECM-88BPT:** Black-colored model supplied without a connector (pigtail), enabling users to choose connectors according to their transmitter.
  - ECM-88FPT:** Beige-colored model supplied without a connector (pigtail).



Directivity Characteristics



Frequency Response Characteristics



Dual-Diaphragm Mechanism

## SUPPLIED ACCESSORIES



Single/Horizontal-type tie clip (x 1)

*ECM-88FPT is not supplied with mic accessories.*



Single/Vertical-type tie clip (x 1)



Double/Horizontal-type tie clip (x 1)

*\*Supplied with ECM-88B only.*



Urethane windscreen (x 1)



Carrying case (x 1)

*\*Supplied with ECM-88B only.*

## OPTIONAL ACCESSORIES



**AD-KIT88B**

Microphone accessory kit



**DC-78**

DC power supply unit (SMC9-4S to XLR 3-pin)  
*\*Supplied with ECM-88B.*



**SAD-H88B**

Single/Horizontal-type tie clip (x 6)



**SAD-V88B**

Single/Vertical-type tie clip (x 6)



**SAD-W88BL**

Double/Horizontal-type tie clip (x 6)



**SAD-S88B**

Safety-pin type microphone holder (x 6)



**AD-C88**

Color windscreens (x 2 sets)



**AD-R88B**

Urethane windscreen (x 12)

## ECM-77 series



### FEATURES

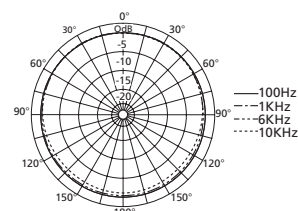
- Miniature, omni-directional electret condenser microphone.
- Worldwide-acclaim for performance and reliability in studio, ENG, and EFP applications.
- Wide frequency response, high sensitivity, and low-noise characteristics.
- Miniature design makes it easy to conceal in a costume.
- Wide model variations to suit specific user requirements. Four models are available:

**ECM-77B:** Black-colored model supplied with an in-line battery unit. Two-way powering possible – internal AA-size (LR6) alkaline-battery operation or external DC (12 to 48 V) operation.

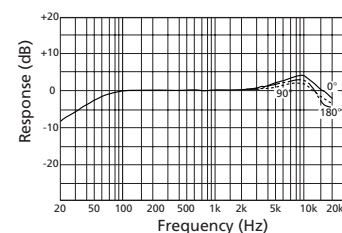
**ECM-77BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.

**ECM-77BMP:** Black-colored model supplied with a 3-pole mini jack with stable lock mechanism, for use with the UWP Series bodypack transmitter.

**ECM-77BPT:** Black-colored model supplied without a connector (pigtail).



Directivity Characteristics



Frequency Response Characteristics

### SUPPLIED ACCESSORIES



Single/Horizontal-type tie clip (x 1)



Single/Vertical-type tie clip (x 1)  
*\*Supplied with ECM-77B only.*



Double/Horizontal-type tie clip (x 1)  
*\*Supplied with ECM-77B only.*



Metal-mesh windscreen (x 1)



Carrying case (x 1)  
*\*Supplied with ECM-77B only.*

### OPTIONAL ACCESSORIES



**AD-KIT77**  
Microphone accessory kit



**DC-78**  
DC power supply unit (SMC9-4S to XLR 3-pin)



**SAD-H77B**  
Single/Horizontal-type tie clip (x 10)



**SAD-V77B**  
Single/Vertical-type tie clip (x 10)



**SAD-W77B**  
Double/Horizontal-type tie clip (x 6)



**SAD-S77**  
Safety-pin type microphone holder (x 6)



**AD-C77B**  
Urethane windscreen (x 12)



**AD-C77**  
Color windscreens (x 2 sets)



**AD-R77B**  
Metal-mesh windscreen (x 6)

## ECM-66 series

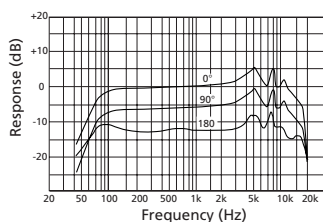


### FEATURES

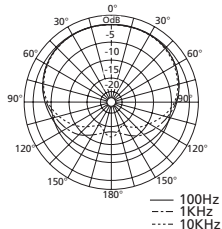
- Uni-directional, electret condenser microphone.
- Resistant to howling by rejecting indirect sound.
- Designed for a wide range of applications from voice to instrumental recording.
- Wide dynamic range (101 dB), and high maximum input-sound-pressure level (130 dB SPL).
- Low inherent-noise characteristics.
- Two models available:

**ECM-66B:** Black-colored model supplied with an in-line battery unit. Two-way powering possible – internal AA-size (LR6) alkaline-battery operation or external DC (24 to 48 V) operation.

**ECM-66BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.



Frequency Response Characteristics



Directivity Characteristics

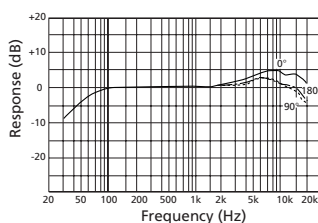
## ECM-55 series



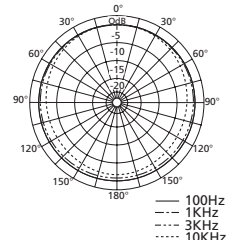
### FEATURES

- Omni-directional, electret condenser microphone.
- Successor to the ECM-50 microphone, the world's first electret condenser lavalier microphone.
- Large microphone head of 10.6 mm (7/16 inch) diameter offers rich sound reproduction.
- High signal-to-noise ratio and low inherent-noise characteristics.
- One model available:

**ECM-55B:** Black-colored model supplied with an in-line battery unit. Two-way powering possible – internal AA-size (LR6) alkaline-battery operation or external DC (12 to 48 V) operation.



Frequency Response Characteristics



Directivity Characteristics

### SUPPLIED ACCESSORIES



Single/Horizontal-type tie clip (x 1)



Single/Vertical-type tie clip (x 1)

*\*Supplied with ECM-66B only.*



Urethane windscreen (x 1)



Carrying case (x 1)

*\*Supplied with ECM-66B only.*

### SUPPLIED ACCESSORIES



Single/Horizontal-type tie clip (x 1)



Single/Vertical-type tie clip (x 1)



Double/Horizontal-type tie clip (x 1)



Metal-mesh windscreen (x 1)



Carrying case (x 1)

### OPTIONAL ACCESSORIES



**SAD-H55B**  
Single/Horizontal-type tie clip (x 10)



**AD-R66B**  
Urethane windscreen (x 12)

### OPTIONAL ACCESSORIES



**SAD-H55B**  
Single/Horizontal-type tie clip (x 10)



**AD-R55B**  
Metal-mesh windscreen (x 6)

## ECM-44 series



### FEATURES

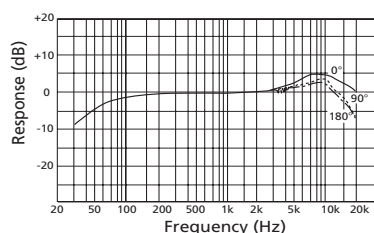
- Omni-directional, electret condenser microphone.
- Cost-effective miniature microphone provides superb sound quality.
- Wide model variations to suit specific user requirements. Four models are available:

**ECM-44B:** Black-colored model supplied with an in-line AA-size (LR6) alkaline-battery unit.

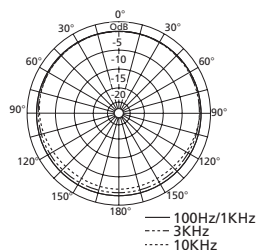
**ECM-44BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.

**ECM-44BMP:** Black-colored model supplied with a 3-pole mini jack with stable lock mechanism, for use with the UWP Series bodypack transmitter.

**ECM-44BPT:** Black-colored model supplied without a connector (pigtail).



Frequency Response Characteristics



Directivity Characteristics

### SUPPLIED ACCESSORIES



Single/Horizontal-type tie clip (x 1)



Urethane Windscreen (x 1)



Carrying case (x 1)  
*\*Supplied with ECM-44B only.*

### OPTIONAL ACCESSORIES



**DC-78**  
DC power supply unit  
(SMC9-4S to XLR 3-pin)



**SAD-H44B**  
Single/Horizontal-type tie clip (x 10)



**AD-R44B**  
Urethane windscreen (x 12)

## ECM-166 series



### FEATURES

- Uni-directional, electret condenser microphone.
- Resistant to howling by rejecting indirect sound.
- Reasonably priced lavalier microphone ideal for institutional use and sound-contracting applications such as speeches, lectures, and conferences.
- Two models available:
  - ECM-166BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.
  - ECM-166BMP:** Black-colored model supplied with a 3-pole mini jack with stable lock mechanism, for use with the UWP Series bodypack transmitter.

## ECM-310 series



### FEATURES

- Lightweight, headset-style microphone.
- Designed for multimedia presentation applications.
- Wide-cardioid, electret condenser microphone provides crisp and clear sound, while isolating undesired sound from surrounding ambience.
- Adjustable hinge and gooseneck for optimum voice pickup.
- Two types available:
  - ECM-310BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.
  - ECM-310BMP:** Black-colored model supplied with a 3-pole mini jack with stable lock mechanism, for use with the UWP Series bodypack transmitter.

### SUPPLIED ACCESSORIES



Single/Horizontal-type  
tie clip (x 1)



Urethane windscreen (x 1)

# SPECIFICATIONS

		ECM-88 Series	ECM-77 Series	ECM-66 Series	ECM-55 Series
<b>Model Variations</b>					
XLR type (Supplied with a battery unit and XLR-3-12C type connector.)		ECM-88B with supplied DC-78	ECM-77B	ECM-66B	ECM-55B
Pigtail type (Supplied without a connector <pigtail>.)		ECM-88BPT ECM-88FPT	ECM-77BPT	—	—
SMC type (Supplied with a Sony 4-pin <SMC9-4P> connector.)		ECM-88BC	ECM-77BC	ECM-66BC	—
BMP type (Supplied with a 3.5 mm diameter, 3-pole mini plug.)		—	ECM-77BMP	—	—
<b>Capsule type</b>		Electret Condenser			
<b>Frequency response</b>		20 Hz to 20 kHz	40 Hz to 20 kHz	70 Hz to 14 kHz	30 Hz to 18 kHz
<b>Directivity</b>		Omni-directional		Uni-directional	Omni-directional
<b>Sensitivity</b> (0 dB=1 V/Pa, at 1 kHz)	XLR type	-52.0 dB $\pm$ 2 dB *1	-52.0 dB $\pm$ 2 dB	-50.0 dB $\pm$ 2 dB	-52.0 dB $\pm$ 2 dB
	Pigtail/SMC/BMP type	-39.0 dB (11.2 mV)		-36.5 dB (15 mV)	—
<b>Output impedance at 1 kHz</b>	XLR type	100 $\Omega$ $\pm$ 20% (balanced) *1	150 $\Omega$ $\pm$ 20% (balanced)	100 $\Omega$ $\pm$ 20% (balanced)	
	Pigtail/SMC/BMP type	2.5 k $\Omega$ $\pm$ 30% (unbalanced)			—
<b>Dynamic range</b>		99 dB or more	90 dB or more	101 dB or more	98 dB or more
<b>Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)</b>		68 dB or more	64 dB or more	65 dB or more	66 dB or more
<b>Inherent noise (0 dB SPL = 2E-5 Pa.)</b>		26 dB SPL or less	30 dB SPL or less	29 dB SPL or less	28 dB SPL or less
<b>Wind noise (with windscreen, at 2 m/s) (0 dB SPL = 2E-5 Pa.)</b>		45 dB SPL or less	40 dB SPL or less	50 dB SPL or less	40 dB SPL or less
<b>Induction noise from external magnetic field (dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa.)</b>		5 dB SPL or less			
<b>Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)</b>		125 dB SPL	120 dB SPL	130 dB SPL	126 dB SPL
<b>Power supply</b> (XLR type only)	Battery	IECR6 or LR6 *1	IECR6 or LR6		
	Battery life (LR6)	Approx. 6000 h *1	Approx. 6000 h	Approx. 400 h	Approx. 6000 h
	External power	DC 12 to 48 V *1	DC 12 to 48 V	DC 24 to 48 V	DC 12 to 48 V
<b>Power requirements</b>	XLR type	DC 1.5 V *1	DC 1.5 V		
	Pigtail/SMC/BMP type	DC 1.1 to 10.0 V			
<b>Current drain</b>	XLR type (internal battery)	0.3 mA or less *1	0.3 mA or less	3.5 mA or less	0.3 mA or less
	XLR type (external power)	2 mA or less *1	2 mA or less		
	Pigtail/SMC/BMP type	0.4 mA or less			
<b>Cable length</b>	XLR type	2.5 m (8.2 feet)	3.0 m (9.8 feet)		
	Pigtail type	2.5 m (8.2 feet)	3.0 m (9.8 feet)	—	
	SMC/BMP type	1.2 m (3.9 feet)	—		
<b>Dimensions</b>	Microphone head	3.5 x 3.5 x 16.8 mm ( <sup>5</sup> / <sub>32</sub> x <sup>5</sup> / <sub>32</sub> x <sup>11</sup> / <sub>16</sub> inch) Clip attachment area: 3.9 mm ( <sup>5</sup> / <sub>32</sub> inch) diameter	5.6 diameter x 12.5 mm ( <sup>1</sup> / <sub>4</sub> diameter x <sup>1</sup> / <sub>2</sub> inch)	10.6 diameter x 24.2 mm ( <sup>7</sup> / <sub>16</sub> diameter x <sup>31</sup> / <sub>32</sub> inch)	10.6 diameter x 21 mm ( <sup>7</sup> / <sub>16</sub> diameter x <sup>27</sup> / <sub>32</sub> inch)
	Power unit (XLR type only)	20.0 diameter x 144 mm ( <sup>13</sup> / <sub>16</sub> diameter x 5 <sup>3</sup> / <sub>4</sub> inches)	20.0 diameter x 133 mm ( <sup>13</sup> / <sub>16</sub> diameter x 5 <sup>1</sup> / <sub>4</sub> inches)	20.0 diameter x 163 mm ( <sup>13</sup> / <sub>16</sub> diameter x 6 <sup>2</sup> / <sub>1</sub> inches)	20.0 diameter x 133 mm ( <sup>13</sup> / <sub>16</sub> diameter x 5 <sup>1</sup> / <sub>4</sub> inches)
<b>Mass</b>	Microphone head only	0.6 g (0.02 oz)	1.5 g (0.05 oz)	7 g (0.25 oz)	6.5 g (0.23 oz)
	Total XLR type	162 g (5.7 oz)	122 g (4.3 oz)	167 g (5.9 oz)	127 g (4.5 oz)
	Pigtail type	20 g (0.7 oz)	26 g (0.9 oz)	—	—
	SMC type	22 g (0.7 oz)	23 g (0.8 oz)	30 g (1.1 oz)	—
	BMP type	—	17 g (0.6 oz)	—	—
<b>Supplied accessories</b>		S.H. tie clip (x 1) *2 S.V. tie clip (x 1) *2 D.H. tie clip (x 1) *3 U. windscreen (x 1) *2 Microphone case (x 1) *3 Operating instructions (x 1) Ferrite clamp (x 1)	S.H. tie clip (x 1) S.V. tie clip (x 1) *4 D.H. tie clip (x 1) *4 M. windscreen (x 1) Microphone case (x 1) *4 Operating instructions (x 1)	S.H. tie clip (x 1) S.V. tie clip (x 1) *5 U. windscreen (x 1) Microphone case (x 1) *5 Operating instructions (x 1)	S.H. tie clip (x 1) S.V. tie clip (x 1) D.H. tie clip (x 1) M. windscreen (x 1) Microphone case (x 1) Operating instructions (x 1)

\*1 ECM-88B used with the supplied DC-78 battery unit.

\*2 ECM-88FPT is not supplied with mic accessories.

\*3 D.H. tie clip and microphone case are supplied with ECM-88B only.

\*4 S.V. tie clip, D.H. tie clip, and microphone case are supplied with ECM-77B only.

\*5 S.V. tie clip and microphone case are supplied with ECM-66B only.

		ECM-44 Series	ECM-166 Series	ECM-310 Series
<b>Model Variations</b>				
	XLR type (Supplied with a battery unit and XLR-3-12C type connector.)	ECM-44B	—	—
	Pigtail type (Supplied without a connector <pigtail>).	ECM-44BPT	—	—
	SMC type (Supplied with a Sony 4-pin <SMC9-4P> connector.)	ECM-44BC	ECM-166BC	ECM-310BC
	BMP type (Supplied with a 3.5 mm diameter, 3-pole mini plug.)	ECM-44BMP	ECM-166BMP	ECM-310BMP
<b>Capsule type</b>		Electret Condenser		
<b>Frequency response</b>		40 Hz to 15 kHz	100 Hz to 10 kHz	70 Hz to 12 kHz
<b>Directivity</b>		Omni-directional	Uni-directional	Wide-cardioid
<b>Sensitivity</b> (0 dB=1 V/Pa, at 1 kHz)	XLR type	-53.0 dB $\pm$ 3 dB	—	—
	Pigtail/SMC/BMP type	-40.0 dB (10 mV)	-45 dB (5.6 mV)	-44 dB (6.3 mV) $\pm$ 3db
<b>Output impedance at 1 kHz</b>	XLR type	250 $\Omega$ $\pm$ 20% (balanced)	—	—
	Pigtail/SMC/BMP type	2.5 k $\Omega$ $\pm$ 30% (unbalanced)	—	800 $\Omega$ $\pm$ 30% (unbalanced)
<b>Dynamic range</b>		90 dB or more	96 dB or more	93 dB or more
<b>Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)</b>		62 dB or more	60 dB or more	—
<b>Inherent noise (0 dB SPL = 2E-5 Pa.)</b>		32 dB SPL or less	34 dB SPL or less	—
<b>Wind noise (with windscreen, at 2 m/s) (0 dB SPL = 2E-5 Pa.)</b>		40 dB SPL or less	—	63 dB SPL or less
<b>Induction noise from external magnetic field (dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa.)</b>		5 dB SPL or less	—	—
<b>Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)</b>		122 dB SPL	130 dB SPL	127 dB SPL
<b>Power supply</b> (XLR type only)	Battery	IECR6 or LR6	—	—
	Battery life (LR6)	Approx. 6000 h	—	—
	External power	—	—	—
<b>Power requirements</b>	XLR type	DC 1.5 V	—	—
	Pigtail/SMC/BMP type	DC 1.1 to 10.0V	—	—
<b>Current drain</b>	XLR type (internal battery)	0.3 mA or less	—	—
	XLR type (external power)	—	—	—
	Pigtail/SMC/BMP type	0.4 mA or less	—	0.32 mA or less
<b>Cable length</b>	XLR type	3.0 m (9.8 feet)	—	—
	Pigtail type	3.0 m (9.8 feet)	—	—
	SMC/BMP type	1.2 m (3.9 feet)	—	—
<b>Dimensions</b>	Microphone head	8.5 diameter x 14.5 mm ( <sup>11</sup> / <sub>32</sub> diameter x <sup>19</sup> / <sub>32</sub> inch)	12.5 diameter x 23.5 mm ( <sup>1</sup> / <sub>2</sub> diameter X <sup>15</sup> / <sub>16</sub> inch)	10.0 diameter x 152 mm ( <sup>13</sup> / <sub>32</sub> diameter x <sup>5</sup> / <sub>8</sub> inch)
	Power unit (XLR type only)	20.0 diameter x 126 mm ( <sup>13</sup> / <sub>16</sub> diameter x 5 inches)	—	—
<b>Mass</b>	Microphone head only	2 g (0.07 oz)	3.5 g (0.12 oz)	—
	Total XLR type	121 g (4.3 oz)	—	—
	Pigtail type	29 g (1.0 oz)	—	—
	SMC type	24 g (0.8 oz)	25 g (1 oz)	56 g (2.0 oz)
	BMP type	18 g (0.6 oz)	19 g (0.7 oz)	50 g (1.8 oz)
<b>Supplied accessories</b>		S.H. tie clip (x 1) U. windscreen (x 1) Microphone case (x 1) * Operating instructions (x 1)	U. windscreen (x 1) Tie clip (x 1) Operating instructions (x 1)	U. windscreen (x 1) Operating instructions (x 1)

\* The microphone case is supplied with only ECM-44B.

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