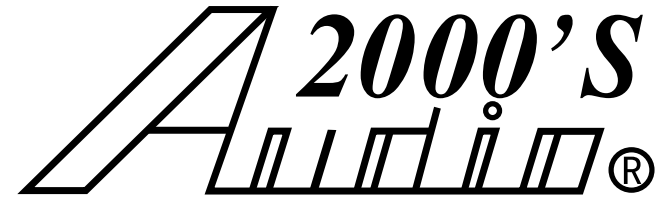




Notes:



**PROFESSIONAL DUAL-CHANNEL UHF
WIRELESS MICROPHONE SYSTEM**

AWM6002U

OWNER'S MANUAL



Thank you for purchasing the **Audio2000'S®** professional dual-channel UHF wireless microphone system! For the best results and the utmost satisfaction from your new unit, please read this manual thoroughly, and retain it for future reference. For more information, please visit our website (www.audio2000s.com).

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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Dangerously high voltages are present inside the unit. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

On Safety

* Operate only on designated AC power supply (120V AC in North America).

* Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.

* Unplug the unit from the wall outlet or set the Master switch to OFF if it is not to be used for several days.

* To disconnect the cord, pull it out by the plug. Never pull the cord itself.

On Installation

* Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

* Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On Repackaging

Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as it was originally packed at the factory.

PACKAGE CONTENTS

<u>Items</u>	<u>Quantities</u>
AWR6002U Receiver	1
Wireless Transmitters (AWX6070's)	2
Two Handhelds	
or	
Two Body Packs	
or	
One Handheld + One Body Pack	
AC/DC Adaptor	1
Antennas	2
¼" to ¼" Cable	1
AA Batteries	4
Owner's Manual	1

QUICK SETUP

A. Remove packing material

B. Install the AWR6002U receiver

1. Place the AWR6002U receiver at a location at least 3.5 feet (1 meter) away from the ground and all the walls. Also, keep the AWR6002U receiver away from any electro-magnetic noise sources as far as possible.
2. Plug the supplied AC/DC adaptor 12VDC output connector to the AWR6002U receiver's DC input, and then plug the AC input of the adaptor to a 120V AC outlet (North America).
3. Mount both the antennas onto the left and right antenna jacks and set them at a 45-degree angle. Make sure that any of the antennas is not enclosed in a large metal body.
4. Connect the outputs of the AWR6002U receiver to microphone inputs of a mixer or a sound system. In order to do so, (1) you could use the supplied microphone cable (a cable with ¼" connectors on both ends) to connect from the unbalanced output (an ¼" jack) to an ¼" microphone input on a mixer or a sound system; or (2) you could get two balanced microphone cables (cables with a male XLR connector at one end and a female XLR connector on the other end; not included in the package) to connect from both the balanced outputs (male XLR jacks) to two balanced microphone inputs (female XLR jacks) on a mixer or a sound system.
5. Both the ¼" output and the XLR balanced outputs on the rear panel of the AWR6002U receiver are to be connected to microphone inputs only.
6. Turn both audio level adjustment knobs all the way to the minimal audio position. Turn on the AWR6002U receiver. After the power of the AWR6002U receiver is turned on, the power LED indicator will be turned on. (**Note:** The audio level adjustment knobs will be adjusted to its optimal position after the transmitters are turned on as discussed in the following section.)

C. Set up the transmitters

(a) Set up the handheld transmitter

1. Open the battery cover of the handheld transmitter by rotating the cover counterclockwise.
2. Carefully slide the battery cover out.
3. Place two 1.5V AA batteries into the battery housing with the battery polarity orientations as indicated.
4. Slide the battery cover back onto the handheld microphone body. Once the battery cover has been moved all the way back, rotate the battery cover clockwise to secure the battery cover to the handheld microphone body.
5. Turn on the power of the handheld transmitter.

(b) Set up the body-pack transmitter

1. Open the battery cover of the body-pack transmitter by pushing battery cover in the direction away from the belt clip.
2. Place two 1.5V AA batteries into the battery housing with the battery polarity orientations as indicated.
3. Slide the cover in the direction toward the belt clip to close the battery cover. Plug the supplied headset or lavalier microphone into the microphone input on the body-pack transmitter.
4. Turn on the power of the body-pack transmitter.

D. Setting up the AWM6002U system

1. The RF LED indicators on the AWR6002U receiver will be turned on after the power of the transmitters are turned on.
2. Adjust the volume control knobs on the AWR6002U to the 12-o'clock position and adjust the mixer or the sound system, which is connected to the AWR6002U microphone output, to have an optimal sound level. The AWM6002U is now ready
3. If more than one AWM6002U systems are to be used at the same time and the same location, the frequencies of the AWM6002U systems other than the first one need to be different from one another to avoid frequency interference.

AWM6002U SYSTEM

FEATURES

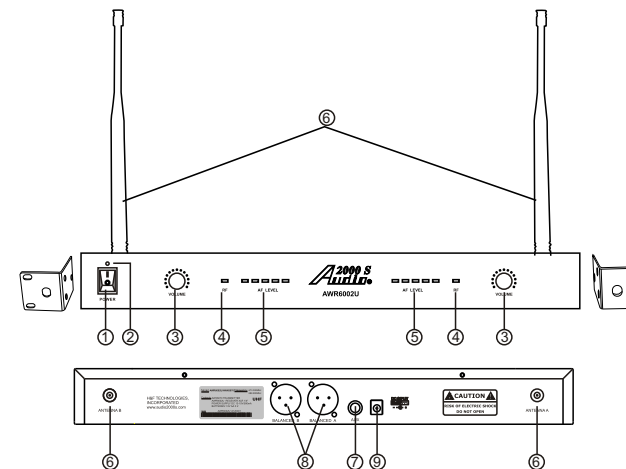
1. UHF Band Frequencies
2. Including Two Wireless Transmitters (Comprising Combinations of Handheld Microphones, Lavalier Microphones, Headset Microphones)
3. Integrated Antenna for Effective RF Output and High Transmission Quality
4. Two Independent Balanced XLR Outputs and One Mixed Unbalanced 1/4" Output
5. Two Independent Volume Control Knobs (One for Each Channel)
6. One Power LED indicator and Two RF LED Indicators
7. Two AF LED Audio Level Indicators
8. Rugged Rack-Mountable Receiver Chassis
9. Operating Range up to 100ft
10. 13V – 15V DC Power Supply

SYSTEM CONFIGURATIONS

- AWM6002U Comprising one AWR6002U receiver and two AWX6070 wireless handheld microphones
- AWM6002UF Comprising one AWR6002U receiver and one AWX6070B-H wireless headset microphone and one AWX6070B-M wireless lavalier microphone
- AWM6002UH Comprising one AWR6002U receiver and two AWX6070B-H wireless headset microphones
- AWM6002UL Comprising one AWR6002U receiver and one AWX6070 wireless handheld microphone and one AWX6070B-M wireless lavalier microphone
- AWM6002UM Comprising one AWR6002U receiver and two AWX6070B-M wireless lavalier microphones
- AWM6002UX Comprising one AWR6002U receiver and one AWX6070 wireless handheld microphone and one AWX6070B-H wireless headset microphone

SYSTEM FUNCTIONS

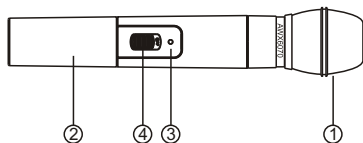
AWR6002U RECEIVER



1. POWER ON/OFF SWITCH --- This switch is to be used as a power On/Off switch.

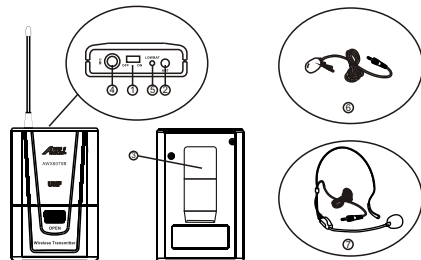
2. **POWER LED INDICATOR (Red)** --- When the AWR6002U receiver power is turned on, this power LED indicator will be on.
3. **AUDIO LEVEL ADJUSTMENT KNOBS** --- There are two audio level adjustment knobs, one for channel A and the other for channel B. These knobs are used to raise or lower the microphone-output audio levels.
4. **RADIO FREQUENCY (RF) SIGNAL INDICATORS (Green)**--- There are two RF signal indicators, one for channel A and the other for channel B. The channel-A RF signal indicator is used to indicate the radio signal being received from the wireless transmitter corresponding to channel A. The channel-B RF signal indicator is used to indicate the radio signal being received from the wireless transmitter corresponding to channel B.
5. **AUDIO FREQUENCY (AF) SIGNAL LEVEL INDICATORS** --- There are two AF signal level indicators, one for channel A and the other for channel B. The channel-A AF signal level indicator is used to indicate the level of the audio input signal being received from the wireless transmitter corresponding to channel A. The channel-B AF signal indicator is used to indicate the level of the audio input signal being received from the wireless transmitter corresponding to channel B.
6. **ANTENNA JACKS (F-Connectors)** --- There are two antenna jacks, one for channel A and the other for channel B.
7. **UNBALANCED MICROPHONE OUTPUT (1/4" Jack)** --- This is a mixed unbalanced microphone output from both Channel A and Channel B (mixed output).
8. **BALANCED MICROPHONE OUTPUTS (XLRM Jacks)** --- There are two balanced microphone outputs, one for channel A and the other for channel B.
9. **13-15VDC INPUT JACK (Tip Positive)**

AWX6070 HANDHELD WIRELESS MICROPHONE



1. **WIRELESS HANDHELD MICROPHONE WINDSCREEN** --- This is to protect the cartridge and help reducing the breath sounds and wind noise.
2. **MICROPHONE BATTERY COVER**
3. **LOW BATTERY-POWER INDICATOR** --- This red LED is to indicate that the power level of the AA batteries in the battery housing is low and the AA batteries need to be replaced. When the AA batteries are still fresh, this red LED light will flash once when the Power On/Off switch is turned from the Off position to the Mute position or directly to the On position.
4. **THREE-POSITION POWER ON/OFF & MUTE SWITCH** --- This switch is to be used as a power On/Off switch and as a mute switch. When the microphone power is off, push this switch in the direction toward the microphone windscreen one step to the Mute position. When the switch is at the Mute position, the RF signal was sent to the AWR6002U receiver and the red RF LED indicator on the receiver will be turned on. Push the On/Off switch in the direction toward the microphone windscreen one more step and the microphone will be turned on.

AWX6070B BODY-PACK WIRELESS TRANSMITTER



1. **THREE-POSITION POWER ON/OFF & MUTE SWITCH** --- This switch is to be used as a power On/Off switch and as a mute switch. When the bodypack power is off, push this switch in the direction toward the "ON" position one step to the Mute position. When the switch is at the Mute position, the

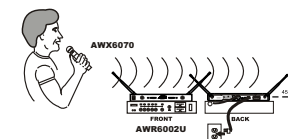
RF signal was sent to the AWR6002U receiver and the red RF LED indicator on the receiver will be turned on. Push the On/Off switch in the direction toward the "ON" position one more step and the bodypack power will be turned on.

2. **ANTENNA**
3. **BELT CLIP** --- This is used to attach the bodypack transmitter to a belt.
4. **MICROPHONE INPUT**
5. **LOW-BATTERY LED INDICATOR (Red)** --- This red low-battery LED indicator will be turned on when the power of the AA batteries in the bodypack battery housing is lower than a preset level.
6. **Lavalier Microphone for a Lavalier System**
7. **Headset Microphone for a Headset System**

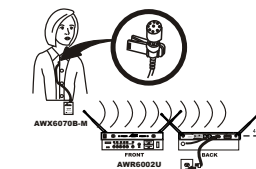
OPERATION

SYSTEM OPERATION

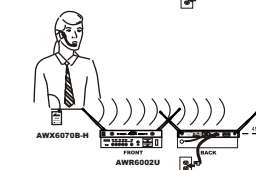
(I) HANDHELD MICROPHONE SYSTEM



(II) LAVALIER MICROPHONE SYSTEM



(III) HEADSET MICROPHONE SYSTEM



OPERATION NOTES

1. The AWX6070, AWX6070B-H, and AWX6070B-M need to be turned off before changing the AA batteries.
2. Signal dropout or unexpected noise may be caused by a low battery or by an excessive distance between the transmitter and the receiver. If you encounter signal dropout or unexpected noise, please check the batteries first. If the batteries are still fresh, try to readjust the antennas on the AWR6002U receiver.
3. Avoid placing the receiver in a corner to prevent any RF reception deterioration.
4. Avoid placing the receiver antennas close to an obstruction or close to any metal surface.
5. Try to place the receiver as far away from the digital equipment, including computers and CD players, as possible.
6. If more than one AWR6002U wireless microphone receivers are stacked together or placed in a rack, do not let the antennas touch each other or cross each other.
7. Before the AWR6002U is to be used in a new location, place the AWR6002U receiver at the intended location and walk through the area with the transmitters to locate any radio frequency blind spots, where a momentary loss of sound or short period of noise may occur whenever the transmitters are moved to these spots.
8. Do not drop the transmitter on the floor or strike the transmitter with any object.
9. Always turn off the transmitter and remove the batteries if the transmitter is not to be used for a period of time to prevent the transmitter from being damaged by leaking batteries.

SPECIFICATIONS

AWR6002U RECEIVER

CARRIER FREQUENCY RANGE	UHF BAND
FREQUENCY STABILITY	±0.005%
RECEIVING SENSITIVITY	-105dBm
S/N RATIO	85dB
T.H.D.	<0.5%
AUDIO OUTPUT	¼" and XLR (0 - ±300mV @ 600 Ω)
DIMENSIONS (W X D X H)	16.6" X 9.3" X 1.8" (422 X 235 X 45 mm)

AWX6070 TRANSMITTER

CARRIER FREQUENCY RANGE	UHF BAND
FREQUENCY STABILITY	±0.005%
MODULATION TYPE	FREQUENCY MODULATION (FM)
MODULATION DEPTH	40KHz
OUTPUT POWER	30mW, Max
SPURIOUS EMISSION	> 55dB
BATTERY	2 X 1.5V AA BATTERIES
CURRENT CONSUMPTION	< 40mA
DIMENSIONS (W X D X H)	HANDHELD: 9.4" X 2.0" X 2.0" (240 X 51 X 51 mm) BODYPACK: 2.6" X 3.9" X 1.2" (65 X 100 X 30 mm)

AWM6002U SYSTEM

CARRIER FREQUENCY RANGE	UHF BAND
FREQUENCY STABILITY	±0.005%
AUDIO FREQUENCY RESPONSE	80 – 15,000Hz
IMAGE & SPURIOUS REJECTION	50dB Minimum
S/N RATIO	>80 dB
MAX. SPL	110 dB
TOTAL HARMONIC DISTORTION	<1%
SERVICE AREA	100ft
OPERATION TEMPERATURE	14°F - 122°F

TROUBLESHOOTING

Should problems occur, they are, in many cases, due to simple operation mistakes or the like. On the basis of the following checks, you will be able to rectify a number of problems yourself without difficulty. If the problem cannot be remedied after the following checks, please consult your dealer.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
No sound and no RF signal	The power of the transmitter is off.	Turn on the transmitter.

	Incorrect AA-battery polarity in the transmitter.	Correct the AA-battery polarity.
	Antenna is not on the receiver or bad antenna connection.	Install the antenna or check the antenna connection.
	Transmitter too far away from the antenna or RF signal blocked.	Reposition the transmitter to closer area or remove the RF signal block.
No sound while RF and AF signals normal	Receiver volume turned to minimum	Adjust the volume control knob to have an optimal volume output.
	Receiver audio cable is missing or defective.	Connect, repair or replace the audio cables.
	Volume control of the sound system connected to the AWR6002U receiver is set to minimum.	Adjust the volume control on the sound system which is connected to the AWR6002U receiver.
No sound while RF signal is normal and AF signal does not exist.	The microphone cartridge of the transmitter is defective.	Return transmitter to factory or authorized service station for service.
	The On/Off switch of the transmitter (handheld or bodypack) is turned to the Mute position.	Turn on the transmitter (handheld or bodypack) by pushing the On/Off switch from the Mute position to the On position.
Loud noise from receiver only when the transmitter is off.	Interference signal at that frequency	Reposition receiver or adjust the antenna orientation.
		Select another operating frequency.
	Receiver is placed too close to an interference source, such as a computer, digital device, or CD player.	Move the receiver to another location.
Loud noise from receiver even when the transmitter is on.	Another transmitter is using the same frequency.	Turn off another transmitter or change to a channel with a different frequency.
	Interference signal at that frequency	Select another operating frequency.
	Receiver is placed too close to an interference source, such as a computer, digital device, or CD player.	Move the receiver to another location.
Distorted sound	Low transmitter battery level	Replace transmitter battery
	The volume control on the receiver is set too high, overloading the subsequent sound device input.	Turn down the volume control on the AWR6002U receiver.
Short range or signal dropouts.	Low transmitter battery level.	Replace transmitter battery.
	Poor antenna reception.	Reposition antenna or receiver.
	Interference Signal	Select another operating frequency.
Momentary loss of sound when transmitter is moved around the performing area.	Too many obstacles between the receiver and transmitter.	Move the obstacles or move the receiver away from nearby metal objects.
	Radio frequency (RF) blind spots.	Reposition the receiver. If the momentary loss of sound problem cannot be removed, walk through the performing area and mark "Blind" spots. Avoid these "Blind" spots during performance.

SERVICE INFORMATION

SHIPPING DAMAGE

If the shipping carton is found to be damaged, notify the delivery company immediately. Save the damaged carton as evidence for the delivery company to inspect. It is the responsibility of the consignee to file a claim with the delivery company for any damaged that occurs during shipping. In the case that the shipping carton is in good condition but the unit is damaged or defective, call **Audio2000'S®** at 805/523-2759.

FACTORY SERVICE

If the equipment needs factory service, call **Audio2000'S®** at 805/523-2759 for a Return Authorization number (RA number) and the address of the authorized service representatives. Insure and ship the product, prepaid, in its original carton along with proof of purchase in the form of a bill of sale or receipted invoice to the above address. Please clearly write the RA number on the shipping carton. Also enclose a note describing the problem along with any other helpful information such as where and how the unit was used.

LIMITED WARRANTY

H&F Technologies, Incorporated (H&F) hereby warrants that **Audio2000'S®** products will be free from defects in material and workmanship for a period of 1 (one) year from date of purchase. At its option, H&F will repair or replace the defective product and promptly return it to you.

The Limited Warranty will not cover any item that has been, in H&F's estimation, subject to alteration, misuse, neglect, accident or improper installation. In addition, any service not performed by H&F or an authorized service center will terminate terms of this warranty. Normal wear and tear of this product will not be covered by this or any implied warranty.

No liability will be accepted for damages/loss directly caused from the use of this product. H&F's liability shall be limited to the repair/replacement of this product if found to be defective.

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