

## SECTION 9 AUDIO EQUIPMENT

### 1. DAT Recorders

1-1 DAT Recorders	
PCM-7040 .....	294
PCM-R700/R500 .....	295
PCM-R300 .....	296
1-2 DAT Recorders accessories .....	297

### 2. CD Players

CDP-3100/CDS-3100 .....	298
CDP-D500 .....	299

### 3. Wired Microphones

3-1 Wired Microphones	
ECM-23F3PR .....	300
ECM-999PR .....	300
ECM-672 .....	300
ECM-670 .....	300
ECM-MS5 .....	301
ECM-510 .....	301
ECM-530 .....	301
ECM-531 .....	301
ECM-44 Series .....	304
ECM-55 Series .....	304
ECM-66 Series .....	305
ECM-77 Series .....	305
ECM-121BMP .....	306
ECM-122BMP .....	306
ECM-166 Series .....	306
ECM-310 Series .....	307
ECM-350BC .....	307
F-115 .....	309
F-710 .....	309
F-720 .....	309
F-730 .....	309
F-740 .....	309
F-780 .....	310
3-2 Wired Microphones accessories .....	311

### 4. UHF Synthesized Wireless Microphone System

WRT-830A .....	314
WRT-810A .....	314
WRT-807A .....	314
WRT-822A .....	314
WRT-805A .....	315
WRT-808A .....	315
ECM-77BC .....	315
ECM-310BC .....	315
ECM-350BC .....	316
ECM-44BMP .....	316
ECM-77BMP .....	316
ECM-121BMP .....	316
ECM-122BMP .....	317
ECM-166BMP .....	317
ECM-310BMP .....	317
WRR-802A .....	319
MB-806A .....	319
WRU-806A .....	319
WRR-805A .....	320
WRR-810A .....	320
WRR-855A .....	320
BTA-801 .....	321
CA-WR855 .....	321
DC-WL800 .....	321
AN-820A .....	323
WD-820A .....	323
K-1236 .....	323
K-1237 .....	323
EC-1.5CF .....	324
K-1161 .....	324
GC-0.7MP .....	324
SC-M800 .....	324
LCS-T805 .....	325
WBC Coaxial Cable .....	325

# 1-1 DAT Recorders

## PCM-7040

### 2-Channel Digital Audio Recorder

- Start ID level sync function
- Internal clock for time data
- Eject control via 37-pin parallel remote
- Key reassignment for ease of use
- SR support
- Sophisticated electronic editing capability
- SMPTE/EBU time code recording/reading
- Memory start for instant-start playback
- Synchronized operation with video/audio equipment
- Time code chase synchronization
- 4-head construction for RAW (Read-After-Write) and RMW (Read-Modify-Write)
- Search/location capability
- Variable speed playback in a range of  $\pm 12.5\%$
- Controlled from Sony video editor BVE-9100/2000
- 19-inch rack mountable with optional rack mount rail/adaptor RMM-30/31 (The RMM-30/31 requires the rack to be at least 26-inch in depth)

Supplied accessories: AC power cord (1)  
Operation manual (1)

Optional accessories: RM-D7200\* Dual Remote Controller  
(\*Not available in some areas.)  
RM-D7100 Remote Controller  
RMM-30 19-inch Rack Mount Rail  
RMM-31 19-inch Rack Mount Adaptor  
ECD-3C/10C Digital Audio Cable  
PDP-15C/35C/50C/65C/95C/125C Digital Audio Tape  
DT-60RA/90RA/120RA Digital Audio Tape  
DT-10CLD Cleaning Tape

### Specifications

#### Tape Format/Performance

Recording System: Rotary-head DAT recording  
Tape Speed: 8.15 mm/s  
Recording Time: 124 minutes (with Sony PDP-125C)  
Scanner Rotation Speed: 2000 rpm (standard recording/playback)  
Track Pitch: 13.6  $\mu\text{m}$   
Head System: Helical scanning rotary 4-head system  
Variable Speed Range:  $\pm 12.5\%$  (playback)  
FF and REW Time: Max. 60 s (with Sony PDP-125C)  
Shuttle Speed:  $\times \pm 1/5$ ,  $\times \pm 1/2$ ,  $\times \pm 1$ ,  $\times \pm 3$ ,  $\times \pm 8$  or  $\times \pm 16$  normal speed  
Jog Speed:  $\times \pm 0$  to  $\times \pm 1$ ,  $\times \pm 3$  normal speed

#### Digital Audio Signal

Number of Channels: 2 channels  
Sampling Frequency: 48 kHz, 44.1 kHz  
Quantization: 16-bit linear  
Error Correction: Double-encoded Reed Solomon Code  
Modulation: 8 to 10 modulation  
Frequency Response: 20 Hz to 20 kHz  $\pm 0.5$  dB  
S/N Ratio: More than 90 dB  
T.H.D.: Less than 0.05% at reference level  
Wow and Flutter: Below measurable limit  
Crosstalk: Less than -80 dB (20 Hz to 20 kHz)  
Emphasis: 50  $\mu\text{s}/15 \mu\text{s}$ , ON/OFF switchable  
Phase Difference between Channels: Within  $10^\circ$  (20 kHz)  
Delay Time: Approx. 135 ms (RAW mode)

#### Inputs/Outputs

Analog Inputs: +4 dBu (+24 dBu max.), 10 k or 600  $\Omega$ , balanced, XLR-3-31 type (x 2)  
Analog Outputs: +4 dBu (+24 dBu max.), less than 50  $\Omega$ , balanced, XLR-3-32 type (x 2)  
Digital Inputs: AES/EBU (with transformer), 110  $\Omega$ , XLR-3-31 type  
Digital Outputs: AES/EBU (with transformer), 20  $\Omega$ , XLR-3-32 type  
Time Code Inputs: IEC461 (SMPTE/EBU), 0.5 to 10 Vp-p (10 k $\Omega$ ), XLR-3-31 type  
Time Code Outputs: IEC461 (SMPTE/EBU), 2.4 Vp-p, XLR-3-32 type  
Word Sync Inputs: TTL compatible, 75  $\Omega$ , unbalanced, BNC type  
Word Sync Outputs: TTL compatible, low impedance, unbalanced, BNC type  
Video Sync Inputs: NTSC/PAL/SECAM or 50 Hz 60 Hz square wave, 0.3 to 4 Vp-p, 75 $\Omega$ , unbalanced, BNC type  
Parallel Remote: TTL compatible, D-sub 37-pin, TTL compatible, DIN 8-pin  
Serial Remote: RS-422, D-sub 9-pin  
Computer I/F: RS-232C, D-sub 25-pin  
Monitor Outputs: -10 dBu, at less than 150  $\Omega$ , RCA pin jack (x 2)  
Headphone Outputs: -26 dBu at reference level (8  $\Omega$  load), stereo phone jack



#### General

Dimensions: 424 (W)  $\times$  132 (H)  $\times$  360 (D) mm  
16  $\frac{3}{4}$   $\times$  5  $\frac{1}{4}$   $\times$  14  $\frac{1}{4}$  inches  
Mass: 10 kg (21 lb 1 oz)  
Power Requirements: AC 120 V  $\pm 10\%$ , 60 Hz, 230 V  $+6/-10\%$ , 50/60 Hz  
Power Consumption: 38 W at AC 120 V, 0.3 A at AC 230 V

\* 0 dBu = 0.775 V

# 1-1 DAT Recorders

## PCM-R700/R500

### 2-Channel Digital Audio Recorder

- High-reliability 4 D.D. mechanical transport mechanism with 4 direct drive motors for a stable tape run
- Equipped with auto head cleaning for improved sound quality
- 4-head construction for confidence monitoring (PCM-R700)
- Easy system operation with Shuttle and Jog dial
- Shuttle for easy fast forward/rewind and half speed search
- Jog dial for convenient AMS/Program Number
- Setup menu for preference section- set ID6, level sync threshold, date, etc
- SBM recording function achieving an S/N ratio equivalent to that of a 20-bit system
- Built-in DIN 8-pin parallel remote connector and supplied wireless remote commander (RM-D757)
- R-core transformer for reduced leakage flux
- Independent Channel 1/Channel 2 recording level volume controls for eliminating crosstalk
- Wide range of audio interface options

Supplied Accessories:    Wireless remote commander RM-D757 (1)  
                                  AC power cord (1)  
                                  Screws (M5 × 12) (4)  
                                  Decorative washers (4)  
                                  Operation manual (1)

Optional Accessory:      RM-D750 Remote Controller

### Specifications

#### Digital Audio Signal Format

System:                     Rotary head DAT recording  
Tape:                        Digital audio tape  
Modulation:               8 to 10 Modulation  
Digital Audio Channel:   2 channels, stereo  
Sampling Frequency:     48 kHz, 44.1 kHz, 32 kHz  
Quantization:             Standard: 16-bit linear  
Long-play :                12-bit non-linear  
Error Correction:         Double-encoded Reed Solomon Code  
Drum Rotation:            Standard: 2,000 rpm  
Long-play:                1,000 rpm

#### Inputs/Outputs

Analog IN (Balanced):    XLR-3, Female  
                                  Reference level: +4 dBu to -12 dBu  
Analog IN (Unbalanced):  RCA Phono, -12 dBu  
Analog OUT (Balanced):  XLR-3, Male  
                                  Reference level: +4 dBu to -12 dBu  
Analog OUT (Unbalanced): RCA Phono, -12 dBu  
Digital IN (AES/EBU):    XLR-3, Female  
Digital OUT (AES/EBU):  XLR-3, Male  
Digital IN (Coaxial):     RCA Phono  
Digital OUT (Coaxial):    RCA Phono

#### Remote Interface

REMOTE (8-pin):         DIN connector (Parallel)  
Optional Remote Commander IN:  
                                  Mini plug (Serial)

#### General

Power Requirements:     AC 120 V, 60 Hz (U.S.A. and Canada)  
                                  AC 220 to 230 V, 50/60 Hz (Europe)  
Power Consumption:     34 W  
Dimensions:              482 (W) × 145 (H) × 355 (D) mm  
                                  (19 × 5 ¾ × 13 ⅞ inches)  
Mass:                      (R500) 7.2 kg (15 lb 14 oz)  
                                  (R700) 7.3 kg (16 lb 2 oz)



PCM-R700



PCM-R500



PCM-R700



PCM-R500

# 1-1 DAT Recorders

## PCM-R300

### 2-Channel Digital Audio Recorder

•SBM recording function achieving an S/N ratio equivalent to that of a 20-bit system •Start ID, End ID, Skip ID, control on the front panel •Setup menu for preference section - set ID6 (SCMS), level sync threshold •Error rate display selectable in display mode •Coaxial and optical digital interface •A/D and D/A monitoring modes •Recording and playback in Long play mode •Supplied rack mount adaptor for rack mounting

Supplied Accessories:     Wireless remote commander RM-D757 (1)  
                                  AC power cord (1)  
                                  Screws (M5 x 12) (4)  
                                  Decorative washers (4)  
                                  Operation manual (1)  
                                  Rack mount adaptors (2)

### Specifications

#### Digital Audio Signal Format

System:                     Rotary head DAT recording  
Tape:                        Digital audio tape  
Modulation:                8 to 10 Modulation  
Digital Audio Channel:    2 channels, stereo  
Sampling Frequency:      48 kHz, 44.1 kHz, 32 kHz  
Quantization:             Standard: 16-bit linear  
                                  Long-play: 12-bit non-linear  
Error Correction:         Double-encoded Reed Solomon Code  
Drum Rotation:            Standard: 2,000 rpm  
                                  Long-play: 1,000 rpm

#### Inputs/Outputs

Analog I/O (Unbalanced): RCA Phono, -12 dBu  
Digital I/O:                Optical jack  
                                  Coaxial (RCA Phono)

#### General

Power Requirements:     AC 120 V, 60 Hz (U.S.A. and Canada)  
                                  AC 220 to 230 V, 50/60 Hz (Europe)  
Power Consumption:     30 W  
Dimensions:              432 (W) × 122 (H) × 325 (D) mm  
                                  (17 1/8 × 4 7/8 × 12 7/8 inches)  
Mass:                       5.0 kg (11 lb)



## 1-2 DAT Recorders accessories

### RM-D7200\*

#### Dual Remote Controller for PCM-7040

- Provides remote control of two recorder transports

\*Not available in some areas.



### RM-D7100

#### Remote Controller

- Provides remote control of recorder transport functions of PCM-7040 via 37-pin parallel interface



### RM-D750

#### Remote Controller for PCM-R700/R500



## 2 CD Players

### CDP-3100/CDS-3100

#### CD Player System

•Front loading and highly compact CD player •Two units can be mounted in a 19-inch rack •Fully featured remote control, including jog dial for comprehensive control in on air and production applications •AES/EBU digital and balanced XLR analog outputs •Variable speed playback in a range of  $\pm 12.5\%$  in 0.1% steps

Supplied Accessories: <CDP-3100 CD Player>  
AC power cord (1)  
Operation manual (1)  
<CDS-3100 Remote Controller>  
Connecting cord (2 m, 1)  
Operation manual (1)  
Optional Accessories:  
DABK-3101 Memory Board  
DABK-3102 Interface Board

#### Specifications (CDP-3100)

Number of Channels: 2 channels (stereo)  
Readout System: Non-contact optical system using semiconductor laser pick-up  
Laser: GaAlAs double hetero junction diode with 780 m wavelength  
Rotational Speed: Between approx. 200 rpm (outer circumference) and 500 rpm (inner circumference)  
Error Correction: Sony super strategy Cross Interleave Reed Solomon Code (CIRC)  
D/A Conversion: 18-bit 8 times oversampling  
Frequency Response: 20 Hz to 20,000 Hz +0.5 dB/-1.0 dB  
Harmonic Distortion: Less than 0.01%  
Wow and Flutter: Below measurable limit  
Signal-to-noise Ratio: More than 92 dB  
Crosstalk: Less than -80 dB at 20 kHz  
Variable Speed Range:  $\pm 12.5\%$

#### Outputs

LINE OUT: Balanced, XLR-3-32 type (x 2), nominal +4 dBu (600  $\Omega$ ), maximum +19 dBu (600  $\Omega$ )  
MONITOR OUT: Unbalanced (x 2), nominal -10 dBu (47 k $\Omega$ ), max. +5 dBu (47  $\Omega$ )  
DIGITAL OUT: AES/EBU, XLR-3-32 (x 1)  
HEADPHONE OUT: Max. 0 dBu (32  $\Omega$ )  
Remote Control I/F: DIN 8-pin for fader start control, 10-pin for CDS-3100  
Power Requirements: AC 100, 120, 220 to 230, 240 V, 50/60 Hz  
Power Consumption: 35 W  
Dimensions: 212 (W)  $\times$  118 (H)  $\times$  408 (D) mm  
(8  $\frac{1}{8}$   $\times$  4  $\frac{3}{4}$   $\times$  16  $\frac{1}{8}$  inches)  
Mass: 6.5 kg (14 lb 5 oz)



# 2 CD Players

## CDP-D500

### CD Player

- Jog Shuttle Dial for CD frame accurate cueing
- CD TEXT format compatibility for various CD TEXT information (Disc title, Track title, etc) to be read out via RS-232C port
- Last cue memory function can be utilized by Cue/stdby button
- Built-in DIN 8-pin remote control connector for fader start/stop from a mixing console
- Built-in Word sync input with wide lock range (44.1 kHz  $\pm$ 12.5%)
- Index cueing capability
- Variable speed playback ( $\pm$ 12.5% in 0.1% steps)
- Auto cue playback for rapid start from a point where modulation is detected (signal detection level is adjustable) on disc
- Adjustable (1 to 9 seconds) auto fade on the front panel
- Direct track access on the front panel
- Built-in digital outputs conforming to AES/EBU and unbalanced (IEC-958) formats
- Accommodates both 8 cm (3-inch) and 12 cm (5-inch) compact discs



Supplied Accessories:    Wireless remote commander RM-D500 (1)  
                                  AC power cord (1)  
                                  Screws (M5 x 12) (4)  
                                  Decorative washers (4)

### Specifications

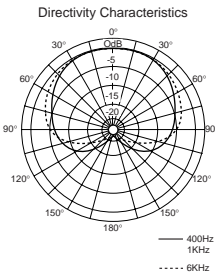
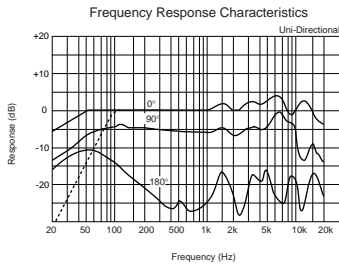
Frequency Response:    5 Hz to 20,000 Hz  
Signal-to-noise Ratio:    More than 100 dB (20,000 Hz LPF IHF-A Weighted)  
Dynamic Range:         More than 98 dB  
T.H.D.:                    Less than 0.004% (at 1 kHz, 0 dB 20 kHz LPF)  
CH Separation:         More than 100 dB (at 1 kHz to 20 kHz LPF)  
Analog Output:  
  XLR-3  
    Output Impedance:    100  $\Omega$   
    Max. Output Level:    +24 dBu  
    Load Impedance:     10 k $\Omega$   
  RCA Phono  
    Output Impedance:    200  $\Omega$   
    Max. Output Level:    +9 dBu  
    Load Impedance:     10 k $\Omega$   
  H.P.(RCA Phono)  
    Output Impedance:    150  $\Omega$   
    Max. Output Level:    15 mV  
    Load Impedance:     32  $\Omega$   
Digital Output:  
  AES/EBU (XLR-3)  
    Output Impedance:    35  $\Omega$   
    Output Level:         —  
    Adaptable Load Impedance:  
      110  $\Omega$   
  IEC-958 (RCA Phono)  
    Output Impedance:    75  $\Omega$   
    Output Level:         0.5 p-p  
    Adaptable Load Impedance:  
      75  $\Omega$   
Word Sync Input:  
  Input Impedance:     22 k $\Omega$ /75  $\Omega$  Switchable (BNC)  
  Input Level:         2 Vp-p (TTL)  
  Lock Range:         44.1 kHz $\pm$ 12.5% (38.59 kHz to 49.6 kHz)  
Remote Interface:  
  Parallel DIN 8-pin (2 modes)  
  Serial RS-232C (D-sub 9-pin)  
Dimensions:            482 (W)  $\times$  145 (H)  $\times$  335 (D) mm  
                          (19  $\times$  7  $\frac{7}{8}$   $\times$  14  $\frac{7}{8}$  inches)  
Mass:                   7.1 kg (15 lb 10 oz)

# 3-1 Wired Microphones

## ECM-23F3PR

### Electret Condenser Microphone

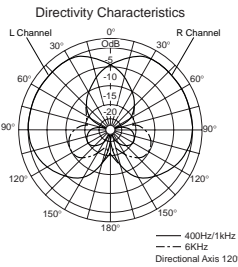
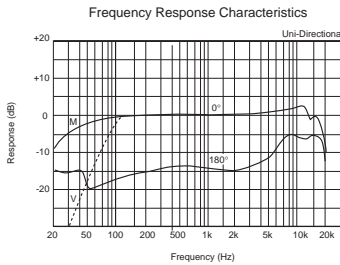
- Multi-purpose use •Low-cut filter •AA-size battery operation



## ECM-999PR

### MS Stereo Electret Condenser Microphone

- Variable stereo angle (0° to 150°) •Low-cut filter •AA-size battery operation

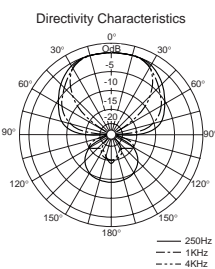
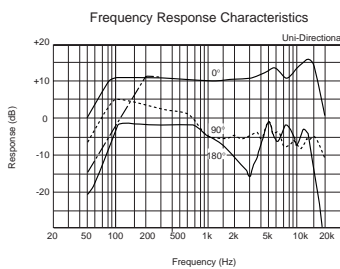


## ECM-672

### Electret Condenser Microphone

- Super-cardioid characteristics, rejecting indirect sound
- 2-way powering — internal battery (Approx. 3,000 hours of

continuous operation) or external power supply (DC 48 V) •2-position low-cut filter •Suitable for mounting on Sony cameras and camcorders

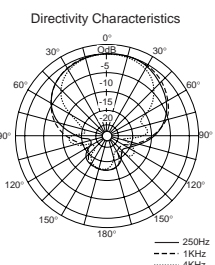
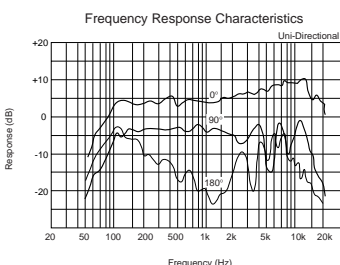


## ECM-670

### Electret Condenser Microphone

- Super-cardioid microphone with minimum sensitivity to ambient noise
- Compact and light weight design •Suitable for

mounting on Sony cameras and camcorders •External power supply (DC 12 V to 48 V)





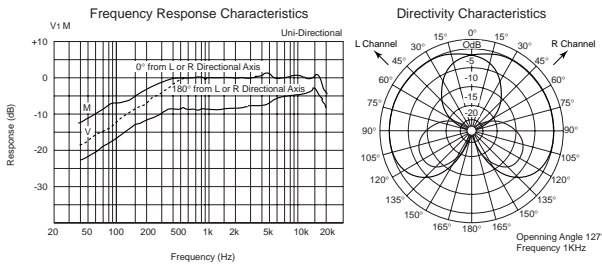
# 3-1 Wired Microphones

## ECM-MS5

### MS Stereo Electret Condenser Microphone

- Compact and light MS (Mid-Side) stereo microphone
- 6-position stereo angle selector (0°, 90° to 127°)

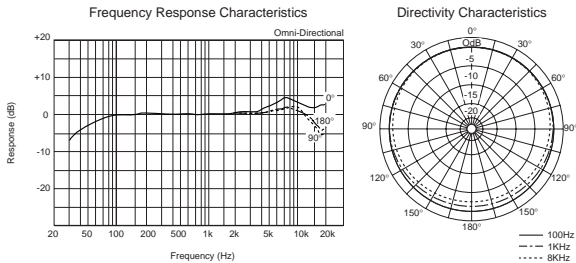
- 2-way powering — external power supply or battery operation with optional DC-MS5



## ECM-510

### Electret Condenser Microphone

- Primarily for interview situations
- Ultra slim and lightweight body
- 2-way powering — internal AA-size battery or external power supply (DC 12 V to 48 V)

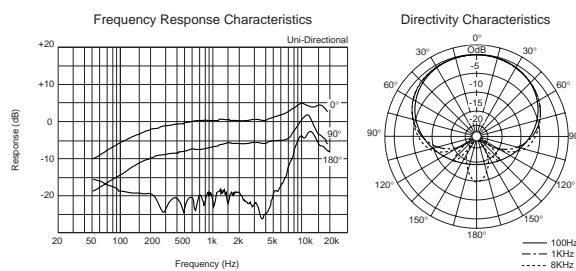


## ECM-530

### Electret Condenser Microphone

- A compact and high-quality table-top microphone
- The goose-neck and extendable stem allow flexible microphone positioning for precise voice pick-up

- 2-way powering system — internal AA-size battery or external power supply (DC 12 V to 48 V)

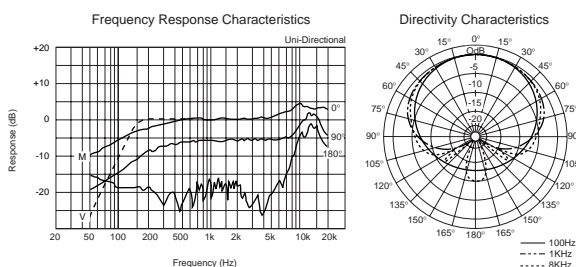


## ECM-531

### Electret Condenser Microphone

- Ideally suited for conference and lecture applications
- Flexible goose-neck for microphone positioning
- Equipped with a low-cut switch

- External power supply (DC 12 V to 48 V)
- Directly installed in conference tables and lecterns via an XLR-3-12C type connector



AUDIO EQUIPMENT

# 3-1 Wired Microphones

## Specifications

### ECM-Series

		ECM-670	ECM-672	ECM-MS5	ECM-999PR	ECM-23F3PR	ECM-510	ECM-530	ECM-531
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency Response		70 to 16,000 Hz	50 to 16,000 Hz	70 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz	40 to 17,000 Hz	70 to 18,000 Hz	70 to 18,000 Hz
Directivity		UNI	UNI	UNI	UNI	UNI	OMNI	UNI	UNI
Effective Output Level at 1 kHz, (0 dBm=1 mW/1 Pa.)		-43.0 dBm	-42.0 dBm	-37.8 dBm (0°) -34.8 dBm (127°)	-51.0 dBm (120°)	-47.0 dBm	-50.0 dBm	-46.8 dBm	-42.8 dBm
Sensitivity (0 dB=1 V/1 Pa., at 1 kHz)		-44.0 dB ± 3.0 dB	-42.0 dB ± 2.0 dB	-40.0 dB ± 2.0 dB (0°)	-48.0 dB (120°) -37.0 dB ± 2.0 dB (127°)	-48.0 dB	-50.0 dB ± 2.0 dB	-49.0 dB ± 3.0 dB	-49.0 dB ± 3.0 dB
Output Impedance at 1 kHz (balanced)		200 Ω ± 20%	250 Ω ± 20%	150 Ω ± 20%	480 Ω ± 20%	200 Ω ± 20%	250 Ω ± 20%	150 Ω ± 20%	60 Ω ± 20%
Dynamic Range		≥ 101 dB	≥ 92 dB	≥ 108 dB	≥ 104 dB	≥ 110 dB	≥ 97 dB	≥ 95 dB	≥ 100 dB
Signal-to-noise Ratio (A weighted, 1 kHz, 1 Pa.)		≥ 70 dB	≥ 72 dB	≥ 74 dB (0°) ≥ 72 dB (127°)	≥ 68 dB (120°)	≥ 70 dB	≥ 65 dB	≥ 63 dB	≥ 64 dB
Inherent Noise (0 dB SPL = 2 × 10 <sup>-5</sup> Pa.)		≤ 24 dB SPL	≤ 22 dB SPL	≤ 20 dB SPL (0°)	≤ 26 dB SPL (120°) ≤ 22 dB SPL (127°)	≤ 24 dB SPL	≤ 29 dB SPL	≤ 31 dB SPL	≤ 30 dB SPL
Induction Noise from Ext. Magnetic Field (dB SPL/1 × 10 <sup>-7</sup> T) (0 dB SPL = 2 × 10 <sup>-5</sup> Pa.)		≤ 0 dB SPL	≤ 0 dB SPL	≤ 0 dB SPL	≤ 10 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL
Wind Noise (0 dB SPL = 2 × 10 <sup>-5</sup> Pa.)		≤ 60 dB SPL	≤ 45 dB SPL	≤ 54 dB SPL	≤ 50 dB SPL	≤ 45 dB SPL	≤ 40 dB SPL	≤ 55 dB SPL	≤ 57 dB SPL
Max. Input Sound Pressure Level (0 dB SPL = 2 × 10 <sup>-5</sup> Pa.)		125 dB SPL	114 dB SPL	130 dB SPL	130 dB SPL	134 dB SPL	126 dB SPL	126 dB SPL	130 dB SPL
Tone Control	Low-cut	—	M,V	M,V	M,V	M,V	—	—	M,V
	High-cut	—	—	—	—	—	—	—	—
Power Supply	Battery power	—	IECR6 or LR6	DC-MS5 (Optional)	SUM-3 (NS)	SUM-3 (NS)	IECR6 or LR6	IECR6 or LR6	—
	Ext. power	O	O	O	—	—	O	O	O
Standard Operating Voltage	Battery	—	1.5 V	1.5 V/DC-MS5 (Optional)	1.5 V	1.5 V	1.5 V	1.5 V	—
	Ext. power	DC12-48	DC48	DC12-48	—	—	DC12-48	DC12-48	DC12-48
Current Drain	Battery	—	≤ 0.3 mA	≤ 1.75 mA x 2/DC-MS5 (DC12 V) (Optional)	≤ 11.0 mA	≤ 5 mA	≤ 0.23 mA	≤ 0.23 mA	—
	AC power	≤ 2.4 mA	≤ 0.5 mA	≤ 2 mA x 2x (DC48 V)	—	—	≤ 2 mA	≤ 2 mA	≤ 2 mA
Dimensions	mm	21 dia. x 226	24 dia. x 304	47.5 dia. x 212	40 dia. x 246	27 dia. x 190	Max. 23 dia. 8.5 dia. x 364	12 dia. x 326 to 448 86 dia. (Table Stand)	12 dia. x 326 to 482
	inch	<sup>27</sup> / <sub>32</sub> dia. x 9	<sup>31</sup> / <sub>32</sub> dia. x 12	1 <sup>7</sup> / <sub>8</sub> dia. x 8 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub> dia. x 9 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>6</sub> dia. x 7 <sup>1</sup> / <sub>2</sub>	Max. <sup>29</sup> / <sub>32</sub> dia. <sup>11</sup> / <sub>32</sub> dia. x 14 <sup>3</sup> / <sub>8</sub>	<sup>1</sup> / <sub>2</sub> dia. x 12 <sup>7</sup> / <sub>8</sub> to 17 <sup>3</sup> / <sub>8</sub> 3 <sup>1</sup> / <sub>2</sub> dia. (Table stand)	<sup>1</sup> / <sub>2</sub> dia. x 14 <sup>1</sup> / <sub>6</sub> to 19
Mass *		165 g	230 g	215 g	366 g	215 g	125 g	325 g	130 g
		5.8 oz	8.1 oz	7.6 oz	13 oz	7.6 oz	4.4 oz	11.5 oz	4.6 oz
Supplied Accessories		Wind screen (x 1) Microphone holder (x 1) Microphone spacer (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1) Microphone holder (x 1) Microphone cable (x 1) Stand adaptor (x 1)	Wind screen (x 1) Microphone holder (x 1) Microphone cable (x 1) Stand adaptor (x 2)	Wind screen (x 1) Microphone holder (x 2) Microphone cable (x 1) Stand adaptor (x 2) Carrying case (x 1)	Wind screen (x 1) Microphone holder (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1)
Remarks		Short Shotgun	Short Shotgun	MS Stereo	MS Stereo	—	—	—	—

\* Without the battery for condenser and electret condenser microphones.

AUDIO EQUIPMENT

# 3-1 Wired Microphones

## Specifications

### ECM-Series

	ECM-670	ECM-672	ECM-MS5	ECM-999PR	ECM-23F3PR	ECM-510	ECM-530	ECM-531
Microphone Connector	XLR-3-12C type	XLR-3-12C type	XLR-5-12C type	XLR-5-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type
Supplied Cable	—	—	XLR-5-11C type ↓ XLR-3-12C type	XLR-5-11C type ↓ XLR-3-12C type ( x 2)	XLR-3-11C type ↓ Phone plug	—	—	—
Cable Length	—	—	3 m (9.8 feet)	2.5 m (8.2 feet)	6 m (19.7 feet)	—	2 m (6.6 feet)	—
Available Receptacle	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	Phone jack	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type
External Power Supply (AC-148F) of Equivalent	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Recommended Sony Battery	—	SUM-3 (NS)	LR6 (Alkaline)	SUM-3 (NS)	SUM-3 (NS)	SUM-3 (NS)	SUM-3 (NS)	—
Battery Life (Approx.)	—	3,000 H	20 H	80 H	150 H	5,000 H	5,000 H	—
Supplied Mic Holder	Yes	—	Yes	Yes	Yes	Yes	—	—
Stand Screw/ Mic Holder Screw	PF <sup>1</sup> / <sub>2</sub> -inch thread	—	PF <sup>1</sup> / <sub>2</sub> -inch thread	PF <sup>1</sup> / <sub>2</sub> -inch thread	PF <sup>1</sup> / <sub>2</sub> -inch thread	PF <sup>1</sup> / <sub>2</sub> -inch thread	—	—
Supplied Stand Adaptor	NS <sup>5</sup> / <sub>8</sub> -inch thread W <sup>3</sup> / <sub>8</sub> -inch thread	—	NS <sup>5</sup> / <sub>8</sub> -inch thread W <sup>3</sup> / <sub>8</sub> -inch thread	NS <sup>5</sup> / <sub>8</sub> -inch thread W <sup>3</sup> / <sub>8</sub> -inch thread	NS <sup>5</sup> / <sub>8</sub> -inch thread W <sup>3</sup> / <sub>8</sub> -inch thread	NS <sup>5</sup> / <sub>8</sub> -inch thread W <sup>3</sup> / <sub>8</sub> -inch thread	—	—
Mounting on A-12 (Available screw PF <sup>1</sup> / <sub>2</sub> -inch thread U <sup>5</sup> / <sub>16</sub> -inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	—	—
Mounting on A-25 (Available screw U <sup>5</sup> / <sub>16</sub> -inch thread, PF <sup>1</sup> / <sub>2</sub> -inch thread)	Yes	—	Yes	Yes	Yes	—	—	—
Mounting on A-25N (Available screw NS <sup>5</sup> / <sub>8</sub> -inch thread)	Yes	—	Yes	Yes	Yes	—	—	—
Mounting on CRS-3P	Yes	Yes	Yes	No	Yes	Yes	—	—

# 3-1 Wired Microphones

## ECM-44 Series

### Lavalier Microphones

•8.5 mm dia. x 14.5 mm ( $1\frac{1}{32}$  inch dia. x  $1\frac{9}{32}$  inch),  
2 g (0.07 oz) microphone head •Excellent cost/performance  
ratio •AA-size battery operation

#### ECM-44B (Black)

•Complete with in-line battery unit

#### ECM-44BC (Black)

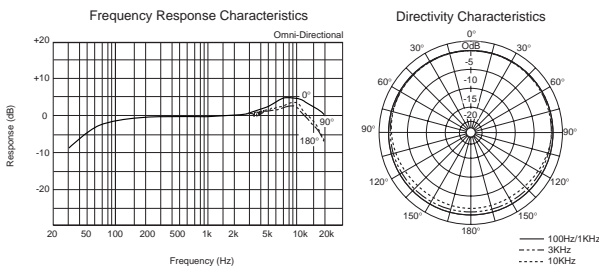
•Fitted with a 1.2 m cable terminating in a SMC9-4P  
connector for use with the Sony wireless transmitter

#### ECM-44BPT (Black)

•Pigtail connection, without battery unit or connector

#### ECM-44BMP (Black)

•Fitted with a 1.2 m cable terminating in a 3-pole mini plug for  
use with the Sony wireless transmitter



## ECM-55 Series

### Lavalier Microphones

•10.6 mm dia. x 21 mm ( $7\frac{1}{16}$  inch dia. x  $2\frac{7}{32}$  inch), 6.5 g  
(0.2 oz) microphone head •Frequency response tailored for  
enhanced presence and improved voice quality in lavalier  
applications •2-way powering — AA-size battery or external  
power supply (DC 12 V to 48 V)

#### ECM-55B (Black)

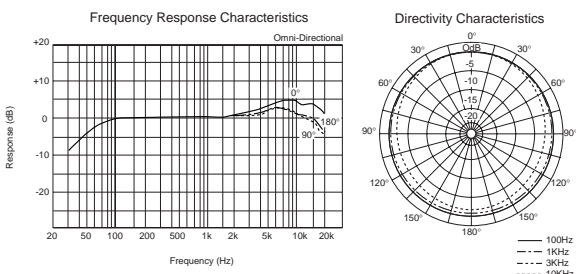
•Complete with in-line battery unit for 2-way powering

#### ECM-55BC (Black)

•Fitted with a 1.2 m cable terminating in a SMC9-4P  
connector for use with the Sony wireless transmitter

#### ECM-55BPT (Black)

•Pigtail connection, without battery unit or connector



AUDIO EQUIPMENT

## 3-1 Wired Microphones

### ECM-66 Series

#### Lavalier Microphones

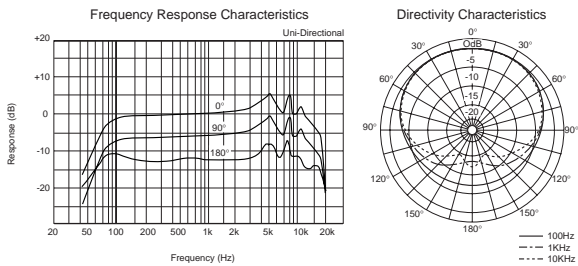
- 10.6 mm dia. x 24.3 mm (7/16 inch dia. x 31/32 inch), 7 g (0.24 oz) microphone head
- Designed for instrumental applications
- 2-way powering — AA-size battery or external power supply (DC 24 V to 48 V)
- 130 dB SPL max. input sound pressure level

#### ECM-66B (Black)

- Complete with in-line battery unit for 2-way powering

#### ECM-66BC (Black)

- Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter



### ECM-77 Series

#### Lavalier Microphones

- 5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch), 1.5 g (0.04 oz) microphone head
- High performance, frequency response 40 Hz to 20,000 Hz
- 2-way powering — AA-size battery or external power supply (DC 12 V to 48 V)

#### ECM-77S (Silver)/ECM-77B (Black)

- Complete with in-line battery unit for 2-way powering

#### ECM-77SC (Silver)/ECM-77BC (Black)/ECM-77FC (Beige Color Finish)

- Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

#### ECM-77BPT (Black)/ECM-77FPT (Beige Color Finish)

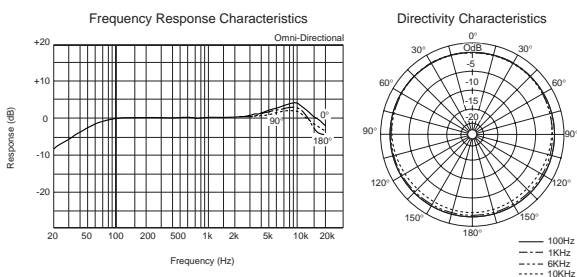
- Pigtail connection, without battery unit or connector

#### ECM-77BMP (Black)

- Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with the Sony wireless transmitter



AUDIO EQUIPMENT



## 3-1 Wired Microphones

### ECM-121BMP

#### Lavalier Microphone

- 8.5 mm dia. × 17.0 mm ( $1\frac{1}{32}$  inch dia. ×  $\frac{1}{16}$  inch), 3 g (0.11 oz) microphone head
- Omnii-directional
- Fitted with a 0.2 m cable terminating in a 3-pole mini plug for use with Sony wireless transmitter



### ECM-122BMP

#### Lavalier Microphone

- 8.5 mm dia. × 17.0 mm ( $1\frac{1}{32}$  inch dia. ×  $\frac{1}{16}$  inch), 3 g (0.11 oz) microphone head
- Omnii-directional
- Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with Sony wireless transmitter



### ECM-166 Series

#### Lavalier Microphones

- 12.5 mm dia x 23.5 mm ( $\frac{1}{2}$  inch dia. x  $1\frac{5}{16}$  inch), 3.5 g (0.12 oz) microphone head
- Uni-directional

#### ECM-166BC

- Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with Sony wireless transmitter

#### ECM-166BMP

- Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with Sony wireless transmitter



## 3-1 Wired Microphones

### ECM-310 Series

#### Headset Microphones

- Headset-style wide-cardioid microphone for sound reinforcement applications

#### ECM-310BC

- Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

#### ECM-310BMP

- Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with the Sony wireless transmitter



### ECM-350BC

#### Headset Microphone

- Headset-style omni-directional microphone for TV/sound reinforcement applications
- Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter



# 3-1 Wired Microphones

## Specifications

### Lavalier Series

		ECM-44	ECM-55	ECM-66	ECM-77	ECM-121
Model Variations - Model name - Cable length - Output connector - Battery - Finish (B: Black, S: Silver, F: Beige)	Type A	<b>Standard type: 3.0 m (3.9 feet) cable terminating in an XLR-3-12C type connector, battery equipped</b>				
	Type B	44B	55B	66B	77S, 77B	—
	Type C	<b>Pigtail type: 3.0 m (3.9 feet) cable without connector, battery</b>				
	Type D	<b>SMC type: 1.2 m (3.9 feet) cable terminating in a SMC9-4P type connector, without battery</b>				
		44BC	55BC	66BC	77SC, 77BC, 77FC	—
	<b>BMP type: 1.2 m (3.9 feet)* cable terminating in a 3.5 mm dia. 3-pole mini plug, without battery</b>					
	44BMP	—	—	77BMP	121BMP	
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency Response		40 to 15,000 Hz	30 to 18,000 Hz	70 to 14,000 Hz	40 to 20,000 Hz	100 to 10,000 Hz
Directivity		Omni-directional	Omni-directional	Uni-directional	Omni-directional	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	Type A	-53.0 dB ±3 dB	-52.0 dB ±2 dB	-50.0 dB ±2 dB	-52.0 dB ±2 dB	—
	Type B, C, D	-40 dB (10 mV)	-38.5 dB (11.9 mV)	-36.5 dB (15 mV)	-39.0 dB (11.2 mV)	-41 dB (8.9 mV)
Output Impedance At 1 kHz	Type A	250 Ω ±20% (balanced)	100Ω ±20% (balanced)	100 Ω ±20% (balanced)	150 Ω ±20% (balanced)	—
	Type B, C, D	—	—	—	—	2.5 kΩ ±30% (unbalanced)
Dynamic Range		≥90 dB	≥98 dB	≥101 dB	≥90 dB	—
Signal-to-noise Ratio (A-weighted, 1 kHz, 1 Pa.)		≥62 dB	≥66 dB	≥65 dB	≥64 dB	—
Inherent Noise (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		≤32 dB SPL	≤28 dB SPL	≤29 dB SPL	≤30 dB SPL	—
Wind Noise (w/wind screen, at 2 m/s) (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		≤40 dB SPL	≤40 dB SPL	≤50 dB SPL	≤40 dB SPL	—
Induction Noise from External Magnetic Field (dB SPL/1 x 10 <sup>-7</sup> T) (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		≤5 dB SPL	≤5 dB SPL	≤5 dB SPL	≤5 dB SPL	—
Maximum Input Sound Pressure Level (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		122 dB SPL	126 dB SPL	130 dB SPL	120 dB SPL	—
Power Supply	Battery	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	—
	Battery Life	Approx. 5000 H	Approx. 5000 H	Approx. 300 H	Approx. 5000 H	—
	Ext. Power	—	DC 12 to 48 V	DC 24 to 48 V	DC 12 to 48 V	—
Normal Operating Voltage		Type A: DC 1.5 V, Type B, C, D: DC 3 V (supply range: DC 3 to 10 V)				DC 3 V (supply range: DC 3 - 10 V)
Current Drain		Less than 0.3 mA		Less than 3.5 mA	Less than 0.3 mA	Less than 0.4 mA
Dimensions	Microphone Head	8.5 mm dia. x 14.5 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x <sup>1</sup> / <sub>2</sub> inch)	10.6 mm dia. x 21 mm ( <sup>7</sup> / <sub>16</sub> inch dia. x <sup>2</sup> / <sub>7</sub> inch)	10.6 mm dia. x 24.2 mm ( <sup>7</sup> / <sub>16</sub> inch dia. x <sup>3</sup> / <sub>2</sub> inch)	5.6 mm dia. x 12.5 mm ( <sup>1</sup> / <sub>4</sub> inch dia. x <sup>1</sup> / <sub>2</sub> inch)	8.5 mm dia. x 17.0 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x <sup>1</sup> / <sub>16</sub> inch)
	Power Unit	20.0 mm dia. x 126 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x 5 inches)	20.0 mm dia. x 133 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x 5 <sup>1</sup> / <sub>4</sub> inches)	20.0 mm dia. x 163 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x 6 <sup>1</sup> / <sub>2</sub> inches)	20.0 mm dia. x 133 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x 5 <sup>1</sup> / <sub>4</sub> inches)	—
Mass	Microphone Head	2 g (0.07 oz)	6.5 g (0.23 oz)	7 g (0.25 oz)	1.5 g (0.05 oz)	3 g (0.11 oz)
	Total	121 g (4.3 oz)	127 g (4.5 oz)	167 g (5.9 oz)	122 g (4.3 oz)	—
Supplied Accessories (S: Single type, V: Vertical type, M: Metal-mesh type, U: Urethane type)		S.H. holder clip (x 1) U. wind screen (x 1) Microphone case (x 1) Microphone case (x 1)	S.H. holder clip (x 1) S.V. holder clip (x 1) M. wind screen (x 1) Microphone case (x 1)	S.H. holder clip (x 1) S.V. holder clip (x 1) U. wind screen (x 1) Microphone case (x 1)	S.H. holder clip (x 1) S.V. holder clip (x 1) M. wind screen (x 1)	Holder clip (x 1) U. wind screen (x 1)

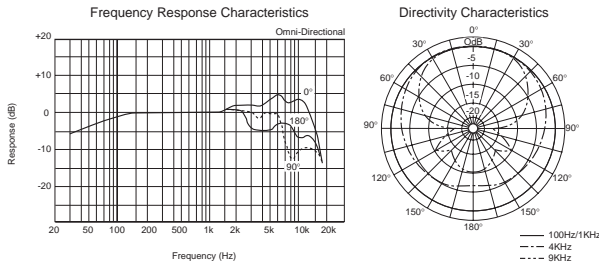
\*ECM-121BMP Cable length: 0.2 m (7/8 inches)

		ECM-122	ECM-166	ECM-310	ECM-350
Model Variations - Model name - Cable length - Output connector - Battery - Finish (B: Black, S: Silver, F: Beige)	Type A	<b>Standard type: 3.0 m (3.9 feet) cable terminating in an XLR-3-12C type connector, battery equipped</b>			
	Type B	<b>Pigtail type: 3.0 m (3.9 feet) cable without connector, battery</b>			
	Type C	<b>SMC type: 1.2 m (3.9 feet) cable terminating in a SMC9-4P type connector, without battery</b>			
	Type D	<b>BMP type: 1.2 m (3.9 feet) cable terminating in a 3.5 mm dia. 3-pole mini plug, without battery</b>			
		122BMP	166BMP	310BMP	—
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency Response		100 to 10,000 Hz	100 to 10,000 Hz	70 to 12,000 Hz	40 to 15,000 Hz
Directivity		Omni-directional	Uni-directional	Wide-cardioid	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	Type A	—	—	—	—
	Type B, C, D	-41 dB (8.9 mV)	-45 dB (5.6 mV)	-44 dB (6.3 mV) ±3 dB	-40 dB (10 mV) ±3 dB
Output Impedance At 1 kHz	Type A	—	—	—	—
	Type B, C, D	2.5 kΩ ±30% (unbalanced)	2.5 kΩ ±30% (unbalanced)	800 Ω ±30% (unbalanced)	2.5 kΩ ±30% (unbalanced)
Dynamic Range		—	≥96 dB	≥93 dB	≥100 dB
Signal-to-noise Ratio (A-weighted, 1 kHz, 1 Pa.)		—	≥60 dB	≥60 dB	≥62 dB
Inherent Noise (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		—	≤34 dB SPL	≤34 dB SPL	≤32 dB SPL
Wind Noise (w/wind screen, at 2 m/s) (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		—	—	≤63 dB SPL	≤40 dB SPL
Induction Noise from External Magnetic Field (dB SPL/1 x 10 <sup>-7</sup> T) (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		—	—	—	—
Maximum Input Sound Pressure Level (0 dB SPL=2 x 10 <sup>-5</sup> Pa.)		—	130 dB SPL	127 dB SPL	132 dB SPL
Power Supply	Battery	—	—	—	—
	Battery Life	—	—	—	—
	Ext. Power	—	—	—	—
Normal Operating Voltage		DC 3 V (supply range: DC 3 to 10 V)		DC 5 V (supply range: DC 3 to 10 V)	
Current Drain		Less than 0.4 mA		Less than 0.32 mA	Less than 0.3 mA
Dimensions	Microphone Head	8.5 mm dia. x 17.0 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x <sup>1</sup> / <sub>16</sub> inch)	12.5 mm dia. x 23.5 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x <sup>1</sup> / <sub>16</sub> inch)	10.0 mm dia. x 15.2 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x <sup>1</sup> / <sub>16</sub> inch)	8.5 mm dia. x 15.6 mm ( <sup>1</sup> / <sub>2</sub> inch dia. x 5/8 inch)
	Power Unit	—	—	—	—
Mass	Microphone Head	3 g (0.11 oz)	3.5 g (0.12 oz)	—	—
	Total	—	—	46 g (1.7 oz)	44 g (1.6 oz)
Supplied Accessories (S: Single type, V: Vertical type, M: Metal-mesh type, U: Urethane type)		Holder clip (x 1) U. wind screen (x 1)	Holder clip (x 1) U. wind screen (x 1)	U. wind screen (x 1)	U. wind screen (x 1)



# 3-1 Wired Microphones

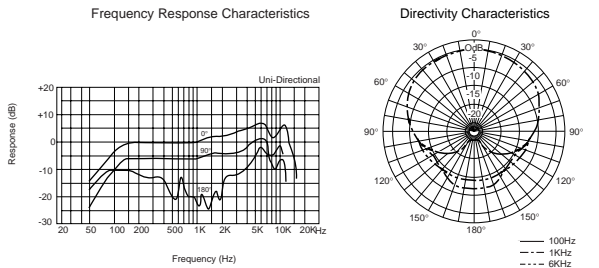
## F-115 Dynamic Microphone



- Weather resistant for outdoor applications
- Ideal for reporter use
- Frequency response: 40 to 12,000 Hz



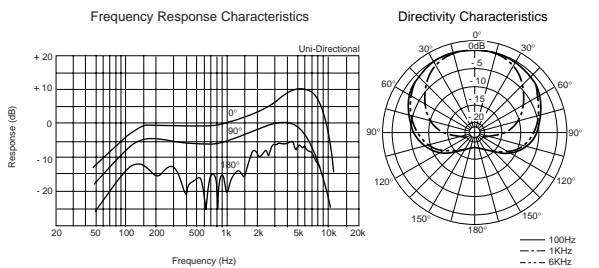
## F-710 Dynamic Microphone



- For multi-purpose applications
- Built-in TALK switch
- High sensitivity with the Neodymium magnet
- XLR-3-12C type connector
- Frequency response: 70 to 15,000 Hz
- Dimensions: 54 mm dia. x 177 mm (2 1/4 inches dia. x 7 inches)
- Mass: 250 g (8.8 oz)



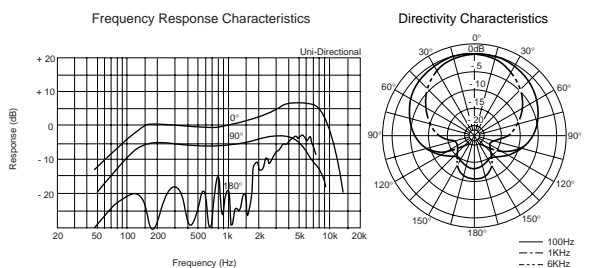
## F-720 Dynamic Microphone



- For multi-purpose applications
- Convenient TALK switch for turning on and off the microphone
- Vibration proof capsule suspension
- XLR-3-12C type connector
- Frequency response: 50 to 13,000 Hz
- Dimensions: 37.6 mm dia. x 160 mm (1 1/2 inches dia. x 6 3/8 inches)
- Mass: 260 g (9.2 oz)



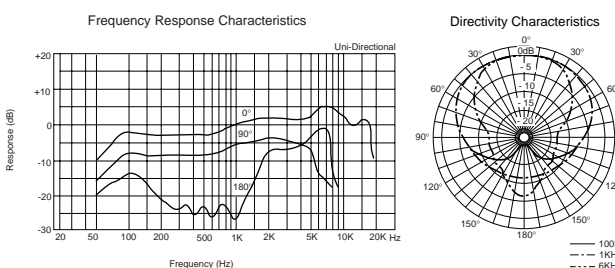
## F-730 Dynamic Microphone



- For vocal applications
- Convenient TALK switch for turning on and off the microphone
- Vibration-proof capsule suspension
- XLR-3-12C type connector
- Frequency response: 50 to 13,000 Hz
- Dimensions: 44.4 mm dia. x 166 mm (1 3/4 inches dia. x 6 5/8 inches)
- Mass: 250 g (8.8 oz)



## F-740 Dynamic Microphone



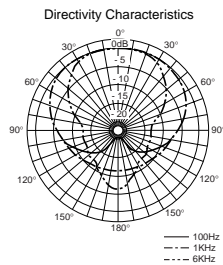
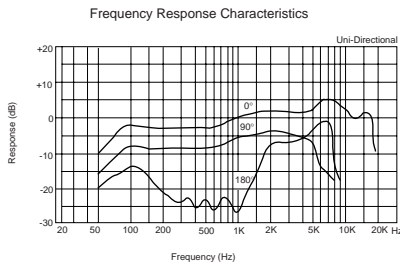
- For vocal and instrumental pick-up
- Rugged capsules in a resilient body structure
- Special AlNiCo Magnet
- High quality CCAW (Copper Clad Aluminium Wire) voice coil
- XLR-3-12C type connector
- Frequency response: 50 to 18,000 Hz
- Dimensions: 51 mm dia. x 165 mm (2 1/8 inches dia. x 6 1/2 inches)
- Mass: 290 g (10.2 oz)



AUDIO EQUIPMENT

# 3-1 Wired Microphones

## F-780 Dynamic Microphone



- For vocal recording
- Rugged capsules in a resilient body structure
- Special AlNiCo Magnet
- High quality edgewise winding CCAW (Copper Clad Aluminium Wire) voice coil
- XLR-3-12C type connector
- Frequency response: 50 to 18,000 Hz
- Dimensions: 51 mm dia. x 165 mm (2 1/8 inches dia. x 6 1/2 inches)
- Mass: 290 g (10.2 oz)



## Specifications

### F-Series

	F-710	F-720	F-730	F-740	F-780	F-115*2	
						(CE7)	(CE)
Capsule Type	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	
Frequency Response	70 to 15,000 Hz	50 to 13,000 Hz	50 to 13,000 Hz	50 to 18,000 Hz	50 to 18,000 Hz	40 to 12,000 Hz	
Directivity	UNI	UNI	UNI	UNI	UNI	OMNI	
Effective Output Level at 1 kHz (0 dBm=1 mW/1 Pa.)	-56.0 dBm	-60.0 dBm	-59.0 dBm	-56.0 dBm	-55.0 dBm	-57.8 dBm	
Sensitivity (0 dB=1 V/1 Pa., at 1 kHz)	-54.0 dB± 3.0 dB	-57.0 dB± 3.0 dB	-56.0 dB± 3.0 dB	-54.0 dB± 2.0 dB	-53.0 dB± 2.0 dB	-54.0 dB± 2.0 dB	
Output Impedance at 1 kHz (balanced)	400 Ω ±20%	500 Ω ±20%	500 Ω ±20%	400 Ω ±20%	400 Ω ±20%	600 Ω ±20%	
Induction Noise from Ext. Magnetic Field (dB SPL/1 x 10 <sup>-7</sup> T) (0 dB SPL + 2 x 10 <sup>-5</sup> Pa.)	≤ 5 dB SPL	≤ 10 dB SPL	≤ 10 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	
Wind Noise (0 dB SPL + 2 x 10 <sup>-5</sup> Pa.)	≤ 55 dB SPL	≤ 55 dB SPL	≤ 45 dB SPL	≤ 50 dB SPL	≤ 50 dB SPL	≤ 40 dB SPL	
Microphone Connector	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	—	
Supplied Cable	—	—	—	—	—	XLR-3-12C	XLR-3-11C
Cable Length	—	—	—	—	—	6 m (19.7 feet)	
Available Receptacle	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-12C type
Supplied Mic Holder	Yes	Yes	Yes	Yes	Yes	Yes	
SAD-700 Optional Mic Holder	Yes	—	—	Yes	Yes	—	
Stand Screw/Mic Holder Screw	PF1/2-inch thread	PF1/2-inch thread	PF1/2-inch thread	PF1/2-inch thread	PF1/2-inch thread	PF1/2-inch thread	
Supplied Stand Adaptor	NS5/8-inch thread W3/8-inch thread	NS5/8-inch thread W3/8-inch thread	NS5/8-inch thread W3/8-inch thread	NS5/8-inch thread W3/8-inch thread	NS5/8-inch thread W3/8-inch thread	NS5/8-inch thread W3/8-inch thread	W3/8-inch thread
Mounting on A-12 (Available screw PF1/2-inch thread U5/16-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	
Mounting on A-25 (Available screw U5/16-inch thread PF1/2-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	
Mounting on A-25N (Available screw NS5/8-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	
Mounting on CRS-3P	Yes	Yes	Yes	Yes	Yes	Yes	
Dimensions	mm	54 dia. x 177	37.6 dia. x 160	44.4 dia. x 166	51 dia. x 165	51 dia. x 165	Max. 30 dia. , 24.6 dia. x 173
	inch	2 1/4 dia. x 7	1 1/2 dia. x 6 3/8	1 3/4 dia. x 6 5/8	2 1/8 dia. x 6 1/2	1 1/8 dia. x 6 1/2	3 1/32 dia. x 6 7/8
Mass*1		250 g	260 g	250 g	290 g	290 g	270 g
		8.8 oz	9.2 oz	8.8 oz	10.2 oz	10.2 oz	9.5 oz
Supplied Accessories	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2) Wind screen (x 1) Microphone case (x 1)	

\* 1 Without the battery for condenser and electret condenser microphones.

\* 2 The F-115(CE7) is suitable for use with TC-D5 PROII. The F-115(CE) is suitable for use with TC-D5 PRO.

## 3-2 Wired Microphones accessories

### AC-148F

#### AC Power Supply

•System: 2-channel external power supply •Power requirements: AC 220 to 240 V, 50/60 Hz •Output voltage: DC 48 V •Dimensions: 201 (W) x 74 (H) x 169 (D) mm (8 x 3 x 6 3/4 inches) •Mass: 2 kg (4 lb 7 oz)



### A-12

#### Table Stand

•Available screw: U5/16-inch thread  
PF1/2-inch thread  
•Mass: 1.4 kg (3 lb 1 oz)



### A-25

#### Table Stand

•Available screw: U5/16-inch thread  
PF1/2-inch thread  
•Mass: 1.0 kg (2 lb 3 oz)



### A-25N

#### Table Stand

•Available screw: NS5/8-inch thread  
•Mass: 1.0 kg (2 lb 3 oz)

### SAD-26

#### Microphone Stand Pole

•Available screw: U5/16-inch thread  
PF1/2-inch thread (male)  
PF1/2-inch thread (female)  
•Height: 120 mm (4 3/4 inches)



## 3-2 Wired Microphones accessories

### SAD-28

#### Shock-mounted Adaptor

- Available screw: U $\frac{5}{16}$ -inch thread  
PF $\frac{1}{2}$ -inch thread (male)  
PF $\frac{1}{2}$ -inch thread (female)



### EC-10XLR2/5XLR2

#### Microphone Cable

- Cable length: 10 m (32.8 feet) or 5 m (16.4 feet)
- Connectors: XLR-3-11C type ↔ XLR-3-12C type

### CRS-3P

#### Cradle Suspension

- Available screw: PF $\frac{1}{2}$ -inch thread
- Supplied stand screw adaptor: NS $\frac{5}{8}$ -inch thread
- Grip: 19 to 24 mm dia. ( $\frac{3}{4}$  to  $\frac{31}{32}$  inch dia.)
- Mass: 150 g (5.3 oz)



### SAD-700

#### Microphone Holder

- Available screw: PF $\frac{1}{2}$ -inch thread
- Grip: 24 mm dia. ( $\frac{31}{32}$  inch dia.)
- Mass: 70 g (2.5 oz)



### B-305B

#### Boom Stand

- Available screw: PF $\frac{1}{2}$ -inch thread, U $\frac{5}{16}$ -inch thread
- Supplied stand screw adaptor: NS $\frac{5}{8}$ -inch thread, W $\frac{3}{8}$ -inch thread
- Boom length: 828 mm (32  $\frac{5}{8}$  inches)
- Stand height: 980 to 1500 mm (38  $\frac{5}{8}$  to 59  $\frac{1}{8}$  inches)
- Mass: 4.6 kg (10 lb 2 oz)



## 3-2 Wired Microphones accessories

### B-500

#### Floor Stand

- Available screw: PF<sup>1</sup>/<sub>2</sub>-inch thread, U<sup>5</sup>/<sub>16</sub>-inch thread
- Supplied stand screw adaptor; NS<sup>5</sup>/<sub>8</sub>-inch thread, W<sup>3</sup>/<sub>8</sub>-inch thread
- Pole length: 880 to 1530 mm (34 <sup>3</sup>/<sub>4</sub> x 60 <sup>1</sup>/<sub>4</sub> inches)
- w/o stand adaptor
- Mass: 4.6 kg (10 lb 2 oz)



#### Batteries

Sony	IEC	MEDIA No.	Eveready	Voltage
S-006P (U)	6F-22	1604	216	9 V
006P (Alkaline)	—	1604A	522	9 V
SUM-1 (NS)	P20	13D	1250	1.5 V
SUM-3 (NS)	R6P	15D	1215	1.5 V
AM3	LR6	15A	E91	1.5 V
3CR-MIC	—	—	—	9 V

#### Holder Clips and Wind Screens

	Type		Finish	ECM-77	ECM-66	ECM-55	ECM-44	Remarks
Holder Clip	Single (Horizontal)		Black	SAD-H77B	SAD-H55B	SAD-H55B	SAD-H44B	10 pcs in each package
	Double (Horizontal)		Black	SAD-W77B	SAD-W55B	—	—	6 pcs in each package
	Single (Vertical)		Black	SAD-V77B	SAD-V55B	—	—	10 pcs in each package
	Safety Pin Type		Silver type	SAD-S77	SAD-S55	SAD-S55	—	6 pcs in each package
Power Supply Holder			Silver type	SAD-B100				3 pcs in a package
Wind Screen	Metal		Silver type	AD-R77S	—	—	—	6 pcs in each package
			Black	AD-R77B	—	AD-R55B	—	
	Urethane		Black	—	AD-R66B	—	AD-R44B	12 pcs in each package
	Urethane		6 colors	AD-C77	AD-C66	AD-C55	—	12 pcs in each package (6 colors x 2 pcs)

# 4 UHF Synthesized Wireless Microphone System

## WRT-830A

### UHF Synthesized Wireless Microphone

- High quality sound for vocals
- PLL synthesized control transmission
- Approx.8 hours of continuous operation is provided by 2 AA-size (LR6) alkaline batteries. The battery status can be shown on the built-in LCD
- An ON/OFF power switch inside the body for free from misoperation, preventing a user from accidentally turning-off the switch during operation
- Low handling noise due to the electret capsule
- Selectable RF Output 10 mW or 2.5 mW
- Easy-to-read LCD indication



## WRT-810A

### UHF Synthesized Wireless Microphone

- PLL synthesized control transmission
- Approx. 8 hours of continuous operation is provided by 2 AA-size (LR6) alkaline batteries. The battery status can be shown on the built-in LCD.
- Uni-directional dynamic capsule
- Easy-to-read LCD display
- Built-in talk switch
- Selectable RF output 10 mW or 2.5 mW



## WRT-807A

### UHF Synthesized Dynamic Wireless Microphone

- High sound quality for vocals - powerful, crisp and clean sound as well as presence in the low and mid frequency range
- Dynamic microphone capsule which is employed in the Sony F-780 professional vocal microphone
- LCD for display of channels, attenuator and accumulated operating hours
- Up to 5 hours of continuous operation with a single AA-size (LR6) battery
- 10 mW RF power output
- Battery alarm transmitted to compatible receivers
- Newly-developed lockable power switch to prevent accidental operation



## WRT-822A

### UHF Synthesized Transmitter

- PLL synthesized control transmission
- Approx.8 hours continuous operation with 2 AA-size (LR6) alkaline batteries
- Compact and lightweight design, measuring 63 (W) x 103 (H) x 17 (D) mm (2 1/2 x 4 1/8 x 11/18 inches)
- Easy-to-read LCD for comprehensive system information such as battery status, accumulated working time and frequency level
- Lavalier microphones capability



# 4 UHF Synthesized Wireless Microphone System

## WRT-805A

### UHF Synthesized Body Pack Transmitter

- Smoothly tapered body pack with compact, lightweight design
- Battery alarm transmitted to compatible receivers
- LCD for display of channel, attenuator and accumulated operating hours
- Up to 6 hours of continuous operation with a single AA-size (LR6) alkaline battery
- 10 mW RF power output
- 3-pole mini jack with a lock mechanism for secure lavalier cable clamping
- Switchable -40 dB/-60 dB input level and PHASE switches for guitar and lavalier microphone
- Microphone options: GC-0.7MP Guitar Cable, ECM-44BMP/ECM-77BMP/ECM-121BMP/ECM-122BMP/ECM-166BMP Electret Condenser Microphone and ECM-310BMP Electret Condenser Headset Microphone



## WRT-808A

### UHF Synthesized Transmitter

- Plug-on transmitter —converts a microphone to a wireless microphone
- Fitted with an XLR connector
- Compact and lightweight body, providing balanced handling
- Durable connecting mechanism for dependable operation
- Switchable RF power output, 50 mW for a longer working distance or 10 mW for multi-channel operation
- Variable input attenuation, 0 dB to 50 dB
- Battery alarm transmitted to compatible receivers
- LED for AF/Peak, battery indication
- Up to 4 hours continuous operation with two AA-sized (LR6) alkaline batteries



## ECM-77BC

### Lavalier Microphone

- 5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch), 1.5 g (0.04 oz) microphone head
- High performance, 40 Hz to 20,000 Hz frequency response
- SMC9-4P connector to interface with WRT-822A UHF Synthesised Transmitter



AUDIO  
EQUIPMENT

## ECM-310BC

### Electret Condenser Microphone

- Headset-style microphone for sound reinforcement applications
- Fitted with a wide-cardioid microphone, which provides crisp and clear sound while isolating desired sound from surrounding ambience
- Designed for use with the WRT-822A UHF Synthesized Transmitter (also suitable for use with the WRT-860A model)
- Adjustable hinge and gooseneck for a wide range of adjustment
- Unobtrusive, anti-slide headband
- SMC9-4P connector to interface with WRT-822A UHF Synthesised Transmitter



# 4 UHF Synthesized Wireless Microphone System

## ECM-350BC

### Electret Condenser Microphone

- Headset-style microphone for TV/sound reinforcement applications
- Fitted with an omni-directional microphone, which reduces pop-noises and allows optimum sound pick-up and enhanced intelligibility under almost any situation
- Designed for use with the WRT-860A UHF Synthesized Transmitter (also suitable for use with the WRT-822A model)
- Lightweight and with flexible microphone positioning for optimum vocal pick-up
- Unobtrusive, anti-slide headband
- SMC9-4P connector to interface with WRT-822A UHF Synthesised Transmitter



## ECM-44BMP

### Lavalier Microphone

- 8.5 mm dia. × 14.5 mm ( $1\frac{1}{32}$  inch dia. ×  $1\frac{1}{32}$  inch), 2 g (0.07 oz) microphone head
- Omni-directional
- For use with WRT-805A UHF Synthesized Transmitter



## ECM-77BMP

### Lavalier Microphone

- 5.6 mm dia. × 12.5 mm ( $\frac{1}{4}$  inch dia. ×  $\frac{1}{2}$  inch), 1.5 g (0.05 oz) microphone head
- Omni-directional
- For use with WRT-805A UHF Synthesized Transmitter



## ECM-121BMP

### Lavalier Microphone

- 8.5 mm dia. × 17.0 mm ( $1\frac{1}{32}$  inch dia. ×  $1\frac{1}{16}$  inch), 3 g (0.11 oz) microphone head
- Omni-directional
- For use with WRT-805A UHF Synthesized Transmitter





# 4 UHF Synthesized Wireless Microphone System

## ECM-122BMP

### Lavalier Microphone

•8.5 mm dia. × 17.0 mm ( $1\frac{1}{32}$  inch dia. ×  $1\frac{1}{16}$  inch), 3 g (0.11 oz) microphone head •Omni-directional •For use with WRT-805A UHF Synthesized Transmitter



## ECM-166BMP

### Lavalier Microphone

•12.5 mm dia. × 23.5 mm ( $\frac{1}{2}$  inch dia. ×  $1\frac{5}{16}$  inch), 3.5 g (0.12 oz) microphone head •Uni-directional •For use with WRT-805A UHF Synthesized Transmitter



## ECM-310BMP

### Headset Microphone

•Fitted with a wide-cardioid microphone for sensitivity and noise rejection •Adjustable hinge and goose-neck for a wide range of adjustment •Unobtrusive, anti-slide headband •For use with WRT-805A UHF Synthesized Transmitter



# 4 UHF Synthesized Wireless Microphone System

## Specifications

	WRT-830A	WRT-810A	WRT-807A
Oscillator	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of Emission	110KF3E	110KF3E	110KF3E
RF Power Output	10 mW or 2.5 mW selectable	10 mW or 2.5 mW selectable	10 mW (50 Ω load)
Antenna	¼ wave length whip antenna	¼ wave length whip antenna	¼ wave length wire antenna
Reference Deviation	±5 kHz	±5 kHz	±5 kHz (94 dB SPL*1, 1 kHz)
Frequency Response	70 to 15,000 Hz	100 to 13,000 Hz	50 to 15,000 Hz
Signal-to-noise Ratio	60 dB (A-weighted)	60 dB (A-weighted)	More than 60 dB (A-weighted)
Attenuator Adjustment Range (PAD)	12 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps
Max. Input Sound Pressure Level (0 dB SPL=2 × 10 <sup>-5</sup> Pa.)	142 dB SPL (w/12 dB attenuator)	151 dB SPL (w/21 dB attenuator)	151 dB SPL (at 1 kHz)
Max. Input Level (0 dBV=1 Vr.m.s.)	—	—	—
Reference Input Level (0 dBV=1 Vr.m.s.)	—	—	—
Input Connector	—	—	—
Microphone Capsule	Electret condenser	Dynamic	Dynamic
Directivity	Uni-directional	Uni-directional	Uni-directional
Operating Voltage	DC 3 V, AA-size (LR6) alkaline battery (× 2)	DC 3 V, AA-size (LR6) alkaline battery (× 2)	DC 1.5 V, AA-sized (LR6) alkaline battery (× 1)
Power Consumption	170 mA	170 mA	170 mA
Battery Life	Approx. 8 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 8 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 5 hours w/ (LR6) AA-size alkaline battery (× 1)
Dimensions (W × H × D)	48 mm dia. × 238 mm (1 15/16 inches dia. × 9 3/8 inches)	48 mm dia. × 238 mm (1 15/16 inches dia. × 9 3/8 inches)	51 mm × 238 mm (2 1/8 × 9 3/8 inches)
Mass	300 g (10.5 oz) w/batteries	300 g (10.5 oz) w/batteries	440 g (15.5 oz) w/battery
Supplied Accessories	Microphone holder (PF½-inch thread, × 1) U: Stand screw adaptor (PF½ to NS¾, × 1) AU: Stand screw adaptor (PF½ to NS¾, × 1) Stand screw adaptor (PF½ to W3/8, × 1)	Microphone holder (PF½-inch thread, × 1) U: Stand screw adaptor (PF½ to NS¾, × 1) AU: Stand screw adaptor (PF½ to NS¾, × 1) Stand screw adaptor (PF½ to W¾, × 1)	Microphone holder (PF½-inch thread, × 1) U: Stand screw adaptor (PF½ to NS¾, × 1) AU, CE: Stand screw adaptor (PF½ to W¾, × 1) Channel color seal (CE, × 1)

	WRT-822A	WRT-805A	WRT-808A
Oscillator	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of Emission	110KF3E	110KF3E	110KF3E
RF Power Output	10 mW	10 mW (50 Ω load)	50 mW or 100 mW selectable
Antenna	¼ wave length whip antenna	¼ wave length wire antenna	Internal antenna
Reference Deviation	±5 kHz (-60 dBV*2, 1 kHz input)	±5 kHz (-60 dBV*2, 1 kHz Input)*3	±5 kHz (-60 dBV*2, 1 kHz Input)*3
Frequency Response	70 to 15,000 Hz	70 to 15,000 Hz	70 to 15,000 Hz
Signal-to-noise Ratio	60 dB (A-weighted)	57 dB (A-weighted)	More than 57 dB (A-weighted)
Attenuator Adjustment Range (PAD)	0 to 21 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps	0 to 50 dB, continuous
Max. Input Sound Pressure Level (0 dB SPL=2 × 10 <sup>-5</sup> Pa.)	—	—	—
Max. Input Level (0 dBV=1 Vr.m.s.)	+7 dBV	+17 dBV (-40 dBV position, attenuator 21 dB)	26 dBV*2, *4
Reference Input Level (0 dBV=1 Vr.m.s.)	-60 dBV (at attenuator 0 dB)	-40 dBV (±16 kHz deviation at 1 kHz modulation)*5 -60dBV (±5 kHz deviation at 1 kHz modulation)*5	—
Input Connector	SMC9-4S	3.5 mm (5/32 inch) dia. 3-pole mini phone jack with lock mechanism	XLR-3-11 type
Microphone Capsule	—	—	—
Directivity	—	—	—
Operating Voltage	—	DC 1.5 V, AA-size (LR6) alkaline battery (× 1)	3 V, AA-size (LR6) alkaline battery (× 2)
Power Consumption	175 mA	170 mA	170 mA
Battery Life	Approx. 8 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 6 hours w/(LR6) AA-size alkaline battery (× 1)	Approx. 4 hours w/(LR6) AA-size alkaline battery (× 2)
Dimensions (W × H × D)	63 × 103 × 17 mm (2 1/2 × 4 1/8 × 1 1/16 inches)	58 × 93 × 21 mm (2 3/8 × 3 3/4 × 27/32 inches)	40 × 40 × 108 mm (1 5/8 × 1 5/8 × 4 3/8 inches)
Mass	145 g (5.1 oz) w/batteries	100 g (3.5 oz) w/battery	175 g (6.18 oz) w/battery
Supplied Accessories	Soft case (× 1)	Channel color seal (× 1, CE)	Soft case with a belt clip (× 1)

\*1 0 dB SPL=2 × 10<sup>-5</sup> Pa.

\*2 0 dBV=1 Vr.m.s.

\*3 Attenuator level: -60 dB position

\*4 Attenuator level: -10 dB position

\*5 Input level switch: -60 dBV position at attenuator 0 dB

For specifications of lavalier microphones, please refer to page 308.

# 4 UHF Synthesized Wireless Microphone System

## WRR-802A

### UHF Synthesized Diversity Tuner

- Single-channel space diversity tuner •Half 19-inch rack width and 1U height •AF, RF, and battery alarm indication by both LED and LCD to double check operating condition (channel indication by LCD only) •Output volume control
- Supplied portable front-mounted passive antennas
- Two types of output connectors
  - TRS Phone balanced connector (6.3 mm dia.), -20 dBm for LINE
  - XLR connector, -58 dBm for MIC or -20 dBm for LINE



## MB-806A

### Tuner Base Unit

- Modular design, 1U height 19-inch rack •Accommodates up to six WRU-806A for up to six simultaneous channels of operation •Up to 11 simultaneous channels on a single pair of AN-820A Active Antennas with the optional WD-820A Antenna Divider •Up to 19 simultaneous channels on a single pair of AN-820A Active Antennas with the optional WD-820A Antenna Divider •XLR output connectors for each tuner and mix output •Selectable output level, -58 dBm for MIC or -20 dBm for LINE •Space diversity reception for dependable RF reception •AF, RF, and battery alarm indication by both LED and LCD to double check operating condition (channel indication by LCD only) •Auto channel assignment of additional receiver modules for instant programming of interference-free multi-channel operation •RF input attenuator (10 dB/0 dB) switch •Supplied passive antennas for rear mounting (with provision for front mounting)



w/optional WRU-806A UHF Synthesized Tuner Unit installed

## WRU-806A

### UHF Synthesized Tuner Unit

- Dedicated plug-in diversity receiver module for MB-806A
- Space diversity reception for dependable RF reception



# 4 UHF Synthesized Wireless Microphone System

## WRR-805A

### UHF Synthesized Portable Tuner

- Compact, lightweight portable tuner for a wide variety of camcorders that have a stereo mini jack
- Flexible mounting position and direction for secure operation
- RF, battery alarm indication by both LED and LCD to double check operating condition (AF and channel indication by LCD only)
- LCD for display of operating channel, AF, RF, accumulated operating hours, the tuner's battery status
- LED for RF condition, the transmitter's battery alarm indication
- Convenient headphone monitoring with volume control
- 3-pole mini jack with a lock mechanism for secure camera cable clamping
- Up to 6 hours of continuous operation with two AA-size (LR6) alkaline batteries
- RF Muting function



## WRR-810A

### UHF Synthesized Tuner

- Compact, lightweight and easy to mount on Betacam SP camcorders
- Approx. 6 hours of continuous operation by 2 AA-size (LR6) alkaline batteries
- The battery status can be shown on the built-in LCD.
- AF monitoring function
- Switchable muting RF level 15 dB $\mu$



## WRR-855A

### UHF Synthesized Diversity Tuner

- Slot-in type portable tuner designed for use with Sony Betacam SX camcorders
- Water proof structure
- Compact design and lightweight only 280 g (11 oz)
- Space diversity system for highly stable signal reception
- Pre-programmed, intermodulation-free, groups of frequencies stored in CPU for simultaneous multi-channel operation
- Tone-squelch circuit for noise elimination
- LED indications of received RF signal level and audio output
- LCD shows
  - Wireless microphone operating channel and group
  - Error messages
- Powered from camcorder
  - Direct interfacing with Sony Betacam SX camcorders
  - Via optional mounting adaptor (BTA-801) with other Sony camcorders
- Muting RF level 10 dB $\mu$  or OFF switchable



# 4 UHF Synthesized Wireless Microphone System

## BTA-801

### Portable Tuner Mount Adaptor

- Mounting adaptor for a WRR-855A to fit on a Sony camcorder
- Provides DC power supply from a camcorder to the WRR-855A by incorporating a DC-DC converter



## CA-WR855

### Camera Adaptor

- Mounting adaptor that enables a WRR-855A to be mounted on Sony DSR-300/500WS DVCAM™ camcorders
- Direct audio/power connection interfaces



## DC-WL800

### DC Pack Unit

- The DC-WL800 can be used to power a WRR-810A Portable Receiver, the attached power cable of this DC pack making it very convenient to mount the receiver onto any Betacam camcorder
- As an alternative to operating a WRT-860A, or WRT-822A, on batteries, the battery case can be removed and replaced by a DC-WL800 DC Pack which then allows operation from an external DC 12 V source



# 4 UHF Synthesized Wireless Microphone System

## Specifications

	<b>WRR-802A</b>	<b>MB-806A</b>	<b>WRU-806A</b>
Oscillator	Crystal controlled PLL synthesizer	—	Crystal controlled PLL synthesizer
Type of Reception	110KF3E	—	110KF3E
Reference Deviation	±5 kHz	—	±5 kHz
Selectivity	More than 60 dB	—	More than 60 dB
Spurious Rejection Ratio	More than 70 dB	—	More than 70 dB
Frequency Range	100 to 15,000 Hz	—	100 to 15,000 Hz
Signal-to-noise Ratio	More than 60 dB (A-weighted)	—	More than 60 dB (A-weighted)
Harmonic Distortion	Less than 1.0%	—	Less than 1.0%
RF Muting Level	30 dB $\mu$	—	30 dB $\mu$
Audio Output Level	-20 dBm/-58 dBm ( $\pm$ 5 kHz deviation at 1 kHz modulation)	-20 dBm/-58 dBm ( $\pm$ 5 kHz deviation at 1 kHz modulation)	—
Audio Output Connector	XLR and TRS phone, 6.3 mm (1/4 inch) dia., balanced	XLR type	—
Antenna Connector	BNC-R type	BNC-R type	—
Headphone Output Connector	—	—	—
Power Requirements	—	U: AC 120V, 60 Hz CE: AC 230 V, 50 Hz	—
Power Consumption	—	30 W	—
Operating Voltage	DC 9 V	—	DC 9 V
Current Consumption	600 mA	—	225 mA
Battery Life	—	—	—
Dimensions (W x H x D)	218 x 44 x 210 mm (8 5/8 x 1 3/4 x 8 3/8 inches)	482 x 44 x 300 mm (19 x 1 3/4 x 11 7/8 inches)	57 x 26 x 122 mm (2 1/4 x 1 1/16 x 4 7/8 inches)
Mass	1.6 kg (3 lb 8 oz)	3.6 kg (7 lb 15 oz)	160 g (5.7 oz)
Supplied Accessories	AC power adaptor (x 1) Antenna (x 2) Channel color seal (CE, x 1)	AC power cord (x 1) Antenna (x 2)	Channel color seal (CE, x 1)

	<b>WRR-805A</b>	<b>WRR-810A</b>	<b>WRR-855A</b>
Oscillator	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of Reception	110KF3E	110KF3E	110KF3E
Reference Deviation	±5 kHz	±5 kHz	±5 kHz
Selectivity	More than 60 dB	More than 60 dB	More than 60 dB
Spurious Rejection Ratio	More than 70 dB	More than 50 dB	More than 80 dB
Frequency Range	100 to 15,000 Hz	100 to 15,000 Hz	100 to 15,000 Hz
Signal-to-noise Ratio	More than 30 dB (A-weighted RF input: 10 dB $\mu$ ) More than 60 dB (A-weighted RF input: 60 dB $\mu$ )	More than 60 dB (A-weighted)	More than 60 dB (A-weighted)
Harmonic Distortion	Less than 1.0%	Less than 1.0%	Less than 1.0%
RF Muting Level	15 dB $\mu$ $\pm$ 5 dB $\mu$	15 dB $\mu$	15 dB $\mu$ or OFF selectable
Audio Output Level	-58 dBm ( $\pm$ 5 kHz deviation at 1 kHz modulation)	-58 dBm	-40 dBm
Audio Output Connector	3.5 mm (5/32 inch) dia. 3-pole mini phone jack with lock mechanism, balanced	SMC9-4S	D-sub 15-pin
Antenna Connector	—	BNC-R type	BNC-R type
Headphone Output Connector	3.5 mm (5/32 inch) dia. 3-pole mini phone jack	—	—
Power Requirements	—	—	—
Power Consumption	—	—	—
Operating Voltage	DC 3 V, AA-size (LR6) alkaline battery (x 2)	DC 3 V, AA-size (LR6) alkaline battery (x 2)	DC 7 V
Current Consumption	170 mA	200 mA	180 mA
Battery Life	Approx. 6 hours w/(LR6) AA-size alkaline battery (x 2)	Approx. 6 hours w/(LR6) AA-size alkaline battery (x 2)	—
Dimensions (W x H x D)	44 x 121 x 24 mm (1 3/4 x 4 7/8 x 3 1/2 inches)	63 x 120 x 17 mm (2 1/2 x 4 3/4 x 1 1/16 inches)	88 x 119 x 31 mm (3 1/2 x 4 3/4 x 1 1/16 inches)
Mass	140 g (4.9 oz) w/battery	220 g (7 oz) w/battery	280 g (9.9 oz)
Supplied Accessories	Attachment case with a belt clip (x 1) Output cable (x 1)	1/4 wave length antenna (x 2) Output cable (x 2) Holder kit for Betacam Camcorder (x 1) Attachment case (x 1)	1/4 wave length antenna (x 2)

0 dB $\mu$  = 1 $\mu$ V; 0 dBm = 0.775 Vr.m.s. 600  $\Omega$  load; 0 dB $\mu$  = 0.775 Vr.m.s open

	<b>DC-WL800</b>
Input DC Power	10 V to 17 V
Output DC Power	3 V
Load Current	250 mA
Mass	50 g (1.8 oz)

# 4 UHF Synthesized Wireless Microphone System

## AN-820A

### UHF Antenna

•Built-in RF amplifier •Easy installation on a wall or in a microphone stand with the supplied stand adaptor •LED indication for installation check •External power supply provided from the MB-806A, WRR-820A/840A or the WD-820A via coaxial cable



## WD-820A

### UHF Antenna Divider

•Connection of up to 4 diversity distribution outputs •Cascade connections •Connection of up to 2 pair antennas •DC 9 V power supply for the AN-820A UHF antenna



### Specifications

	WD-820A
Channel Distribution	2 inputs/4 outputs (x 2)
Input/Output VSWR	Less than 3.0
Input/Output Impedance	50 $\Omega$
Cascade Output	1 output (x 2)
Power Supply for Antenna Booster (supplied from antenna input connectors)	DC 9 V
Power Consumption	6 W +outlet 300 W max.
Dimensions	482 (W) x 44 (H) x 300 (D) mm (19 x 1 <sup>3</sup> / <sub>4</sub> x 11 <sup>7</sup> / <sub>8</sub> inches)
Mass	4.2 kg (9 lb 4 oz)
Supplied Accessories	AC power cord (x 1) 50 $\Omega$ BNC terminators (x 6)

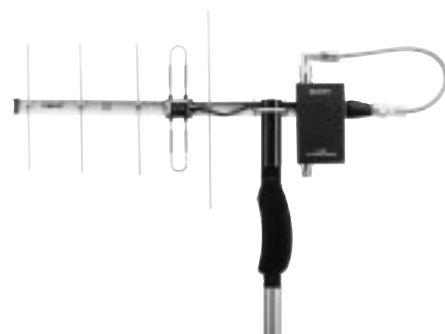
## K-1236

### UHF Antenna

## K-1237

### UHF Antenna Booster Unit

•Two way powering of 2 AA-size (LR-6) alkaline batteries which provide approx. 6 hours of continuous operation or external DC 10 V to 17 V



# 4 UHF Synthesized Wireless Microphone System

## EC-1.5CF

### Microphone cable for WRT-822A

- Connectors: SMC9-4P, XLR-3-11C type
- Length: 1.5 m (4.9 feet)

## K-1161

### Microphone cables for connection between AN-820A, WRR-820A/840A and WD-820A

- Connectors: SMC9-4P, phone type
- Length: 0.7 m

## GC-0.7MP

### Guitar Cable

- Designed for use with WRT-805A UHF Synthesized Transmitter
- 6.3 mm dia. (1/4 inch dia.) 2-pole phone jack to 3.5 mm dia. (5/32 inch dia.) 3-pole mini phone plug with lock mechanism
- Cable 5.5 mm dia. x 700 mm (7/32 inch dia. x 27 5/8 inches)



## SC-M800

### Carrying Case

- Compact and lightweight
- Portability-enables a complete Freedom Series Wireless Microphone System to be easily and safely carried around
- Capacity to hold:
  - WRT-800A UHF Synthesized Wireless Handheld Microphone (1)
  - WRT-805A UHF Synthesized Body Pack Transmitter (1)
  - WRR-800A UHF Synthesized Diversity Tuner (1) with AC adaptor (1)
  - Lavalier microphones
  - GC-0.7MP Guitar Cable (1)
  - Microphone holder (1)
  - AA size batteries (max. 3)
  - Antennas (2) for the WRR-800A UHF Synthesized Diversity Tuner
  - Unallocated space : 95 (W) x 25 (H) x 40 (D) mm (3 3/4 x 1 x 1 5/8 inches)
  - Operating instructions (1) can be inserted between the inside of the case lid and the internal cushion
- Robust external polypropylene frame
- Internal urethane cushions minimize external shocks and vibration



### Specifications

Dimensions:	460 (W) x 390 (H) x 90 (H) mm (18 1/8 x 15 3/8 x 3 5/8 inches)
Mass:	1.4 kg (3 lb 1.4 oz)
Supplied Accessories:	"Freedom" logo sticker (1) Packaging diagram (1)



# 4 UHF Synthesized Wireless Microphone System

## LCS-T805

### Soft Case

•Designed specifically to attach a WRT-805A UHF Synthesized Body Pack Transmitter to a guitar strap •Fixes a guitar strap with width of 15 mm (19/32 inch) to 70 mm (2 7/8 inches)

(A convenient strap holder is included to allow attachment to a guitar strap with width less than 50 mm (2 inches))



### Specifications

Dimensions: 75 (W) × 110 (H) × 40 (D) mm  
(3 × 4 3/8 × 1 5/8 inches)

Mass: 50 g (1.76 oz)

## WBC Coaxial Cables

### 50 Ω coaxial cables with BNC connectors

Model	Length (m)	Connector (x 2)	Cable (50 Ω)	Loss (dB)		Mass (g)
				500 MHz	1000 MHz	
WBC-0.6B-P	0.6	BNC-P (UG-88/U)	RG-58 A/U	—	—	70
WBC-10B-5P	10	BNC-P-5	5D-2 V	2.2	3.5	800
WBC-20B-5P	20	BNC-P-5	5D-2 V	4.4	7.0	1600
WBC-30B-5P	30	BNC-P-5	5D-2 V	6.6	10.5	2400
WBC-50B-5P	50	BNC-P-5	5D-2 V	11.0	17.5	4000

