

# ***ANY SPOT*** **QUAD**

**And Optional Transmitters**

## **USER'S GUIDE**

**Rack Mount Wireless  
Mic Receiver Chassis**



## ***AS-QUAD***

**GALAXY AUDIO**

MAKERS OF THE ORIGINAL HOT SPOT PERSONAL MONITOR



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# Operating Manual for AS-QUAD Series

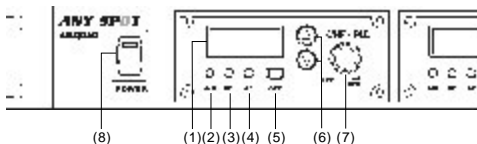
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## Introduction

Thank you for purchasing the Galaxy Audio AS-QUAD System. This manual covers the complete functions and operation of the QUAD as well as the optional transmitters. Please read this manual carefully to use the Quad to its fullest potential. The Quad is a single space rack mount receiver chassis, which may be loaded with up to 4 UHF diversity wireless mic receivers. Each of the receivers features an LCD display, 96 selectable channels, RF/AF indicators, and volume control. The chassis has an individual balanced XLR output for each receiver, and a mix output (balanced XLR and unbalanced ¼" jacks) with a Hi/Low level switch. The mix output provides a mixed signal from all of the receivers, based on the individual volume control settings. This mix output is very useful when main mixer input channels are in short supply. The internal antenna distribution system allows the 2 detachable antennas to serve all of the receivers. In addition, the Quad chassis provides power to all 4 receivers while occupying only 1 AC outlet.

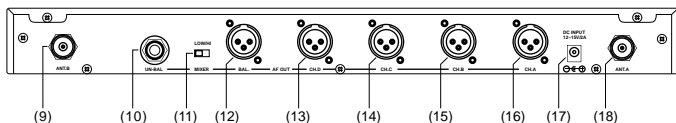
There are multiple transmitter options for the Quad receivers. Choose between Dynamic or Condenser Handheld Microphones or a Body Pack transmitter (with multiple Headset & Lav options). Each transmitter features an LCD display showing channel number, frequency, and battery level. All transmitters feature a mute switch and run off of 2AA batteries (can be rechargeable).

## Front Panel / Mic Receiver Module



1. LCD Display
2. A/B Diversity Indicator
3. RF Indicator
4. AF Level Indicator
5. Channel Set
6. Channel Selector
7. Module Power Switch & Mic Volume
8. Main QUAD Power Switch

## Rear Panel



9. Antenna B Connector
10. Unbalanced 1/4" Mix Output
11. Mix Output Level Switch
12. Balanced XLR Mix Output
13. Module Ch. D Output
14. Module Ch. C Output
15. Module Ch. B Output
16. Module Ch. A Output
17. 12v DC Power Input
18. Antenna A Connector

## **Operation**

### **A. Power Supply and Main Power Switch**

1. Starting with all power switches off, plug the included DC Power Supply into the DC Input Jack (17) on the rear panel. Plug the other end into an AC wall outlet. Switch on the Main Power (8).

### **B. Output Jacks**

The QUAD offers two different methods of connecting the Mic Receiver Outputs to the Inputs of devices such as mixers, amplifiers, or recording gear.

1. You may connect each Receiver Module Output (A through D, 13-16) to separate input channels on a mixer. This method is useful when independent signal processing or routing of the Mic Receivers is required. Note: The Module Ch. A Output jack (16) corresponds to the module closest to the Main Power Switch (8) on the front panel, and so on down the line.
2. Or, you may simply use one (or both) of the Mix Outputs (10 or 12), which will supply a mix of all the Receiver Modules based on the Volume settings of each Module (7). Use the Hi / Lo Switch (11) to choose the overall Output Level (Mic or Line Level). This method is useful to conserve mixer input channels, or when a simple setup is desired that does not require independent signal processing or routing of the Mic Receivers.

### **C. Wireless Mic Receiver Modules**

This system may be configured with up to four wireless mic receiver modules with selectable PLL 96 channel operation.

1. Turn the power switch **(7)** clockwise to turn on the receiver.
2. The LCD display **(1)** will show "On" and the channel that was last in use when the unit was turned off.
3. To select a different channel, press the set button **(5)**. The channel number will flash in the in LCD display. Press the up or down button **(6)** to select a channel to use, and then press the set button. After a channel has been set, press either the up or down button to display the frequency of the selected channel.
4. Adjust the volume controls to the desired level. It is important to set the gain structure properly to ensure the best signal to noise ratio. Typically, you will want to set the Output Volume controls of the Mic Receiver Modules as high as possible without causing distortion to the Input of the next device, and so on down the line.
5. When receiving signal, the A/B diversity indicator **(2)** will light RED or Green to show the normal condition. The RF indicator **(3)** will light to show RF received and the AF indicator **(4)** will show audio received.
6. When multiple Transmitters (Mics) are used, each must be set to a different channel to avoid interference. Set the Mic Receiver to the same channel number that is set on the Transmitter that you wish to receive.

**Notice:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

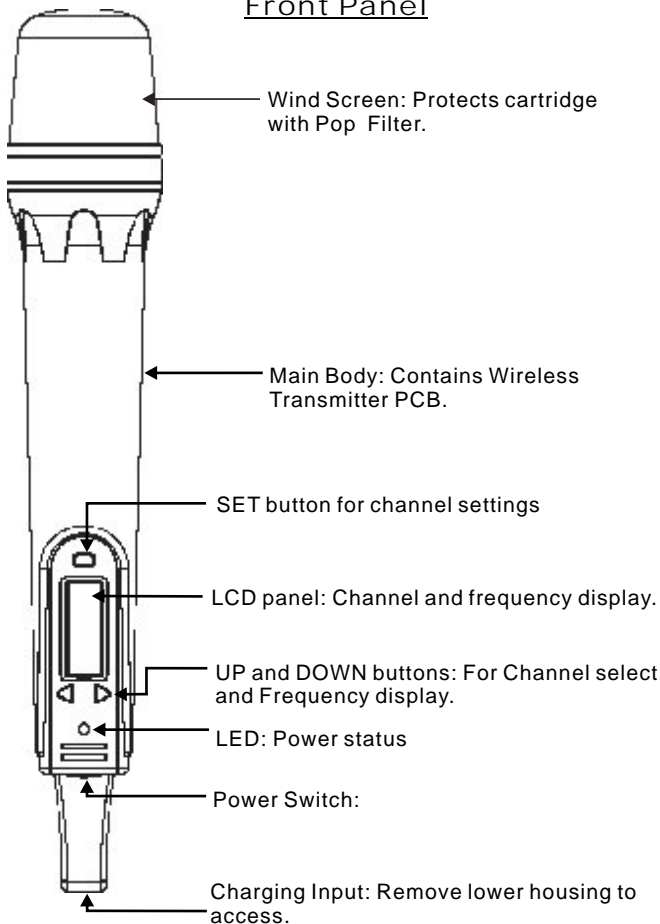
**IMPORTANT NOTE:**

To comply with the FCC RF exposure compliance requirements, no changes to the antenna or the device are permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void the user's authority to operate the device. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



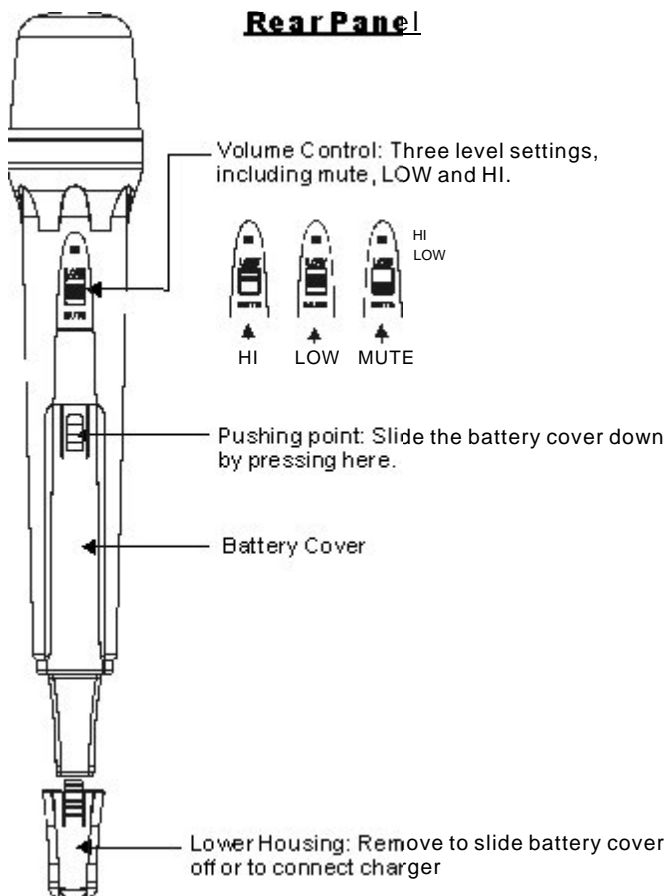
# Description of Functions for Handheld Microphone AS-TVHH/TVHHC

## Front Panel



# Description of Functions for Handheld Microphone AS-TVHH/TVHHC

## Rear Panel




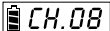
# Operation of Handheld Microphone

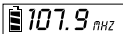
## A. Battery Installation Steps:

1. Turn off the microphone before inserting batteries.
2. Press in the latch to release the lower housing and slide it off.
3. Press in the latch to release the battery cover and slide it down.
4. Insert 2 disposable batteries of 1.5V type or 2 rechargeable batteries of 1.2V type.
5. Observe proper polarity while inserting batteries.
6. Slide the battery cover back to its original position.
7. Install the lower housing back to the lower part of the microphone.

## B. Switch-On Steps:

1. Press the power switch and hold for about two seconds until the LED turns to RED and "on" is displayed in the LCD. 
2. The LCD will then automatically display the selected channel.

 : Channel indicator.

 : Press and hold the Up or Down button to display the corresponding frequency

## C. Switch Off steps:

1. Press and hold power switch for three seconds until the LCD displays OFF.

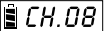
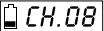
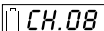


## D. Channel/Frequency Settings (with power on):

1. Press the SET button and hold for about 2 seconds.
2. The Channel number display will start flashing.
3. Press the Up button to display a higher numbered channel.

4. Press the Down button to display a lower numbered channel.
5. Press the SET button to activate the selected channel.

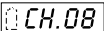

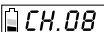
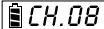
## E. Battery Indications:

1.  :Three bars means batteries are fully charged.
2.  :One bar indicates low batteries. Replace or recharge the batteries.
3.  :No bars showing indicates batteries are exhausted and after flashing three times the power will automatically shut off.

## F. Battery Charging Steps:

1. Rechargeable batteries need to be NiMH AA 1.2V with an amperage of 2100mA or less as the charging function is limited to batteries of that rating.
2. Recharging is best accomplished by using the AS-TV8DCC charger

### 3. Charging status:

- a.  Battery indicator flashing: Non-Rechargeable batteries installed or no batteries installed. Check the batteries.
- b.  Battery indicator is flashing and LCD backlight is on: Failing, corroded, or over-temperature batteries.
- c.  One or two bars showing: Batteries are charging successfully.
- d.  Three bars showing: Batteries have been fully charged.

\* Please note the microphone will be turned off automatically while it is being charged.

## G. Trouble Shooting:

### 1. LED doesn't light when power switch is pressed to turn on mic.

- Make sure that the batteries are not discharged.
- Make sure that the batteries are installed correctly.

### 2. LCD shows Err when power switch is pressed to turn mic off.

- Press the SET, UP and DOWN buttons at the same time in order to turn the microphone off automatically. The LCD display will flash about ten times and then the microphone will turn off automatically. The microphone should now turn on and off normally.
- If the problem persists, call for service.

### 3. LCD panel shows unusual indications.

- Remove the batteries from the microphone and re-install them.

### 4. No audio from microphone.

- Check that the frequency of the transmitter is the same as that of the receiver.
- Make sure that the Mic switch is not set to Mute.
- Check if the distance between the transmitter and the receiver is too great.
- Check if the transmitter or the receiver is too close to any large metal objects.

### 5. Interference and signal Disturbance.

- Make sure there are no other wireless systems operating on the same frequency in the same area. This includes Microphones, televisions, radio stations, etc. Try setting the transmitter and receiver to a new channel.

## H. Q&A

### 1. Q: How long can the microphone be operated with fully charged batteries?

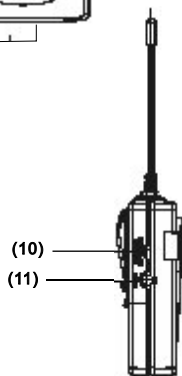
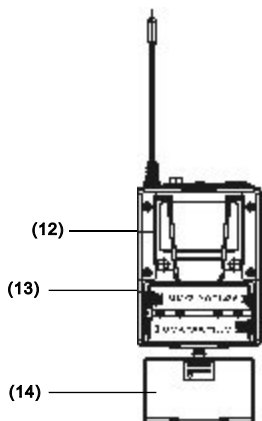
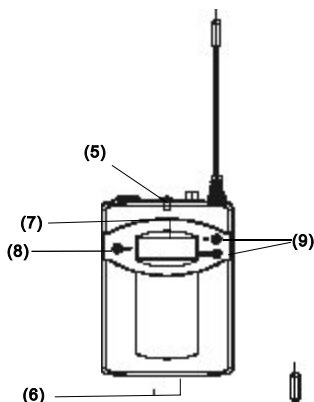
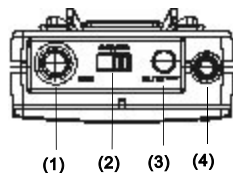
**A:** Re-chargeable batteries will last approximately 8 to 10 hours. Disposable batteries will last approximately 13 hours.

**Q:** How much time is required to recharge batteries from a fully exhausted state?

**A:** Approximately 4 to 5 hours.

# Description of Functions for Body Pack Transmitter AS-TVMBP

1. Mini XLR Mic input jack (TA3M)
2. Power switch
3. Mute button
4. Antenna
5. Power light
6. Charging Jack
7. LCD light
8. Set button
9. Channel select button
10. Sensitivity control
11. 3.5mm aux input jack
12. Belt clip
13. Battery compartment
14. Battery cover



# Operation of Bodypack Transmitter AS-TVMBP

## A. Battery Installation:

1. Switch the transmitter off before inserting batteries.
2. Slide the battery cover off.
3. Insert 2 disposable batteries (1.5V AA) or 2 rechargeable batteries (1.2V AA).
4. Observe correct polarity when inserting batteries.
5. Slide the battery cover back to its original position.

## B. Turning unit on:

1. Switch the power to ON position
2. The RED LED will light and the LCD will display "On".

The image shows a rectangular LCD display with a black background and white text. The text "On" is displayed in a stylized, slightly italicized font.

Battery status and channel will then appear.






If no other operation is performed, LCD light will go off automatically in 5 seconds.

## C. Channel/Frequency Settings:

1. Press and hold the SET button for approximately 2 seconds until the channel number flashes.
2. Release the SET button and the current channel will keep flashing
3. Press the UP or DOWN buttons to select a different channel.
4. When the desired channel is displayed press the SET button again. The display will stop flashing and stay on the channel selected.
5. Press and hold the UP or DOWN buttons to display the frequency associated with the channel number selected.

## D. Battery Indications:

1.  Batteries fully charged and channel 08 selected.
2.  One bar displayed indicates low-battery. The batteries need to be changed or rechargeable batteries need to be recharged.
3.  No bars displayed indicates the batteries are exhausted and after flashing three times, the power will automatically shut off.

## E. Battery Charging Steps:

1. Insure that the batteries are the rechargeable type.
2. Switch Power to OFF position.
3. Insert AS-TVMBP into its own intelligent charger stand (AS-DCTVMBP).
4. Batteries will recharge automatically.
5. For more details of charger stand please refer to AS-DCTVMBP user guide.

## F. Turning the unit OFF:

1. Slide the power switch to the OFF position.

2. LCD display will show "OFF"

**OFF**

If there is no further operation, the Power LED and LCD will switch off automatically.

## G. Troubleshooting

1. No LCD display when the unit is switched on.
  - a. Make sure the batteries are not discharged.
  - b. Make sure the batteries are installed correctly.
2. LCD shows Err when switched on.
  - a. Switch power OFF, repeat steps for turning unit on.
  - b. If the problem persists, call for service
3. No Audio from Transmitter.
  - a. Check that the Transmitter and Receiver are on the same channel.
  - b. Check if "MUTE" is activated.
  - c. Check if the volume control of the receiver is set to a proper position.
  - d. Check if the Transmitter and Receiver are within the operating distance range.
4. Interference and signal disturbances.
  - a. When two Transmitters are being used, select different frequencies. If voice disturbance still occurs try selecting another channel until interference is gone.
  - b. Make sure there are no other wireless systems operating on the same frequency in the area. This includes other wireless microphones, television or radio stations, etc. Try setting the Transmitter and Receiver to a new channel.



# Maintenance

## Avoid Excessive Heat

Don't leave the transmitter or receiver in the hot sun, on a radiator, or near other sources of high temperature.

## Avoid Rough Handling

The transmitter and receiver may be damaged if dropped.

### 640MHz Frequency Chart

CH 1	640.1	CH 17	640.9	CH 33	640.4	CH 49	641.1	CH 65	640.6	CH 81	641.4
CH 2	641.6	CH 18	642.4	CH 34	641.9	CH 50	642.6	CH 66	642.1	CH 82	642.9
CH 3	643.1	CH 19	643.8	CH 35	643.3	CH 51	644.0	CH 67	643.5	CH 83	644.3
CH 4	644.5	CH 20	645.3	CH 36	644.8	CH 52	645.5	CH 68	645.0	CH 84	645.8
CH 5	646.1	CH 21	646.9	CH 37	646.4	CH 53	647.1	CH 69	646.6	CH 85	647.4
CH 6	647.6	CH 22	648.4	CH 38	647.9	CH 54	648.6	CH 70	648.1	CH 86	648.9
CH 7	649.1	CH 23	649.8	CH 39	649.3	CH 55	650.0	CH 71	649.5	CH 87	650.3
CH 8	650.5	CH 24	651.3	CH 40	650.8	CH 56	651.5	CH 72	651.0	CH 88	651.9
CH 9	651.7	CH 25	652.6	CH 41	652.1	CH 57	652.8	CH 73	652.3	CH 89	653.1
CH 10	653.3	CH 26	654.1	CH 42	653.6	CH 58	654.3	CH 74	653.8	CH 90	654.6
CH 11	655.2	CH 27	656.0	CH 43	655.5	CH 59	656.2	CH 75	655.7	CH 91	656.5
CH 12	656.7	CH 28	657.5	CH 44	657.0	CH 60	657.7	CH 76	657.2	CH 92	658.0
CH 13	658.2	CH 29	658.9	CH 45	658.4	CH 61	659.1	CH 77	658.6	CH 93	659.4
CH 14	659.6	CH 30	660.4	CH 46	659.9	CH 62	660.6	CH 78	660.1	CH 94	660.9
CH 15	661.2	CH 31	662.0	CH 47	661.5	CH 63	662.2	CH 79	661.7	CH 95	662.5
CH 16	662.7	CH 32	663.4	CH 48	662.9	CH 64	663.6	CH 80	663.1	CH 96	663.9

# Specifications

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## Wireless Mic Receiver Module AS-TVREC

• Oscillation type	PLL synthesized control OSC
• Carrier frequency range	640 ~ 664 MHz (96 ch.) (See chart pg.14)
• Adjustable frequency	Pre-programmed max. 96 switchable channels
• Switching bandwidth	Max. 12 MHz
• Ambient temperature	-10 °C ~ 50 °C
• Maximum deviation	50 kHz, with level limiting
• Dynamic range	110 dB
• T. H. D.	Less than 0.5%
• Pre/De-emphasis	50 $\mu$ s
• Squelch	Tone key and noise lock dual-squelch
• Frequency response	70 Hz ~ 16 kHz (wireless)
• Operating range	160 - 230 feet (50 ~ 70 M) (open field) with built-in antenna
• Antenna mode	Diversity
• Sensitivity	4 $\mu$ V @ 30 dB SINAD
• Double intermediate	110.6 Mhz / 10.7 MHz
• Display status	LCD indicator displays channel or frequency
• Channel select	SET, UP, DOWN keys
• RF spurious rejection	70 dB
• Adjacent channel performance	68 dB @ 250kHz
• IMD rejection	58 dB

## Wireless Mic Receiver Module AS-TVREC (continued)

• Antenna	Built-in or external
• Dimensions ( L x W x H )	5.25 " x 3.46 " x 1.45 " (133 x 88 x 37 mm)
• Weight	3.88 oz. (110 g)

## Handheld Microphone AS-TVHH/TVHHC

• Microphone type	Cardioid (TVHH), or Condenser (TVHHC) dynamic capsule
• RF output	10mW
• Spurious emission	Less than 250 nW
• Display status	LCD indicator displays channel or frequency, battery condition
• Channel select	SET, UP, DOWN keys
• AF controls	Hi/Low/Mute switch
• Battery	1.2 V (Ni-MH 1300 mAh) * 2 AA type rechargeable battery 1.5V * 2 AA Alkaline disposable
• Battery life Ni-MH rechargeable	11 hours typical
• Battery life Alkaline disposable	14 hours typical
• Antenna	Built-in
• Dimensions ( Dia x L )	1.8" x 10.4" (46 x 264 mm)
• Weight with battery	9.87 oz. (280 g)

## Bodypack Transmitter AS-TVMBP

• Mic Type	Condenser mic (Multiple options of Headset and Lav Mics available).
• RF output	10mW
• Spurious emission	Less than 250 nW
• Display status	LCD indicator displays channel or frequency, battery life
• Channel select	SET, UP, DOWN keys
• AF controls	Mute switch, Hi/Mid/Low switch
• Audio input	Mic in, Aux in
• Battery	1.2 V (Ni-MH 1300 mAh) * 2 AA type rechargeable battery 1.5V * 2 AA Alkaline disposable
• Battery life Ni-MH rechargeable	11 hours typical
• Battery life Alkaline disposable	14 hours typical
• Housing	Aluminium
• Dimensions ( D x W x H )	1.04" x 2.52" x 3.48" (27 x 64 x 88 mm)
• Weight with battery	4.48 oz. (127 g)



# REGISTRATION CARD

Registration information is used ONLY by GALAXY AUDIO and will be kept strictly confidential. You can also register online at [www.galaxyaudio.com/Registration.jsp](http://www.galaxyaudio.com/Registration.jsp)

## Registration

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

email \_\_\_\_\_

Dealer \_\_\_\_\_ Purchase Date \_\_\_\_\_

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? \_\_\_\_\_

PLACE  
STAMP  
HERE

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GALAXY AUDIO  
P.O. BOX 16285  
WICHITA, KS 67216-0285

# 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 for value.

GALAXY AUDIO warrants the materials and workmanship of its products from the date of the original purchase.

1. Hot Spot Series, Micro Spot Series, Audio Solutions (including Cricket, Jacks In the Box, & Check Mate) are products covered by **3 year warranty**.
2. Any Spot Wireless, including Wireless Personal Monitor (WPM), Assistive Listening System, 500 Series Wireless Microphone, 700 Series Wireless Microphone, Lightweight Headset Microphones, Tour Guide/Translator System, Wireless Camera Kit are covered by a **1 year warranty**.
3. The Traveler is supported with a **3 year warranty** on speaker components and casing, and a **1 year warranty** on wireless and CD/MP3 player components.
4. Any units containing a battery will have a 90 day warranty on the battery.

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 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, (316) 263-2852. We will then issue you to an RMA# (Return Merchandise Authorization) which will need to be applied to the returned item. Under no circumstances should you return your unit to the factory without receiving an 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 MERCHANT ABILITY 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.

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