

AS1000

UHF



USER'S MANUAL

ANY SPOT

WIRELESS IN EAR MONITOR



V1-02282006

GALAXY AUDIO™

MAKERS OF THE ORIGINAL HOT SPOT PERSONAL MONITOR



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



WARNING!

USING THIS SYSTEM AT EXCESSIVE VOLUMES CAN CAUSE PERMANENT HEARING DAMAGE. USE AS LOW A VOLUME AS POSSIBLE.

In order to use this system safely, avoid prolonged listening at excessive sound pressure levels. Please use the following guidelines established by the Occupational Safety Health Administration (OSHA) on maximum time exposure to sound pressure levels before hearing damage occurs.

- 90 dB SPL at 8 hours
- 95 dB SPL at 4 hours
- 100 dB SPL at 2 hours
- 105 dB SPL at 1 hour
- 110 dB SPL at ½ hour
- 115 dB SPL at 15 minutes


120 dB SPL — avoid or damage may occur

It is difficult to measure the exact Sound Pressure Levels (SPL) present at the eardrum in live applications. In addition to the volume setting on the AS1000, the SPL in the ear is affected by ambient sound from floor wedges or other devices. The isolation provided by the fit of quality earpieces is also an important factor in determining the SPL.

Here are some general tips to follow in the use of this product to protect your ears from damage.

- Turn up the volume control only far enough to hear properly.
- Ringing in the ears may indicate that the gain levels are too high. Try lowering the gain levels.
- Have your ears checked by an audiologist on a regular basis. If you experience wax buildup in your ears, stop using the system until an audiologist has examined your ears.
- Wipe the ear molds with an antiseptic before and after use to avoid infections. Stop using the earphones if they are causing great discomfort or infection.

! IMPORTANT SAFETY INSTRUCTIONS !

1. READ these instructions.
2. KEEP these instructions.
3. HEED all warnings.
4. FOLLOW all instructions.
5. DO NOT use this apparatus near water.
6. CLEAN ONLY with dry cloth.
7. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. DO NOT defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. PROTECT the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. ONLY USE attachments/accessories specified by the manufacturer.
12.  USE only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
14. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. DO NOT expose the apparatus to dripping and splashing. DO NOT put objects filled with liquids, such as vases, on the apparatus.
16. Remove the batteries from the receiver if the system will not be used for a long period of time. This will avoid any damage resulting from a defective, leaking battery.
17. DO NOT throw used batteries into a fire. Be sure to dispose of or recycle used batteries in accordance with local waste disposal laws.

LICENSING INFORMATION

THIS RADIO EQUIPMENT IS INTENDED FOR USE IN PROFESSIONAL ENTERTAINMENT AND SIMILAR APPLICATIONS.

Changes or modifications not expressly approved by Galaxy Audio Incorporated could void your authority to operate the equipment.

Licensing of Galaxy Audio wireless microphone equipment is the user's responsibility, and licensability depends on the user's classification and application, and on the selected frequency. Galaxy Audio strongly urges the user to contact the appropriate telecommunications authority concerning proper licensing, and before choosing and ordering frequencies.

NOTE: THIS EQUIPMENT MAY BE CAPABLE OF OPERATING ON SOME FREQUENCIES NOT AUTHORIZED IN YOUR REGION. PLEASE CONTACT YOUR NATIONAL AUTHORITY TO OBTAIN INFORMATION ON AUTHORIZED FREQUENCIES FOR WIRELESS MICROPHONE PRODUCTS IN YOUR REGION

Licensing: Note that a ministerial license to operate this equipment may be required in certain areas. Consult your national authority for possible requirements.

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CONTENTS:

The following items are included in the Any Spot AS-1000 system:

1. ①-AS-1000T Transmitter
2. ①-AS-1000R Receiver
3. ①-Set of Ear Buds
4. ①-AC Adapter
5. ①-RF Antenna
6. ①-Stereo RCA Cable
7. ①-1/8" Stereo Record Out Cable
8. ①-Rack Mount "T" Bracket with 2 Screws
9. ①-Rack Mount "L" Bracket with 2 Screws
10. ①-Owner's Manual

Note: Rack mount brackets are for mounting 2 transmitters side by side, in a single 19" rack space.

GALAXY AUDIO ANY SPOT AS-1000 IN EAR MONITOR SYSTEM

Introduction

Thank you for purchasing the Galaxy Audio Any Spot! The AS-1000 is a wireless in-ear monitor system, which consists of the AS-1000T transmitter and the AS-1000R receiver. This in-ear monitor system operates in the UHF Frequency band and utilizes a Phase Locked Loop (PLL) synthesizer control for improved reception and channel selection. The system provides 64 selectable frequencies, via the rotary switches, making it easy to avoid frequency interference.

Common uses for the Any Spot system would include:

- Providing a wireless monitor mix to stage performers.
- Providing an assisted listening system for hearing impaired audience members.
- Transmitting a wireless audio signal to recording equipment such as a video camera.

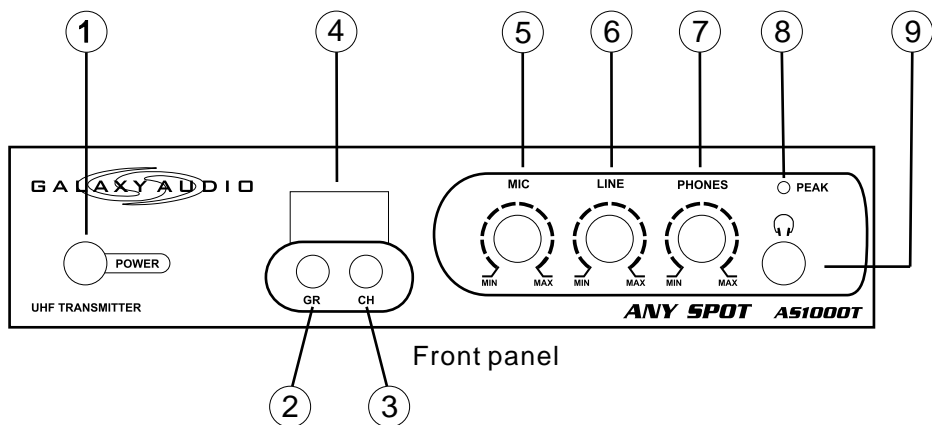
Please take a few minutes to read this instruction manual carefully before operating the system.

AS-1000T Transmitter

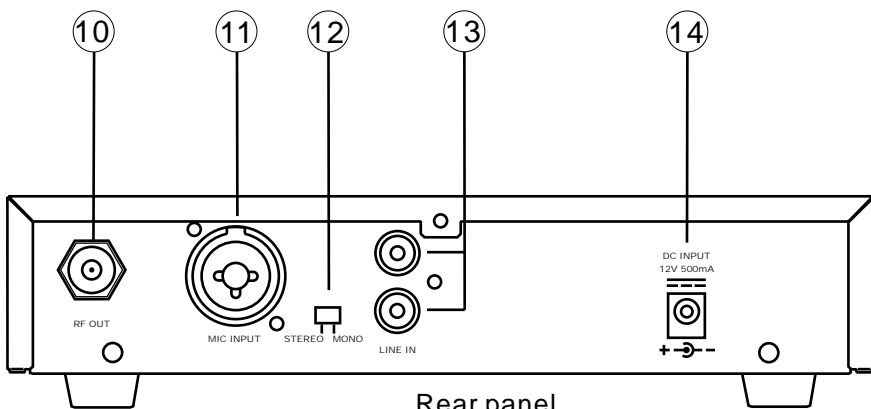
Features

- The AS-1000T is a low power FM broadcasting transmitter. It can simultaneously transmit stereo music (from sources such as CD players, MP3 players, etc.) and vocal audio (from wired or wireless microphone systems). It can also be interfaced with a mixing console to transmit an entire monitor mix to the performer.
- Up to 64 selectable frequencies are available to set up a multi-frequency broadcasting system while avoiding interference. The two rotary switches allow the user to easily select the group number (1-8), and channel number (1-8). These two selections make up the frequency program number, which is then brightly displayed on the front panel.
- The ¼"/XLR combo MIC jack accepts a balanced or unbalanced, line or microphone signal.
- The RCA LINE IN jacks accept stereo or mono audio signals from CD players, MP3 players, etc. (Switchable Stereo/Mono modes.)
- Independent input volume controls allow the user greater control when mixing two audio sources together.
- The Peak LED indicator shows when the inputs are being over-driven to help avoid distortion.
- The Headphone jack, with independent volume control, allows a user to monitor the audio signal from the transmitter location.
- The AS-1000T utilizes a high efficiency antenna with a typical coverage radius of approximately 200 feet. The coverage area is maximized when the antenna is placed at higher locations.

PRODUCT DESCRIPTION



Front panel



Rear panel

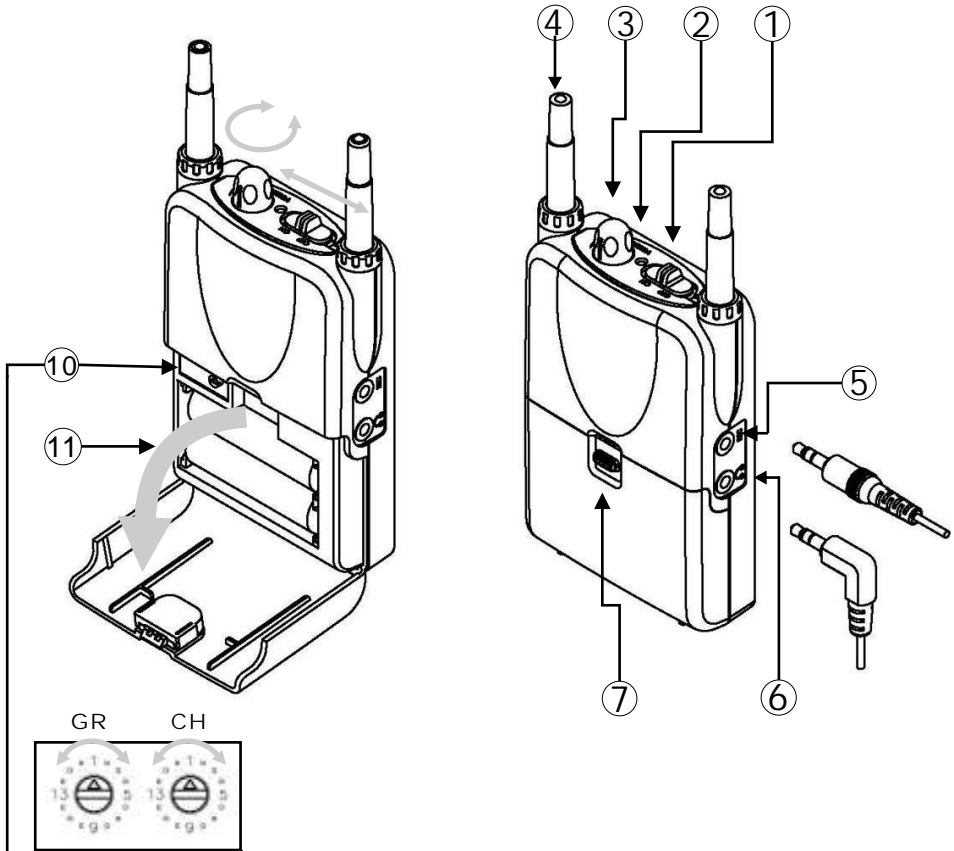
1. **POWER:** On/Off push button switch.
2. **GR:** Rotary switch used to select frequency group.
3. **CH:** Rotary switch used to select frequency channel.
4. **LED display:** Indicates the current frequency group and channel selected on the transmitter.
5. **MIC:** Adjusts the volume of the 1/4"/XLR MIC input.
6. **LINE:** Adjusts the volume of the stereo RCA LINE IN input.
7. **PHONES:** Adjusts the volume of the monitoring headphone jack (#9).
8. **PEAK:** Illuminates when the input audio signal is too high. Distortion may occur when this light is on.

9. HEADPHONE JACK: 1/4" stereo jack for headphones. This jack is used to monitor the audio signal from the transmitter location.
10. RF OUT: TNC socket for installation of antenna.
11. MIC INPUT: Balanced 1/4"/ XLR combo jack for microphone level (XLR), or line level (1/4") signals.
12. STEREO/MONO: Switch used to select stereo or mono mode of RCA LINE IN inputs.
13. LINE IN: Stereo RCA jacks for mono or stereo audio input.
14. DC 12V: DC input connector for AC adapter.

AS-1000R Receiver

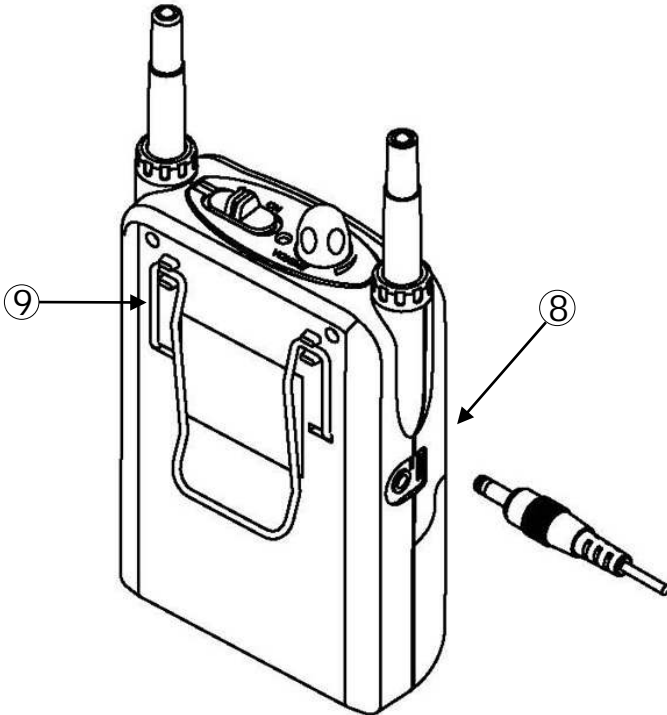
Features

- Two 1/4-wave antennas for true diversity reception.
- Two stereo 1/8" outputs for ear buds and interfacing with recording equipment.
- Multi-Color LED indicator allows the user to obtain more status information from the receiver.
- Charging input allows for re-charging of batteries without having to remove them. (For use only with optional charger unit and rechargeable batteries).
- Up to 64 selectable frequencies are available to set up a multi-frequency broadcasting system while avoiding interference. The user can easily select the frequency program number by using the rotary switches inside the battery compartment.
- The frequency group and channel selection switches are contained inside the battery compartment, which helps prevent the accidental changing of channels during use.
- In the rare event of a signal dropout, our "Auto-Mute" circuitry prevents intermittent static from going into the users ears.



1. POWER: On/Off slide switch.
2. MULTI-COLOR LED INDICATOR:
 - A. When the power is first switched on, the LED flashes RED, and then fades out.
 - B. A constant GREEN LED indicates a signal from the transmitter is present.
 - C. A constant AMBER LED indicates the batteries are low. (Time to replace the batteries).
 - D. A constant RED LED indicates no signal from the transmitter is present.
 - E. A flashing RED LED indicates the batteries are being charged (only applies to rechargeable batteries and the optional charger unit).

3. **VOLUME CONTROL:** Adjusts the volume of the signal present at the ear bud jack (#6).
4. **¼ WAVE ANTENNA**
5. **1/8" STEREO RECORDING OUTPUT:** Provides a stereo line level signal to recording or other equipment. (Not affected by the volume control #3).
6. **1/8" STEREO EAR BUD OUTPUT:** Provides a stereo signal to the ear buds.
7. **BATTERY COMPARTMENT DOOR RELEASE.**



8. **BATTERY CHARGER INPUT:** For use with the optional battery charger. (Use only with rechargeable type batteries.)
9. **BELT CLIP:** Allows the receiver to be easily worn on a belt, waistband, or guitar strap.
10. **GROUP and CHANNEL SELECTORS:** Rotary switch (GR) used to select group, and (CH) to select channel.
11. **BATTERY COMPARTMENT:** Holds two AA standard or rechargeable batteries. (Observe correct polarity indications.)

AS-1000 System Set-up and Operation

1. Attach the UHF antenna to the TNC connector on the rear panel of the transmitter.
2. Check the voltage of the included AC adapter, and make sure it conforms to the line voltage available in your local area. Using the wrong AC adapter may cause irreparable damage to the unit.
3. Plug the feeder cable of the AC adapter into the DC IN jack on the transmitter. Then plug the AC adapter into a power outlet. Switch on the power button on the transmitter.
4. Using the Group and Channel rotary switches, select a frequency program number that is not already in use by another wireless unit.
5. Connect the audio source(s) to the transmitter. For Mic level signals use the XLR (MIC) input jack. For Mono Line level signals use the ¼" (MIC) input jack. For Stereo Line level signals use the Stereo RCA jacks. (The RCA jacks may also be used in Mono by sliding the Stereo/Mono switch to Mono mode).
6. Turn all volume controls on the transmitter to minimum. Send audio signals from the source(s) at the approximate level that will be used during the performance. Sources may be a monitor mix from a mixing console, a CD player, or even a single microphone.
7. Starting at minimum, slowly turn up the MIC volume control until the transmitter Peak LED starts to light. Then turn the control back down just enough to keep the LED from lighting. Repeat this procedure for the LINE IN volume control (if used). These levels will be a good starting point and provide a good signal to noise ratio while avoiding distortion.
8. If desired, the audio may be monitored at the transmitter location by plugging in headphones to the ¼" headphone jack. Adjust PHONES to set the volume.
9. Open the battery door on the AS-1000R receiver and install two AA batteries.
10. Adjust the Group (GR) and Channel (CH) rotary switches to match the frequency number selected on the transmitter.

11. With the receiver power switch off and the volume control set to minimum, plug in a set of ear buds to the 1/8" stereo Ear Bud output jack. Fit the ear buds snugly into your ears and adjust for a comfortable fit.
12. Switch on the power to the receiver and note the LED. It should come on Red and then fade out to Green. This indicates a signal is being received from the transmitter.
13. Starting from minimum, slowly increase the volume control until the desired level is achieved. If both inputs on the transmitter are in use, you may need to adjust the balance between the MIC and LINE volume controls.
14. Walk around the area where the receiver will be used to ensure you have good coverage with no interference. If any interference is heard, select a new frequency program number on both the transmitter and the receiver until a clear frequency is found.
15. If the audio source levels provided to the transmitter change, the volume controls on the transmitter may need to be re-adjusted for optimum performance.

SPECIFICATION : AS-1000R Receiver

Model no.	AS1000R
Frequency Range	UHF 682~698MHz. 64 CH
Case	Body-pack In Ear Monitor
Oscillator	PLL synthesized
Receiving Mode	Single channel. Diversity
Frequency Stability	±0.005%
Receiving Sensitivity	At 5 dBuV over 80dB S/N ratio
Image & Spurious Rej.	80dB minimum
Selectivity	> 50dB
Modulation Mode	FM
IF Frequency	1st: 56MHz 2nd: 10.7MHz
Dynamic Range	>96dB
S/N Ratio	>94dB, at 15KHz deviation and 60dBuV antenna input
AF Response	Headphone: 100Hz to 10KHz (±3dB) Line: 40Hz to 15KHz (±3dB)
T.H.D.	<1%(at 1KHz)
Power Supply	DC 3V (2 x 1.5V AA batteries or rechargeable batteries)
Audio Output	Headphone stereo output: 20mW, Line stereo output level: -10dB
Current Consumption	130mA ± 10mA
Dimension W x H x D	3" x 4.2" x 1.2" (76 x 106 x 29mm)

Design and specifications are subjects to be changed without notice.

SPECIFICATION

SPECIFICATION : AS-1000T Transmitter

Frequency range	UHF 682 ~ 698MHz
RF power output	10mW or 100mW
Frequency stability	±0.005%
Maximum deviation	±48KHz with limiting compressor
Spurious emission	>60dB below carrier frequency
T.H.D.	<1% (at 1KHz)
Power supply	DC12 ~18V
Tone key	32.768 KHz
Current consumption	140mA ±10mA(100mW)
Dimension W x H x D	8.31" x 1.73" x 7.1" (211 x 44 x 180mm)

Design and specifications are subjects to be changed without notice.

TROUBLESHOOTING

Problem	Solution
No Sound	<ul style="list-style-type: none"> ● Make sure both the transmitter and receiver are switched on and receiving power. ● Make sure the transmitter and receiver are tuned to the same frequency program number. ● Make sure an audio signal is being supplied to the transmitter. Check by plugging a set of headphones into the Phones jack on the transmitter. ● Make sure the receiver is within range of the transmitter. ● Check whether the transmitter is located too near a metal object, or there are obstructions between the transmitter and receiver.
Sound interference	<ul style="list-style-type: none"> ● Check the transmitter antenna location. Higher is better. ● When using 2 or more transmitters simultaneously, make sure the chosen frequencies are not interfering with each other. ● Check whether the interference comes from other wireless systems, TV, radio, etc. Try choosing new matching frequency program numbers for both the transmitter and receiver.
Distortion	<ul style="list-style-type: none"> ● Check the input volume control setting on the transmitter. (See step #7 under Set-up and Operation). ● Make sure the receiver volume is not set too high. ● Make sure the source signal supplied to the transmitter is not distorted.

ANY SPOT Frequency chart for 682-698MHz transmitter

FREQUENCY 682-698MHz

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8
CHANNEL 1	682.375MHz	690.125MHz	682.625MHz	690.250MHz	682.875MHz	690.375MHz	683.125MHz	690.625MHz
CHANNEL 2	683.250MHz	690.750MHz	683.375MHz	690.875MHz	683.500MHz	691.250MHz	683.750MHz	691.375MHz
CHANNEL 3	683.875MHz	691.500MHz	684.125MHz	691.750MHz	684.375MHz	691.875MHz	684.625MHz	692.250MHz
CHANNEL 4	684.875MHz	692.500MHz	685.125MHz	692.750MHz	685.250MHz	693.125MHz	685.500MHz	693.250MHz
CHANNEL 5	685.750MHz	693.625MHz	685.875MHz	693.875MHz	686.125MHz	694.250MHz	686.375MHz	694.500MHz
CHANNEL 6	686.625MHz	694.750MHz	686.750MHz	694.875MHz	687.125MHz	695.125MHz	687.375MHz	695.250MHz
CHANNEL 7	687.500MHz	695.625MHz	687.750MHz	696.250MHz	688.375MHz	696.500MHz	688.500MHz	696.625MHz
CHANNEL 8	688.750MHz	697.125MHz	688.875MHz	697.375MHz	689.375MHz	697.625MHz	689.750MHz	697.875MHz

Certification

AS-100T: Certified to FCC Parts 74, FCC ID JEBIEM-168. Meets essential requirements of European R&TTE Directive 1999/5/EC, eligible to bear CE marking. Type approved to EN 300 422 -2. Meets requirements of EMC Standard EN 301 489 Parts 1 and 9. Certified to EN 60065.

AS-100R: Approved under the Declaration of Conformity (DoC) provision of FCC Part 15. Meets essential requirements of European Union R&TTE Directive 1999/5/EC, eligible to bear CE marking. Type approved to EN 300 422 -2. Meets requirements of EMC Standard EN 301 489 Parts 1 and 9.

This Radio Equipment is intended for use IN MUSICAL PROFESSIONAL ENTERTAINMENT AND SIMILAR APPLICATIONS.

SP41-120500 power supply conforms to applicable U.S. and Canadian electrical and safety standards.

NOTE: This Radio apparatus may be capable of operating on some frequencies not authorized in your region. Please contact your national authority to obtain information on authorized frequencies for wireless microphone products in your region

Licensing: A ministerial license to operate this equipment may be required in certain areas. Consult your national authority for possible requirements.

FCC Statement. The AS-100R Receiver complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device does not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Licensing Statement. A user license may be required for operation. Contact the communications authority in your country for more information.

Modifications to Approved Equipment. Changes or modifications not expressly approved by Galaxy Audio Incorporated could affect compliance with telecommunications standards, thereby voiding the user's authority to operate this product.

NOTE: This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

ONE YEAR LIMITED WARRANTY

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. This warranty is extended to the purchaser and to any purchaser from him/her for value.

GALAXY AUDIO warrants the materials and workmanship of its products for a period of one full year from the date of the original purchase.

The following are not covered by the warranty:

1. Damage to or deterioration of the exterior cabinet which occurs after delivery.
2. Damage after initial delivery resulting from accident, misuse or neglect.
3. Damage resulting from failure to follow instructions contained in the owner's manual.
4. Damage resulting from the performance of repairs by someone other than GALAXY AUDIO or an authorized GALAXY AUDIO service center.
5. Damage occurring during the shipment or delivery of any GALAXY AUDIO product to GALAXY AUDIO or an authorized service center after initial delivery of the product to you.
6. Damage to any GALAXY AUDIO product which has been altered, or on which the serial number has been effaced or removed.

If your unit requires service, it must be returned, shipping charges prepaid to GALAXY AUDIO service center in the United States. (This warranty is not enforceable outside the U.S.) Please call or write GALAXY AUDIO, 601 E. Pawnee, Wichita, Kansas 67211, (800) 369-7768. Under no circumstances should you return your unit to the factory without first calling GALAXY AUDIO and acquiring a Return Authorization Number (RMA) or written instruction to do so. If service is required, you must present the original or a copy of the bill of sale as a proof of date of purchase of your unit. Upon receipt of your unit for service, GALAXY AUDIO will repair or replace your unit as soon as possible, but in no event later than 30 days after the receipt of the unit. We will return the unit to you, shipping charges prepaid, provided the necessary repairs are covered by this warranty.

IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY, UNLESS OTHERWISE PROVIDED FOR BY STATE LAW. GALAXY AUDIO'S LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT, AT OUR OPTION, OF ANY DEFECTIVE PRODUCT, AND SHALL IN NO EVENT INCLUDE INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

GALAXY AUDIO does not authorize any third party, including any dealer or Authorized Service Center, to assume any liability on behalf of GALAXY AUDIO or to make any warranty for GALAXY AUDIO.



MAKERS OF THE ORIGINAL HOT SPOT PERSONAL MONITOR

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Specifications in this manual are subject to change without notice.

Registration information is used ONLY by GALAXY AUDIO and will be kept strictly confidential.

REGISTRATION CARD

Registration

Name _____ Phone _____
Address _____
City, State, Zip _____
email _____
Dealer _____ PurchaseDate _____

Serial number Model

This Galaxy Audio product will be used for:

- Live Sound
- Church
- Recording**
- Home/Project Studio
- Commercial Studio
- Post-Production/Mastering

- Broadcast**
- On-Air
- Production

What magazines do you read? _____

How can Galaxy Audio better serve you?

GALAXY AUDIO™

MAKERS OF THE ORIGINAL HOT SPOT PERSONAL MONITOR

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