

SONY®

AU

Freedom™ Series UHF Synthesized Wireless Microphone System

WRT-805A/807A/808A
WRR-802A/805A
MB-806A, WRU-806A



Performance you've always wanted at a price you never expected.

They're used in broadcasting for everything from network news, to talk shows to soap operas. They're used when rock and roll headliners hit the stadium circuit, and for Broadway musicals. Sony's 800 Series UHF Wireless Microphone Systems are the stuff of pro audio legend. But until now, this high performance has only been available to musicians and producers with deep pockets. Now Sony changes all that with the latest additions to the 800 MHz UHF Wireless Microphone family. Now you're free from the interference, distortion and assorted hash of the crowded VHF band. You're free to mix and match mics, body packs and receivers with the rest of Sony's 800 Series. And you're free to step up to the UHF world, even if your budget is firmly rooted in the real world.

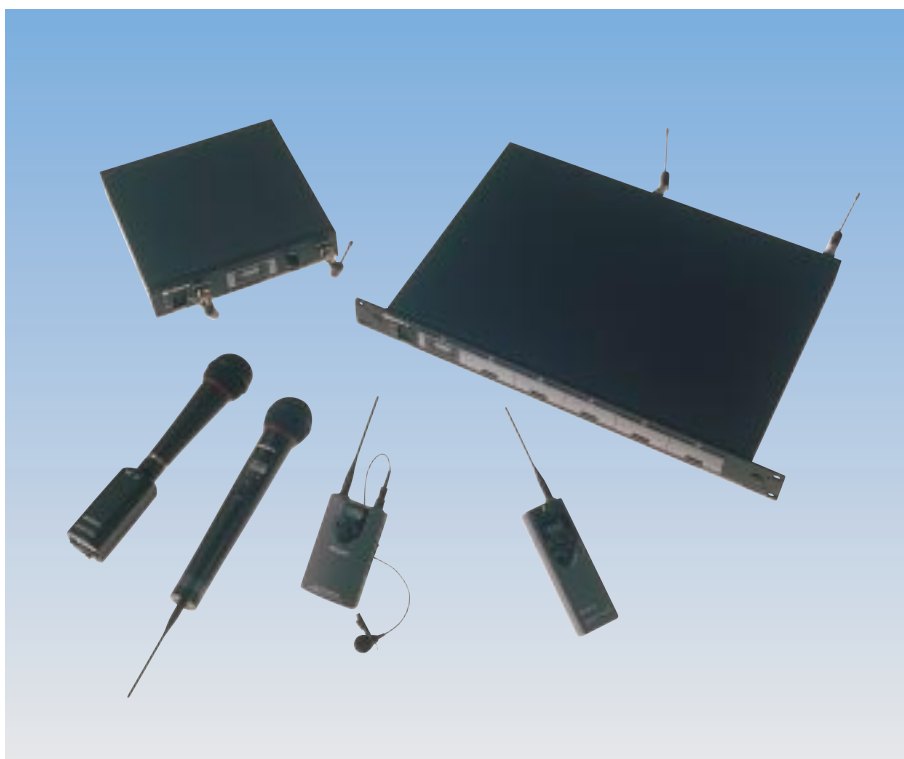


Sony Offers...

Freedom To UHF Performance At VHF Prices

Up to 12-channel Simultaneous Operation

Special combinations of intermodulation-free wireless channels are conveniently stored in the CPU of each tuner. This makes it easy to choose the correct operating frequencies for simultaneous multi-channel operation. This UHF synthesized wireless system employs six channel groups. Each group allows for different variations on the number and combination of various UHF TV channels. By using the group 11, up to 12 channels can be operated simultaneously. And a maximum of 9 channels can be operated one odd numbered, one even numbered TV channel.



TV Channel Group No.	(66) 66,67
11	66-02 67-08
	66-07 67-19
	66-17 67-33
	66-19 67-39
	66-35 67-42
	66-43 67-46

TV Channel Group No.	(66) 67
12	67-01 67-27
	67-03 67-41
	67-11 67-44
	67-16 67-50*
	67-23

TV Channel Group No.	(66) 66
13	66-01 66-27
	66-03 66-41
	66-11 66-44
	66-16 66-50*
	66-23

TV Channel Group No.	(66) 66,67
A1	66-02 67-02
	66-04 67-29
	66-12 67-35
	66-24 67-44

TV Channel Group No.	(66) 67
A2	67-06 67-32
	67-15 67-16
	67-21 67-50*

TV Channel Group No.	(66) 66
A3	66-06 66-32
	66-15 66-46
	66-21 66-50*

* Channel 66-50/51 and 67-50/51 are not available when using WRT-808A.



WRR-805A with Sony DCR-VX1000 camcorder

800 MHz UHF Transmission Quality

If you want to escape the walkie-talkies, CB radios and hash of the VHF band, step up to 800 MHz UHF. As with previous Sony 800 MHz wireless products, these new 800 Series components bring you all the benefits of Sony engineering, offering a choice of 102 wireless channels^{*1}, in the range from 792 to 806 MHz.^{*2}

^{*1} 98 wireless channels are selectable when using WRT-808A.

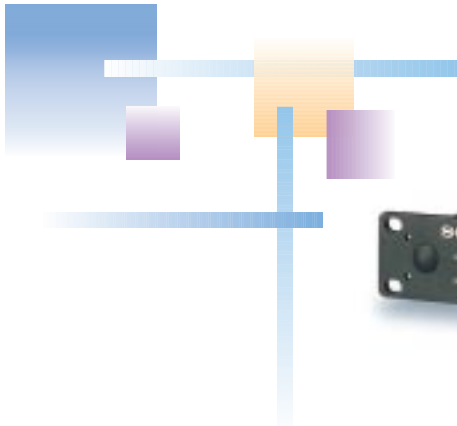
^{*2} Frequencies and TV bands differ in versions shipped to other countries.



Frequency-Agile Frequency-Synthesis Tuning

Because RF interference can change from venue to venue -- and from night to night -- Sony's wireless systems can also change. You get your choice of 102 wireless channels*, available to switch at a moment's notice. This ability, made possible by Sony Frequency Synthesis Tuning, is your first line of defense against all those other potential sources of interference.

* 98 wireless channels are selectable when using WRT-808A.



Space Diversity Reception for Added Protection

If you've ever listened to a car radio in a traffic jam, you know that small changes in location can make a big difference in radio reception. The same is true when "talent" moves about the stage with a wireless mic. Sony's defense against the threat of multipath distortion is by equipping our receivers with Space Diversity Reception. The system uses two receiving antennas, some distance apart. The tuner constantly compares the signal from both antennas -- and chooses the best one!

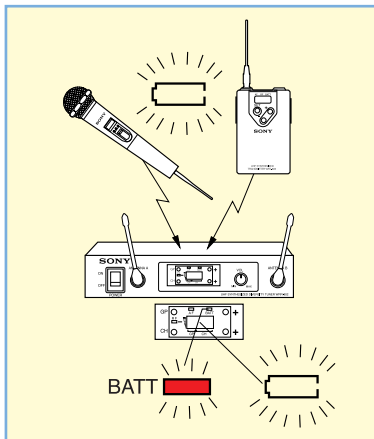


MB-806A and WRU-806A

Freedom Of Operational Convenience

Remote Battery Alarm on Receiver

For added assurance of continued operation, you can now monitor the battery reserves of handheld, body pack and plug-on transmitters; the battery indicator on LCD starts flashing on the handheld and body pack transmitter, and the battery indicator on LED turns red on the plug-on transmitter, both indicating approx. one hour before the batteries go dead. On the receiver, the battery indicator on the LCD and LED displays also flash, helping to avoid the chance of battery failure at a critical moment.



Long Operating Time with A Single AA-size (LR6) Alkaline Battery

The handheld mic offers up to 5 hours of continuous operation, and 6 hours for the body pack transmitter are guaranteed with only one single AA-size (LR6) alkaline battery.

* Battery life depends on environmental and usage conditions.

Modular Design for 6 or 12 Simultaneous Operation

The MB-806A Tuner Base Unit features slots for six WRU-806A diversity receiver modules, with an internal antenna divider for six channels of diversity operation in a single rack space. Using the optional WD-820A Antenna Divider, you can go even further, with up to 12 wireless mics operating simultaneously on a single pair of AN-820A active antennas!

Auto Channel Assignment

The MB-806A also features a convenient auto channel assignment function. Once an operating group is set on one of the installed WRU-806A receiver, channels within the same group are automatically assigned, and unusable channels for the additional receivers will be automatically detected and skipped. This enables instant and automatic multi-channel setting of the entire rack of receivers.



Comprehensive LCD

For operational convenience, an easy-to-read LCD (Liquid Crystal Display) is built into the handheld mic, body pack transmitter, and receivers to provide various information such as battery status indication, accumulated operating hours, operating channel, and attenuation.



Compatible with Sony's Existing 800 Series

You can mix and match these new wireless components with previous Sony 800 Series components as you please! Use the new body pack transmitters and mics with your existing receivers -- or use existing transmitters with the new receivers.

Main Features

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 channel, 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-807A



WRT-805A



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



WRT-808A

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



WRR-802A



Rear Panel

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

*The six optional WRU-806A are installed.



Rear Panel

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 12 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 multichannel operation
- RF input attenuator (10 dB/0 dB) switch
- Supplied passive antennas for rear mounting (with provision for front mounting)

WRR-805A



WRU-806A

UHF Synthesized Tuner Unit

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



WRU-806A

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

System Configuration

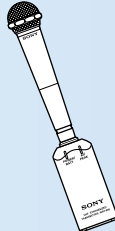
Single-Channel System

Example 1



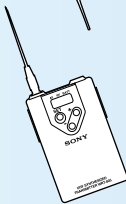
WRT-807A

Example 3

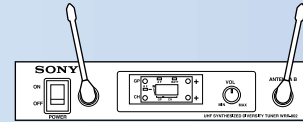


WRT-808A

Example 2

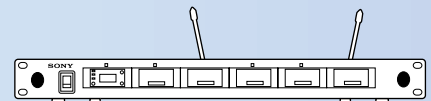


WRT-805A



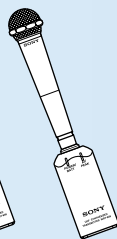
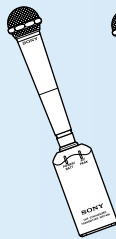
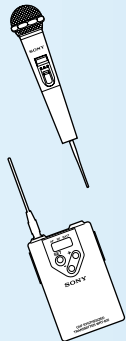
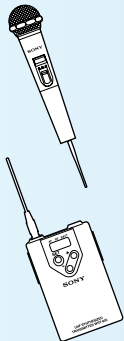
WRR-802A

OR

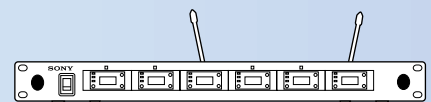
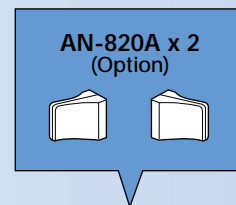


MB-806A w/one WRU-806A installed

6-Channel System

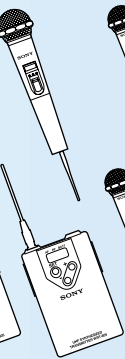
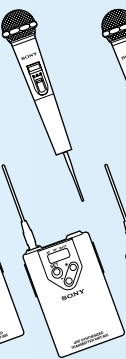
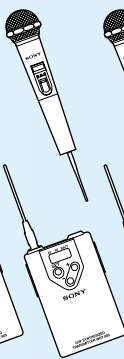
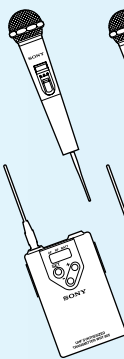


WRT-807A or
WRT-805A or
WRT-808A x 6

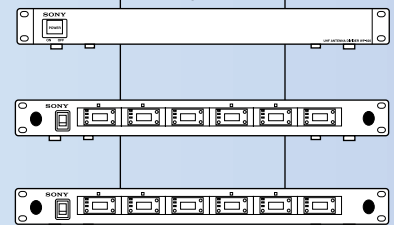
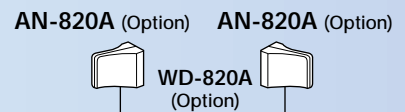


MB-806A w/six WRU-806A installed

12-Channel System



WRT-807A or
WRT-805A or
WRT 808A x 12



MB-806A w/six WRU-806A installed x2

Options for WRT-805A Transmitter

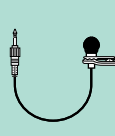
Electret Condenser
Microphone
ECM-310BMP



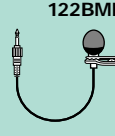
Electret Condenser
Microphone
ECM-44BMP



Electret Condenser
Microphone
ECM-77BMP



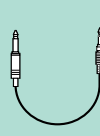
Electret Condenser
Microphone
ECM-121BMP
122BMP



Electret Condenser
Microphone
ECM-166BMP



Guitar Cable
GC-0.7MP



Specifications

	WRT-807A	WRT-805A	WRT-808A
Carrier frequency:	792.250 MHz to 805.500 MHz 102 channels selectable	792.250 MHz to 805.500 MHz 102 channels selectable	792.250 MHz to 805.250 MHz 98 channels selectable
Oscillator:	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of emission:	110KF3E	110KF3E	110KF3E
RF power output:	10 mW (50 Ω load)	10 mW (50 Ω load)	50 mW or 10 mW selectable (50 Ω load)
Antenna:	1/4 wave length wire antenna	1/4 wave length wire antenna	Internal antenna
Reference deviation:	± 5 kHz (94 dB SPL ^{*2} , 1 kHz)	± 5 kHz (-60 dBV ^{*3} , 1 kHz input) ^{*4}	± 5 kHz (-60 dBV ^{*3} , 1 kHz input) ^{*4}
Frequency response:	50 Hz to 15,000 Hz	70 Hz to 15,000 Hz	70 Hz to 15,000 Hz
Signal-to-noise ratio:	More than 60 dB (A-weighted)	57 dB (A-weighted)	More than 57 dB (A-weighted)
Attenuator adjustment range (pad):	21 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps	0 to 50 dB, continuous
Max. sound pressure level:	151 dB SPL ^{*2} (1 kHz)	—	—
Max. input level:	—	+17 dBV ^{*3} (-40 dBV position, attenuator 21 dB)	26 dBV ^{*3,5}
Input level:	—	-40 dBV ^{*3} (± 16 kHz deviation at 1 kHz modulation) ^{*1} -60 dBV ^{*3} (± 5 kHz deviation at 1 kHz modulation) ^{*1}	-60 dBV ^{*4} to -10 dBV ^{*5} (at 1 kHz modulation)
Frequency stability:	—	—	Within ± 0.005 %
Input connector:	—	3.5 mm (5/32 inch) dia. 3-pole mini phone jack with lock mechanism	XLR-3-11 type
Microphone capsule:	Dynamic	—	—
Directivity:	Uni-directional	—	—
Operating voltage:	DC 1.5 V, AA-size (LR6) alkaline battery(1)	DC 1.5 V, AA-size (LR6) alkaline battery(1)	DC 3.0 V, AA-size (LR6) alkaline battery (2)
Battery life:	Approx. 5 hours w/(LR6) AA-size alkaline battery (1)	Approx. 6 hours w/ (LR6) AA-size alkaline battery (1)	Approx. 4 hours w/(LR6) AA-size alkaline battery (2)
Dimensions:	51 x 238 mm (2 1/8 x 9 3/8 inches) (Max. dia. x length)	58 (W) x 93 (H) x 21 (D) mm (2 3/8 x 3 3/4 x 27/32 inches)	40 x 40 x 108 mm (1 5/8 x 1 5/8 x 4 3/8 inches)
Mass:	440 g (15.5 oz) w/ battery	100 g (3.5 oz) w/ battery	175 g (6.18 oz) w/ batteries
Supplied accessories:	Operating instructions (1) Microphone holder (1) Metal screw adaptor (1)	Operating instructions (1)	Operating instructions (1) Soft case (1)

^{*1} Input level switch: -60 dBV position at attenuator 0 dB ^{*2} 0 dBV SPL = 2×10^{-5} Pa. ^{*3} 0 dBV = 1 V.r.m.s.

^{*4} Attenuator level : -60 dB position ^{*5} Attenuator level : -10 dB position

	WRR-802A	MB-806A	WRU-806A	WRR-805A
Receiving frequency:	792.250 MHz to 805.500 MHz 102 channels selectable	792.250 MHz to 805.500 MHz	792.250 MHz to 805.500 MHz 102 channels selectable	792.250 MHz to 805.500 MHz 102 channels selectable
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:	More than 70 dB	—	More than 70 dB	More than 70 dB
Frequency range:	100 Hz to 15,000 Hz	—	100 Hz to 15,000 Hz	100 Hz to 15,000 Hz
Signal-to-noise ratio:	More than 60 dB (A-weighted)	—	More than 60 dB (A-weighted)	More than 30 dB (A-weighted RF input: 10 dB μ) More than 60 dB (A-weighted RF input: 60 dB μ)
Harmonic distortion:	Less than 1.0 %	—	Less than 1.0 %	Less than 1.0 %
RF muting level:	30 dB μ	—	30 dB μ	15 dB μ ± 5 dB μ
Audio output level:	-20 dBm/-58 dBm (± 5 kHz deviation at 1 kHz modulation)	-20 dBm/-58dBm (± 5 kHz deviation at 1 kHz modulation)	—	-58 dBm (± 5 kHz deviation at 1 kHz modulation)
Audio output connector:	XLR and TRS phone, 6.3 mm (1/4 inch) dia., balanced	XLR type	—	3.5 mm (5/32 inch) dia. 3-pole mini phone jack with lock mechanism, balanced
Antenna connector:	BNC-R type	BNC-R type	—	—
Headphone output connector:	—	—	—	3.5 mm (5/32 inch) dia. 3-pole mini phone jack
Power consumption:	—	30 W	—	—
Operating voltage:	DC 9 V	AC 100 to 240 V, 50/60 Hz	DC 9 V	DC 3 V, AA-size (LR6) alkaline battery (2)
Current consumption:	600 mA	—	225 mA	170 mA
Battery life:	—	—	—	Approx. 6 hours w/(LR6) AA-size alkaline battery (2)
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)	44 x 121 x 24 mm (1 3/4 x 4 7/8 x 31/32 inches)
Mass:	1.6 kg (3 lb 8 oz)	3.6 kg (7 lb 15 oz)	160 g (5.7 oz)	140 g (4.9 oz) w/batteries
Supplied accessories:	Operating instructions (1) AC power adaptor (1) Antenna (2)	Operating instructions (1) AC power cord (1) Antenna (2)	Operating instructions (1)	Operating instructions (1) Attachment case with a belt clip (1) Output cable (1)

^{*} 0 dBm = 0.775 V.r.m.s., 600 Ω load, 0 dB μ = 1 μ V, 0 dBu = 0.775 V.r.m.s. open

	<i>ECM-310BMP</i>	<i>ECM-44BMP</i>	<i>ECM-77BMP</i>
Capsule type:	Electret condenser	Electret condenser	Electret condenser
Frequency range:	70 to 12,000 Hz	40 to 15,000 Hz	40 to 20,000 Hz
Directivity:	Wide-cardioid	Omni-directional	Omni-directional
Sensitivity (0 dB = 1 V/1 Pa. at 1 kHz):	-44 dB (6.3 mV) \pm 3 dB	-40 dB (10 mV) \pm 3 dB	-39 dB (11 mV) \pm 2 dB
Output impedance:	800 Ω \pm 30 % at 1 kHz, unbalanced	2.5 k Ω \pm 30 % at 1 kHz, unbalanced	2.5 k Ω \pm 30 % at 1 kHz, unbalanced
Microphone cable:	1.2 m (3.9 feet)	1.2 m (3.9 feet)	1.2 m (3.9 feet)
Output connector:	3.5 mm (5/32 inch) dia. 3-pole mini phone plug with lock mechanism		
Dimensions Microphone head:	10 mm (13/32 inch) dia.	8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch)	5.6 mm dia. x 12.5 mm (1/4 inch dia. x 1/2 inch)
Mass Microphone head: Total:	— Approx. 46 g (1.62 oz), without connector	Approx. 2 g (0.07 oz)	Approx. 1.5 g (0.05 oz)
Finish:	Mat black finish	Mat black finish	Mat black finish
Supplied accessories:	Operating instructions (1) Wind screen (1)	Operating instructions (1) Holder clip (1) Wind screen (1)	Operating instructions (1) Holder clip (1) Wind screen (1)

	<i>ECM-121BMP/122BMP</i>	<i>ECM-166BMP</i>
Capsule type:	Electret condenser	Electret condenser
Frequency range:	100 to 10,000 Hz	100 to 10,000 Hz
Directivity:	Omni-directional	Uni-directional
Sensitivity (0 dB = 1 V/1 Pa. at 1 kHz):	-41 dB (8.9 mV)	-44 dB (6.3 mV) \pm 3 dB
Output impedance:	2.5 k Ω \pm 30 % at 1 kHz, unbalanced	2.5 k Ω \pm 30 % at 1 kHz, unbalanced
Microphone cable:	0.2 m (7 7/8 inches) / 1.2 m (3.9 feet)	1.2 m (3.9 feet)
Output connector:	3.5 mm (5/32 inch) dia. 3-pole mini phone plug with lock mechanism	
Dimensions Microphone head:	8.5 mm dia. x 17 mm (11/32 inch dia. x 11/16 inch)	12.5 mm dia. x 23.5 mm (1/2 inch dia. x 15/16 inch)
Mass Microphone head:	Approx. 3 g (0.11 oz)	Approx. 3.5 g (0.12 oz)
Finish:	Mat black finish	Mat black finish
Supplied accessories:	Operating instructions (1) Holder clip (1) Wind screen (1)	Operating instructions (1) Holder clip (1) Wind screen (1)

	<i>GC-0.7MP</i>
Input impedance:	More than 1 M Ω
Connectors:	3.5 mm (5/32 inch) dia. 3-pole mini phone plug with lock mechanism (for transmitter) 6.5 mm (1/4 inch) dia. phone plug (for guitar)
Cable:	0.7 mm (2.3 feet)
Mass:	Approx. 70 g (2.47 oz)



Optional Accessories

ECM-310BMP Electret Condenser Microphone



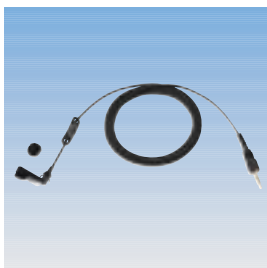
- Headset-style microphone
- Wide cardioid capsule
- Lightweight, with flexible microphone positioning for optimum voice pick-up
- 3-pole mini plug with a lock mechanism for secure cable clamping

ECM-44BMP Electret Condenser Microphone



- Omni-directional
- High sound quality
- 3-pole mini plug with a lock mechanism for secure cable clamping
- Mic head: 8.5 mm (11/32 inch) dia. x 14.5 mm (19/32 inch)

ECM-77BMP Electret Condenser Microphone



- Omni-directional
- Superior sound quality – leader in the Sony ECM lavalier microphone series
- 3-pole mini plug with a lock mechanism for secure cable clamping
- Mic head: 5.6 mm (1/4 inch) dia. x 12.5 mm (1/2 inch)

ECM-121BMP/122BMP Electret Condenser Microphone



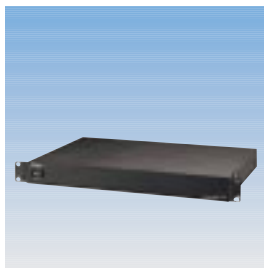
- Omni-directional
- 3-pole mini plug with a lock mechanism for secure cable clamping
- Mic head: 8.5 mm (11/32 inch) dia. x 17 mm (11/16 inch)
- Mic cable length: ECM-121BMP = 0.2 m (7 7/8 inches), ECM-122BMP = 1.2 m (3.9 feet)

ECM-166BMP Electret Condenser Microphone



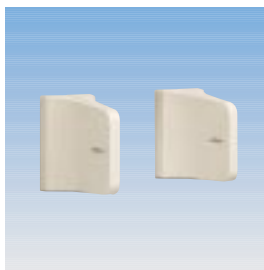
- Uni-directional
- 3-pole mini plug with a lock mechanism for secure cable clamping
- Mic head: 12.5 (1/2 inch) dia. x 23.5 mm (15/16 inch)

WD-820A UHF Antenna Divider



- Up to four diversity distribution outputs
- Connection of up to four antennas
- DC 9 V power supply for the AN-820A UHF Antenna
- Cascade connection

AN-820A UHF Antenna



- Built-in amplifier for signal compensation. 10 dB gain to compensate for cable loss.
- External powering from the MB-806A or WD-820A via coaxial cable
- Used in pairs for diversity reception
- LED for power indication
- Easy installation on a wall or in a microphone stand with the supplied adaptor

GC-0.7MP Guitar Cable



- Use with WRT-805A Body Pack Transmitter
- Special active guitar cable for high quality reproduction of guitar sound
- 3-pole mini plug with a lock mechanism for secure cable clamping
- Cable 5.5 mm (7/32 inch) dia. x 0.7 m (2.3 feet) long

LCS-T805 Soft Case



- Holding WRT-805A UHF Synthesized Body Pack Transmitter to be attached to a guitar strap
- Guitar strap width: 15 mm (19/32 inch) to 70 mm (2 7/8 inches)

SC-M800 Carrying Case



- Compact and lightweight polypropylene case
- Capacity to hold: WRT-805A, WRT-807A, WRR-802A, lavalier microphones and accessories
- Dimensions: 460 (W) x 390 (H) x 90 (D) mm (18 1/8 x 15 3/8 x 3 5/8 inches)
- Mass: 1.4 kg (3 lb 1.38 oz)

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