

# U45 U45R2 U45R4 IN-EAR MONITOR WIRELESS SYSTEM

5.8 GHz Wireless Frequency Band









# INTRODUCTION

The Xvive U45 In-Ear Monitor Wireless System is a compact, reliable solution for musicians and performers needing high-quality wireless audio. Operating on the 5.8 GHz band, it offers clear, interference-free transmission over long distances. The lightweight Transmitter and Receiver feature low latency, making the system ideal for live performances, rehearsals, and wireless instrument monitoring. With excellent sound clarity and a wide frequency range, it suits both professional and hobbyist applications.



#### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE SCREWS.

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

#### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE APPLIANCE TO RAIN OR MOISTURE.

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Radio Approvals: FCC Part 15.249, RSS-247(Canada), EN 300 440 (Europe), EN 301.489 (Europe)

This device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. All essential radio test suites have been carried out.

The Korea version has passed KC certification. Detailed DOC file please visit our website: www.xvive.com

#### IC CAUTION:

This device complies with Industry Canada licence-exempt RSS standard(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.

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.

# FCC CERTIFICATION

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

# This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

 This device may not cause harmful interference, and
 this device must accept any interference received, including interference that may cause undesired operation.

#### NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the 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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### FCC ID: 2AJ3O-U45 IC: 22031-U45



# SAFETY INSTRUCTIONS FOR LITHIUM-ION RECHARGEABLE BATTERIES

If abused or misused, the rechargeable batteries may leak. In extreme cases, they may even present a risk of explosion, fire, heat, smoke or gas. Xvive does not accept any liability for damage arising from abuse or misuse.

- · Keep away from children.
- Only charge rechargeable batteries with chargers recommended by Xvive.
- Observe correct polarity.
- Pack/store charged rechargeable batteries so that the terminals cannot contact each other (danger of shorting out/fire hazard).
- Do not expose to moisture.
- Switch rechargeable battery-powered products off after use.
- Only charge rechargeable batteries at ambient temperatures between 10°C/50°F and 40°C/104°F.
- When not using rechargeable batteries for extended periods of time, charge them regularly (about every three months).
- · Do not mutilate or dismantle.
- Do not heat above 60°C/140°F, e.g. do not expose to sunlight or throw into a fire.

- Immediately remove rechargeable batteries from obviously defective products.
- · Do not continue to use defective rechargeable batteries.
- · Only use rechargeable batteries specified by Xvive.
- Dispose of rechargeable batteries at special collection points or return them to your specialist dealer.
- Store the products in a cool and dry place at room temperature (approx. 20°C/68°F).
- Remove the rechargeable batteries if the products will not be used for extended periods of time.



Hereby, SHENZHEN FZONE TECHNOLOGY CO., LTD, declares that this type of equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU

# INFORMATION ABOUT COLLECTION AND DISPOSAL OF OLD ITEMS AND USED BATTERIES

#### [For users in the European Union]

These symbols on the products, packaging, or on any documents in the package (valid only in the EU) mean it is incorrect to mix the used electrical and electronic products and batteries with general household garbage:



To protect our environment, please take old products and used batteries to proper collection places, and follow your national legislation and the Directives 2012/19/EU and 2006/66/EC.

To deal with these old products and batteries properly, please help to save valuable resources and prevent any possibility of side effects on human health and our environment due to the inappropriate disposal of the old products and used batteries. You can contact your local authority for getting more helpful information on how to dispose the recycling and collection of the old products and batteries.

#### [For users outside the European Union]

Please contact your local authorities or dealer for more information on disposal of old items and used batteries.

# **ONE-YEAR LIMITED WARRANTY**

Xvive Corporation Ltd. [Xvive] warrants our products to be free of defects in materials and workmanship in normal use for a period of one (1) year from the date of original purchase.

Please visit *https://www.xvive.com* to register your new purchase.

Xvive will, at its sole discretion, or in affiliation with our authorized retailers, repair or replace at no charge, any unit that is inspected by Xvive or an affiliated Xvive service center and deemed to be defective within the warranty period. This warranty is non-transferrable.

This warranty is only valid to the original purchaser, only when purchased "new-in-box" from an Authorized Xvive Dealer and with a valid proof of purchase bearing the purchase date.

#### Within the USA:

 All Xvive warranty claims should be made with the retailer from which the unit was purchased. This applies to both retail stores and online retailers.

#### Outside of the USA:

 For all warranty and non-warranty claims, the purchaser should contact the Authorized Xvive Retailer from which the unit was purchased within the country or province in which it was purchased for information on how to obtain warranty or non-warranty service.

#### This limited warranty does not cover the following:

- · Products that have been modified in any way;
- Any products whose serial numbers have been altered or removed;
- Exterior cosmetic damage or damage to the finish due to misuse or normal wear and tear;
- Products that were purchased as "used", items listed as demo stock or refurbished items;
- Damage to the product or parts caused by improper storage by the user;
- Any freight charges (from or to the retailer);
- Shipping Damage:

- Shipping damage claims must be filed with the freight carrier (such as UPS, FedEx).
- Notify the freight carrier immediately of any shipping damage upon receipt of damaged items to begin the claim process.
- We also recommend reporting any shipping damage claim within (48) hours of receipt to the Authorized Retailer from which the item was purchased.
- Keep all original documents and packing materials until freight damage claim has a final resolution.

#### For units returned to Xvive USA:

- The item must be returned in the same format in which it was purchased. If a system containing a transmitter and receiver was purchased, then both units will need to be returned together.
- The purchaser will pay all freight charges to return the original item to Xvive USA or its affiliated service centers.
- If the unit is deemed to be covered by this warranty, Xvive will ship the repaired or replacement unit to the purchaser free-of-charge and without any additional freight charges.
- If the unit is deemed to NOT be covered by this warranty, other charges plus return freight charges will apply.

EXCEPT AS EXPRESSLY SET FORTH ABOVE IN THIS LIMITED WARRANTY, XVIVE MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES TO THE EXTENT PERMITTED BY LAW. XVIVE ASSUMES NO LIABILITY FOR PROPERTY DAMAGE RESULTING FROM FAILURE OF THIS PRODUCT NOR ANY LOSS OF INCOME, SATISFACTION, OR DAMAGES ARISING FROM THE LOSS OF USE OF SAME DUE TO DEFECTS OR AVAILABILITY OF SAME DURING SERVICE.THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR BY COUNTRY OR PROVINCE.

For warranty inquiries not covered in this policy, please contact support@xvive.com

# IMPORTANT SAFETY INSTRUCTIONS PLEASE READ THESE INSTRUCTIONS AND KEEP THEM IN A SAFE PLACE



WARNING: BEFORE USING YOUR XVIVE 5.8 GHz IN-EAR MONITOR WIRELESS SYSTEM, CAREFULLY READ THE OPERATING INSTRUCTIONS.

- 1. Observe all instructions carefully in the U45 manual.
- Do not to perform service operations beyond those described in the U45 manual. Service is required when the apparatus has been damaged in any way, such as:
  - Liquid has been spilled or objects have fallen into the apparatus
  - . The unit has been exposed to rain or moisture
  - The unit does not operate normally or changes in performance in a significant way
  - The unit is dropped or the enclosure is damaged

- 3. Do not place near heat sources, such as radiators, heat registers, or appliances which produce heat.
- 4. Guard against objects or liquids entering the device. Do not use or place unit near water.
- 5. Clean only with a dry cloth.
- 6. Only use attachments/accessories specified by the manufacturer.
- 7. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."



LISTENING TO AUDIO AT EXCESSIVE VOLUMES CAN CAUSE PERMANENT HEARING DAMAGE. USE AS LOW A VOLUME AS POSSIBLE.

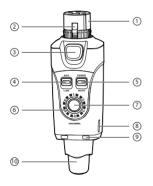
Overexposure to excessive sound levels can damage your ears, resulting in permanent noise-induced hearing loss. Do not use earphones for a long time and set the volume below 70%.

# **U45 PRODUCT INTRODUCTION**

#### FEATURES:

- 5.8 GHz True Diversity wireless system
- Solid RF connection over a 100 ft distance (actual range depends on RF signal absorption, reflection and interference)
- •110 dB signal-to-noise ratio provides clear, detailed audio at any volume
- High-resolution 24-bit / 48 kHz audio
- Broad 20 Hz 20 KHz frequency response
- 110 dB dynamic range
- Less than 5ms latency
- Up to 6 U45 systems can be used in one area simultaneously
- 5 hours of battery life (onboard rechargeable battery in both Transmitter and Receiver)
- · Provides smooth frequency response with any headphones
- Mono balanced XLR or mono unbalanced TS input
- Aux or Line input mode
- Scans for wireless status and selects the best channel

# OVERVIEW: U45 TRANSMITTER



#### Input: balanced XLR input jack

2 Spring: circumferential ground spring providing an

accurate connection to the mating shell

- 3 Lock: secures Transmitter
  - ) Aux/Line mode: connect to aux or line out
- 5) Power switch: switches unit on/off
- 6) Channel status LED: indicates selected channel
- Channel switch: selects channels 1-6
- 8 USB charging port
- 9 Power status LED, indicates battery charge level:

LED off = 100% ~ 30%

Solid red = 29% ~ 11%

Flickering red = less than 10%

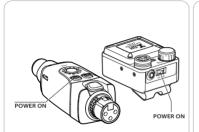
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# OVERVIEW: U45 RECEIVER

- Power switch: switches unit on/off
- 2 Headphone output: 3.5 mm / 1/8" jack for in-ear monitors,
  - earphones or headphones
- 3 Channel status LED: indicates selected channel
- Channel switch: selects Channels 1-6, Hold for 3 seconds to scan for the best channel.
- (5) Volume control: adjusts the volume of headphone output
   (6) RF Status LED:
  - ON = Transmitter is on and link is established
  - Flashing = Signal connection interference
  - OFF = Transmitter off or unlinked
  - Power status LED, indicates battery charge level:
  - LED off =  $100\% \sim 30\%$
  - Solid red = 29% ~ 11%
  - Flickering red = less than 10%
- 8 USB charging port
- Antenna

# QUICK START



#### POWER ON

Turn the power switch to the 'on' position: the channel indicator will light up.

#### BATTERIES AND CHARGING

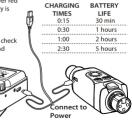
U45 includes a USB charging cable, which you can connect to a USB charger adapter or other USB power source.

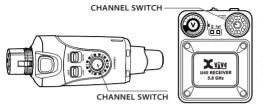
**Note:** Turn off the power switch while charging. Please do not use U45 while charging—this may reduce battery life.

#### Connect to the socket

- \* When the battery level is below 1%, the RF wireless section will turn off. The power red LED will flash until the battery is completely drained.
- \* Always store U45 at room
- temperature \* When storing the unit, please check
- the battery state regularly and charge if necessary.







#### PAIR TRANSMITTER AND RECEIVER

U45 has six channels.

Use the channel switch button to change the channel. Set the Receiver channel to the same channel as on the Transmitter. The blue LED on the Receiver will always be on when the units are connected.

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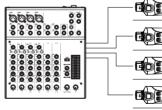
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# SINGLE TRANSMITTER AND MULTIPLE RECEIVERS

If you want to add more Receivers, just set all the Receivers to the same channel as the Transmitter.

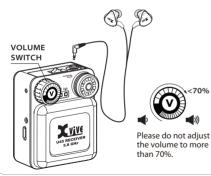


MAX. 6 CHANNELS

# QUICK START

#### VOLUME ADJUSTMENT

#### LISTENING TO AUDIO AT EXCESSIVE VOLUMES CAN CAUSE PERMANENT HEARING DAMAGE. USE AS LOW A VOLUME AS POSSIBLE.



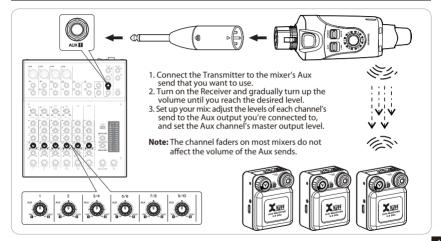


#### ADJUST TRANSMITTER LEVELS

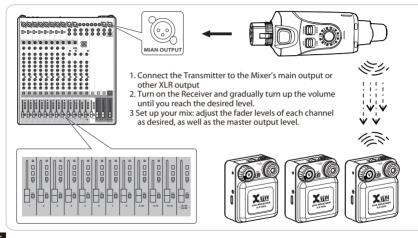
Adjusting Gain and Listening Volume: For the best audio quality, start by adjusting the levels from the mixer or audio source to maximize the signal-to-noise ratio.

Line (+4 dBu)	Use with mixers or other professional audio devices that send line-level signals.
Aux (-10 dBV)	Use when connecting consumer audio devices such as portable audio players or computers.

## **CREATING A MONITOR MIX WITH AUX**

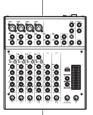


# **CREATING MONITOR MIXES WITH XLR**



### MULTIPLE TRANSMITTERS AND MULTIPLE RECEIVERS

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**CHANNEL 1** 

When performers have different monitoring needs, they can use multiple Transmitters: one for each aux output. Each Receiver simply needs to be set to the same channel as the Transmitter connected to the desired aux output.

If all performers are connected through the U45 monitoring system, no wedge monitors need to be used!

CHANNEL 2









## SCAN FOR THE BEST CHANNEL

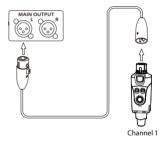
# **EXTEND THE EFFECTIVE RANGE**

Channel switch Press and hold for 3 seconds

Press and hold the channel button on the Receiver for 3 seconds to enter Channel Scan mode. The Receiver's channel LED will flash during scanning and then will stay on the optimal wireless channel.

When scanning is complete, manually set the Transmitter's channel to be the same as the Receiver channel.

\*Before starting the scan, please turn off the power of the transmitter to be paired, to prevent its wireless signal from interfering with the scan.



Using an XLR cable (not included) as an extension for a Transmitter or Receiver allows you to connect the components to a mixer where the inputs/outputs are very close together. It can also resolve wireless signal interference issues if you have too many wireless units in the area.

# 5.8 GHZ WIRELESS OVERVIEW AND INTERFERENCE

#### Tips for improving wireless system performance:

INT Version: 5.8 GHz Frequency Tables

1) Keep more than 3 metres of distance between the U45 Receiver unit and Wi-Fi transmitters, such as routers.

2) If you experience interference from Wi-Fi devices in the vicinity, try changing to a different channel on the U45 Transmitter and Receiver.

3) If necessary, shorten the distance between the Transmitter and Receiver units.

CHANNEL 1	5730 MHz, 5842 MHz, 5844 MHz
CHANNEL 2	5736 MHz, 5833 MHz, 5835 MHz
CHANNEL 3	5742 MHz, 5827 MHz, 5829 MHz
CHANNEL 4	5756 MHz, 5803 MHz, 5805 MHz
CHANNEL 5	5785 MHz, 5811 MHz, 5813 MHz
CHANNEL 6	5780 MHz, 5791 MHz, 5797 MHz

#### KOREA Version: 5.8 GHz Frequency Tables

CHANNEL 1	5729 MHz, 5819 MHz, 5821 MHz
CHANNEL 2	5735 MHz, 5811 MHz, 5813 MHz
CHANNEL 3	5743 MHz, 5801 MHz, 5803 MHz
CHANNEL 4	5750 MHz, 5792 MHz, 5794 MHz
CHANNEL 5	5753 MHz, 5781 MHz, 5784 MHz
CHANNEL 6	5766 MHz, 5772 MHz, 5775 MHz

\* Up to six U45/U35/A58 sets can be used simultaneously in one area

# SPECIFICATIONS

#### **U45 WIRELESS IN-EAR MONITOR SYSTEM**

Tuning bandwidth	5.8 GHz	
Working range	Up to 100 ft actual range; depends on RF signal absorption, reflection and interference	
Frequency response	20 Hz – 20 KHz (-3 dB)	
Dynamic range	110 dB	
Signal-to-noise ratio	110 dB	
RF sensitivity	-88 dBm	
Total harmonic distortion	0.2%	
RF output power	25 mW E.I.R.P. max	
Operating temperature range	0°C to 45°C (battery characteristics may limit this range)	
Channel count	Six (up to 6 sets can be used in one area simultaneously)	
Latency	Less than 5 ms	
High-resolution audio	24-bit / 48 kHz	

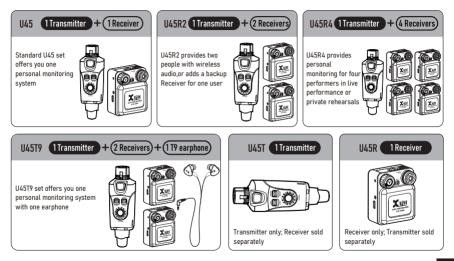
#### **U45 TRANSMITTER**

#### **U45 RECEIVER**

Dimensions	30 x 28 x 100 mm	47 x 41 x 60 mm
Weight	90 g	118 g
Housing	Molded plastic and cast metal	Molded plastic and cast metal
Battery	3.7V rechargeable Li-ion, 860 mAh	3.7V rechargeable Li-ion, 1200 mAh
Impedance	Input: 220Ω (1 KHz)	6-600Ω
Audio input connector	Balanced XLR male input	
Audio output connector		3.5 mm dual mono output
Mode	Aux mode: -10 dBV   Max. +12.2 dBu	
	Line mode: +4 dBu   Max. +22 dBu	
Battery life	Up to 5 hours	Up to 5 hours
Antenna impedance	50Ω	50Ω
Antenna type	1/4 wave sleeve dipole, non-removable	1/4 wave sleeve dipole, non-removable
Number of antennas	1	2

# TROUBLESHOOTING

ISSUE	SOLUTION
No sound	<ul> <li>Check that the U45 Receiver's RF LED is on.</li> <li>Check that the audio source is sending a signal to the Transmitter.</li> <li>Check that the power switches on both the Transmitter and the Receiver are turned on.</li> <li>Ensure that the U45 Transmitter and Receiver are on the same channel.</li> </ul>
	<ul> <li>The Receiver can be paired with one Transmitter at a time.</li> <li>When the battery level is below 1%, the RF wireless section will turn off. The power red LED will flash until the battery is completely drained.</li> </ul>
Distorted audio	<ul> <li>Check the Line/Aux setting on the Transmitter.</li> <li>Check the levels going in and out of the mixer and verify that no distortion occurs in each audio signal.</li> </ul>
Low audio output at the Receiver	<ul> <li>Check the Receiver's headphone output volume level.</li> <li>Check the Transmitter's mode setting (Line/Aux).</li> <li>Make sure the device is sending sufficient signal level to the Transmitter.</li> </ul>
Signal instability: RF LED flickering	See "Tips for improving wireless system performance" on page 18.
Unable to switch the channel	<ul> <li>The channel switch locks after 15 seconds. Double-click the channel button to unlock and reset.</li> </ul>
Multiple connections	<ul> <li>Make sure the Receivers are all set to the same channel as the Transmitter yo want them to receive audio from.</li> </ul>





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#### PATENT PENDING