DHTRQUAD System

Thank you for purchasing the DHTRQUAD wireless system. For users who need an advanced UHF wireless system, the DHTRQUAD provides an excellent solution. With 120 selectable channels, the DHTRQUAD is perfect for applications such as live shows, broadcast, meetings, & musical instruments. Touch buttons and liquid crystal displays allow for a quick and simple system setup. The "User Guide"and" Quick Setting Guide" included in your system will provide all the details you need to operate the system efficiently.

Frequency Band

Most countries closely regulate the radio frequencies used in the transmission of wireless information. These regulations state which devises can use which frequencies, and help to limit the amount of RF (radio frequency) interference in all wireless communications. The DHTRQUAD offers 120 selectable channels within either the 584-607MHz (Code D) or 655-679MHz (Code L) frequency ranges.

To facilitate system setup and protect against RF interference, each system comes with multiple predefined frequency groups and channels. When using a single receiver/transmitter, the operating frequency will generally not have to be changed. In an installation with multiple receivers/transmitters, each set must operate on a separate channel from the others. The group and channel system provides an optimum frequency spread when using multiple receiver/transmitter systems.
All systems include:
- DHTRQUAD Receiver
- ¼” to ¼” Audio Cable
- Power Supply
- Two Antennas
- Extension Kit
- Rack Ears
- User Guide

Transmitter Options:

HH64 / HH64SC Handheld Mic/Transmitter

SM-W76 Wireless Shockmount Base

Visit our website www.galaxyaudio.com to see all of our great headset & lavalier options
Rack-Mounting the Receiver

Maintain a line of sight between transmitter and antenna.

![Rack Mounting Diagram]

Shown with optional ANT-DISTDC antenna distributor.

Four DHTROUAD receivers

The ANT-DISTDC will provide DC power to operate up to 4 DHTROUAD Receivers.

Ten BNC connecting cables (included)
Two BNC connectors (included)

1. BNC Cables
2. Power Supply Cable

12~18 VDC OUTPUT
600mA
DC IN
ANT-1 ANT-2 ANT-3 ANT-4 ANT-5 ANT-6 ANT-7 ANT-8 ANTENNA-A ANTENNA-B ANT-DISTDC
HH64/HH64SC Handheld Transmitter

Functions:

1. Condenser mic
2. Dynamic mic
3. LCD screen
   Please See “system setup” on page 8.
4. Power Switch
5. Microphone Input Sensitivity Control.
   Left turn for output level decrease, right turn for output level increase.
6. IR Port receives infrared beam to synchronize frequencies.

Changing Batteries:
Batteries should be replaced when LCD indicator flashes.
Unscrew the battery cover as shown below. Install two AA alkaline batteries, while observing correct polarity indicators in the battery tray.
Expected life for two AA alkaline batteries is 8 hours.
MBP64 Bodypack Transmitter

Functions:

1. Antenna.

2. Gain Switch.
   There are three Gain settings on the MBP64. Select the setting most suitable to your application.
   - Mic: Microphone Level
   - 0: Guitar Level
   - -10dB: Line Level

3. Low Voltage/IR Transmission LED.
   - LED On: Battery Voltage OK.
   - LED Off: the Battery Voltage is Low.
   - Flashing LED: IR transmission is in progress

4. 3-pin Input Jack.

5. Power/Backlight Control button
   - Press and Hold for Power On/Off.

6. ASC Frequency Synchronization Button.
   - Press this button to automatically set the Transmitter frequency to match that of the Receiver. Use in conjunction with Receiver’s ASC control.

7. LCD screen
   - See “system setup” on page 8.

8. IR Window
   - Point this window towards IR window on Receiver during ASC frequency synchronization.

How to Wear the Bodypack Transmitter:

Slide the transmitter clip onto the belt or run a guitar strap through the transmitter clip, as shown in the diagram at left.

Battery Replacement:

The life expectancy of two alkaline batteries is about six hours. When the BATT indication symbol on the display screen is flashing as shown in the diagram below, the batteries should be replaced immediately, as shown in the diagram on the left.
Features

1. Antenna.
2. LCD panel.
   Please see (System Setup) on Page 7.
3. Power/ASC/ Low Battery Indicator.
   Constant Green: Power ON.
   Flashing Green: IR ASC in progress, or Low Batteries.
4. Mute Indicator.
   Constant Red: Audio Muted.
5. Power/Mute Button.
6. IR Window.
   Receives IR signals (ASC) to synchronize with Receiver.
7. Select Button.
   Please see (System Setup) on Page 8.
8. 3-pin Microphone Input Jack.
9. Gain Adjustment Switch.
   Three gain settings are available. Choose the appropriate setting for your application:
   - Mic: Microphone
   - 0dB: Guitar with passive pickups
   - -10dB: Guitar with active pickups, or Line Level Signals.

Note: To prevent accidental power or mute changes during a performance, you may set the Lock function by a simultaneous press and release of buttons 5 and 7. This will disable all buttons and a “lock” icon will appear in the LCD. Repeat procedure to return to normal operation.

Wearing the Backpack Transmitter:
Clip the transmitter to a belt 10. For best results, slide the transmitter down until the belt is pressed against the base of the clip. Or, slide a guitar strap through the transmitter clip 11, as shown.

Changing batteries:
Expected life for Two Alkaline batteries is approximately 6 hours. Replace batteries when the Green Power LED and the LCD Battery Indicator (shown below) begin to blink.
1. Adjust the 16 position rotary knob on the rear of the SM-W76 base to change the frequency. A small flat headed screwdriver can be used.

2. Use the chart to set up the DHTR/TRCR Group & Channel to the frequency that corresponds to the SM-76 base.

3. Once the Group & Channel of the receiver is set, press the gray button on the top of the SM-76 base to turn the microphone on.

### CODE D Frequency Chart

<table>
<thead>
<tr>
<th>SW-W76D</th>
<th>DHT/TRC</th>
<th>DHT/TRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Posiions</td>
<td>Group</td>
<td>Channel</td>
</tr>
<tr>
<td>0 ~ 584.400 Mhz</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 ~ 587.500 Mhz</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2 ~ 589.575 Mhz</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3 ~ 591.050 Mhz</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4 ~ 593.425 Mhz</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>5 ~ 595.200 Mhz</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>6 ~ 598.450 Mhz</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>7 ~ 599.850 Mhz</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>8 ~ 601.275 Mhz</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>9 ~ 603.775 Mhz</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>A ~ 605.500 Mhz</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>B ~ 606.750 Mhz</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>C ~ 601.575 Mhz</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>D ~ 602.250 Mhz</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>E ~ 607.600 Mhz</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>F ~ 607.875 MHz</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

### CODE L Frequency Chart

<table>
<thead>
<tr>
<th>SW-W76L</th>
<th>DHT/TRC</th>
<th>DHT/TRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Posiions</td>
<td>Group</td>
<td>Channel</td>
</tr>
<tr>
<td>0 ~ 655.400 Mhz</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 ~ 656.500 Mhz</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>2 ~ 657.225 Mhz</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>3 ~ 658.500 Mhz</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4 ~ 660.575 Mhz</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>5 ~ 662.050 Mhz</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>6 ~ 664.425 Mhz</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>7 ~ 666.200 Mhz</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>8 ~ 669.450 Mhz</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>9 ~ 670.850 Mhz</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>A ~ 672.275 Mhz</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>B ~ 674.775 MHz</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>C ~ 676.500 MHz</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>D ~ 677.750 MHz</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>E ~ 678.050 Mhz</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>F ~ 678.800 Mhz</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>
**Receiver Programming**

**Group and Channel Selection:**
- Press “SET” button twice, “GROUP SELECT” will display, press ▲ or ▼ to choose the appropriate frequency group.
- Press “SET” again, “MANUAL CHANNEL SELECT” will display, press ▲ or ▼ to choose the appropriate channel.

For best results when operating multiple systems, set all systems to a single group, then set each system to a unique channel within that group.

**Auto Frequency Finder function on the Receiver:**
- Choose “AUTO CHANNEL SELECT” by pressing “SET” once, then press ▲ or ▼. Receiver will automatically find a clear frequency with no interference.

**Receiver Volume Setting:**
- The receiver has an electronic volume control. Press ▲ or ▼ from the normal display (00 to 63)

**Normal Display:**
- Frequency and Antenna A/B (RF Received).

**Transmitting frequency automatic setup:**
Place the Transmitter “IR” window to face the Receiver “IR” window. Then press the “ASC” button on the desired Receiver. The Transmitter will automatically match the Receiver frequency.

**Attention:** The distance between the Receiver and Transmitter IR windows should be less than 0.5m during the ASC IR setup. When setting up multiple Transmitters/Receivers, activate the ASC function of only one Transmitter and Receiver at a time.

**MBP76 Transmitter Status Display**

**Battery Status:**
- Battery Status Indicators for both the Handheld and Bodypack Transmitters feature Four Level Displays.

**Group and Channel Display:**
- After completing the ASC, both the Handheld and Bodypack Transmitters will display the Group and Channel numbers selected.

**Normal Display:**
- Both Handheld and Bodypack Transmitters will display Group and Channel numbers as well as Battery Status.
Setting up multiple receivers

1) Power on any pre-existing wireless systems and transmitters except the first DHT system.

2) Power on the first DHT Receiver.

3) The Control and set buttons are on the front of the receiver.

4) Press the set button until the group number flashes on the LCD screen.

5) Press the up/down buttons to select group 1.

6) Press the set button twice to get to the scan mode.

7) Press the up or down button. The unit will now go into scan mode. You will probably see the RF meters light up if the scan sees other transmitters.

8) When it stops scanning, it will stop on the clearest frequency, and will be flashing the frequency on the LCD screen.

9) Press the set button and it will set itself to that frequency. Do not wait to press the set button as the DHT Receiver will revert back to the original frequency, and the process will need to be restarted.

10) If the unit cannot find a good frequency within group 1, start the process again scanning group 2, if that is also not clear try group 3, and so on till you get a good frequency.

When the DHT Receiver has been set to a clear frequency, use the ASC feature to sync the receiver frequency to the transmitter.

11) Turn the transmitter on, aim the red infrared window on the transmitter towards the one on the receiver and press the ASC button on the front of the receiver. The transmitter will sync to the receivers frequency.

If you have more DHT systems to tune follow the same procedure on each one, always leaving the previous system transmitter on.
DHTRQUAD Receiver Features

Front Panel

1. On/Off Switch
2. Infrared (IR) Window
3. Audio Level Meter
4. LCD Panel
5. System Setup Button
   Please see “System Setup” on Page 8
6. System Menu Up button
   Please see “System Setup” on Page 8
7. ASC Sync Button
   Press to initiate IR connection between Receiver and Transmitter.

Rear Panel

1. Antenna Jack B
2. Channel 4 Fine Adjustment of Squelch Threshold Level
3. Channel 4 XLR Output Jack
4. Channel 3 Fine Adjustment of Squelch Threshold Level
5. Channel 3 XLR Output Jack
6. Channel 2 Fine Adjustment of Squelch Threshold Level
7. Channel 2 XLR Output Jack
8. Channel 4 Fine Adjustment of Squelch Threshold Level
9. Channel 1 XLR Output Jack
10. 1/4inch Mix Output Jack
11. Balanced Mix Output Jack
12. DC Power Input Jack
13. Antenna jack A

The 3 position Squelch Adjustment helps to prevent extraneous RF from being picked up and turned into audio when the transmitter is off. The higher level will reduce the useable distance of the transmitter from the receiver. Use the lowest setting to keep the receiver quiet when the transmitter is off.
## Troubleshooting

### Tips for Improving System Performance

- Maintain a line of sight between transmitters and antennas.
- Avoid placing the receiver near metal surfaces or any digital equipment (CD players, computers, etc).
- Keep the receiver away from the wall and at least 1m from the ground.
- Cellular telephones and two-way radios can interfere with the operation of wireless systems. Do not use these devices in close proximity to the wireless systems.

### Troubleshooting

<table>
<thead>
<tr>
<th>Issue</th>
<th>Indicator Status</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound or faint sound.</td>
<td>Transmitter LCD off.</td>
<td>Turn on transmitter. Make sure the batteries are installed correctly.</td>
</tr>
<tr>
<td></td>
<td>Receiver LCD off.</td>
<td>Make sure AC adapter is securely plugged into electrical outlet and into DC input connector on rear panel of receiver.</td>
</tr>
<tr>
<td></td>
<td>Receiver indicates RF.</td>
<td>Increase receiver volume. Make sure Gain adjustment switch on the transmitter is set correctly (applies only to MBP76 Bodypack.)</td>
</tr>
<tr>
<td></td>
<td>Receiver indicates No RF, Transmitter LCD is on.</td>
<td>Make sure Transmitter and Receiver are set to the same frequency. Make sure Transmitter is in range of Receiver. Make sure no large metal objects are near Transmitter or Receiver.</td>
</tr>
<tr>
<td></td>
<td>The battery power indicator light on LCD flashes.</td>
<td>Change the batteries in transmitter.</td>
</tr>
<tr>
<td>Distortion or unwanted noise.</td>
<td>Receiver Indicates RF.</td>
<td>Remove nearby sources of RF interference (CD players, computers, in-ear monitor systems, etc.)</td>
</tr>
<tr>
<td>Distortion level increases gradually.</td>
<td>Transmitter power indicator light flashing on the LCD.</td>
<td>Replace Transmitter batteries.</td>
</tr>
<tr>
<td>Sound level different from cabled guitar or microphone, or when using different guitars.</td>
<td></td>
<td>Adjust Transmitter Gain and Receiver Volume as necessary.</td>
</tr>
</tbody>
</table>
Specifications

System
Frequency Range: CODE D 584–607 MHz
CODE L 655–679 MHz
Transmitter Output level: 10 dBm
Band: UHF
Operating Range Under Typical Conditions: 300'
Note: actual range depends on RF signal absorption, reflection, interference, and battery characteristics.
Audio Frequency Response (+/-3dB): 60Hz~16kHz
Total Harmonic Distortion (+/-30kHz deviation, 1kHz tone): <1%
Dynamic Range: >90dB A-weighted
Operating Temperature Range:
14°F to 122°F (-10º C to +50º C)

Bodypack Transmitter:
Max Audio Input Level:
0 dBV maximum at mic gain position.
+10 dBV maximum at 0 dB gain position.
+20 dBV maximum at 10 dB gain position.
Gain Adjustment Range: 30dB
Input Impedance: 470kΩ
Dimensions: 3.5" x 2.6" x 1"
(89mm H x 65mm W x 24mm D)
Weight: 3.0oz (85 g) (without batteries)
Power Requirements:
2 "AA" Batteries alkaline or rechargeable batteries
Battery Life: About 6 hours

Handheld Transmitter:
Max Audio input level: 0dBV
Dimensions: 9.5" x 2.1" dia.
(242mm x 54mm dia.)
Weight: 10.6oz (300 g) (without batteries)
Power Requirements: 2 "AA" size alkaline or rechargeable batteries
Battery Life: About 6 hours

Shockmount Transmitter:
Number of Channels: 16
Number of Simultaneous Systems: 4-8 across multiple bands
Carrier Frequency Bandwidth: Code D 584-607 MHz
Code L 655-679 MHz
Operating Range: 150'
Number of Inputs: 1
Type of Connections: XLRF
Indicators: Low battery LED
Frequency Response: 60Hz~16kHz
SNR: 102dB (a)
THD+N: <1%
RF Power: 10 mW
Phantom Power: 4VDC
Power Requirements: 2 "AA" size alkaline or rechargeable batteries
Power Consumption: 110mA
Weight: 1.55 lbs (without batteries)

Receiver:
Audio Output Level (+/-30kHz deviation, 1kHz tone): XLR connector (into 600Ω load) -12dBV
¼" connector (into 3kΩ load) -18dBV
Output Impedance: XLR connector 200Ω
¼" connector 1kΩ
XLR output: Impedance balanced
Pin1: Ground (cable shield)
Pin2: Audio
Pin3: No Audio
Sensitivity: -93dBm for 30dB
Image Rejection: >90dB
Dimensions: 1.7" x 8.3" x 6.3"
(44mm H x 212mm W x 160mm D)
Weight: 31.75oz (900 g)
Power Requirements: 12-18 V dc at 1000mA, supplied by external power supply.
Many of these parts and accessories may be found and purchased from the Galaxy Audio website in either the Galaxy Store (www.galaxyaudio.com/store.php) or in the accessories tab of each products web page.

<table>
<thead>
<tr>
<th>Part Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS-EXTBNC</td>
<td>BNC Connector and Cable for front mounting the antennas on the DHTQUAD.</td>
</tr>
<tr>
<td>AS-ANTBNC</td>
<td>Replacement BNC Antenna for use with Galaxy Audio Wireless Personal Monitors and Wireless Microphones.</td>
</tr>
<tr>
<td>WMC-CGR</td>
<td>DC Charger for AS-1500R, HH64, HH64SC, &amp; MBP76. Charges 2 body packs or handhelds at once.</td>
</tr>
<tr>
<td>MC-L</td>
<td>Wireless Microphone Clip</td>
</tr>
<tr>
<td>MC-SC</td>
<td>Spring Loaded Microphone Clip</td>
</tr>
<tr>
<td>AS-CLIP911R</td>
<td>Replacement Belt Clip for AS-900, AS-1100, MBP52, &amp; MBP64</td>
</tr>
<tr>
<td>AS-CLIP1576</td>
<td>Replacement Belt Clip for AS-1500 &amp; MBP76</td>
</tr>
<tr>
<td>PS-13.5-.35.5</td>
<td>Replacement Power Supply for AS-900, AS-1100, AS-1500, VES, VSC, ECD, ECM, PSE, TRC &amp; DHT.</td>
</tr>
<tr>
<td>ANT-AMPMIC</td>
<td>Antenna Amplifier utilizes phantom power and a low noise design which covers all UHF frequency points from 500mHz to 900mHz. Metal construction, requires phantom power (9VDC), 50 ohm input/output impedance.</td>
</tr>
<tr>
<td>ANT-PDL</td>
<td>Directional antenna used to decrease interference to other equipment. Frequency range 500-900MHz The UHF wide-band (500-900 MHz) directional LPDA (log periodic dipole array) antenna reduces outside interference while providing increased send/receive signal range. Each antenna paddle is matched to 50 ohms impedance with a low-loss BNC connector; 7dBi gain. For permanent or temporary installation; mounts to 5/8”-27 threads.</td>
</tr>
</tbody>
</table>
FCC Consumer Alert for Wireless Microphones (U.S.)

Most users do not need a license to operate this wireless microphone system. Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50 milliwatts); and it has no protection from interference received from any other device. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change.

For more information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC’s wireless microphone website at www.fcc.gov/cgb/wirelessmicrophones

Please visit galaxyaudio.com for the latest updates
THREE YEAR LIMITED WARRANTY

WARRANTY Information can be viewed online at http://www.galaxyaudio.com/warranty.php

DHTRQUAD
USER'S MANUAL

Specifications in this manual are subject to change without notice. For the most up to date manual and information visit www.galaxyaudio.com.

1-800-369-7768 www.galaxyaudio.com

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