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. Allow sufficient distances for adequate ventilation and install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as open flames, radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not place any open flame sources on the product.
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. The MAINS plug or an appliance coupler shall remain readily operable.
17. The airborne noise of the Apparatus does not exceed 70dB (A).
18. Apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.
19. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
20. Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.
21. Operate this product within its specified operating temperature range.

Explanation of Symbols

⚡	Caution: risk of electric shock
⚠	Caution: risk of danger (See note.)
- - -	Direct current
∼	Alternating current
|	On (Supply)
☐	Equipment protected throughout by DOUBLE INSULATION or REINFORCED INSULATION
⏻	Stand-by
	Equipment should not be disposed of in the normal waste stream

WARNING: Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel. The safety certifications do not apply when the operating voltage is changed from the factory setting.

WARNING: Battery packs shall not be exposed to excessive heat such as sunshine, fire, or the like.

WARNING: Danger of explosion if incorrect battery replaced. Operate only with AA batteries.

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

WARNING ⚠

- Battery packs may explode or release toxic materials. Risk of fire or burns. Do not open, crush, modify, disassemble, heat above 140°F (60°C), or incinerate
- Follow instructions from manufacturer
- Never put batteries in mouth. If swallowed, contact your physician or local poison control center
- Do not short circuit; may cause burns or catch fire

- Do not charge or use battery packs with other than specified Shure products
- Dispose of battery packs properly. Check with local vendor for proper disposal of used battery packs

Note:

- This equipment is intended to be used in professional audio applications.
- EMC conformance is based on the use of supplied and recommended cable types. The use of other cable types may degrade EMC performance.
- Use this battery charger only with the Shure charging modules and battery packs for which it is designed. Use with other than the specified modules and battery packs may increase the risk of fire or explosion.
- Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate this equipment.

Note: Use only with the included power supply or a Shure-approved equivalent.

System Overview

GLX-D Advanced Digital Wireless Systems combine Automatic Frequency Management technology with a rack mountable metal receiver, rechargeable lithium-ion batteries, world-renowned microphones, and unparalleled design and construction. New GLX-D Advanced Frequency Managers (available separately) connect multiple GLXD4R receiver systems for increased channel count and improved RF reliability, consolidating RF to one pair of antennas. New antenna accessories help improve reception by letting you mount antennas closer to transmitters, with directional reception for improved performance. Available in a variety of bodypack and handheld configurations, GLX-D Advanced Digital Wireless sets the standard for ease of operation and digital audio clarity.

Features

- Exceptional digital audio clarity

- Operates in globally unlicensed 2.4 GHz spectrum
- Optional GLX-D Frequency Manager allows operation of up to 11 systems
- New antenna accessories for remote mounting and improved reception
- Half-rack size and metal chassis
- Rechargeable batteries deliver cost efficiency and up to 16 hours of runtime
- Adjustable transmitter gain to optimize audio signal
- Automatically moves away from interference without audio interruption
- RF back-channel for remote control of transmitter functions
- Automatic transmitter power-off to conserve battery life when transmitter is not in use

Furnished Accessories

Reverse SMA Bulkhead Adapters, lockwasher, nut (2)	95A32436
0.6 m (2 ft.) Reverse SMA Cable (2)	UA802-RSMA
Power Supply	PS43
UA8-2.4 GHz 1/2 Wave Antenna (2)	95B13528
Rack-mounting hardware kit	90AZ8100
Shure Lithium-Ion Rechargeable Battery*	SB902
USB Cable, Type A to Micro-B*	95A21651

* Only included with GLXD14 or GLXD24 systems.

Optional Accessories

|	
GLX-D Frequency Manager	UA846Z2-LC
Passive Directional Antenna 2.4 GHz	PA805Z2-RSMA
Reverse SMA Passive Antenna Splitter (900 MHz ISM, DECT, 2.4 GHz)	UA221-RSMA
Wall Mount for PA805Z2-RSMA and UA8-2.4GHZ	UA505-RSMA
1/2 Wave Antenna, 45 deg. (2.4 GHz)	UA8-2.4GHZ
0.6 m (2 ft.) Reverse SMA Cable	UA802-RSMA

|	
1.8 m (6 ft.) Reverse SMA Cable	UA806-RSMA
7.6 m (25 ft.) Reverse SMA Cable	UA825-RSMA
15.2 m (50 ft.) Reverse SMA Cable	UA850-RSMA
30.4 m (100 ft.) Reverse SMA Cable	UA8100-RSMA
Reverse SMA Bulkhead Adapters	95A32436
Stand Alone Single Battery Charger	SBC10-902
Car Battery Charger	SBC-CAR

Quick Start for Single Receiver

To reduce set-up time, the transmitter and receiver automatically link to form an audio channel the first time they are powered on and never have to be linked again.

Step ①
Connect power supply to the receiver and plug cord into an AC power source. Connect the audio output to an amplifier or mixer.
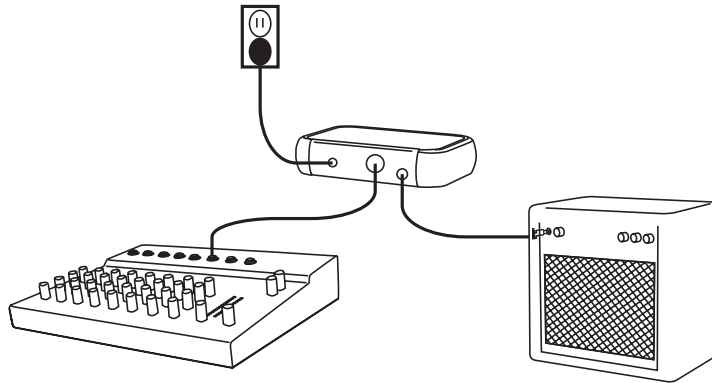
Step ②
Install charged transmitter batteries.
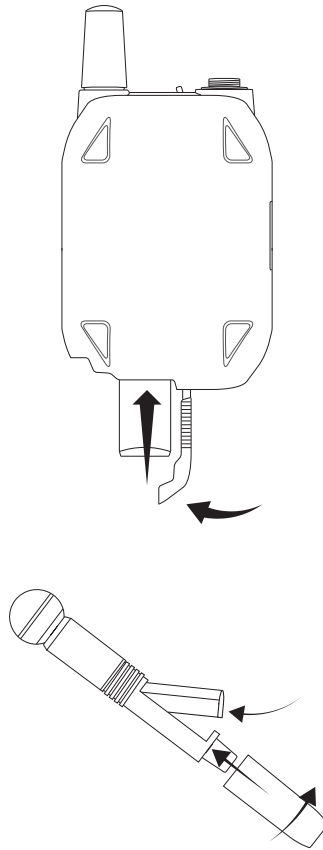
Step ③
Turn on the transmitter and receiver. The blue rf LED will flash while the transmitter and receiver form a link. The rf LED turns solid blue when the link has successfully formed.

Note: The transmitter and receiver will remain linked for future usage. At power-up, the blue rf LED and transmitter LED will illuminate, skipping the linking step.
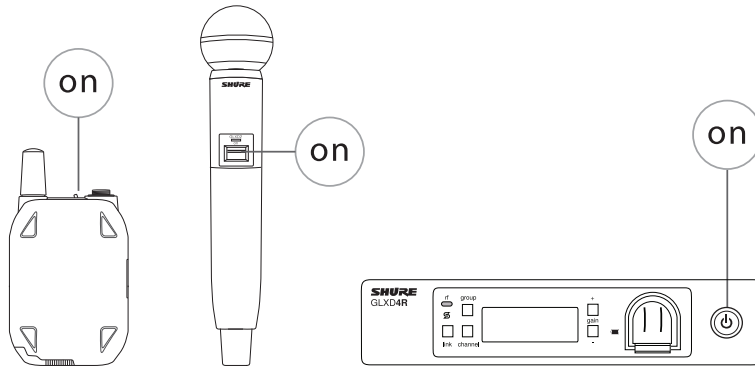
Step ④
Check the audio and adjust the gain if necessary.
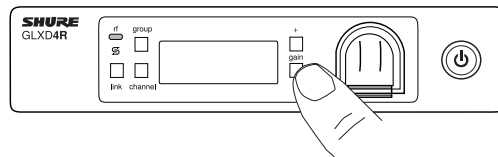
Receiver Controls and Connectors

Front Panel

Rear Panel

① RF Status LED
- ON = Linked transmitter is on.
- Flashing = Searching for transmitter.
- OFF = Linked transmitter off or transmitter unlinked.

② Group Button
Press and hold for two seconds to enable manual group edit.

③ Data Sync LED
- ON = Data sync is on (receiver connected to GLX-D Frequency Manager).
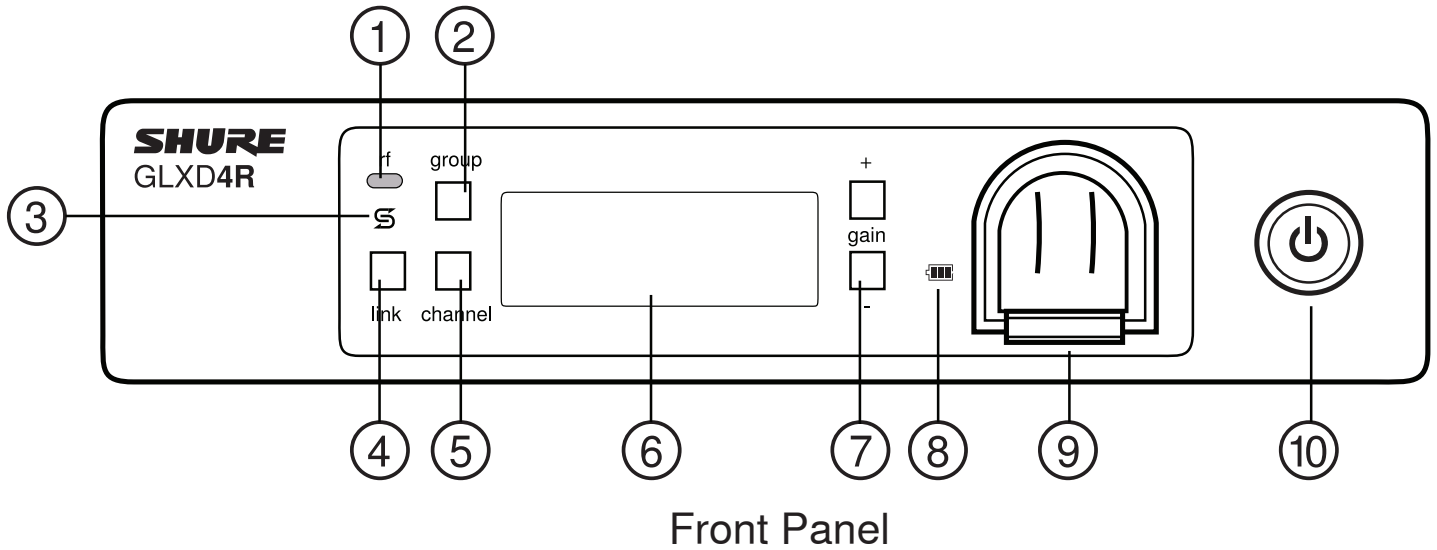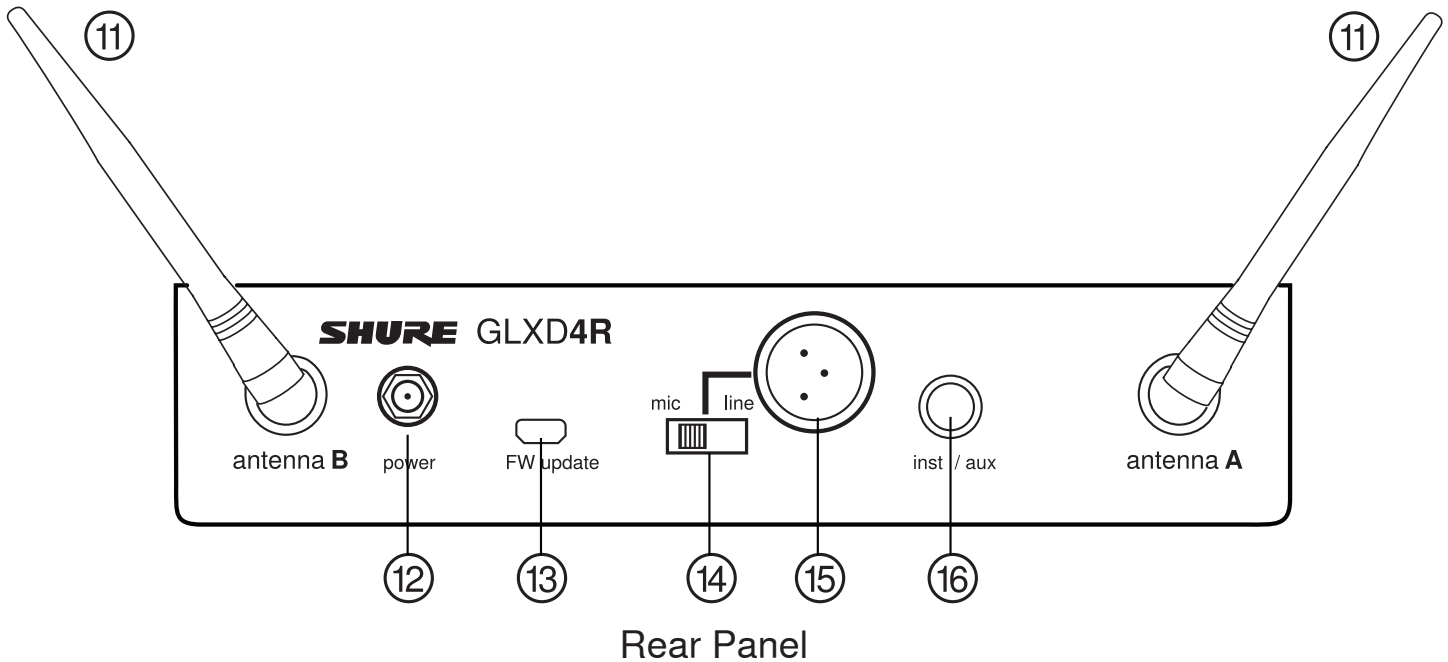- Flashing = Searching for frequencies.
- OFF = Data sync is off (receiver not connected to GLX-D Frequency Manager).

④ Link Button
Press to manually link receiver to a transmitter or to activate the remote ID function.

⑤ Channel
- Press to start a channel scan.
- Press and hold for two seconds to enable manual channel edit.

⑥ LCD Screen
Displays receiver and transmitter status.

⑦ Gain Buttons
Press to increase or decrease transmitter gain in 1 dB increments.

⑧ Battery Charging Indicator
Illuminates when battery is in charging bay:
- Red = Battery charging.
- Green Flashing = Battery charge at 90%.
- Green = Battery charged.
- Amber Flashing = Charging error, replace battery.

⑨ Battery Charging Bay
Charges transmitter battery if receiver is plugged in to power outlet.

⑩ Power Button
Powers the unit on and off.

⑪ Antenna
Two antennas per receiver. Antennas pick up the signal from the transmitter.

⑫ **Power Supply Jack**

Connect the supplied 15 V DC external power supply.

⑬ **Firmware Update**

Connect to computer to download firmware updates.

⑭ **Mic/Line Switch**

Sets XLR output level to microphone or line level.

⑮ **XLR Audio Output**

Supplies microphone-level or line-level audio output.

⑯ **Inst/Aux Out**

TRS ¼" (6.35mm) audio output. Connect to mixers, recorders, and amplifiers.

Receiver Screen

① **Group**

Displays the selected group.

② **Channel**

Displays the selected channel.

③ **Transmitter Battery Runtime**

Displays remaining battery life in hours and minutes.

Alternatively displays the following battery status:
- CALC = battery life calculation

- Lo = battery life less than 15 minutes

- Err = replace battery

④ **Audio Meter**

Indicates audio signal level and peaks.

⑤ **Gain**

Displays transmitter gain settings (dB).

⑥ **OL Indicator**

Indicates audio overload, reduce gain.
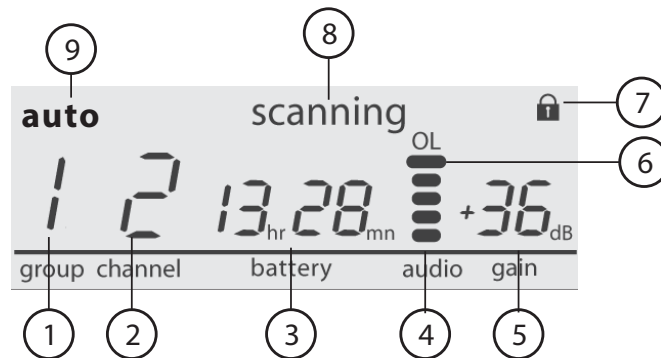
⑦ **Transmitter Locked**

Displayed when linked transmitter controls are locked.

⑧ **Scanning**

Indicates a scan is in progress.

⑨ **Auto**

Indicates that the selected group has backup channels available.

Transmitters

① **Antenna**

Carries wireless signal.

② **Status LED**

LED color and state indicate transmitter status.

③ Power Switch

Turns the transmitter on/off.

④ TA4M Input Jack

Connects to a 4-Pin mini connector (TA4F) microphone or instrument cable.

⑤ Micro USB Charging Port

Connect to USB battery charger.
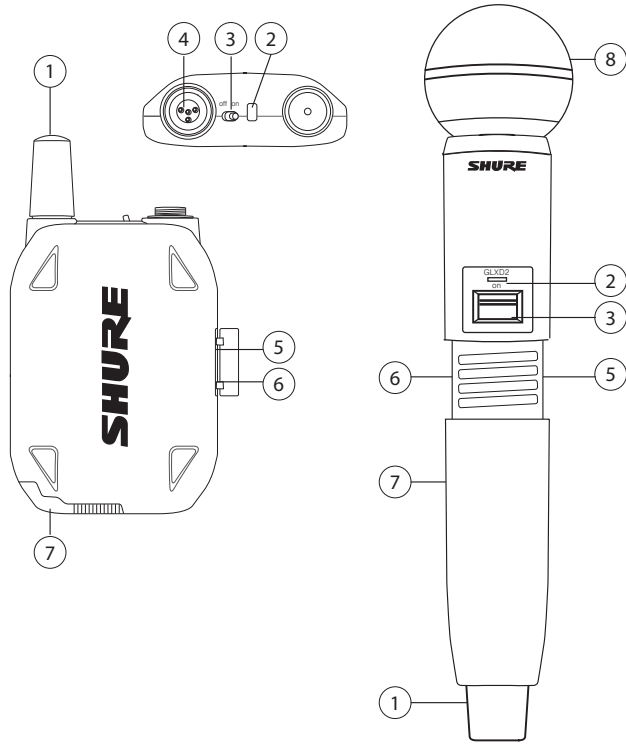
⑥ Link Button

- Press and hold within 5 seconds of power-on to manually link with receiver
- Press momentarily to activate Remote ID function

⑦ Battery Compartment

Holds 1 Shure rechargeable battery.

⑧ Microphone Cartridge

GLXD-2 transmitter models are available with the following cartridge types: SM58, Beta 58, SM86, Beta 87A.

Transmitter Status LED

LED is green during normal operation.

LED color or flashing indicates a change in transmitter status as shown in the following table:

Color	State	Status
Green	Flashing (slow)	transmitter attempting relink with receiver
	Flashing (fast)	unlinked transmitter searching for receiver
	Flashes 3 times	indicates locked transmitter when power switch is pressed
Red	On	battery life < 1 hour
	Flashing	battery life < 30 minutes
Red/Green	Flashing	remote ID active
Amber	Flashing	battery error, replace battery

Wearing the Bodypack Transmitter

Clip the transmitter to a belt or slide a guitar strap through the transmitter clip as shown.

For best results, the belt should be pressed against the base of the clip.
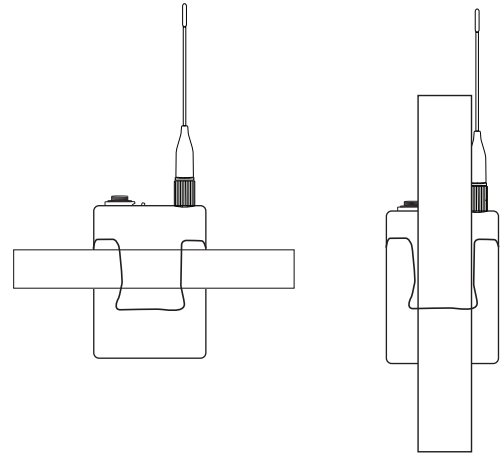
Wearing the Headworn Microphone

- Position the headworn microphone 13 mm (1/2 in.) from the corner of your mouth.
- Position lavalier and headworn microphones so that clothing, jewelry, or other items do not bump or rub against the microphone.

Correct Microphone Placement

- Hold the microphone within 12 inches from the sound source.
- For a warmer sound with increased bass presence, move the microphone closer to the sound source.
- Do not cover grille with hand.

Batteries and Charging

GLX-D transmitters are powered by Shure SB902 lithium-ion rechargeable batteries. Advanced battery chemistry maximizes runtimes with zero memory effects, eliminating the need to discharge batteries prior to charging.

When not in use, recommended battery storage temperature is 10°C (50°F) to 25°C (77°F).

Note: The transmitter will not pass RF or audio signals when connected to the charging cable.

The following battery charging options are available:

Receiver Charging Bay

The receiver's built-in charging bay will charge transmitter batteries when receiver is plugged in to power outlet.

1. Insert the battery into the charging bay.
2. Monitor the battery charging indicator on the front panel.
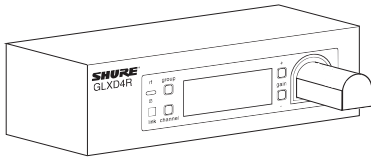
Charging from an AC Power Source

1. Plug the charging cable into the charging port on the transmitter.
2. Plug the charging cable into an AC power source.
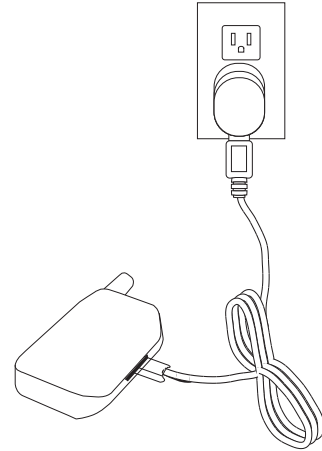
Charging from a USB Port

1. Plug the USB charging cable into the charging port on the transmitter.
2. Plug the cable into a standard USB port.
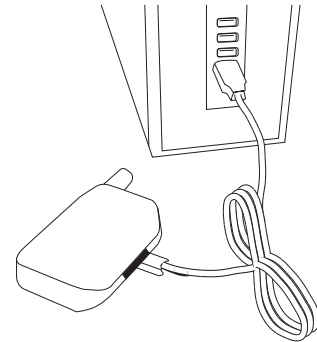
LED Status During Charging

The following LED states indicate battery status when the transmitter is connected to a charger:

- Green = charging complete
- Green Flashing = battery charge > 90%
- Red = battery charging
- Amber Flashing = battery error, replace battery

Installing Transmitter Batteries

Bodypack Transmitter

1. Move the locking lever to the open position and slide the battery door open.
2. Place the battery into the transmitter.
3. Close the battery door and slide the latch to lock.
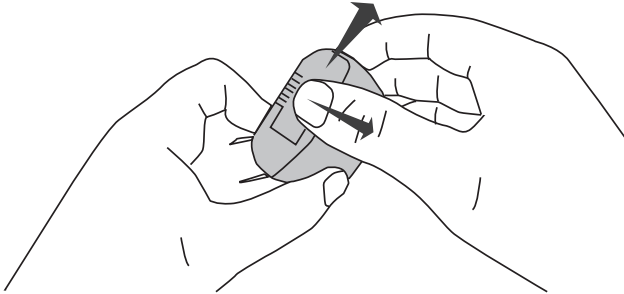
Handheld Transmitter

1. Unscrew and remove the battery cover.
2. Place the battery into the transmitter.
3. Replace and tighten the battery cover.

Charging Times and Transmitter Runtimes

Use the following table to determine approximate battery runtime based on the duration of charging time. Times shown are in hours and minutes. GLX-D transmitters automatically power-off after approximately 1 hour to conserve battery life if the signal from a linked receiver is not detected.

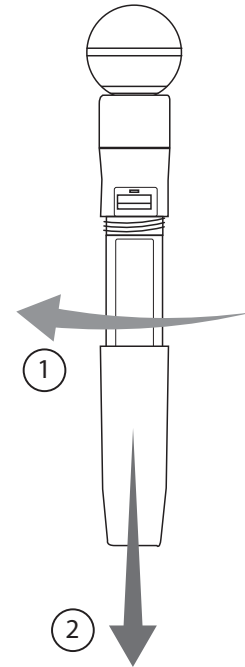| Receiver Bay or AC Power Source Charging	USB Connection Charging	Transmitter Runtime
0:15	0:30	up to 1:30
0:30	1:00	up to 3:00
1:00	2:00	up to 6:00
3:00	4:00	up to 16:00*

*Storage time or excessive heat will reduce maximum runtime.

Note: If receiver is powered off and remains plugged in, battery will continue charging.

Important Tips for Care and Storage of Shure Rechargeable Batteries

Proper care and storage of Shure batteries results in reliable performance and ensures a long lifetime.

• Always store batteries and transmitters at room temperature

• Ideally, batteries should be charged to approximately 40% of capacity for long-term storage

• During storage, check batteries every 6 months and recharge to 40% of capacity as needed

2.4 GHz Spectrum Overview

GLX-D operates within the 2.4GHz ISM band which is utilized by Wi-Fi, Bluetooth, and other wireless devices. The benefit of 2.4GHz is that it's a global band that can be used anywhere in the world, license free.

Overcoming the Challenges of 2.4 GHz

The challenge of 2.4 GHz is that Wi-Fi traffic can be unpredictable. GLX-D meets these challenges in the following ways:

• Prioritizes and transmits on the best three frequencies per channel (choosing from a pool of six frequencies across the 2.4 GHz band)

- Seamlessly moves away from interference to backup frequencies without audio interruption
- Optional GLX-D Frequency Manager improves RF reliability for systems with more than two receivers
- Continuously scans during usage to rank all frequencies (both current and backup frequencies)
- Antenna mounting accessories and directional antennas (available separately) help reduce transmitter-to-antenna distance and connect to antenna splitter

Coexisting with Wi-Fi

If you plan to use Wi-Fi during a performance, turn on Wi-Fi devices prior to turning on GLX-D and scanning for the best channel. GLX-D detects and avoids other Wi-Fi traffic by scanning the entire 2.4 GHz environment and selecting the three best frequencies to transmit on. This method avoids Wi-Fi signals and results in reliable performance for your GLX-D wireless system.

"Bursting" Wi-Fi is harder to detect as it is periodic; however, because GLX-D only repeats the most important information, even bursts at very high levels don't have an effect on your audio performance.

Challenging Wireless Environments

Some environments are more difficult than others for 2.4 GHz wireless system performance. Additionally, body absorption has a greater impact in the 2.4 GHz spectrum compared to the UHF spectrum. The simplest solution in many cases is to reduce transmitter-to-receiver distance by placing receivers on the stage with a clear line of sight. You can also mount antennas remotely using Shure directional antennas to reduce transmitter-to-antenna distance.

Challenging environments include:

- Areas with few reflective surfaces such as:
  - Outdoors
  - Buildings with very high ceilings
- Three or more GLXD4R receivers in use and not connected to a GLX-D Frequency Manager
- Areas with a strong Wi-Fi presence
- 2.4 GHz systems from other manufacturers in use

Note: Unlike analog TV band wireless system which typically use the same type of transmissions across manufacturers, all 2.4 GHz wireless currently on the market use different variations of wireless transmission. These differences make it more difficult to mix and match 2.4 GHz systems from multiple manufacturers, as can be done with TV band wireless solutions.

Tips to Improve Wireless System Performance

If you encounter interference or dropouts, try the following suggestions:

1. Place receiver at least 3 meters (10 feet) away from Wi-Fi access points, computers, or other active 2.4 GHz sources.
   - Avoid heavy Wi-Fi traffic activities such as downloading large files or viewing a movie.
   - Turn on any Wi-Fi prior to turning on GLX-D and scanning for the best channel.
2. Reduce transmitter-to-receiver distance by placing receivers on stage or above the audience with a clear line of sight to the transmitter.
   - Move receiver to the top of the equipment rack for a clear line of sight.
   - Mount antennas remotely to place closer to transmitters and improve RF reliability if receivers cannot be moved closer.
   - Make sure people do not block the line of sight between receiver and transmitter.
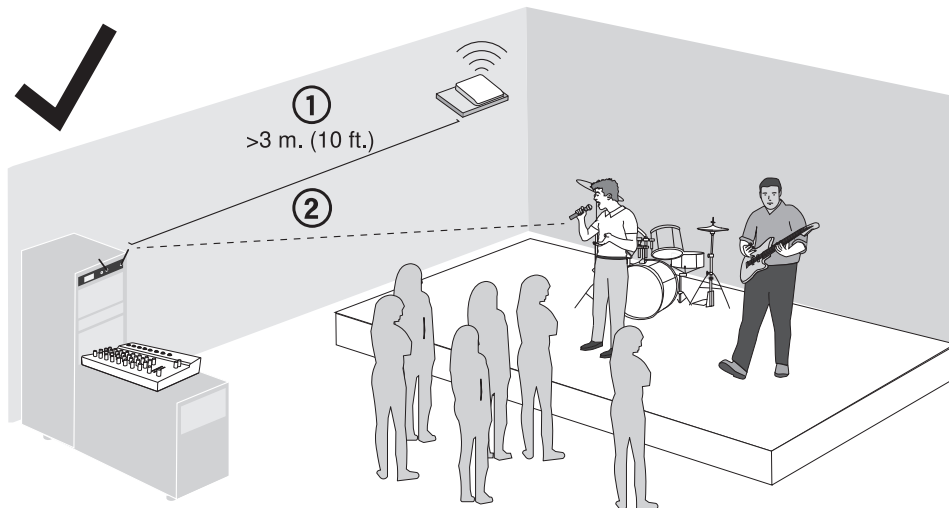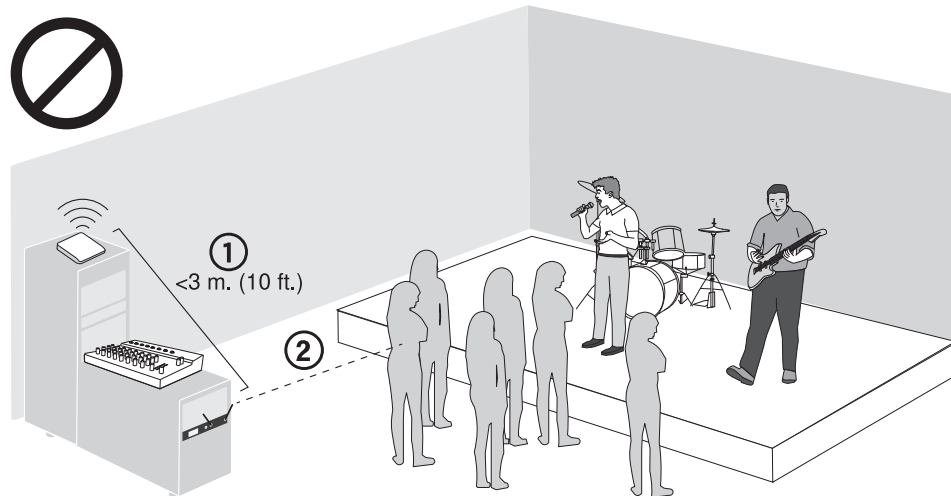
Additional Tips

- Do not place competitive 2.4 GHz receivers near GLXD4R receivers.

- Connect more than two GLXD4R receivers to a GLX-D Frequency Manager to improve RF reliability.

- Scan for the best available channel by pressing the channel button.

- Keep transmitters more than 2 meters (6 feet) apart. This is less critical with shorter receiver-to-transmitter distances or if receivers are connected to a GLX-D Frequency Manager.

   Note: If transmitters are within 6 inches of non-GLX-D transmitters or microphone cartridges, audible noise is possible.

- Move transmitter and receiver away from metal or other dense materials.

- During sound check, mark trouble spots and ask performers to avoid those areas.

- If there is a strong source of Wi-Fi and you specifically want to use frequencies within that Wi-Fi channel, use the following Group/Channel combinations (best option listed first):

   - **Wi-Fi 1:** Group 3/Channel 8, Group 3/Channel 4

   - **Wi-Fi 6:** Group 3/Channel 7, Group 3/Channel 5

   - **Wi-Fi 11:** Group 3/Channel 2, Group 3/Channel 1

Remote Antenna Placement

Follow these guidelines when mounting antennas remotely:

- Reduce distance between transmitter and antenna.

- Mount antennas farther from each other to improve performance.

- Position antennas so there is nothing obstructing the line of sight to the transmitter, including the audience.

- Keep antennas away from metal objects and any other antennas.

- Use only low-loss reverse SMA cable to avoid poor RF signal.

   - Consult cable's specifications and calculate signal loss for desired cable run.

- Use one continuous length of cable from the antenna to the receiver to increase signal reliability.

- Always perform a walk-around test to verify coverage before using a wireless system during a speech or performance. Experiment with antenna placement to find the optimum location. If necessary, mark any trouble spots and ask presenters or performers to avoid those areas.

Multiple Receiver Systems

To run more than two receivers at the same time, the GLX-D Frequency Manager is recommended to improve RF reliability.

However, you can run multiple receivers without the frequency manager. Select the group by determining the total number of receivers in your system (channel count). All receivers in the system must be set to the same group.

Group	Channel Count (Number of Receivers)	Number of Backup Frequencies Per Channel	Notes
1	Up to 4	3	Initial factory setting.
2	Up to 5*	3	Best **multi-channel** group if you experience interference.

Group	Channel Count (Number of Receivers)	Number of Backup Frequencies Per Channel	Notes
3	Up to 8*	0	Only use Group 3 in controlled Wi-Fi environments because there are no backup frequencies to avoid interference.
4	1	27	Best **single-channel** group if you experience interference.

*Environmentally dependent, 4 systems typical

See "Tips to Improve Wireless System Performance" section for additional information. For information about receiver groups when connected to the GLX-D Frequency Manager, see the UA846 user guide.

Setting Up Receivers and Transmitters

Note: Before beginning, turn off all receivers and transmitters. Turn on and set up each receiver/transmitter pair individually to prevent cross-linking.

1. Turn on the first receiver.
2. Press and hold the group button to select a group (if necessary) or if the group is already set, press the channel button to scan for the best available channel.
3. Turn on the first transmitter. The rf LED turns solid blue when a link is established.

Repeat steps 1-3 for each additional receiver and transmitter. Remember to set each receiver to the same group.

See GLX-D Frequency Manager guide for setting up receivers and transmitters when connected to the frequency manager.

Note: Dashes appearing on the group and channel display during a channel scan indicate that frequencies are not available in the selected group. Choose a group that supports more receivers and repeat set-up steps.

Manually Linking a Transmitter to a Receiver

Use the manual linking option to change the transmitter linked to a receiver. A common use for manual linking is changing the linked transmitter from a bodypack type to a handheld type.

1. Turn on the transmitter: Within 5 seconds, press and hold the LINK button until the transmitter LED begins to flash green.

2. Press and hold the link button on the receiver: The blue rf LED will flash, and then remain on when the link has been established.
3. Test the audio to verify the link and adjust the gain if necessary.

Combo Systems

A combo system is created by linking two transmitters to a single receiver. Only one transmitter can be active at a time to prevent cross interference. Gain settings for each transmitter can be independently set and stored when the transmitter is active.

Important! Do not turn on and operate both linked transmitters at any time.

Turn off both transmitters before beginning.

1. Press the group button to select a group. The receiver automatically scans the selected group to find the best available channel.
2. Turn on transmitter 1 and link it to the receiver. Adjust the gain, and then turn off the transmitter.
3. Turn on transmitter 2 and link it to the receiver. Adjust the gain, and then turn off the transmitter.

Note: A transmitter can only link to one GLX-D receiver at a time.

Operation

Gain Adjustment

Use the gain buttons on the receiver to increase or decrease the gain of a linked transmitter:

- Turn on the linked transmitter and momentarily press the gain buttons to adjust the gain in 1 dB increments
- For faster gain adjustments, press and hold the gain buttons
- To replicate the output level of a guitar, unity gain is -18 dB for the ¼" output

Tip: Monitor the audio and observe the receiver audio meter level while adjusting the gain to prevent signal overload.
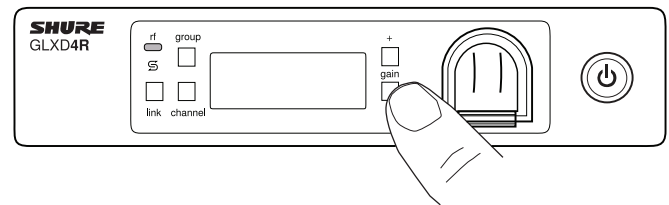
Locking and Unlocking the Controls

The controls of the receiver and transmitter can be locked to prevent accidental or unauthorized changes to settings.

Note: Locks are not affected by power cycles.

Locking the Receiver Controls

Simultaneously press and hold the group and channel buttons until LK appears on the LCD. Repeat to unlock.

- LK is displayed if a locked control is pressed
- UN is displayed momentarily to confirm the unlock command

Locking the Transmitter Power Switch

Starting with the transmitter set to off, press and hold the LINK button while turning on the transmitter. Continue to hold the link button until the lock icon appears on the receiver LCD. Repeat sequence to unlock.

Optionally, the transmitter power switch can be remotely locked from the receiver front panel:

Simultaneously press and hold the group and link buttons for approximately 2 seconds until the flashing lock icon appears on the receiver LCD. Repeat sequence to unlock.

Identifying Linked Transmitters and Receivers with Remote ID

Use the Remote ID feature to identify linked transmitter and receiver pairs in multiple receiver systems. When Remote ID is active, the receiver LCD will blink and display ID. The status LED of the corresponding transmitter will alternately flash red and green for approximately 45 seconds.

To activate Remote ID:

1. Momentarily press the link button on the transmitter or receiver.
2. The LCD of the linked receiver will blink and display ID and the status LED on the linked transmitter will flash red/green.

3. To exit Remote ID mode, momentarily press the link button or allow the function to timeout.
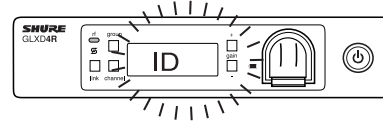
Manually Selecting a Group and Channel

Specific groups and channels can be assigned to the receiver instead of using the automatic scan function.

Note: Group 3 should only be used in controlled Wi-Fi environments to prevent interference from unexpected Wi-Fi devices.

Selecting a Group

1. Press and hold the group button for 2 seconds until the group display flashes.
2. Press the group button to scroll through the available groups.
3. The receiver will automatically save the selected group.

Selecting a Channel

1. Press and hold the channel button for 2 seconds until the channel display flashes.
2. Press the channel button to scroll through the available channels.
3. The receiver will automatically save the selected channel.

Note: A double dash symbol **--** displayed on the receiver screen during a channel scan indicates that there are no available channels within the selected group. Choose a group with more channels and repeat set up steps.

Firmware

Firmware is embedded software in each component that controls functionality. Periodically, new versions of firmware are developed to incorporate additional features and enhancements. To take advantage of design improvements, new versions of the firmware can be downloaded and installed using the Shure Update Utility tool.

Software is available for download from http://www.shure.com/update-utility.

Connect to the Computer

Connect the device to your computer using the USB to Micro USB cable supplied with your GLX-D system.
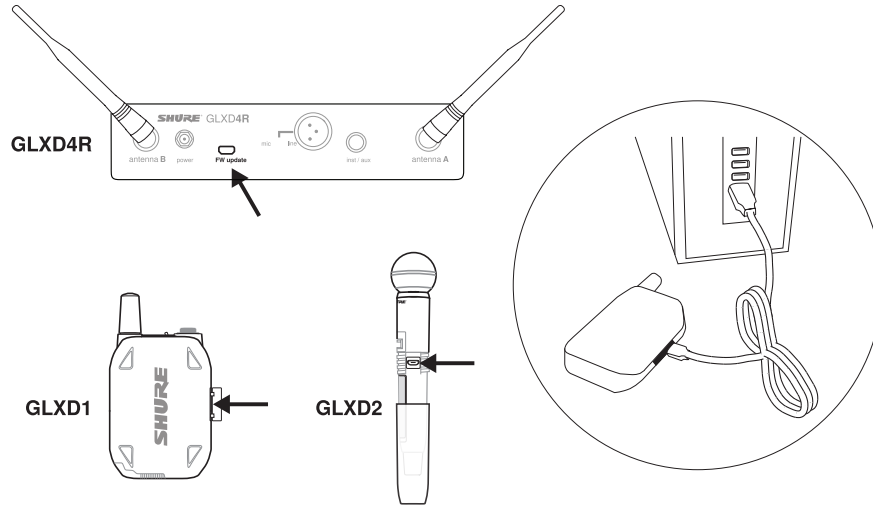
Rack-Mounting Instructions

Use the supplied mounting hardware to install the receiver in a standard 19 inch audio equipment rack.

Troubleshooting

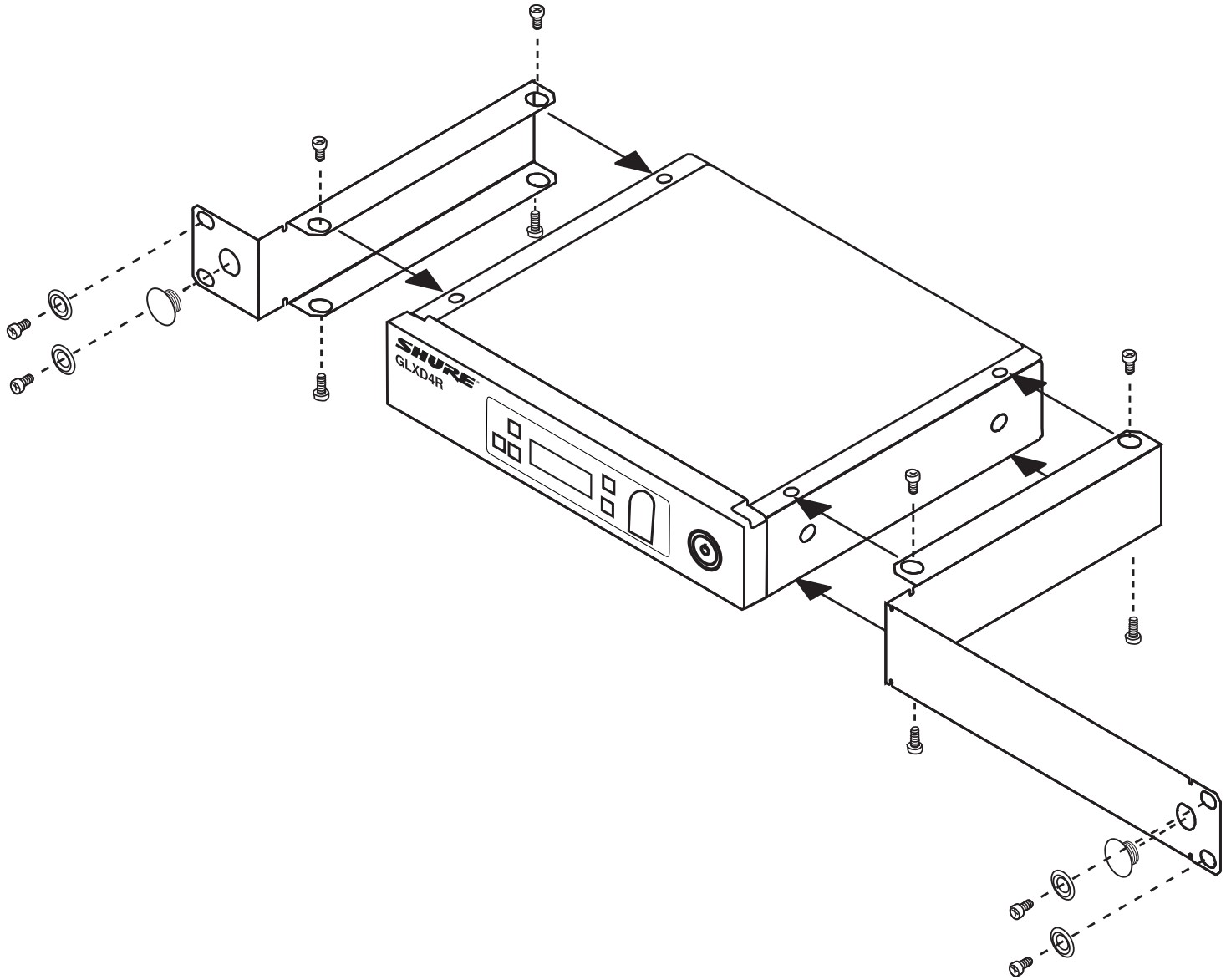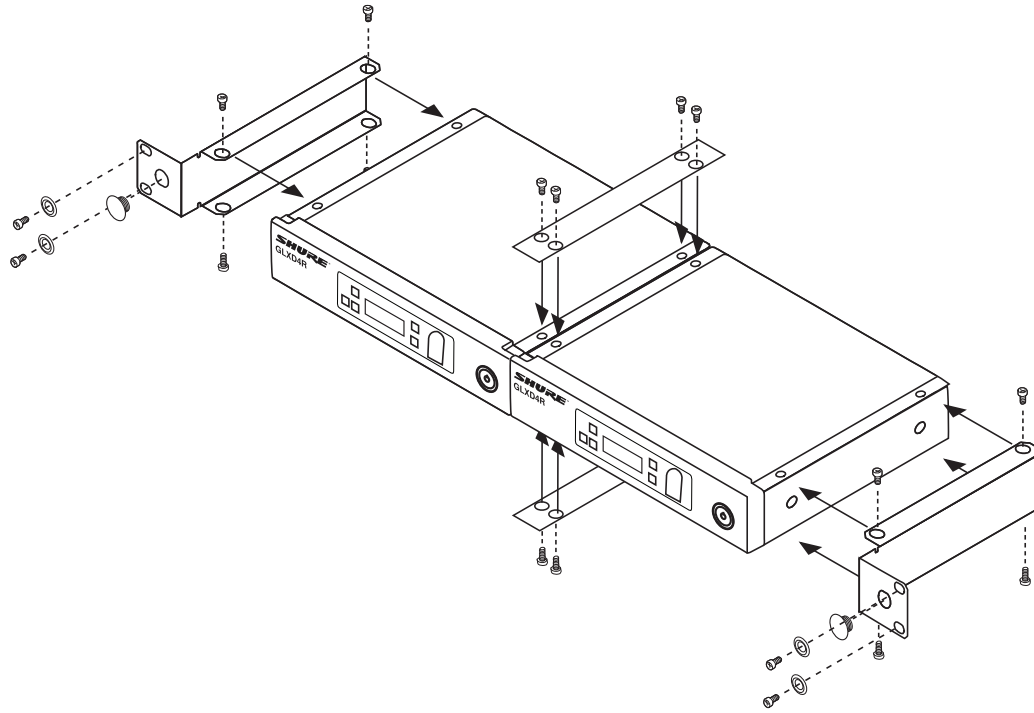| Issue	Indicator Status	Solution
No sound or faint sound	Receiver RF LED on	Verify all sound system connections or adjust gain as needed (see Adjusting Gain).
		Verify that the receiver is connected to mixer/amplifier.
	Receiver RF LED off	Turn on transmitter.
		Make sure the batteries are installed correctly.
		Link transmitter and receiver (see Linking section).
		Charge or change transmitter battery.
	Receiver LCD screen off	Make sure AC adapter is securely plugged into electrical outlet.
		Make sure receiver is powered on.
	Transmitter indicator LED flashing red	Charge or change transmitter battery.
	Transmitter plugged into charger.	Disconnect transmitter from charger.
Audio artifacts or dropouts	RF LED flickering or off	Change receiver and transmitter to a different group and/or channel.
		Identify nearby sources of interference (cell phones, Wi-Fi access points, signal processor, etc.) and shut down or remove source.
		Charge or change transmitter battery.
		Ensure that receiver and transmitter are positioned within system parameters.
		System must be set up within recommended range and receiver kept away from metallic surfaces.
		Transmitter must be used in line of sight from receiver for optimal sound.
Distortion	OL indicator appears on receiver LCD	Reduce transmitter gain (see Gain Adjustment).
Transmitter and receiver link unsuccessful	Transmitter and receiver LEDs flash to indicate that linking started, but the link fails	Update both components to firmware version 2.0 or greater. Download the Shure Update Utility application and follow the instructions.

Issue	Indicator Status	Solution
Sound level variations when switching to different sources	N/A	Adjust transmitter gain as necessary (see Gain Adjustment).
Receiver/transmitter won't turn off	Transmitter LED flashing rapidly	Controls locked. See Locking and Unlocking Controls.
Receiver gain control cannot be adjusted	N/A	Check transmitter. Transmitter must be on to enable gain changes.
Receiver controls cannot be adjusted	LK shown on receiver display when buttons are pressed	Controls locked. See Locking and Unlocking Controls.
Transmitter ID function does not respond	Transmitter LED flashes green three times	Controls locked. See Locking and Unlocking Controls.
Transmitter information does not appear on the Receiver LCD	N/A	Linked transmitter is off or the receiver is not linked to a transmitter.
Transmitter powers off after one hour	Transmitter status LED off	GLX-D transmitters automatically turn off after one hour to conserve battery life if the signal from a linked receiver is not detected. Make sure that linked receiver is turned on.
Second frequency manager does not send RF signal to receivers	Data sync LED off	Verify that antenna A and antenna B ports on second frequency manager are connected to cascade A and cascade B ports on first frequency manager.
RF interference while connected to frequency manager	Receiver screen flashes -- --	Move system away from other 2.4 GHz sources such as Wi-Fi access points or computers. If using directional antennas, place interference sources behind antennas in the null to minimize interference. Place receivers or directional antennas closer to transmitters.

Resetting Components

Use the reset function if it is necessary to restore the transmitter or receiver to their factory settings.

Resetting the Receiver

Restores the receiver to the following factory settings:

- Gain level = default
- Controls = unlocked

Press and hold the link button while turning on the receiver power until the LCD displays RE.

Note: When reset is complete, the receiver will automatically initiate linking to search for a transmitter. Press and hold the transmitter link button within five seconds of powering-on to complete the link.

Resetting the Transmitter

Restores the transmitter to the following factory settings:

- Controls = unlocked

Press and hold the transmitter link button while turning on the transmitter until power LED goes off.

When the link button is released, the transmitter will automatically initiate linking to find an available receiver. Press the link button on an available receiver to relink.

Specifications

Tuning Bandwidth

2400–2483.5 MHz

Working Range

Indoor	Up to 30 m (100 ft) typical, Up to 60 m (200 ft) maximum
Outdoor	Up to 20 m (65 ft) typical, Up to 50 m (165 ft) maximum

0

Transmit Mode

Shure GLX-D proprietary digital

Audio Frequency Response

20 Hz – 20 kHz

1

Dynamic Range

120 dB, A-weighted

[0] Note: Actual range depends on RF signal absorption, reflection and interference.

[1] Note: Dependent on microphone type

RF Sensitivity

-88 dBm, typical

Total Harmonic Distortion

0.2%, typical

RF Output Power

10 mW E.I.R.P. max

Operating Temperature Range

-18°C (0°F) to 57°C (135°F)

2

Storage Temperature Range

-29°C (-20°F) to 74°C (165°F)

Polarity

Positive pressure on microphone diaphragm (or positive voltage applied to tip of WA302 phone plug) produces positive voltage on pin 2 (with respect to pin 3 of low-impedance output) and the tip of the high impedance 1/4-inch output.

Battery Life

Up to 16 hours

Channel Count

9 typical, 11 maximum

GLXD1

Dimensions

90 x 65 x 23 mm (3.56 x 2.54 x 0.90 in.), H x W x D (without antenna)

Weight

132 g (4.7 oz.) without batteries

Power Requirements

3.7 V Rechargeable Li-Ion

Housing

Cast Metal, Black Powdercoat

Input Impedance

900 kΩ

RF Output Power

10 mW E.I.R.P. max

Transmitter Input

Connector

4-Pin male mini connector (TA4M)

Configuration

Unbalanced

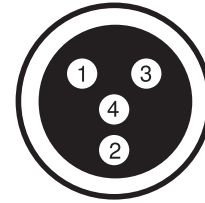## Maximum Input Level

1 kHz at 1% THD
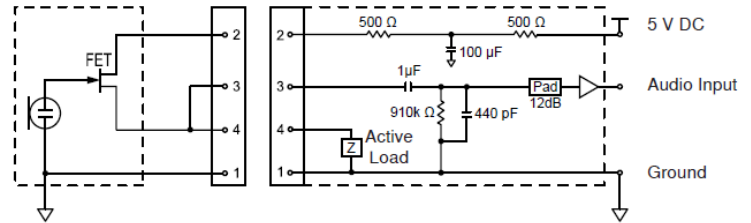
+8.4 dBV (7.5 Vp-p)

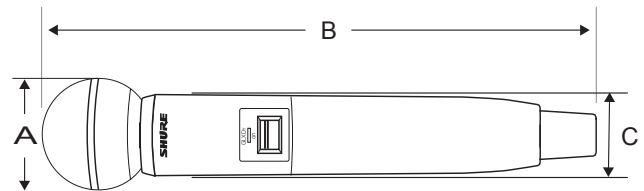## Antenna Type

Internal Monopole

Pin Assignments

TA4M

1	ground (cable shield)
2	+ 5 V Bias
3	audio
4	Tied through active load to ground (On instrument adapter cable, pin 4 floats)

TA4M Connector

GLXD2

Model	A	B	C
SM58	51 mm, (2.0 in.)	252 mm, (9.9 in.)	37 mm, (1.5 in.)
BETA 58	51 mm, (2.0 in.)	252 mm, (9.9 in.)	37 mm, (1.5 in.)
SM86	49 mm, (1.9 in.)	252 mm, (9.9 in.)	37 mm, (1.5 in.)
BETA 87A	51 mm, (2.0 in.)	252 mm, (9.9 in.)	37 mm, (1.5 in.)

2 Note: Battery characteristics may limit this range.

Weight

SM58	267 g (9.4 oz.) without batteries
BETA 58	221 g (7.8 oz.) without batteries
SM86	275 g (9.1 oz.) without batteries
BETA 87A	264 g (9.3 oz.) without batteries

Housing

Molded Plastic

Power Requirements

3.7 V Rechargeable Li-Ion

RF Output Power

10 mW E.I.R.P. max

Maximum Input Level

SM58	146 dB SPL
BETA 58	147 dB SPL
SM86	143 dB SPL
BETA 87A	147 dB SPL

GLXD4R

Dimensions

42 x 197 x 163 mm (1.7 x 7.8 x 6.4 in.), H x W x D

Weight

907.2 g (32 oz.) without batteries

Housing

steel

Power Requirements

14 to 18 V DC (Tip positive with respect to ring), 550 mA

Spurious Rejection

>35 dB, typical

Gain Adjustment Range

-18 to 42 dB in 1 dB steps

Phantom Power Protection

Yes

Audio Output

Configuration

XLR Output	Balanced
6.35 mm (1/4") output	Impedance balanced

Impedance

XLR Output	100 Ω
6.35 mm (1/4") output	100 Ω (50 Ω, Unbalanced)

Full Scale Output

1/4" (6.35 mm)	+12 dBV
XLR	LINE setting= +18 dBV, MIC setting= -12 dBV

Mic/Line Switch

30 dB pad

Pin Assignments

XLR Output	1=ground, 2=hot, 3=cold
6.35 mm (1/4") connector	Tip=audio, Ring=no audio, Sleeve=ground

Receiver Antenna Input

Impedance

50 Ω

Antenna Type

½ Wave Sleeve Dipole

Maximum Input Level

–20 dBm

Receiver Output Connectors
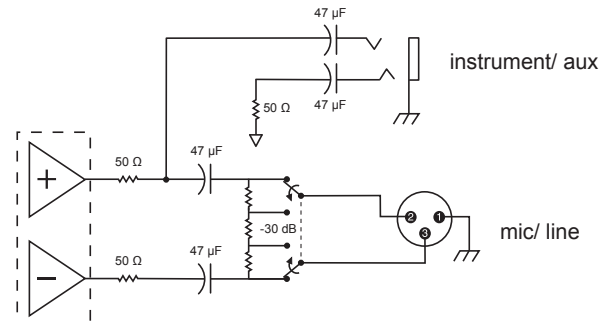
Certifications

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.

This wireless system operates in the globally available ISM band 2400 MHz to 2483.5 MHz. The operation does not require a user license.

Certified by IC in Canada under RSS-247 and RSS-GEN.

IC: 616A-GLXD1, 616A-GLXD2, 616A-GLXD4RZ2

Certified under FCC Part 15.

FCC ID: DD4GLXD1, DD4GLXD2, DD4GLXD4RZ2

Industry Canada ICES-003 Compliance Label: CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation of this device is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Meets essential requirements of the following European Directives:

• WEEE Directive 2002/96/EC, as amended by 2008/34/EC

• RoHS Directive 2011/65/EU

   Note: Please follow your regional recycling scheme for batteries and electronic waste

Hereby, Shure Incorporated declares that the radio equipment is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.shure.com/europe/compliance

Authorized European representative:
Shure Europe GmbH
Headquarters Europe, Middle East & Africa
Department: EMEA Approval
Jakob-Dieffenbacher-Str. 12
75031 Eppingen, Germany
Phone: +49-7262-92 49 0
Fax: +49-7262-92 49 11 4
Email: EMEAsupport@shure.de

Information to the user

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 instructions, may cause harmful interference to radio communications. 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 the receiver.

• Connect the equipment to 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.

運用に際しての注意

この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場の製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）並びにアマチュア無線局（免許を要する無線局）が運用されています。

1. この機器を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局並びにアマ チュア無線局が運用されていないことを確認して下さい。

2. 万一、この機器から移動体識別用の構内無線局に対して有害な電波干渉の事例が発生した場合には、 速やかに使用周波数を変更するか又は電波の発射を停止した上、下記連絡先にご連絡頂き、混 信回避のための処置等（例えば、パーティションの設置など）についてご相談して下さい。

3. その他、この機器から移動体識別用の特定小電力無線局あるいはアマチュア無線局に対して有害な電波干渉の事例が発生した場合など何かお困りのことが起きたときは、保証書に記載の販売代 理店または購入店へお問い合わせください。代理店および販売店情報は Shure 日本語ウェブサイト http://www.shure.co.jp でもご覧いただけます。

現品表示記号について

現品表示記号は、以下のことを表しています。 この無線機器は 2.4GHz 帯の電波を使用し、変調方式は「その他」の方式、想定与干渉距離は 80m です。 2,400MHz ～ 2,483.5MHz の全帯域を使用し、移動体識別装置の帯域を回避することはできません。