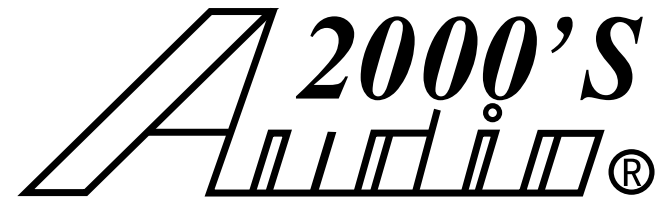




Notes:



**PROFESSIONAL DUAL-CHANNEL UHF
WIRELESS MICROPHONE SYSTEM WITH
100 ADJUSTABLE FREQUENCIES**

AWM6502U

OWNER'S MANUAL



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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

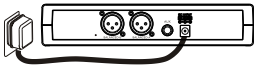
Items	Quantities
AWR6502U Receiver	1
Wireless Transmitters (AWX6502's)	2
Two Handhelds	
or	
Two Body Packs	
or	
One Handheld + One Body Pack	
AC/DC Adaptor	1
¼" to ¼" Cable	1
AA Batteries	4
Owner's Manual	1

QUICK SETUP

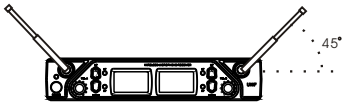
A. Remove packing material

B. Install the AWR6502U receiver

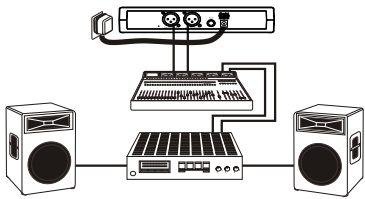
1. Place the AWR6502U receiver at a location at least 3.5 feet (1 meter) away from the ground and all the walls. Also, keep the AWR6502U receiver away from any electro-magnetic noise sources as far as possible.
2. Plug the supplied AC/DC adaptor 12VDC output connector to the AWR6502U receiver's DC input, and then plug the AC input of the adaptor to a 120V AC outlet (North America).



3. Fully extend both the left and right antennas and set them at a 45-degree angle as shown below. Make sure that any of the antennas is not enclosed in a large metal body.



4. Connect the outputs of the AWR6502U 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.

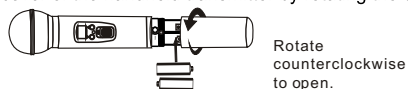


- Both the 1/4" output and the XLR balanced outputs on the rear panel of the AWR6502U receiver are to be connected to microphone inputs only.
- Turn both audio level adjustment knobs all the way to the minimal audio position. Press the power On/Off button steadily until the AWR6502U receiver power is turned on. After the receiver is turned on, the LCD's on the front panel will display the selected frequencies of the system.
(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

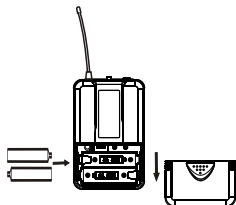
- Open the battery cover of the handheld transmitter by rotating the cover counterclockwise.



- Carefully slide the battery cover out.
- Place two 1.5V AA batteries into the battery housing with the battery polarity orientations as indicated.
- 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.
- Turn on the power of the handheld transmitter. The LCD will be on and display the frequency and the mute icon.

(b) Set up the body-pack transmitter

- Open the battery cover of the body-pack transmitter by pushing battery cover in the direction away from the belt clip.



- Place two 1.5V AA batteries into the battery housing with the battery polarity orientations as indicated.
- 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. If a **lavalier** microphone is connected to the microphone input, the H/L switch right next to the microphone input is to be set to "L". If a **headset** microphone is connected to the microphone input, the H/L switch right next to the microphone input is to be set to "H".
- Turn on the power of the body-pack transmitter. The LCD will display the current selected frequency.

D. Setting up the AWM6502U system

- The RF LED indicators on the AWR6502U receiver will be turned on after the power of the transmitters are turned on.
- Adjust the volume control knobs on the AWR6502U to the 12-o'clock position and adjust the mixer or the sound system, which is connected to the AWR6502U microphone output, to have an optimal sound level. The AWM6502U is now ready

- If more than one AWM6502U systems are to be used at the same time and the same location, the frequencies of the AWM6502U systems other than the first one need to be adjusted to be different from one another to avoid frequency interference.

AWM6502U SYSTEM

FEATURES

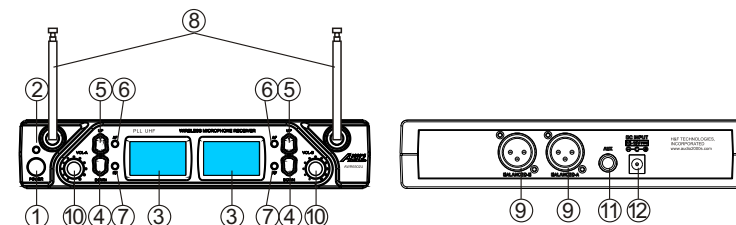
- UHF Band Frequencies
- Including Two Wireless Transmitters (Comprising Combinations of Handheld Microphones, Lavalier Microphones, Headset Microphones)
- Frequencies Agile with PLL (Phase-Lock Loop) 100 Adjustable Frequencies
- Microcontroller (CPU) Controlled
- LCD Display
- Integrated Antenna for Effective RF Output and High Transmission Quality
- Two Independent Balanced XLR Outputs and One Mixed Unbalanced 1/4" Output
- Two Independent Volume Control Knobs (One for Each Channel)
- Rugged Mini Receiver Chassis
- Operating Range up to 100ft
- 13 – 15V DC Power Supply

SYSTEM CONFIGURATIONS

- AWM6502U - Comprising one AWR6502U receiver and two AWX6500 wireless handheld microphones
- AWM6502UF - Comprising one AWR6502U receiver and one AWX6500H wireless headset microphone and one AWX6500M wireless lavalier microphone
- AWM6502UH - Comprising one AWR6502U receiver and two AWX6500H wireless headset microphones
- AWM6502UL - Comprising one AWR6502U receiver and one AWX6500 wireless handheld microphone and one AWX6500M wireless lavalier microphone
- AWM6502UM - Comprising one AWR6502U receiver and two AWX6500M wireless lavalier microphones
- AWM6502UX - Comprising one AWR6502U receiver and one AWX6500 wireless handheld microphone and one AWX6500H wireless headset microphone

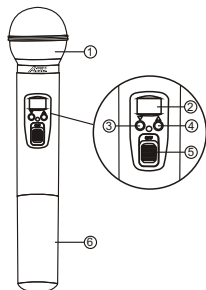
SYSTEM FUNCTIONS

AWR6502U RECEIVER



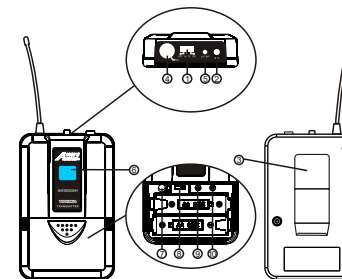
1. **POWER ON/OFF BUTTON** --- This button is to be used as a power On/Off switch. When the AWR6502U receiver power is off, press this button steadily until the power is turned on. When the power is on, the LCD display will light up. While the power is on and trying to turn off the power, press this button steadily until the power is turned off.
2. **POWER LED INDICATOR (Red)**
3. **LCD DISPLAYS** --- There are two LCD Displays, one for channel A and the other for channel B. These LCD displays show the selected frequency channels of the receiver.
4. **"DOWN" BUTTON** --- Press this "DOWN" button to reduce the channel number. When this "DOWN" button is pressed steadily, the channel number will be decreased in a fast manner until the button is released.
5. **"UP" BUTTON** --- Press this "UP" button to raise the channel number. When this "UP" button is pressed steadily, the channel number will be increased in a fast manner until the button is released.
6. **AUDIO FREQUENCY (AF) SIGNAL INDICATORS (Red)** --- There are two AF signal indicators, one for channel A and the other for channel B. The channel-A AF signal indicator is used to indicate 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 audio input signal being received from the wireless transmitter corresponding to channel B.
7. **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.
8. **ANTENNAS** --- There are two antennas, one for channel A and the other for channel B.
9. **BALANCED MICROPHONE OUTPUTS (XLRM Jacks)** --- There are two balanced microphone outputs, one for channel A and the other for channel B.
10. **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.
11. **UNBALANCED MICROPHONE OUTPUT (1/4" Jack)** --- This is a mixed unbalanced microphone output from both Channel A and Channel B (mixed output).
12. **13-15V DC INPUT JACK (Tip Positive)**

AWX6500 HANDHELD WIRELESS MICROPHONE



1. **WIRELESS HANDHELD MICROPHONE WINDSCREEN** --- This is to protect the cartridge and help reducing the breath sounds and wind noise.
2. **LCD DISPLAY** --- This LCD display shows the selected frequency channel of the wireless microphone.
3. **"DOWN" BUTTON** --- Press this "DOWN" button to reduce the channel number. When this "DOWN" button is pressed steadily, the channel number will be decreased in a fast manner until the button is released.
4. **"UP" BUTTON** --- Press this "UP" button to raise the channel number. When this "UP" button is pressed steadily, the channel number will be increased in a fast manner until the button is released.
5. **POWER ON/OFF & MUTE BUTTON** --- This button is to be used as a power On/Off switch. When the AWX6500 transmitter power is off, press this button steadily until the power is turned on. When the power is on, the LCD display will light up. While the power is on and trying to turn off the power, press this button steadily until the power is turned off.
6. **MICROPHONE BATTERY COVER**

AWX6500M / AWX6500H BODY-PACK WIRELESS TRANSMITTER



1. **POWER ON/OFF & MUTE BUTTON** --- This button is to be used as a power On/Off switch and as a mute button. When this body-pack transmitter power is off, press this button steadily to turn on the power. While the power is on, press this button steadily for longer than one (1) second to turn off the power. If the power is on and this button is pressed once, the receiver will be muted and the MUTE icon on the receiver will be on. While the receiver is muted and this button is pressed once, the mute function on the receiver will be removed and the MUTE icon on the receiver will be off.
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 microphone battery housing is lower than a preset level.
6. **LCD DISPLAY** --- This LCD display shows the selected frequency channel of the bodypack transmitter.
7. **AUDIO-LEVEL ADJUSTMENT KNOB**
8. **MICROPHONE TYPE SELECTION SWITCH (H / L)** --- When a *lavalier* microphone is connected to the microphone input as indicated by numeral 4, this H/L switch is to be set to "L". When a *headset* microphone is connected to the microphone input as indicated by numeral 4, this H/L switch is to be set to "H".
9. **"UP" BUTTON** --- Press this "UP" button to raise the channel number. When this "UP" button is pressed steadily, the channel number will be increased in a fast manner until the button is released.
10. **"DOWN" BUTTON** --- Press this "DOWN" button to reduce the channel number. When this "DOWN" button is pressed steadily, the channel number will be decreased in a fast manner until the button is released.

OPERATION NOTES

1. The AWX6500, AWX6500H, and AWX6500M 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 AWR6502U 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 AWR6502U 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 AWM6502U is to be used in a new location, place the AWR6502U 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

AWR6502U RECEIVER

AC/DC ADAPTOR	120V AC with 2.1mm Female Plug
POWER REQUIREMENTS	13-15V DC Nominal, 300mA/500mA
SIGNAL/NOISE RATIO	MORE THAN 85dB
BORDER UPON CHANNEL REJECTION	MORE THAN 70dB
IMAGE & SPURIOUS REJECTION	MORE THAN 70dB
AUDIO OUTPUT LEVEL	0 - ±300mV
RECEIVING SENSITIVITY	-105dBm
DIMENSIONS (W X D X H)	8.0" X 5.9" X 1.7" (204 X 150 X 42 mm)

AWX6500 HANDHELD TRANSMITTER

POWER REQUIREMENTS	1.5V AA BATTERIES X 2
NOMINAL CURRENT DRAIN	LESS THAN 100mA
MODULATION TYPE	FM
RF OUTPUT	10dBm
MAX DEVIATION	± 70KHz
SPURIOUS EMISSION	MORE THAN 55dB
DIMENSIONS (W X D X H)	9.8" X 2.0" X 2.0" (250 X 51 X 51 mm)

AWX6500H/AWX6500M BODYPACK TRANSMITTER

POWER REQUIREMENTS	1.5V AA BATTERIES X 2
NOMINAL CURRENT DRAIN	LESS THAN 100mA
MODULATION TYPE	FM
RF OUTPUT	10dBm
MAX DEVIATION	± 70KHz
SPURIOUS EMISSION	MORE THAN 55dB
DIMENSIONS (W X D X H)	3.94" X 2.6" X 1.2" (100 X 65 X 30 mm)

AWM6502U SYSTEM

FREQUENCY RANGE	UHF
MODULATION MODE	FM
OSCILLATION MODE	PLL
DEVIATION	±45KHz (COMPRESS-EXPAND and AUTOMATIC-VOLUME-LIMIT CIRCUIT)
CHANNEL WIDTH	30MHz
S/N RATIO	>85 dB
TOTAL HARMONIC DISTORTION	<0.3% (1 KHz, A WEIGHTING)
FREQUENCY RESPONSE	80 – 15,000 Hz (± 3dB)

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 AWR6502U receiver is set to minimum.	Adjust the volume control on the sound system which is connected to the AWR6502U 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.
		Select another operating frequency.
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.
		Select another operating frequency.
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 AWR6502U 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.

	Too many obstacles between the receiver and transmitter.	Move the obstacles or move the receiver away from nearby metal objects.
Momentary loss of sound when transmitter is moved around the performing area.	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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