

SONY®

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UHF Synthesized Wireless Microphone System

UWP Series



Interference-free, affordable operations — with the Sony UWP Series UHF Synthesized Wireless Microphone System

As the use of wireless microphone systems has increased dramatically for diverse applications, low-cost systems have become more popular, but transmission stability and noise problems have often been overlooked.

Sony presents the ideal solution for budget-conscious users seeking rock-steady wireless operations — the UWP Series UHF Synthesized Wireless Microphone System.

The UWP Series consists of five core elements — a lavalier/bodypack transmitter, a wireless handheld microphone, a portable tuner, a half-rack-size tuner, and a tuner module. These are available in six turnkey packages, each comprising a microphone, transmitter and tuner, for a ready-to-go system straight out of the box. Each package has been carefully compiled to address specific operational needs, meaning the UWP Series can virtually adapt to almost any application.

The UWP Series excels in transmission stability. Sophisticated wireless technologies, developed for top-of-the-line Sony wireless microphone systems, have been incorporated, including the UHF PLL-synthesized system, space-diversity reception and a tone squelch function. These capabilities are typically found only on high-end wireless systems.

Whether you use it with low-cost ENG, EFP or PA systems, the UWP Series delivers the convenience of non-compromised wireless microphone operation at a very affordable price.

UWP Series Common Features

Stable Transmission and Reception

The UWP Series Wireless Microphone System uses three core technologies to provide stable transmission and reception:

PLL Synthesized System

Key to achieving stable transmission and reception is the use of a stable carrier signal to avoid interference with other frequency channels and to allow the selection of a preferred channel from multiple frequencies. The UWP Series achieves this by using a UHF PLL (Phase Locked Loop) frequency synthesized system, which provides the use of accurate carrier signal frequencies. This system is used in both the transmitters and tuners, so that a stable carrier is generated at the transmitter and accurately tuned in at the tuner. This PLL-controlled system provides highly stable, user-selectable frequencies in increments of 125 kHz.

Space Diversity Reception System

In general, wireless microphone transmission systems can be subject to reception interruptions (signal dropout), but the UWP Series reduces this to a minimum. By utilizing a space diversity reception system, it achieves stable reception by using dual-antenna inputs/reception circuits that receive

signals over two different paths and automatically selecting the stronger RF signal for output. The space diversity reception system is adopted in all UWP tuners – the portable tuner, half rack-size tuner and tuner module alike. What's more, the antennas of the portable and half-rack-size tuners each allow for angle adjustments, which helps to further eliminate signal dropout.

Tone Squelch Circuitry

When operating a wireless microphone system, it is essential that the tuner not pick up carrier signals transmitted from other systems. In order to avoid this, the UWP Series handheld microphone and portable transmitter transmit a 32-kHz pilot-tone signal along with the audio signal. The squelch circuit of the UWP Series tuners recognizes this tone signal, and will output the audio signal only when this tone signal is received. This function virtually prevents the output of unwanted signals or noise from other signal transmissions in the air, as well as the RF noise and popping noise that occur when the transmitter is powered on or off.

Pre-Programmed Operating Frequencies

The transmitters and tuners included in the UWP Series incorporate pre-

programmed frequencies that meet the wireless-communication regulations of each country. The UWP Series operates within the following frequency ranges:

- UC models: 758 MHz to 782 MHz or 782 MHz to 806 MHz (188 selectable frequencies)

Simultaneous Multi-Channel Operation

The UWP Series allows simultaneous operation of up to 16 wireless microphones. Optimum combinations of practically tested, intermodulation-free frequencies are stored in the UWP tuners. By using the pre-programmed frequency groups, users can easily choose intermodulation-free frequencies for the transmitters and tuners, simplifying the task of system setup.

Lavalier Microphone and Bodypack Transmitter



Lavalier Microphone:

- Uni-directional, electret-condenser microphone
- Supplied with a microphone windscreen and microphone-holder clip

Bodypack Transmitter:

- Compact and lightweight design
- Attenuator function allows adjustment of the microphone-input level to suit each user's voice
- Selectable RF-output level: 5 mW output is suitable for simultaneous multi-channel operation, while 30 mW output is intended for long-distance transmission
- Approximately six hours of continuous operation with two AA-size alkaline batteries

- An LCD screen provides extensive information, including the operating channel number and its frequency in MHz, attenuator level, RF-output level setting (High/Low), audio-input status, RF-output status, transmitter-battery status and accumulated operating time
- A 3.5-mm dia., 3-pole mini-jack input connector with lock mechanism accepts the output of any lavalier microphones equipped with a 3.5 mm dia. mini plug, as well as the output of the supplied lavalier microphone
- Supplied with a belt clip

Handheld Microphone



- Uni-directional, dynamic microphone capsule
- Internal antenna design
- Attenuator function allows adjustment of the audio-input level to suit each user's voice
- Selectable RF-output level: 5 mW output is suitable for simultaneous multi-channel operation, while 30 mW output is intended for long-distance transmission
- Approximately six hours of continuous operation with two AA-size alkaline batteries

- An internal LCD screen provides extensive information, including the operating channel number and its frequency in MHz, attenuator level, RF-output level setting (High/Low), audio-input status, RF-output status, transmitter-battery status and accumulated operating time
- Supplied with a microphone holder and a screw adaptor

Tuner Module



- Compact, plug-in diversity tuner module: up to two tuner modules can be installed into a Sony all-in-one type presentation mixer/amplifier (SRP-X700P or SRP-X351P), while a maximum of six modules can be installed in the Sony MB-806A tuner base unit
- Space diversity reception system for stable RF reception

- RF squelch function virtually eliminates ambient noise and unwanted signals from other wireless microphone systems
- An LCD screen displays the operating channel number and its frequency in MHz, plus the audio-output status and RF-input level
- A green LED indicator illuminates when RF-input signals are appropriately received

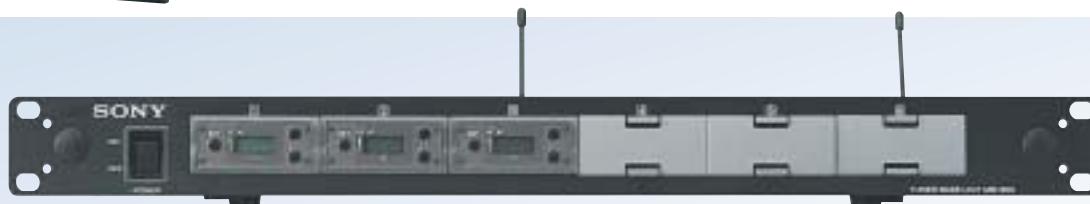


Photo shows tuner module installed in the MB-806A.

Portable Tuner



- Space diversity reception system for stable RF reception
- Angle-adjustable antennas to help eliminate signal dropout. This feature additionally allows mounting position flexibility when the portable tuner is mounted on a camcorder.
- RF squelch function virtually eliminates ambient noise and unwanted signals from other wireless microphone systems
- An LCD screen provides extensive information, including the operating channel number and its frequency in MHz, audio-output status, RF-input level, tuner-battery status and accumulated operating time
- A green LED indicator illuminates when RF-input signals are appropriately received
- Approximately six hours of continuous operation with two AA-size alkaline batteries
- Stereo mini jack with monitor-volume control
- Supplied shoe-mount adaptor enables easy mounting on Sony camcorders. A microphone-stand adaptor, screw adaptor, microphone cable and belt clip are also provided.



Photo shows portable tuner mounted on a microphone stand.

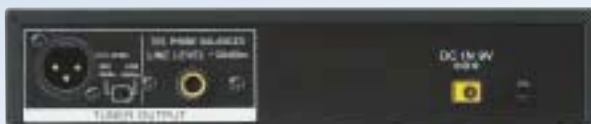


Photo shows portable tuner mounted on a DSR-PD150.

Half 19-Inch Rack-Size Tuner



- Space diversity reception system for stable RF reception
- Angle-adjustable antennas to help eliminate signal dropout
- RF squelch function virtually eliminates ambient noise and unwanted signals from other wireless microphone systems
- Equipped with both XLR (balanced) and 1/4-inch phone (unbalanced) type output connectors. The output level on the XLR-type connector can be switched between MIC and LINE levels.
- An LCD screen displays the operating channel number and its frequency in MHz, plus the audio-output status and RF-input level
- A green LED indicator illuminates when RF-input signals are appropriately received
- Stereo headphone jack with monitor volume-control on the front panel
- Supplied with an AC/DC adaptor



Rear Panel



UWP-C1

- Consists of a lavalier microphone, bodypack transmitter and portable tuner
- Suitable for a wide range of applications, from news gathering and interviews to talk shows and conferences
- The lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- The bodypack transmitter is supplied with a belt clip
- The portable tuner is supplied with a microphone stand adaptor, screw adaptor, shoe-mount adaptor for mounting on a camcorder and microphone cable (3-pole mini-plug/XLR-type)



UWP-C2

- Consists of a handheld microphone and portable tuner
- Suitable for news gathering and for use in PA systems
- The handheld microphone is supplied with a microphone holder and screw adaptor
- The portable tuner is supplied with a microphone stand adaptor, screw adaptor, shoe-mount adaptor for mounting on a camcorder, belt clip and microphone cable (3-pole mini-plug/XLR-type)



UWP-S1

- Consists of a lavalier microphone, bodypack transmitter and half-rack-size tuner
- Suitable for use in PA systems
- The lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- The bodypack transmitter is supplied with a belt clip
- The half-rack-size tuner is supplied with an AC/DC adaptor



UWP-S2

- Consists of a handheld microphone and half-rack-size tuner
- Suitable for use in PA systems
- The handheld microphone is supplied with a microphone holder and screw adaptor
- The half-rack-size tuner is supplied with an AC/DC adaptor



UWP-X1

- Consists of a lavalier microphone, bodypack transmitter and tuner module
- Suitable for use in PA systems
- The lavalier microphone is supplied with a microphone windscreen and microphone-holder clip
- The bodypack transmitter is supplied with a belt clip



UWP-X2

- Consists of a handheld microphone and tuner module
- Suitable for use in PA systems
- The handheld microphone is supplied with a microphone holder and screw adaptor

Bodypack Transmitter

Oscillator:	Crystal-controlled PLL synthesizer	Audio input level:	-60 dBV* (at 0 dB attenuator level)
Type of emission:	F3E	Audio input connector:	5/32 inch (3.5 mm) dia., 3-pole mini jack
Carrier frequencies:		Indicators	
U model:	758 MHz to 782 MHz (TV channels 62 to 65) or 782 MHz to 806 MHz (TV channels 66 to 69) Users may choose from 188 frequencies on each model.	LCD:	Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio-input status, RF-output status, transmitter battery status, and accumulated operating time
RF power output:	30 mW or 5 mW (selectable)	LED:	Power status
Antenna:	1/4 λ wave length wire	Power requirements:	DC 3.0 V (with two AA-size alkaline batteries)
Pilot tone signal:	32 kHz	Battery life:	Approx. 6 hours with Sony AA-size alkaline batteries at 77 °F (25 °C) at 30 mW output
Frequency response:	50 Hz to 18 kHz (typical)	Dimensions (W x H x D):	2 1/2 x 4 x 1 1/8 inches (63 x 100 x 27 mm)
Reference deviation:	±5 kHz (-60 dBV**, 1kHz input)	Weight:	Approx. 4.9 oz (140 g) including batteries
Signal-to-noise ratio:	60 dB or more (±5 kHz deviation at 1 kHz modulation, A-weighted)	Supplied accessories:	Uni-directional lavalier microphone (x 1), windscreen (x 1), microphone-holder clip (x 1), belt clip (x 1)
Audio attenuator adjustment range:	0 to 21 dB (in 3 dB steps)		

Handheld Microphone

Oscillator:	Crystal-controlled PLL synthesizer	Audio attenuator adjustment range:	0 to 21 dB (in 3 dB steps)
Type of emission:	F3E	Max. input sound pressure level:	151 dB SPL*2 (at 21 dB attenuator level)
Carrier frequencies:		Indicators	
U model:	758 MHz to 782 MHz (TV channels 62 to 65) or 782 MHz to 806 MHz (TV channels 66 to 69) Users may choose from 188 frequencies on each model.	LCD:	Operating channel number/frequency, attenuator level, RF-output level (High/Low), audio-input status, RF-output status, transmitter battery status, and accumulated operating time
RF power output:	30 mW or 5 mW (selectable)	LED:	Power status
Antenna:	1/4 λ wave length wire (internal)	Power requirements:	DC 3.0 V (two AA-size alkaline batteries)
Pilot tone signal:	32 kHz	Battery life:	Approx. 6 hours with Sony AA-size alkaline batteries at 77 °F (25 °C) at 30 mW output
Frequency response:	50 Hz to 18 kHz (typical)	Dimensions:	ø2 1/8 x 9 1/2 inches (ø52 x 240 mm)
Reference deviation:	±5 kHz (94 dB SPL** , 1 kHz input)	Weight:	Approx. 10.6 oz (300 g) including batteries
Signal-to-noise ratio:	60 dB or more (±5 kHz deviation at 1 kHz modulation, A-weighted)	Supplied accessories:	Microphone holder (x 1), screw adaptor (x 1)
Microphone capsule:	Dynamic capsule (uni-directional)		

Portable Tuner

Oscillator:	Crystal-controlled PLL synthesizer	Audio output level:	-58 dBm
Type of reception:	Space diversity	Monitor output connector:	5/32 inch (3.5 mm) dia., stereo mini jack (x 1)
Receiving frequencies:		Monitor output level:	5 mW (at 16 K)
U model:	758 MHz to 782 MHz (TV channels 62 to 65) or 782 MHz to 806 MHz (TV channels 66 to 69) Users may choose from 188 frequencies on each model.	Indicators	
Antenna:	1/4 λ wave length wire	LCD:	Operating channel number/frequency, audio-output status, RF-input level, tuner battery status, and accumulated operating time
Pilot-tone signal:	32 kHz	LED:	RF-input status
RF squelch level:	15 dBμ	Power requirements:	DC 3.0 V (two AA-size alkaline batteries)
Frequency response:	50 Hz to 18 kHz (typical)	Battery life:	Approx. 6 hours with Sony AA-size alkaline batteries at 77 °F (25 °C)
Reference deviation:	±5 kHz (at 1kHz modulation)	Dimensions (W x H x D):	2 1/2 x 4 x 1 3/16 inches (63.0 x 100.0 x 30.0 mm)
Signal-to-noise ratio:	60 dB or more (±5 kHz deviation at 1 kHz modulation, A-weighted)	Weight:	Approx. 6 oz (180 g) including batteries
Audio output connector:	3.5 mm (5/32 inch) dia., 3-pole mini jack (x 1), unbalanced	Supplied accessories:	Microphone stand adaptor (x 1), screw adaptor (x 1), shoe-mount adaptor (x 1), belt clip (x 1), output cable (x 1, 3-pole mini-plug/XLR-type)

Half 19-Inch Rack-Size Tuner

Oscillator:	Crystal-controlled PLL synthesizer	Audio output level	
Type of reception:	Space diversity	XLR-3-32:	-28 dBm (LINE level) or -58 dBm (MIC level)
Receiving frequencies:		1/4-inch phone jack:	-30 dBm
U models:	758 MHz to 782 MHz (TV channels 62 to 65) or 782 MHz to 806 MHz (TV channels 66 to 69) Users may choose from 188 frequencies.	Monitor output connector:	1/4-inch stereo mini jack (x 1)
Antenna:	1/4 λ wave length wire	Monitor output level:	5 mW (at 16 K)
Pilot-tone signal:	32 kHz	Indicators	
RF squelch level:	25 dBμ	LCD:	Operating channel number/frequency, audio-output status, RF-input level
Frequency response:	50 Hz to 18 kHz (typical)	LED:	RF-input status
Reference deviation:	±5 kHz (at 1kHz modulation)	Power requirements:	DC 9.0 V
Signal-to-noise ratio:	60 dB or more (±5 kHz deviation at 1 kHz modulation, A-weighted)	Dimensions (W x H x D):	8 3/8 x 1 3/4 x 8 1/4 inches (212.0 x 44.0 x 209.0 mm)
Audio output connector:	1/4-inch phone jack (unbalanced) or XLR-3-32 type (balanced)	Weight:	Approx. 2 lb 14 oz (1.3 kg)
		Supplied accessory:	AC/DC adaptor (x 1)

Tuner module

Oscillator:	Crystal-controlled PLL synthesizer	Reference deviation:	±5 kHz (at 1kHz modulation)
Type of reception:	Space diversity	Signal-to-noise ratio:	60 dB or more (±5 kHz deviation at 1 kHz modulation, A-weighted)
Receiving frequencies:		Indicators	
U models:	758 MHz to 782 MHz (TV channels 62 to 65) or 782 MHz to 806 MHz (TV channels 66 to 69) Users may choose from 188 frequencies.	LCD:	Operating channel number/frequency, audio-output status, RF-input level
Antenna:	1/4 λ wave length wire	LED:	RF-input status
Pilot tone signal:	32 kHz	Power requirements:	DC 9.0 V
RF squelch level:	25 dBμ	Dimensions (W x H x D):	2 1/2 x 1 1/4 x 4 7/8 inches (56.6 x 25.5 x 121.0 mm)
De-emphasis:	50 μs	Weight:	Approx. 5.3 oz (150 g)
Frequency response:	50 Hz to 18 kHz (typical)	Supplied accessory:	—

*1 1 dBV = 1 Vrms ** 0 dB SPL = 20μ Pa.

SONY

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