

UHF Synthesized Transmitter

Operating Instructions _____ **US**

Mode d'emploi _____ **FR**

Manual de instrucciones _____ **ES**

Wireless Channel Lists / Listes des canaux sans fil /

Listas de canales inalámbricos _____



WRT-808A

Owner's Record

The model and serial numbers are located at the rear of the unit. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. WRT-808A Serial No. _____

Notice for customers in the U.S.A.

Use of Sony wireless devices is regulated by the Federal Communications Commission as described in Part 74 subpart H of the FCC regulations and users authorized thereby are required to obtain an appropriate licence.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Notice for customers in Canada:

Use of Sony wireless devices is regulated by the Industry Canada as described in their Radio Standard Specification RSS-123.

A licence is normally required. The local district office of Industry Canada should therefore be contacted. When the operation of the device is within the broadcast band, the licence is issued on no-interference, no-protection basis with respect to broadcast signals.

Operation of this device is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Avis pour les clients au Canada:

L'usage des appareils sans-fil Sony est réglé par l'Industrie Canada comme décrit dans leur Cahier des Normes Radioélectriques CNR-123.

Une licence est normalement requise. Le bureau de l'Industrie Canada doit être contacté. Lorsque l'opération de l'appareil est dans les limites de la bande de radiodiffusion, la licence est émanée sur la base de non-interférence, non-protection avec les signaux de radiodiffusion.

L'utilisation de cet appareil est soumise aux deux conditions suivantes : (1) cet appareil ne peut causer d'interférences, et (2) cet appareil doit accepter toutes les interférences, y compris les interférences capables de provoquer un fonctionnement indésirable de l'appareil.

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- The unit is designed for use in ambient temperature range of 0°C to 50°C (32°F to 122°F).
- Do not place the unit on or near heat sources, such as lighting equipment, power amplifiers, or in a place subject to direct sunlight or excessive moisture. In such places, the external finish or internal parts of the unit may be damaged.
- If the unit is used in a very humid or dusty place or in a place subject to an active gas, clean its surface as well as the connectors with a dry, soft cloth soon after use. Lengthy use of the unit in such places or not cleaning it after its use in such places may shorten its life.
- When cleaning the unit, never use organic solvents such as thinners or benzene, which will damage the finish of the unit.
- The unit has been factory adjusted precisely. Do not tamper with its internal parts or attempt to repair it.

Overview

The WRT-808A is a transmitter which converts a hand-held dynamic microphone into a wireless microphone, ensuring excellent sound quality of the microphone itself and providing the convenience especially for Electronic News Gathering (ENG), live and other Electronic Field Production (EFP) applications. Combining with 800 MHz band Sony UHF wireless microphone system, use this highly reliable transmitter for broadcast and movie production purpose.

Wireless Channels Selectable

The transmitter and tuner of the wireless microphone system are classified by frequency band.

A 12-MHz frequency band (or two consecutive-numbered TV channels, such as 68 and 69 of the WRT-808A/68 model) is assigned to each transmitter and tuner model.

In building a UHF wireless microphone system, be sure to combine a transmitter and a tuner having the same TV channel number.

U68 model

A 794-806 MHz frequency band is assigned to the WRT-808A/68 model, permitting it to operate on any of 94 carrier frequencies in 125-kHz steps of Sony original channel plan in the range of TV channels 68 and 69.

For the selectable channels, see "Wireless Channel Lists" on page L-1.

U66 model

A 782-794MHz frequency band is assigned to the WRT-808A/66 model, permitting it to operate on any of 94 carrier frequencies in 125-kHz steps of Sony original channel plan in the range of TV channels 66 and 67.

For the selectable channels, see "Wireless Channel Lists" on page L-2.

U64 model

A 770-782 MHz frequency band is assigned to the WRT-808A/64 model, permitting it to operate on any of 94 carrier frequencies in 125-kHz steps of Sony original channel plan in the range of TV channels 64 and 65.

For the selectable channels, see "Wireless Channel Lists" on page L-3.

Features

Easy selection of 94 channels

The PLL synthesized system assures easy selection of 94 channels and full compatibility with Sony 800 MHz series wireless microphone system.

Easy and reliable connection

The WRT-808A can be adapted to a **wide variety** of wired microphone which has a XLR audio connector. The reliable connection assures the noise-free operation.

Compact and lightweight

High density mounting technology **enables this compact** and light weight transmitter, to allow you to move **anywhere** for Electronic News Gathering (ENG) and Electronic Field Production (EFP).

Operation powered by easily available batteries

Approximately four hours of continuous operation is ensured with two AA-size (LR6) alkaline batteries. By virtue of DC-DC converter, consistent output power is **assured** over the life of the batteries.

Battery status information on both transmitter and tuner

To avoid the battery failure, the WRT-808A shows the battery status with the LED indication in green, red and **flashing**. About one hour before the battery exhausted, the WRT-808A gives the battery information to make the alarm on the tuner WRR-800A/801A/805A/850A.

LED indication of audio input

The AF/PEAK indicator allows you to comprehend the condition of audio input level at a glance.

Continuous control of input attenuation

When an excessively strong audio signal is inputted, the input level can be adjusted in the range of 0 to 50 dB continuously.

Selectable RF power output

You can select the RF output level either 50 mW or 10 mW to suit the operating condition.

System Configuration

The WRT-808A can be used with the WRR-800A/801A UHF synthesized Diversity Tuner and also can be used with the WRR-820A/840A/850A/855A UHF Synthesized Diversity Tuner.

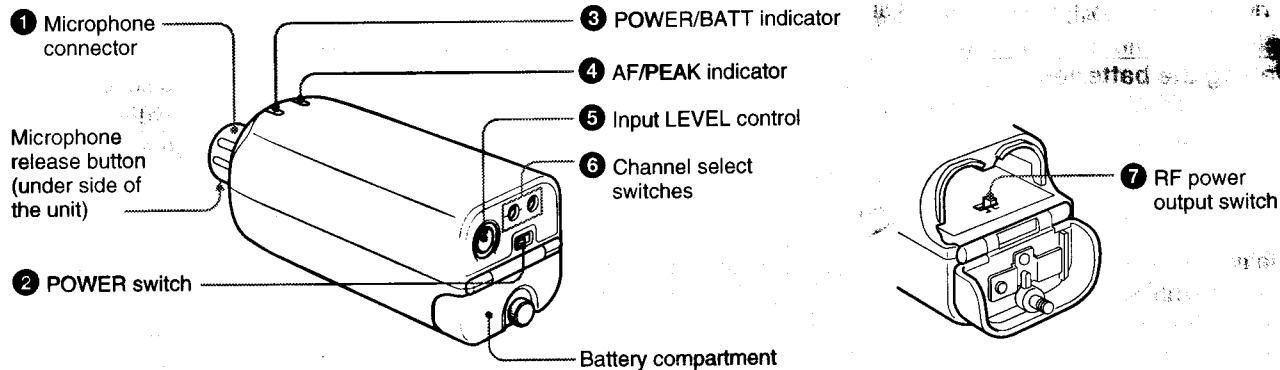
Sony 800 MHz band system models

WRT-808A	Frequency band		Model name	
	TV channel	Frequency (MHz)	Transmitter or microphone	Tuner
U64	64	770.125 - 775.875	WRT-805A WRT-807A WRT-808A WRT-810A WRT-820A WRT-822A WRT-830A^{a)} WRT-860A WRT-867A^{a)}	WRR-800A
	65	776.125 - 781.875		WRR-801A
U66	66	782.125 - 787.875		WRR-802A
	67	788.125 - 793.875		WRR-805A
WRR-810A				
U68	68	794.125 - 799.875		WRR-820A^{b)}
				WRR-840A^{b)}
	69	800.125 - 805.875		WRR-850A^{b)} WRR-855A WRR-860A^{a)} MB-806A

a) These models cover only 68 and 69 channels.

b) For these models, the AN-820A UHF antenna and the WD-820A UHF antenna divider are required.

Parts Identification



1 Microphone connector

Connect to a dynamic microphone which has a XLR type connector.

2 POWER switch

Turns the power of the transmitter ON or OFF.

3 POWER/BATT indicator

When turning on the unit, the POWER/BATT indicator lights in green. While in operation, the LED indicates the battery condition.

See "Power Supply" on page 8.

4 AF (audio frequency) /PEAK indicator

The AF/PEAK indicator lights in green when the supplied

audio frequency level is over the reference level. It lights in red when the signal reaches the maximum level.

5 Input LEVEL control

Controls the input attenuation level.

"-60" position provides 0 dB attenuation, and "-10" position provides 50 dB attenuation.

6 Channel select switches

Select the transmitting channel.

See "Channel Setting" on page 9.

7 RF power output switch

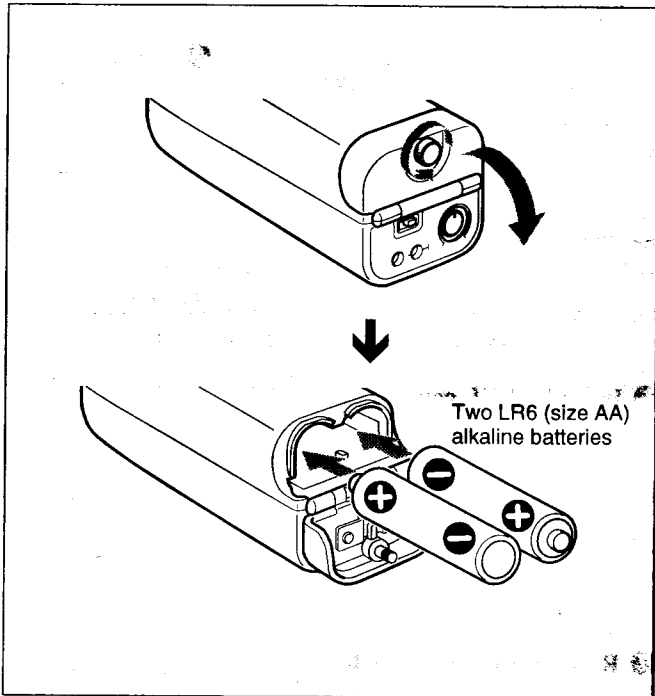
In normal use, set the switch to "50".

See "Use of RF power output switch" on page 11.

Power Supply

The transmitter can operate on two LR6 (size AA) alkaline batteries continuously for about 4 hours at 25°C (77°F).

Installing the batteries



- 1** Turn the battery-compartment screw counterclockwise.
- 2** Match the polarities and insert the batteries.
- 3** Close the lid.

Battery indication

When you turn the power on, the POWER/BATT indicator lights in green.

While in operation, the POWER/BATT indicator shows the battery condition as shown below.

Lights in green: Good

Lights in red: The battery level is low. About one hour is left for continuous operation.

Flashing in red: The batteries are almost exhausted. The unit does not work.

Promptly replace the batteries when the POWER/BATT indicator lights in red or flashes.

When the POWER/BATT indicator lights in red on this unit, the BATT indication on the tuner (WRR-800A/801A/805A/850A) starts flashing as a warning.

Note

The indication may be incorrect if the batteries are not new when installed. If you plan to use the transmitter for a long period, it is best to replace the batteries with new ones.

Channel Setting

Notes on batteries

- Use new alkaline batteries, and check the recommended "use-by" date on the bottom of the batteries.
- Do not pair different types of batteries.
- Always replace the two batteries together.
- The batteries are not rechargeable.
- Be careful to install the batteries with the correct polarity.
- When not using the transmitter for a long period, remove the batteries to avoid leakage. If the batteries do leak, clean all leakage from the unit. Leakage left in the unit may cause poor battery contact. If there seems to be poor battery contact, consult your Sony dealer.

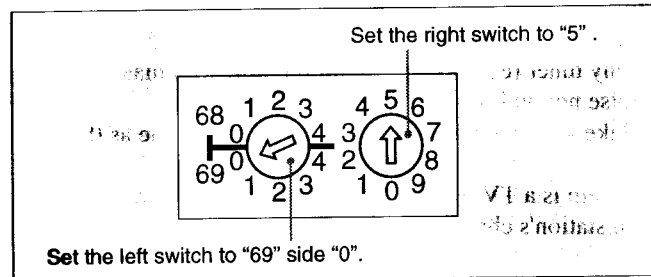
Caution

Turn off the transmitter when setting the transmitting channel to eliminate interference or noise on other wireless equipment.

Each "Wireless Channel" is represented on the unit by a 2-digit TV channel number followed by another 2-digit number, for example: 69-05.

Set the channel select switches for the clicked position of the desired channel number by using a screw driver. The left switch selects the TV band and the 10's digit of the transmitting channel. The right switch selects the 1's digit of the transmitting channel.

Example: when channel 69-05 is selected for U68 model



For the selectable wireless channels and frequencies, see "Wireless Channel Lists" on pages L-1 to L-3.

Microphone System Operation

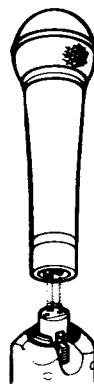
Channel setting

Notes

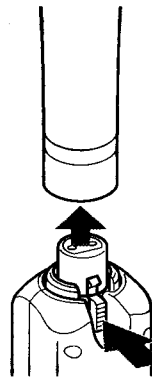
- Be sure to set the arrow mark of the channel select switch to the **clicked** position of the desired channel number. If the switch does not click on the channel number, the desired channel may not be set on the unit.
- If the channel select switches are operated while the transmitter is on, the POWER/BATT indicator flashes in green as a warning.
- If you set to any channel other than those listed in "Wireless Channel Lists" on pages L-1 to L-3, the POWER/BATT indicator flashes in green as a warning.
- While the POWER/BATT indicator is flashing, the RF output signal send from the transmitter becomes lower than the usable level.
While POWER/BATT indicator on the transmitter is flashing, the RF input indicator on the tuner may light, if the transmitter locates near the tuner.
Though the RF input indicator lights on the tuner, the Sony tuner (equipped with muting function) makes neither noise nor audio output.
- Make sure that the channel selected is the same as that selected on the tuner used in the same system.
- If there is a TV broadcasting station near by, do not use the station's channel.

Microphone connection

Sony microphones F-780/740/730/720/710, etc.



Attach a microphone to the unit directly or use a microphone cable with XLR-3-11 and XLR-3-12 type connectors.



To dettach a microphone, press the microphone release button.

If noise is heard

Depending on the environment where the system is installed, outside noise or radio wave may disrupt the transmission of certain channels.

To select a channel under this circumstance, turn off the transmitter. Select a channel on the tuner, at which the RF indicator is off. (A channel free from noise or radio wave interference is selected.) Then, set the same channel on the transmitter.

Use of RF power output switch

The RF power output switch (located inside of the battery compartment) selects the RF power output either 50 mW or 10 mW. In normal use, set the switch to "50" (factory preset position).

50 mW output is suitable for optimum transmission over long working distance.

10 mW output will be suitable for multi-channel operation to eliminate the interference.

Use of input LEVEL control

When the AF/PEAK indicator lights in green continuously, the supplied audio signal is continuously over the reference level. If this occurs, use the input LEVEL control to avoid sound distortion.

Notes on microphone system operation

- To operate with two or more channels, maintain a distance of at least 30 cm (one ft.) between each pair of transmitters.

For details of operation with two or more channels, refer to the Operating Instructions for the WRR-800A/801A/805A, etc.

- Ensure that the transmitter set to channels not being used are either turned off or set to the minimum output level.
- When powering the transmitter on or off, to keep the noise to a minimum, set the audio output level from the tuner or mixer to a minimum.

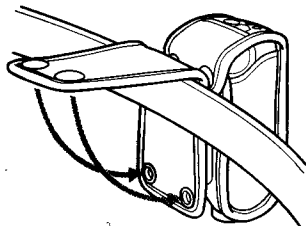
- Powering the transmitter on without checking the channel selection first may interfere with the operation of other microphones/transmitters, if the current setting is already being used.
- To prevent noise generation, keep the transmitters at least 3m (10 feet) away from the tuner antennas when the system is operated using a group which allows selection of up to 11 channels.
- Do not grip the transmitter while using as it will significantly degrade good performance, causing dropouts, etc. Hold the microphone itself as shown.



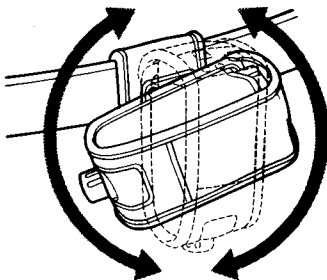
Use of the Soft Case

Using the soft case, you can attach the unit to a belt.

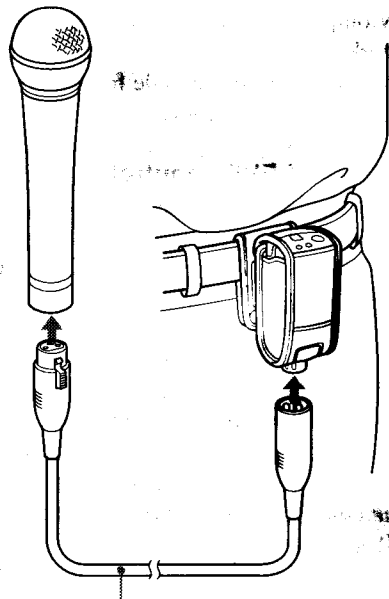
Attaching the unit to a belt



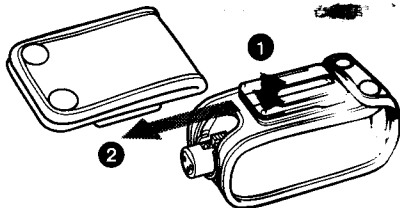
Turning the unit



Connecting the unit and your microphone



Detaching the belt clip



While pressing down the shoe on the case ①, pull out the belt clip ②.

Microphone cable with XLR-3-11 type and XLR-3-12 type connectors (available on the market)

Specifications

Transmitter and modulation section

Oscillator	Crystal controlled PLL synthesizer
Carrier frequencies	
U64 model:	770.125 to 781.875 MHz (94 settings at 125 kHz intervals)
U66 model:	782.125 to 793.875 MHz (94 settings at 125 kHz intervals)
U68 model:	794.125 to 805.875 MHz (94 settings at 125 kHz intervals)
RF power output	50 mW/10 mW selectable
Frequency stability	Within $\pm 0.005\%$
Tone signal	32.768 kHz
Type of emission	110KF3E
Type of antenna	Internal, $\frac{1}{4}$ - wave length wire
Pre-emphasis	50 μ s
Deviation	± 9 kHz (-60 dBV ¹ , 1 kHz input, with 0 dB audio attenuation)
Frequency response	70 to 15,000 Hz
Signal-to-noise ratio	67 dB or more (A-weighted, with reference deviation at WRR-800A/801A)
Audio attenuator	0 to 50 dB
Maximum input	+16 dBV (1 kHz, with 50 dB audio attenuation)

Power section

Power requirements	3.0 V DC (two LR6/size AA alkaline batteries)
Battery life	Approx. 4 hours at 25° C (77° F) with Sony LR6 alkaline batteries

General

Operating temperature	0° C to +50° C (32° F to 122° F)
Storage temperature	-30° C to +60° C (-22° F to +140° F)
Dimensions	40 × 108 × 40 mm (w/h/d) (1 $\frac{5}{8}$ × 4 $\frac{3}{8}$ × 1 $\frac{5}{8}$ inches)
Mass	Approx. 175 g (6 oz) including batteries

Supplied accessories

Operating Instructions (1)
Soft Case (1)

Design and specifications are subject to change without notice.

¹ 0 dBV = 1 Vrms