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# MXWPlus

## MXW+ Quick Start Guide

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### 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.
  22. Follow local regulations and consult qualified personnel if the product installation or relocation requires construction work. Choose mounting hardware and an installation location that can support the weight of the product. Avoid locations subject to constant vibration. Use the required tools to install the product properly. Inspect the product periodically.
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|                                                                                   |                                                                                                                                 |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|  | 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

- If water or other foreign objects enter the inside of the device, fire or electric shock may result.
- Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.

**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.

## General Description

The MXW APXD2 is an all-in-one wireless microphone system that combines a 2-channel wireless transceiver, digital audio processing and two charging bays into a convenient tabletop device. On-board Dante, analog, USB and Bluetooth audio connections enable local sound reinforcement and video conferencing applications in either standalone or networked installations.

The front panel includes at-a-glance indicators and touch-sensitive buttons to facilitate quick out-of-the-box setup and intuitive system use, without the need for additional screen-based user interfaces. In networked installations, a computer can remotely control and monitor connected units via the built-in network interface.

## Features

- Standalone and networked installations
- Front panel user interface for simple setup and intuitive use
- Audio I/O: analog, Dante, USB, Bluetooth
- Built-in audio DSP: Automixer, Echo Cancellation, Noise Reduction
- Dual RJ45 to separate audio and control traffic (3 modes)
- Two built-in charging bays for wireless microphones

## Microphone Transmitters

MXW+ microphones transmit an encrypted, wireless audio signal to the access point. Three form factors are available:

### Hybrid Bodypack (MXW1X)

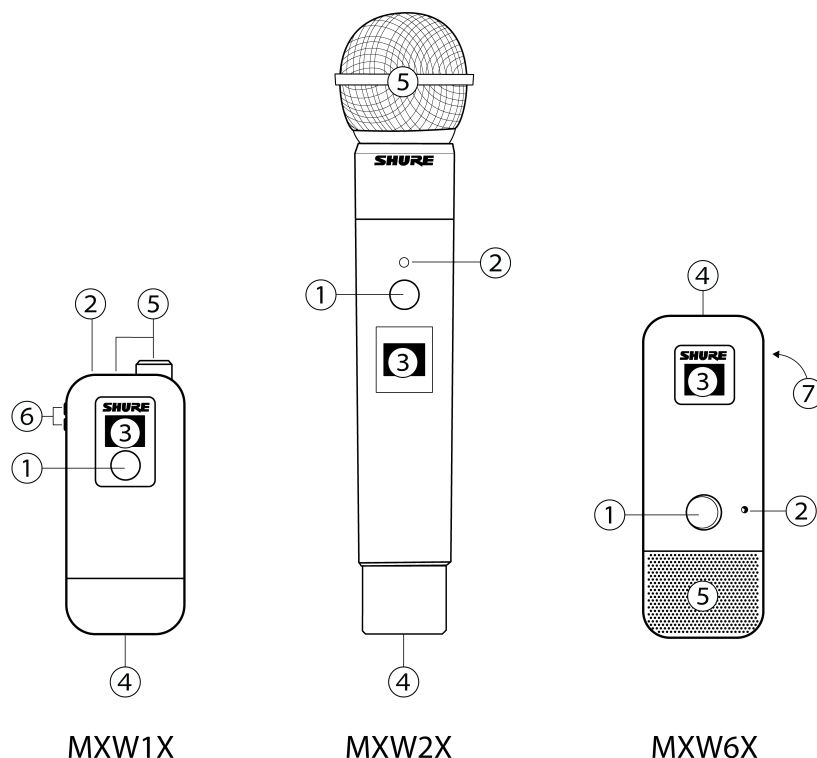
The bodypack secures to a belt or strap for hands-free, mobile communication. It features a TQG input for lavalier connection and an integrated omnidirectional microphone.

### Handheld (MXW2X)

The handheld enables presenters to communicate using legendary Shure SM58, SM86, BETA58 and VP68 microphone cartridges.

### Boundary (MXW6X/C, MXW6X/O, MXW6XW/C, MXW6XW/O)

The boundary transmitter sits on a table or desk to transmit speech while discreetly blending into any conference environment.



## Callouts

### ① Mute/Active Button

Changes the audio status from Active to Mute, or Mute to Active. Button behavior for some transmitter type can be set independently from the Preferences tab of the control software.

**Note:** For MXW1X and MXW2X, press and hold the Mute/Active button for five seconds to turn the transmitter on or off.

### ② Status LED

Indicates the transmitter's status. The color indicators for Mute and Active can be customized from the Preferences tab. See the Status LED table for the default LED behavior for MXW+ transmitters.

### ③ Display

Shows menu options, receiver and transmitter settings.

### ④ USB-C Connector

Connects to the docking station charger slot, or to the USB Charger. Can be used with the USB-C-to-3.5mm dongle to provide a headphone line out.

### ⑤ Microphone

MXW1X hybrid bodypack has a TQG connector for an external lavalier or headset microphone, as well as an internal microphone.

MXW2X handheld transmitter is compatible with SM58, Beta 58, SM86, and VP68 cartridges.

MXW6X features an internal microphone.

## ⑥ + / - Buttons (MXW1X)

Adjusts the MXW1X back-channel audio volume when a headphone is connected. Also selects between internal and external microphone.

## ⑦ Power On/Off (MXW6X)

Press and hold the dedicated power button for three seconds to turn the transmitter on or off.

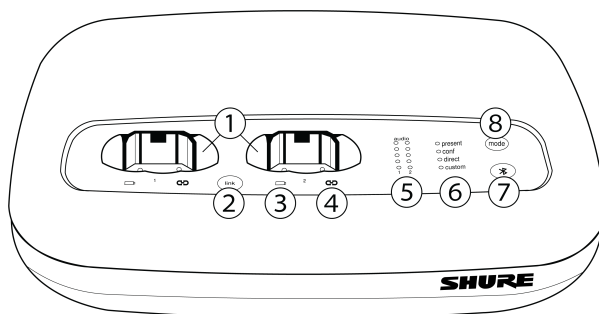
**Note:** For MXW1X and MXW2X, press and hold the Mute/Active button for five seconds to turn the transmitter on or off.

## Status LED Table

| Status                                                  | LED                              | Description                                                                                                                                                                                           |
|---------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Active                                                  | Green                            | Ready to pass audio to network.                                                                                                                                                                       |
| Mute                                                    | Red                              | Audio is muted.                                                                                                                                                                                       |
| Standby                                                 | Red Pulsing (long off, short on) | Audio is muted and the transmitter is in a hibernation state to conserve the battery.                                                                                                                 |
| Identify                                                | Flashing Yellow                  | The Identify button has been pressed from the control software.                                                                                                                                       |
| Initialization/ RF channel acquisition                  | Alternating Red and Green        | The transmitter is initializing and acquiring the RF connection to the linked access point.<br><br>Standard density mode has a slow alternating rate<br>High density mode has a fast alternating rate |
| Out of RF Coverage Range                                | Red Pulsing (short on/off)       | The transmitter is out of the RF coverage range to the linked access point.                                                                                                                           |
| Charging                                                | Off                              | The transmitter is charging.                                                                                                                                                                          |
| Battery Statistics Reset                                | Flashing Yellow                  | Battery statistics have been reset for the transmitter.                                                                                                                                               |
| Two microphones trying to connect to same audio channel | Red Pulsing (long on, short off) | Only one microphone for each audio channel can be active at a time.                                                                                                                                   |
| Off                                                     | Off                              | No connection to the network. The transmitter must be turned on using the power button on the mic.                                                                                                    |

# APXD2

## Front Panel



### ① Docking Bays

Connect and charge up to two MXW+ handheld, bodypack, or boundary microphones.

### ② Link Button

Press and hold to link docked microphones. Microphones are successfully linked when the link LED stops flashing and the microphone display confirms successful link.

**Note:** Pressing the Link button when mics are present in the charging bays will overwrite any previously-linked microphones.

### ③ Battery LED

Indicates charging status for docked microphone.

### ④ Link Indicator LED

Illuminates when the audio channel associated with the charging bay is linked to a wireless transmitter (even if linked transmitter is powered off).

### ⑤ Signal Strength LED (sig/clip)

Indicates audio signal strength for each channel:

- Green = Normal
- Amber = Strong
- Red = Clipping (to eliminate clipping, attenuate the signal level at the audio source)

**Note:** The bottom LED for each channel indicates the status of the connected microphone: Green = active, Amber = standby, Red = mute, Off = inactive

### ⑥ Mode Indicator

Shows the selected preset mode.

### ⑦ Bluetooth Button

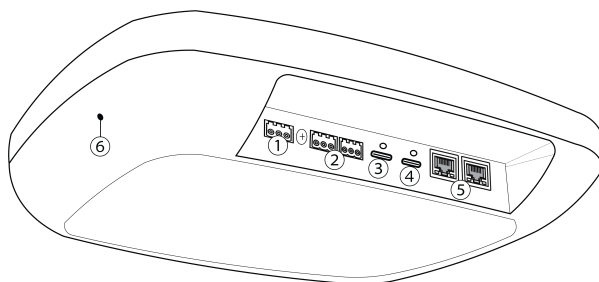
Control the Bluetooth audio connection. Press once to put the APXD2 into Discoverable Mode to connect Bluetooth audio sources.

### ⑧ Mode Selector

Selects a preset operation mode:

| Mode                | Details                                                                                                                                                                                                                                                                                                 |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Presentation</b> | <p>Share your presentation, with the option of adding a third audio source</p> <p>IntelliMix™ and AEC are enabled</p> <p>A wired microphone can be connected to the analog input for a three-mic setup</p>                                                                                              |
| <b>Conference</b>   | <p>Connect to your preferred videoconferencing software</p> <p>IntelliMix and AEC are enabled</p> <p>If far-end conference audio is not connected to the APXD2, the analog audio input can provide reference audio</p> <p><b>Note:</b> Analog audio input is not available as a third audio source.</p> |
| <b>Direct</b>       | <p>Bypass most DSP and rout your audio channels directly</p> <p>IntelliMix and AEC are disabled</p> <p>Dante® -IN 2 and Bluetooth audio channels are disabled</p>                                                                                                                                       |
| <b>Custom</b>       | <p>Set your own audio parameters</p> <p>Enable or disable audio sources and DSP options</p> <p>Determine input/output routing using the Matrix Mixer</p>                                                                                                                                                |

## Back Panel



### ① Analog Audio Input

Three-pin, low-voltage differential input connector adds line- or aux-level analog signals for sound reinforcement.

**Note:** This input is meant for balanced connection. If an unbalanced source is used, such as an IPOD or MP3 player, only use pins 1 (signal) and 3 (ground) of the block connector. See Specifications sections for wiring diagrams.

### ② Analog Audio Output

Connect to a signal processor, amplifier, or recording system.

### ③ USB-C Audio

Connect to a laptop, videoconferencing unit, or control device.

#### ④ Power

USB-C power connector, for use with included 5V 3A power supply.

#### ⑤ Ethernet Ports

Connect to external control software, or Dante audio network.

#### ⑥ Reset Button

Press and hold for more than 5 seconds to reboot the device with factory default settings.

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## Firmware Updates

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 uploaded and installed using the Shure Update Utility. Download the software from [www.shure.com](http://www.shure.com).

Perform the following steps to update the firmware:

**CAUTION!** Ensure the device has a stable network connection during the update. Do not turn off the device until the update is complete.

1. Connect the device and computer to the same network via Ethernet cable (set to the same subnet).
2. Place transmitters in the charging bays.
3. Open the Shure Update Utility application.
4. Click Check For Updates... button to view new firmware versions available for download.
5. Select the desired firmware and press Download to download it to the Firmware Library.
6. From the Update Devices tab, select the new firmware and press Send Updates... to begin the firmware update, which overwrites the existing firmware on the device.

## Firmware Release Requirements

Microflex Wireless devices comprise a network with multiple communications protocols that work together to ensure proper operation. The recommended best practice is that all MXW devices are on an identical release.

The format for Shure device's firmware is MAJOR.MINOR.PATCH.BUILD. (Ex. 1.6.2.0 where 1 is the Major firmware level, 6 is the Minor firmware level, 2 is the Patch firmware level, and 0 is the Build firmware level.) At minimum, **devices that operate on the same subnet should have identical MAJOR and MINOR release numbers.**

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## Specifications

### System

#### System

RF Carrier Frequency Range

| Band | Frequency Range |
|------|-----------------|
| Z10  | 1920– 1930 MHz  |
| Z11  | 1880– 1900 MHz  |

| Band       | Frequency Range |
|------------|-----------------|
| <b>Z12</b> | 1893– 1906 MHz  |
| <b>Z15</b> | 1880– 1895 MHz  |
| <b>Z14</b> | 1910– 1920 MHz  |

## Operating Temperature Range

5°C (41°F) - 40°C (104°F)

## APXD2 2-Channel Access Point Dock

## RF Output Power

|                  |        |
|------------------|--------|
| <b>Bluetooth</b> | 10 dBm |
| <b>DECT</b>      | 20 dBm |

## USB Input Power

5V / 3A

## USB Power Supply (US/Canada)

SBC10-USB15WSUSTWJ

## Antenna Type

Internal

## Microphones

MXW1X, MXW2X, MXW6X

## RF Output Power

|                  |        |
|------------------|--------|
| <b>Bluetooth</b> | 1 dBm  |
| <b>DECT</b>      | 20 dBm |

## USB Input Power

5V / 1A

## USB Power Supply (US/Canada)

SBC10-USB15WSUSTWJ

## Antenna Type

Internal

## Rechargeable Li-Ion Battery Type

|                     |       |
|---------------------|-------|
| <b>MXW1X, MXW6X</b> | SB906 |
| <b>MXW2X</b>        | SB908 |

# Safety Information

## WARNING

**LISTENING TO AUDIO AT EXCESSIVE VOLUMES CAN CAUSE PERMANENT HEARING DAMAGE. USE AS LOW A VOLUME AS POSSIBLE.** Over exposure to excessive sound levels can damage your ears resulting in permanent noise-induced hearing loss (NIHL). 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.

|                                |                                    |                                                |                                |
|--------------------------------|------------------------------------|------------------------------------------------|--------------------------------|
| <b>90 dB SPL</b><br>at 8 hours | <b>95 dB SPL</b><br>at 4 hours     | <b>100 dB SPL</b><br>at 2 hours                | <b>105 dB SPL</b><br>at 1 hour |
| <b>110 dB SPL</b><br>at ½ hour | <b>115 dB SPL</b><br>at 15 minutes | <b>120 dB SPL</b><br>Avoid or damage may occur |                                |

## 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
- Only use Shure charger to recharge Shure rechargeable batteries
- **WARNING:** Danger of explosion if battery incorrectly replaced. Replace only with same or equivalent type.
- 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 other than Shure rechargeable batteries
- Dispose of battery packs properly. Check with local vendor for proper disposal of used battery packs.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like
- Do not immerse the battery in liquid such as water, beverages, or other fluids.
- Do not attach or insert battery with polarity reversed.
- Keep away from small children.
- Do not use abnormal batteries.
- Pack the battery securely for transport.

**WARNING:** Danger of explosion if incorrect battery replaced.

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

## Important Product Information

The equipment is intended to be used in professional audio applications.

Please follow your regional recycling scheme for batteries, packaging, and electronic waste.

EMC conformance testing is based on the use of supplied and recommended cable types. The use of other cable types may degrade EMC performance.

**Note:** This device is not intended to be connected directly to a public internet network.

# 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. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause interference with radio and television reception.

**Notice:** The FCC regulations provide that changes or modifications not expressly approved by Shure Incorporated could void your authority to operate this equipment.

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.

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

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.

For information regarding responsible party and other matters relating to FCC compliance, please contact Shure Incorporated, 5800 W. Touhy Avenue, Niles, Illinois 60714-4608 U.S.A. [shure.com/contact](https://www.shure.com/contact)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## MXWAPXD2

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. L'utilisateur final doit suivre les instructions spécifiques pour satisfaire les normes. Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou transmetteur.

The antenna(s) must be installed such that a minimum separation distance of 20 cm is maintained between the radiator (antenna) and all persons at all times.

La ou les antennes doivent être installées de telle façon qu'une distance de séparation minimum de 20 cm soit maintenue entre le radiateur (antenne) et toute personne à tout moment.

Additional Canadian information on RF exposure also can be found at the following Web address: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html>

## MXW1X, MXW2X, MXW6X

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. L'utilisateur final doit suivre les instructions spécifiques pour satisfaire les normes. Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou transmetteur.

Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate this equipment.

Additional Canadian information on RF exposure also can be found at the following Web address: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08792.html>

## Certifications

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications. Certified by ISED in Canada under RSS-210 and RSS-GEN.

## CE Notice:

Hereby, Shure Incorporated declares that this product with CE Marking has been determined to be in compliance with European Union requirements. The full text of the EU declaration of conformity is available at the following site: <https://www.shure.com/en-EU/support/declarations-of-conformity>.

### **Authorized European Importer / Representative:**

Shure Europe GmbH  
Department: Global Compliance  
Jakob-Dieffenbacher-Str. 12  
75031 Eppingen, Germany  
Phone: +49-7262-92 49 0  
Fax: +49-7262-92 49 11 4  
Email: [EMEAsupport@shure.de](mailto:EMEAsupport@shure.de)

## UKCA Notice:

Hereby, Shure Incorporated declares that this product with UKCA Marking has been determined to be in compliance with UKCA requirements. The full text of the UK declaration of conformity is available at the following site: <https://www.shure.com/en-GB/support/declarations-of-conformity>.

### **Authorized UK Importer / Representative:**

Shure UK Limited  
Unit 2, The IO Centre, Lea Road,  
Waltham Abbey, Essex, EN9 1 AS, UK



Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores informações, consulte o site da ANATEL – <http://www.anatel.gov.br>.

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

1. 取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
2. 應避免影響附近雷達系統之操作。
3. 高增益指向性天線只得應用於固定式點對點系統。

เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission.

#### Waste Electrical and Electronic Equipment (WEEE) Directive



In the European Union and the United Kingdom, this label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

#### Registration, Evaluation, Authorization of Chemicals (REACH) Directive

REACH (Registration, Evaluation, Authorization of Chemicals) is the European Union (EU) and the United Kingdom (UK) chemical substances regulatory framework. Information on substances of very high concern contained in Shure products in a concentration above 0.1% weight over weight (w/w) is available upon request.



In the European Union and the United Kingdom, this label indicates that the batteries in this product should be collected separately and not be disposed of with household waste. Substances in batteries can have a potential negative impact on health and environment and you have a role in recycling waste batteries thus contributing to the protection, preservation, and improvement of the quality of the environment. You should contact your local authority or retailer for details of the collection and recycling schemes available.

Please consider the environment, electric products and packaging are part of regional recycling schemes and do not belong to regular household waste.

## Trademarks

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