### SONY

## Sony Lavalier Microphones



ECM-88 Series

ECM-77 Series

ECM-66 Series

ECM-55 Series

ECM-44 Series

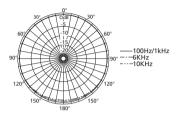
ECM-166 Series

ECM-310 Series

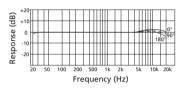


- Ultra-miniature, omni-directional electret condenser microphone.
- Designed for quality-critical applications in broadcasting. theater, and field productions.
- Flat-and-wide frequency response provides natural sound reproduction to enable the addition of sound effects during the mixing process.
- 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.

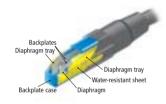
- Four models available:
  - ECM-88B: Black-colored model supplied with a DC-78 DC Power Supply Unit. Two-way powering possible - internal AA-size (LR6) alkaline-battery operation or external DC (12 to 48 V) operation.
  - ECM-88BC: Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), 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.



AD-KIT88B Microphone accessory kit



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



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)



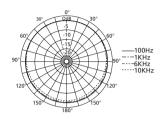
- Miniature, omni-directional electret condenser microphone.
- Worldwide-acclaim for performance and reliability in studio, ENG, and EFP applications.
- Wide frequency response, high sensitivity, and low-noise characteristics.
- Miniature design makes it easy to conceal in a costume.
- Wide model variations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

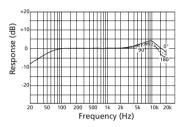
ECM-77BC: Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.
ECM-77BMP: Black-colored

**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.



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)



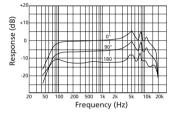
AD-R77B Metal-mesh windscreen (x 6)



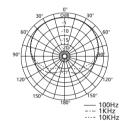
- Uni-directional, electret condenser microphone.
- Resistant to howling by rejecting indirect sound.
- Designed for a wide range of applications from voice to instrumental recording.
- Wide dynamic range (101 dB), and high maximum input-sound-pressure level (130 dB SPL).
- Low inherent-noise characteristics.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



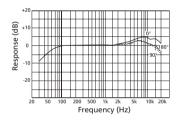
Directivity Characteristics

# 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

**SUPPLIED ACCESSORIES** 



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.



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)



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



AD-R55B Metal-mesh windscreen (x 6)



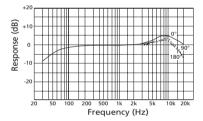
- Omni-directional, electret condenser microphone.
- Cost-effective miniature microphone provides superb sound quality.
- Wide model variations to suit specific user requirements. Four models are available:

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

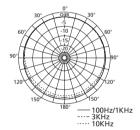
**ECM-44BC:** Black-colored model supplied with a Sony 4-pin connector (SMC9-4P), for use with the WRT-8B/822A/822B Sony bodypack transmitter.

**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.



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**

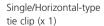
- Lightweight, headset-style microphone.
- Designed for multimedia presentation applications.
- Wide-cardioid, electret condenser microphone provides crisp and clear sound, while isolating undesired sound from surrounding ambience.
- Adjustable hinge and gooseneck for optimum voice pickup.
- Two types 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**







Urethane windscreen (x 1)

#### **SPECIFICATIONS**

		ECM-88 Series	ECM-77 Series	ECM-66 Series	ECM-55 Series	
Model Variations						
XLR type		ECM-88B with supplied DC-78	ECM-77B	ECM-66B	ECM-55B	
Pigtail type (Supplied without a connector <piqtail>.)</piqtail>		ECM-88BPT ECM-88FPT	ECM-77BPT	_	_	
SMC type (Supplied with a Sony 4-pin <smc9-4p> connector.)</smc9-4p>		ECM-88BC	ECM-77BC	ECM-66BC	_	
BMP type (Supplied with a 3.5 mm diameter, 3-pole mini plug.)		_	ECM-77BMP	_	_	
Capsule type		Electret Condenser				
Frequency response		20 Hz to 20 kHz	40 Hz to 20 kHz	70 Hz to 14 kHz	30 Hz to 18 kHz	
Directivity		Omni-directional		Uni-directional	Omni-directional	
Sensitivity	XLR type	-52.0 dB ±2 dB *1	-52.0 dB ±2 dB	-50.0 dB ±2 dB	-52.0 dB ±2 dB	
(0 dB=1 V/Pa, at 1 kHz)	Pigtail/SMC/BMP type	-39.0 dB (11.2 mV)		-36.5 dB (15 mV)	_	
Output impedance at 1 kHz	XLR type	100 Ω ±20% (balanced) *1	150 $\Omega$ ±20% (balanced)	100 $\Omega$ ±20% (balanced)		
	Pigtail/SMC/BMP type	$2.5 \text{ k}\Omega \pm 30\% \text{ (unbalanced)}$	,	(	_	
Dynamic range		99 dB or more	90 dB or more	101 dB or more	98 dB or more	
Signal-to-noise ratio (A-weigh	ited 1 kHz 1 Pa )	68 dB or more	64 dB or more	65 dB or more	66 dB or more	
Inherent noise (0 dB SPL = 2E-5 Pa.)		26 dB SPL or less	30 dB SPL or less	29 dB SPL or less	28 dB SPL or less	
Wind noise (with windscreen,		45 dB SPL or less	40 dB SPL or less	50 dB SPL or less	40 dB SPL or less	
(0 dB SPL = 2E-5 Pa.)	at 2 11//3)	45 db 51 L 01 1633	40 db 31 L 01 1633	JO UD JI E OI 1633	40 db 31 L 01 1633	
Induction noise from external	magnetic field	5 dB SPL or less				
(dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa	_	2 db 3LF 01 less				
Maximum input sound pressure		125 dB SPL	120 dB SPL	130 dB SPL	126 dB SPL	
	<u> </u>	IECR6 or LR6 *1	IECR6 or LR6	130 0B SPL	120 UB SPL	
Power supply (XLR type only)	Battery Part (LDC)			A	A	
	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	
Power requirements	XLR type	DC 1.5 V *1 DC 1.5 V				
Current drain	Pigtail/SMC/BMP type	DC 1.1 to 10.0 V				
	XLR type (internal battery)	0.3 mA or less *1	0.3 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				
Cable length	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)	_			
Dimensions	Microphone head	3.5 x 3.5 x 16.8 mm	5.6 diameter x 12.5 mm	10.6 diameter x 24.2 mm	10.6 diameter x 21 mm	
		(5/32 x 5/32 x 11/16 inch)	(1/4 diameter x 1/2 inch)	(7/16 diameter x 31/32 inch)	(7/16 diameter x 27/32 inch)	
		Clip attachment area:				
		3.9 mm (5/32 inch) diameter				
	Power unit (XLR type only)	20.0 diameter x 144 mm	20.0 diameter x 133 mm	20.0 diameter x 163 mm	20.0 diameter x 133 mm	
		(13/16 diameter x 5 3/4 inches)	(13/16 diameter x 5 1/4 inches)	(13/16 diameter x 6 2/1 inches)	(13/16 diameter x 5 1/4 inches)	
Mass	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)	—		
Supplied accessories	5 type	S.H. tie clip (x 1) *2	S.H. tie clip (x 1)	S.H. tie clip (x 1)	S.H. tie clip (x 1)	
S: Single type,		S.V. tie clip (x 1) *2	S.V. tie clip (x 1) *4	S.V. tie clip (x 1) *5	S.V. tie clip (x 1)	
D: Double type,		D.H. tie clip (x 1) *3	D.H. tie clip (x 1) *4	U. windscreen (x 1)	D.H. tie clip (x 1)	
V: Vertical type,		U. windscreen (x 1) *2	M. windscreen (x 1)	Microphone case (x 1) *5	M. windscreen (x 1)	
v. vertical type, H: Horizontal type,		Microphone case (x 1) *3	Microphone case (x 1) *4	Operating instructions (x 1)	Microphone case (x 1)	
**		Operating instructions (x 1)		operating instructions (X 1)		
M: Metal-mesh type, U: Urethane type		Ferrite clamp (x 1)	Operating instructions (x 1)		Operating instructions (x 1	

 $<sup>^{*1}</sup>$  ECM-88B used with the supplied DC-78 battery unit.

<sup>\*2</sup> ECM-88FPT is not supplied with mic accessories.

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

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

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

		ECM-44 Series	ECM-166 Series	ECM-310 Series	
Model Variations					
XLR type (Supplied with a battery unit and XLR-3-12C type connector.)		ECM-44B	_	_	
Pigtail type (Supplied without a connector <pigtail>).</pigtail>		ECM-44BPT	_	_	
SMC type (Supplied with a Sony 4-pin <smc9-4p> connector.)</smc9-4p>		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	
Capsule type		Electret Condenser			
Frequency response		40 Hz to 15 kHz	100 Hz to 10 kHz	70 Hz to 12 kHz	
Directivity		Omni-directional	Uni-directional	Wide-cardioid	
Sensitivity	XLR type	-53.0 dB ±3 dB	_		
(0 dB=1 V/Pa, at 1 kHz)	Pigtail/SMC/BMP type	-40.0 dB (10 mV)	-45 dB (5.6 mV)	-44 dB (6.3 mV)±3db	
Output impedance at 1 kHz	XLR type	250 $\Omega$ ±20% (balanced)	_		
	Pigtail/SMC/BMP type	2.5 k $\Omega$ ±30% (unbalanced)		800 $\Omega$ ±30% (unbalanced)	
Dynamic range	J 71	90 dB or more	96 dB or more	93 dB or more	
Signal-to-noise ratio (A-weighted, 1 kHz, 1 Pa.)		62 dB or more	60 dB or more		
Inherent noise (0 dB SPL = 2E-5 Pa.)		32 dB SPL or less	34 dB SPL or less		
Wind noise (with windscreen, at 2 m/s)		40 dB SPL or less	_	63 dB SPL or less	
(0 dB SPL = 2E-5 Pa.)		10 db 31 E 01 1633		05 QD 51 E 01 1035	
Induction noise from external magnetic field		5 dB SPL or less	_		
(dB SPL/1E-7 T, 0 dB SPL = 2E-5 Pa		J UD JI E OI 1633			
Maximum input sound pressure level (0 dB SPL = 2E-5 Pa.)		122 dB SPL	130 dB SPL	127 dB SPL	
Power supply		IECR6 or LR6	130 UD 3FL	127 UD SFL	
			_		
(XLR type only)	Battery life (LR6)	Approx. 6000 h	_		
External power		— DC 1 F V	T. Control of the con		
Power requirements XLR type		DC 1.5 V	_		
	Pigtail/SMC/BMP type	DC 1.1 to 10.0V			
Current drain	XLR type (internal battery)	0.3 mA or less	_		
	XLR type (external power)			T	
	Pigtail/SMC/BMP type	0.4 mA or less		0.32 mA or less	
Cable length	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)			
Dimensions	Microphone head	8.5 diameter x 14.5 mm	12.5 diameter x 23.5 mm	10.0 diameter x 152 mm	
		(11/32 diameter x 19/32 inch)	(1/2 diameter X 15/16 inch)	(13/32 diameter x 5/8 inch)	
	Power unit (XLR type only)	20.0 diameter x 126 mm	_		
		(13/16 diameter x 5 inches)			
Mass	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)	
Supplied accessories	5 type	S.H. tie clip (x 1)	U. windscreen (x 1)	U. windscreen (x 1)	
S: Single type,		U. windscreen (x 1)	Tie clip (x 1)	Operating instructions (x 1)	
H: Horizontal type,		Microphone case (x 1) *	Operating instructions (x 1)	operating instructions (A 1)	
U: Urethane type		Operating instructions (x 1)	operating instructions (X 1)		
o. oremane type		Operating instructions (X 1)			

<sup>\*</sup> The microphone case is supplied with only ECM-44B.

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