

SONY®

U

UHF Synthesized Wireless Microphone System

WRT-800A/805A WRR-800A/801A WRU-801A



Freedom™

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

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 94 wireless channels, in the range from 794 to 806 MHz.*

* 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 94 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.

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!



WRT-800A



Main Features

WRT-800A UHF Synthesized Wireless Handheld Microphone

- Wide-cardioid electret condenser capsule
- Up to 12 hours of continuous operation with a single AA-sized (LR6) alkaline battery. RF power output: 5 mW.
- Battery alarm transmitted to compatible receivers
- Ergonomic grip
- Low profile miniature helical antenna
- Easily detachable mic holder (supplied) for use on a stand



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. RF power output: 10 mW.
- 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-121BMP/ECM-122BMP Electret Condenser Microphone and ECM-310BMP Electret Condenser Headset Microphone
- Low profile miniature helical antenna

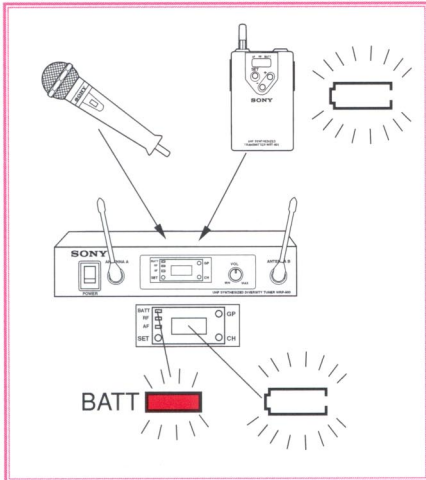


WRT-805A

Freedom Of Operational Convenience

Remote Battery Alarm On Receiver

For added assurance of continued operation, you can now monitor the battery reserves of both the handheld and body pack transmitters; the power indicator on the handheld goes off, and the battery indicator on LCD starts flashing on the body pack transmitter, both indicating one hour before the batteries go dead. On the receiver, the battery indicator on the LED and LCD 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 12 hours of continuous operation, and 6 hours for the body pack transmitter are guaranteed with only one single AA-size (LR6) alkaline battery.

Comprehensive LCD

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

Modular Design for 6 or 11 Simultaneous Channels

The WRR-801A receiver comes with a single WRU-801A diversity receiver module, and features expansion slots for 5 additional receivers, with an internal antenna divider for six channels of diversity operation in a single rack space. With the optional WD-820A Antenna Divider, you can go even further, with up to 11 wireless mics operating simultaneously on a single pair of AN-820A active antennas!



WRR-800A



WRR-800A Rear Panel

WRR-800A 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
- Balanced output connector with 6.3 mm (1/4-inch) dia. TRS phone jack
- Supplied portable front-mounted passive antennas

WRR-801A UHF Synthesized Diversity Tuner

- Modular design, 1U height 19-inch rack
- Supplied with one WRU-801A receiver module, with room for another 5 to accommodate up to six simultaneous channels of operation
- Up to 11 simultaneous channels on a single pair of AN-820A active Antennas with optional WD-820A Antenna Divider
- 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)



WRR-801A (one WRU-801A supplied)



WRR-801A Rear Panel

Auto Channel Assignment

The WRR-801A receiver also features a convenient auto channel assignment function that, once an operating group is set on the supplied WRU-801A receiver, channels within the same group are automatically assigned and unusable channels for the additional receivers will be automatically detected and skipped, enabling instant and automatic multichannel setting of the entire rack of receivers.

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.

Single Systems Right Out Of The Box Ready To Go



Application-specific Packages

Sony now offers a complete single channel diversity package to suit your application needs. Three packages are available:

WRT-8GP Guitar Pack:

WRT-805A Transmitter + WRR-800A Tuner + GC-0.7MP Guitar Cable

WRT-8HP Handheld Pack:

WRT-800A Wireless Microphone + WRR-800A Tuner

WRT-8LP Lavalier Pack:

WRT-805A Transmitter + WRR-800A Tuner + ECM-122BMP Lavalier Mic

- Auto channel assignment of additional receiver modules for instant programming of interference-free multichannel operation
- Balanced output connectors with 6.3 mm (1/4-inch) dia. TRS phone jacks, six channel mono mix output
- RF input attenuator (10 dB/0 dB) switch
- Supplied passive antennas for rear mounting (with provision for front mounting)

WRU-801A UHF Synthesized Tuner Unit

- Dedicated plug-in diversity receiver module for WRR-801A
- Space Diversity Reception for dependable RF reception



WRU-801A

Channel Allocation

Group No.	11	12	13
TV Channel 68/69 Wireless Channel	68-05	69-01	68-03
	68-14	69-05	68-13
	68-25	69-11	68-18
	68-41	69-25	68-26
	68-47	69-28	68-37
	69-12	69-36	68-40
	69-16	69-41	68-44
	69-30	69-43	68-46
	69-37		
	69-40		
	69-42		

Group No.	A1	A2	A3
TV Channel 68/69 Wireless Channel	68-06	69-11	68-10
	68-20	69-22	68-21
	68-24	69-30	68-29
	68-40	69-36	68-35
	69-04	69-40	68-39
	69-17	69-43	68-42
	69-23	69-45	68-44
	69-47		

System Configuration

Single-Channel System

Example 1

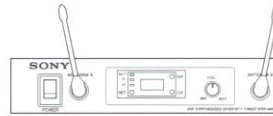


WRT-800A

Example 2

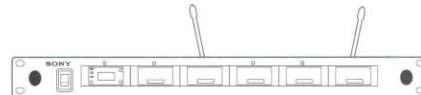


WRT-805A



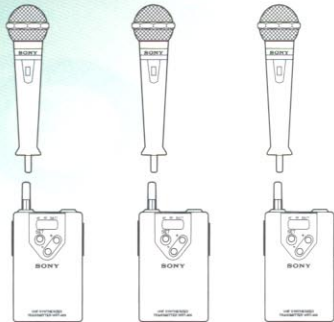
WRR-800A

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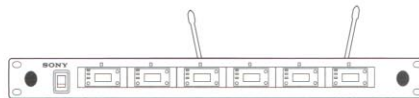
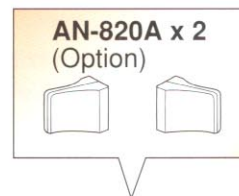


WRR-801A

6-Channel System

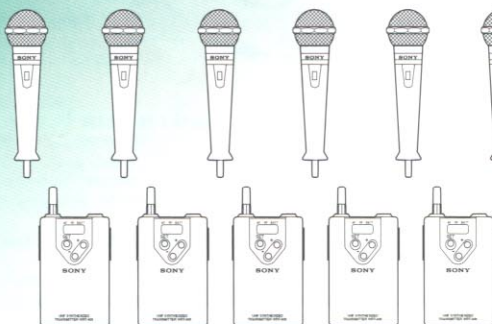


WRT-800A or WRT-805A x 6

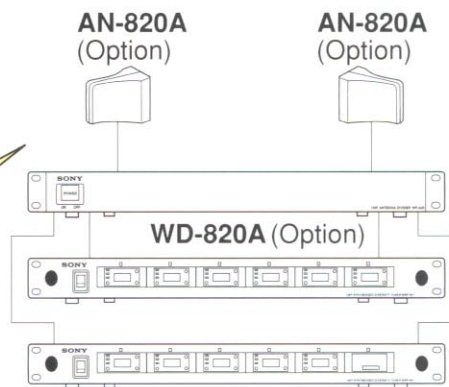


WRR-801A

11-Channel System



WRT-800A or WRT-805A x 11



Options for WRT-805A Transmitter

Electret Condenser
Microphone
ECM-310BMP



Electret Condenser
Microphone
ECM-44BMP



Guitar Cable
GC-0.7MP



Electret Condenser
Microphone
ECM-121BMP/122BMP



Optional Accessories

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 inches) dia. x 0.7 m (27 5/8 inches) long



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 inches) dia. x 14.5 mm (19/32 inches)



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 inches) dia. x 17 mm (11/16 inches)
- Mic cable length: ECM-121BMP = 0.2 m (7 7/8 inches),
ECM-122BMP = 1.2 m (47 1/4 inches)



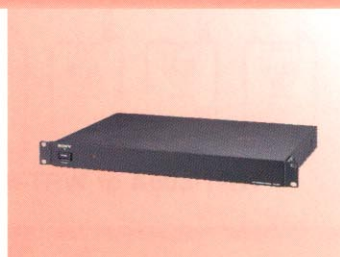
ECM-310BMP Electret Condenser Microphone

- 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



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 WRR-801A 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



Specifications

	WRT-800A	WRT-805A
Carrier frequency:	794 MHz to 806 MHz (U 68 only) 94 channels selectable	794 MHz to 806 MHz (U 68 only) 94 channels selectable
Oscillator:	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of emission:	110KF3E	110KF3E
RF power output:	5 mW (50 Ω load)	10 mW (50 Ω load)
Antenna:	1/4 wave length helical antenna	1/4 wave length helical antenna
Reference deviation:	±5 kHz (94 dB SPL ¹ , 1 kHz)	±5 kHz (-60 dBV ² , 1 kHz input) ³
Frequency response:	100 Hz to 15,000 Hz	70 Hz to 15,000 Hz
Signal-to-noise ratio:	57 dB (A-weighted)	57 dB (A-weighted)
Attenuator adjustment range (pad):	-	21 dB, variable in 3 dB steps
Max. input sound pressure level:	128 dB SPL ¹ (at 1 kHz)	+17 dBV (-40 dBV position, attenuator 21 dB)
Max. input level:	-	-40 dBV (±16 kHz deviation at 1 kHz modulation) ³
Input level:	94 dB SPL ¹	-60 dBV (±5 kHz deviation at 1 kHz modulation) ³
Input connector:	-	3.5 mm (5/32 inches) dia. 3-pole mini phone jack with lock mechanism
Microphone capsule:	Electret condenser	-
Directivity:	Uni-directional	-
Operating voltage:	1.5 V, AA-size LR6 alkaline battery	1.5 V, AA-size LR6 alkaline battery
Battery life:	Approx. 12 hours w/ (LR6) AA-size alkaline battery (1)	Approx. 6 hours w/ (LR6) AA-size alkaline battery (1)
Dimensions:	55 x 216 mm (2 1/4 x 8 5/8 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)
Mass:	Approx. 200 g (7.1 oz) w/ battery	Approx. 100 g (3.5 oz) w/ battery
Supplied accessories:	Warranty card (1) Microphone holder (1) SAD-35 Stand Screw Adaptor (1)	Warranty card (1)

¹ 0 dB SPL = 2 x 10⁻⁵ Pa.

² 0 dBV = 1 Vr.m.s.

³ INPUT switch at -60 dBV position

	WRR-800A	WRR-801A	WRU-801A
Receiving frequency:	794 MHz to 806 MHz (U 68 only) 94 channels selectable	794 MHz to 806 MHz (U 68 only) 94 channels selectable	794 MHz to 806 MHz (U 68 only) 94 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 60 dB (A-weighted)
Harmonic distortion:	Less than 1.0 %	Less than 1.0 %	Less than 1.0 %
RF muting level:	30 dBμ	30 dBμ	30 dBμ
Audio output level:	0 dBm (±16 kHz deviation at 1 kHz modulation) -20 dBm (±5 kHz deviation at 1 kHz modulation)	0 dBm (±16 kHz deviation at 1 kHz modulation) -20 dBm (±5 kHz deviation at 1 kHz modulation)	-8 dBu (±16 kHz deviation at 1 kHz modulation) -28 dBu (±5 kHz deviation at 1 kHz modulation)
Audio output connector:	TRS phone, 6.3 mm (1/4 inches) dia., balanced	TRS phone, 6.3 mm (1/4 inches) dia., balanced	Multi 10-pin
Antenna connector:	BNC-R type	BNC-R type	Multi 10-pin
Power consumption:	-	30 W	-
Operating voltage:	DC 9 V	AC 120 V, 60 Hz	DC 9 V
Current consumption:	500 mA	-	190 mA
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:	Approx. 1.6 kg (3 lb 8 oz)	Approx. 3.8 kg (8 lb 6 oz)	Approx. 160 g (5.7 oz)
Supplied accessories:	Warranty card (1) AC power adaptor (1) Antenna (2)	Warranty card (1) AC power cord (1) Antenna (2)	Warranty card (1)

* 0 dBm = 0.775 Vr.m.s., 600 Ω load, 0 dBμ = 1 μV, 0 dBu = 0.775 Vr.m.s. open

	ECM-310BMP	ECM-44BMP	ECM-121BMP/122BMP
Capsule type:	Electret condenser	Electret condenser	Electret condenser
Frequency range:	70 to 12,000 Hz	40 to 15,000 Hz	100 to 10,000 Hz
Directivity:	Wide-cardioid	Omni-directional	Omni-directional
Sensitivity (0 dB = 1 V/1 Pa. at 1 kHz):	-44 dB (6.3 mV) ±3 dB	-40 dB (10 mV) ±3 dB	-41 dB (8.9 mV)
Output impedance:	800 Ω ±30 % at 1 kHz, unbalanced	-	-
Microphone cable:	1.2 m (47 1/4 inches)	1.2 m (47 1/4 inches)	0.2 m (7 7/8 inches)/1.2 m (47 1/4 inches)
Output connector:	3.5 mm (5/32 inches) dia. 3-pole mini phone plug with lock mechanism	-	-
Dimensions	10 mm (13/32 inches) dia.	8.5 mm dia. x 14.5 mm (11/32 inches dia. x 19/32 inches)	8.5 mm dia. x 17 mm (11/32 inches dia. x 11/16 inches)
Mass	-	Approx. 2 g (0.07 oz)	Approx. 3 g (0.11 oz)
Microphone head:	-	-	-
Microphone head:	-	-	-
Total:	Approx. 46 g (1.62 oz), without connector	-	-
Finish:	Mat black finish	Mat black finish	Mat black finish
Supplied accessories:	Wind screen (1)	S.H. holder clip (1) Wind screen (1)	S.H. holder clip (1) Wind screen (1)

	GC-0.7MP
Input impedance:	More than 1 MΩ
Connectors:	3.5 mm (5/32 inches) dia. 3-pole mini phone plug with lock mechanism (for transmitter) 6.3 mm (1/4 inches) dia. phone plug (for guitar)
Cable:	0.7 m (27 5/8 inches)
Total mass:	Approx. 70 g (2.47 oz)

Note: Use of Sony wireless devices is regulated by the Federal Communications Commission as described in Part 15 and 74 of the FCC regulation and users authorized thereby are required to obtain an appropriate license.
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