



For DSLR Cameras



U5 WIRELESS AUDIO FOR VIDEO SYSTEM

Manual

CERTIFICATION

This Class B digital apparatus complies with Canadian ICES-003.

IC Caution: RSS-Gen Issue 4 December 2014"&"CNR-Gen
4e Décembre 2014:

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, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Radio Approvals:

FCC Part 15.249, FCC Part 15 B, RSS-210 (Canada), EN 300 440 (Europe), EN 301.489 (Europe), Japan Radio 2.4 GHz Band (Japan), MIC ARIB STD-T66 (Japan), California 65, CE.

CERTIFICATION

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 UNDESIRE OPERATION.

Warning: Changes or modifications not expressly approved in writing by Xvive may void the users authority to operate this equipment.

RF Exposure Statement: This transmitter must not be co-located or operated in conjunction with any other antennae or transmitter.

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 the 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.

This Class B digital apparatus complies with Canadian ICES-003.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



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.



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

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.

INFORMATION ABOUT COLLECTION AND DISPOSAL OF OLD ITEMS AND USED BATTERIES

These symbols on the products, packaging, or on any documents in the package 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 business users in the European Union]

If you want to discard electrical and electronic item, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. Please contact your local authorities or dealer for more information on disposal of old items and used batteries.



IMPORTANT SAFETY INSTRUCTIONS
PLEASE KEEP THESE INSTRUCTIONS
IN A SAFE PLACE



**WARNING: BEFORE USING YOUR XVIVE U5 DIGITAL WIRELESS SYSTEM,
CAREFULLY READ THE OPERATING INSTRUCTIONS.**

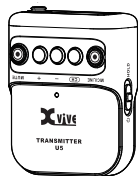
1. Carefully observe all instructions in the U5 manual
2. Do not to perform service operations beyond those described in the U5 Manual. Service is required when the apparatus was damaged in any way, such as:
 - liquid was spilled or objects were dropped into the device,
 - the unit was exposed to rain or moisture,
 - the unit does not operate normally or significant changes in performance occur,
 - the unit is dropped or the housing is damaged.
3. Do not place near heat sources, such as radiators, heating ducts, or appliances which produce heat.
4. Guard the device against objects or liquids entering the device. Do not use or store the unit close to water.
5. Clean only with a damp 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."

FEATURES

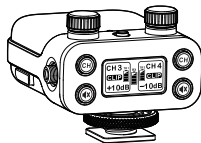
The U5 Wireless Audio for Video System can be used to wirelessly send audio from the included lavalier microphone (via the system's belt-pack transmitter) to the receiver, which can be connected to a DSLR camera or audio device. The larger U5T2 set comes with two belt-pack transmitters and two lavalier microphones, allowing you to send wireless signals from two lavalier microphones or other audio sources to a DSLR camera or audio device. With an additional U5 receiver (U5R), you can send your audio signal to two DSLR cameras or audio devices. The U5 receiver's shoe mount connects to any DSLR camera. The proprietary, rechargeable Xvive U5B lithium-ion battery provides up to 5 hours of continuous power. The U5C Battery Charger (sold separately with three U5B batteries) allows you to charge backup batteries so you can operate the system continuously. The U5 system reliably transmits high-resolution audio on the 2.4 GHz wireless band, and can be used for video shoots, livestreams, interviews, sporting events, weddings and more.

- 2.4 GHz wireless audio, true diversity for both channels simultaneously
- Use with a lavalier microphone or line input
- High-resolution 24 bit / 48 kHz audio
- 3.5 mm TRS stereo output
- Dual-channel receiver for DSLR video recording and live broadcast
- Xvive U5B rechargeable lithium battery provides up to 5 hours of continuous use
- Less than 6 ms latency
- Simultaneous transmission on up to 6 channels
- Mic mode dynamic range is 99 dB; Line mode dynamic range is 107 dB
- Mic mode signal-to-noise ratio is 95 dB; Line mode signal-to-noise ratio is 107 dB
- Wide frequency response 20 Hz – 20 kHz; Mic mode with 100 Hz high-pass filter
- Stable RF connection over a 100 foot range (actual range depends on RF signal absorption, reflection and interference)
- Stereo and mono output modes

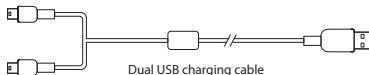
U5 CONTENT



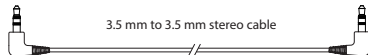
Transmitter



Receiver



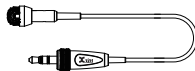
Dual USB charging cable



3.5 mm to 3.5 mm stereo cable



2x USB batteries



LV1 lavalier microphone



Windscreen



Mic clip

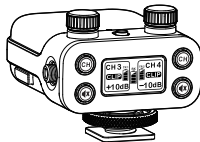


Pouch

U5T2 CONTENTS



2x transmitters



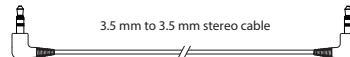
Receiver



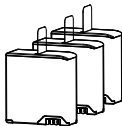
USB charging cable



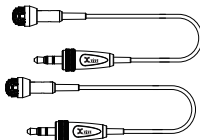
Dual USB charging cable



3.5 mm to 3.5 mm stereo cable



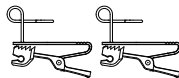
3x USB batteries



2x LV1 lavalier microphone



2x windscreens

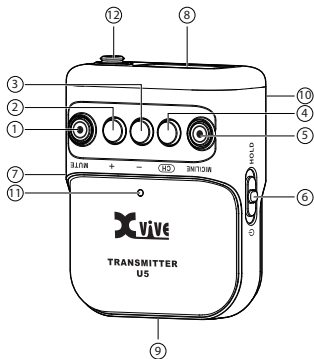


2x Mic clips



Pouch

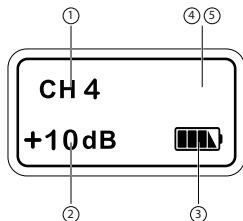
U5 TRANSMITTER: BASIC OPERATION



- ① **Mute button:** turns off the volume of the microphone input
- ② ③ **"+" and "-" gain buttons:** changes the input gain level from Mic: -6 to +12 dB; Line: 0 to +12 dB
- ④ **CH switch:** selects the channel from 1 to 6
- ⑤ **Mic/Line input mode:** select "Mic" for lavalier microphone, or "Line" for other devices with more dynamic range
- ⑥ The power switch turns the unit on or off, or keeps it in hold mode. Hold mode disables all controls to ensure uninterrupted use
- ⑦ **USB charging port:** Micro B
- ⑧ **OLED display:** displays battery power level, channel selected, gain, clip, mute
- ⑨ **Battery compartment for USB battery**
- ⑩ **Belt clip**
- ⑪ **Power status LED**
- ⑫ **Input:** mono 3.5mm TRS input



U5 TRANSMITTER: DISPLAY



- ① **RF channel display:** press channel switch button to select channel
- ② **Input gain:** Mic: -6 to +12 dB; Line: 0 to +12 dB
- ③ **Battery level:** displays the transmitter's battery level
- ④ **Input clip:** peak indicator. When the clip LED illuminates, the sound level is beyond the acceptable dynamic range and may result in distortion.

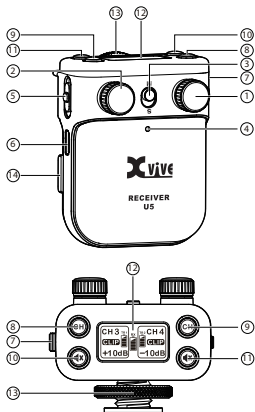


- ⑤ **Audio mute:** press the mute button to turn off input audio



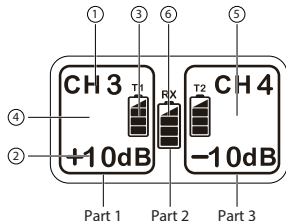
The brightness of the screen will decrease when the unit is not in operation.

U5 RECEIVER: BASIC OPERATION



- ① ② T1 and T2 channel output gain: -54dB to +24dB
- ③ S / M switch: see page 23
- ④ Power status LED
- ⑤ Power switch: switches unit on/off, and can also be set to hold. All functions of the unit are disabled while the power switch is set to the hold position.
- ⑥ USB charging port: USB Micro B input
- ⑦ Audio output: Stereo 3.5mm TRS
- ⑧ ⑨ Channel switch and T1/T2 RF status LED:
LED ON = transmitter is on and link is established
LED Flashing = signal connection interference
LED OFF = transmitter unlinked
- ⑩ ⑪ T1 and T2 Channel mute switch with status LED
- ⑫ OLED display: displays battery power, channel, gain, clip, mute
- ⑬ Shoe mount adapter for DSLR camera, with 3/8" female screw adapter
- ⑭ Battery compartment: see page 25

U5 RECEIVER: DISPLAY

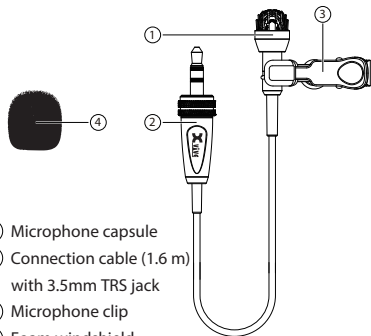


The screen is divided into three parts:

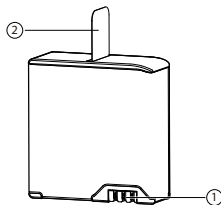
Transmitter 1 information; receiver battery level;
and Transmitter 2 information.

- ① **T1 RF channel display:** To pair with transmitter, press the channel switch button and select the same channel on both units.
 - ② **T1 channel output gain:** change this level using the output gain controls on the transmitter
 - ③ **T1 channel transmitter battery level:** The battery level of the paired transmitter is displayed after a successful connection. Only displays the U5 transmitter battery level—cannot display U3 and U4 transmitter battery levels.
 - ④ **T1 channel clip and OFF display:**
OFF: Press the channel switch button for 3 seconds to close the T1 channel.
Output clip: peak indicator. When the clip LED illuminates, the sound level is beyond the acceptable dynamic range, and may result in distortion.
-
- The two example screens show the same layout as the main diagram. The first example shows 'OFF' in a black box over the T1 battery icon. The second example shows 'CLIP' in a black box over the T1 battery icon.
- ⑤ **T2 channel display:** shows channel, gain and battery level for the second transmitter
 - ⑥ Receiver battery level

LV1 LAVALIER MICROPHONE



U5B BATTERY



Please read the instructions on page 4

2.4 GHz SPECTRUM OVERVIEW AND INTERFERENCE

The U5 operates in the 2.4 GHz ISM band, the same band used by Wi-Fi, Bluetooth, and other wireless systems. 2.4 GHz is an open band and as such does not require a license to operate worldwide.

Tips and Methods to improve the performance of the wireless system

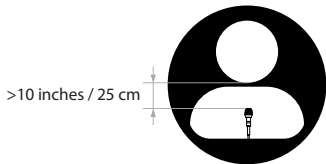
- 1) Keep more than 3 meters distance between the U5 receiver and other transmitters such as WiFi routers.
- 2) Change channels to avoid interference with other WiFi systems.
- 3) In case of interference from other WiFi systems, shorten the distance between the U5 receiver and transmitter.

2.4 GHz Frequency Tables

CHANNEL 1	2402 MHz, 2480 MHz, 2482 MHz
CHANNEL 2	2408 MHz, 2472 MHz, 2474 MHz
CHANNEL 3	2416 MHz, 2464 MHz, 2466 MHz
CHANNEL 4	2434 MHz, 2440 MHz, 2442 MHz
CHANNEL 5	2427 MHz, 2448 MHz, 2450 MHz
CHANNEL 6	2422 MHz, 2456 MHz, 2458 MHz

U2 1-4 channels are the same as U3/U3C/U4/U51-4 channels; U2/U3/U3C/U4 and U5 can be used with a maximum six sets at a time

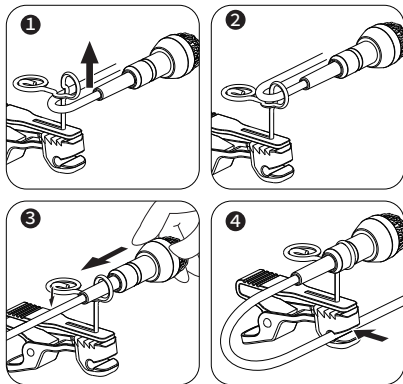
QUICK START



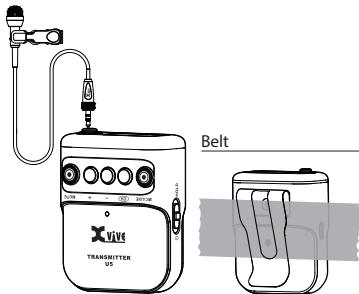
1. SET UP LAVALIER MICROPHONE

- Install mic clip on the Xvive LV1 lavalier microphone;
- Use the mic clip to attach the clip-on microphone to clothing, as desired;
- Run the mic cable to the transmitter in a way that avoids friction noise, and so that the cable and the transmitter antenna do not cross.
- The Xvive LV1 microphone has an omni-directional pickup pattern. Keep at least 10 inches away from your mouth or audio source.

INSTALL CLIP

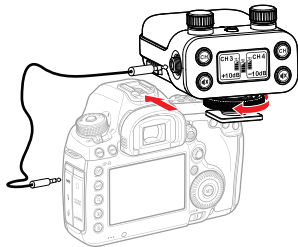


QUICK START



2. CONNECT TRANSMITTER

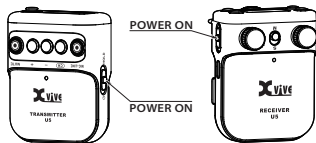
Connect the 3.5 mm TRS lavalier microphone cable to the transmitter



3. CONNECTING THE RECEIVER TO A DSLR CAMERA

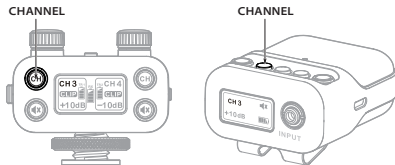
Slide the shoe mount adapter onto the camera and tighten the clamping screw to hold the receiver in place. Connect receiver output to camera input using the 3.5 mm TRS cable.

QUICK START



4. POWER ON

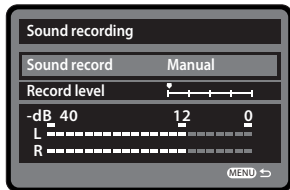
Turn the power switch to the 'on' position: the display screen will light up.



5. PAIRING TRANSMITTER AND RECEIVER

Set transmitter and receiver to the same channel for pairing; the green LED on the receiver will illuminate when the connection is successful. You must use different channels for T1 and T2 to avoid interference.

QUICK START



6. SETTING UP THE CAMERA AND RECEIVER

- Open the DSLR camera menu and navigate to the sound recording options.
- Set the audio input level control to “manual” mode.
- Adjust the record level.

Check the output level on the DSLR camera display.
Adjust the level so that the signal is strong,
but not so high that it sets off the clip light.

Input level too low?

Turn up the U5 receiver output level or the camera input level

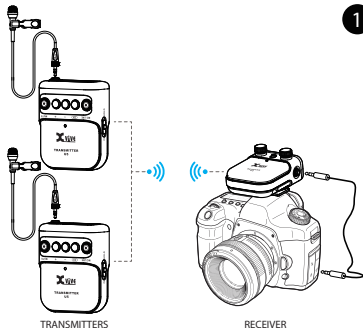
Left and right channel volumes imbalanced?

Mono mode: Adjust the two transmitter input gain controls to balance.

Stereo mode: Adjust the two transmitter input gain controls or adjust the receiver output level.

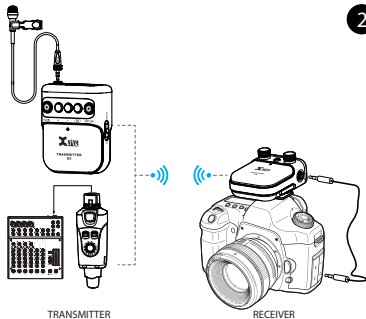
APPLICATION SCENARIOS

1



Dual-channel receiver receives audio from two U5 transmitters (connected to lavalier microphones) for interviews, two-person broadcasts, etc.

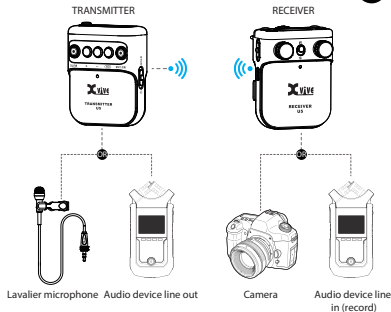
2



Dual-channel receiver receives audio from one U5 transmitter (lavalier microphone) and one U4 transmitter (mixing console or sound interface).

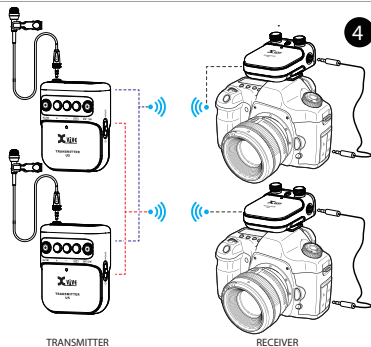
APPLICATION SCENARIOS

3



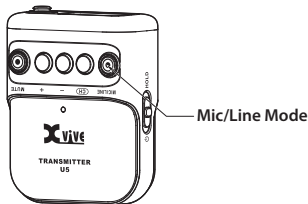
Send wireless audio to recording equipment

4



Use two receivers (set to the same channel) connected to two DSLR cameras to send them the same wireless audio.

TRANSMITTER INPUT MODE

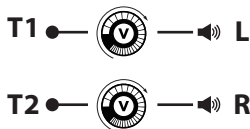


Sets the input level according to the audio input device. Choose MIC for lavalier microphone, and LINE for audio mixer or other line-level audio device.

Mic mode input gain is -6 to +12 dB; Line mode input gain is 0 to +12 dB. The selected mode will be saved as preset.

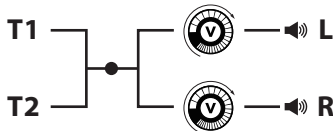
LINE MODE	MIC MODE
Use with audio devices with a 3.5 mm (1/8") output. Increasing the transmitter gain results in more dynamics.	Supplies 5V of phantom power for a lavalier microphone. Optimizing the transmitter input gain can increase the sensitivity of the microphone, increase the pick-up range and improve the sound-to-noise ratio.

RECEIVER OUTPUT MODE



S MODE

The S (stereo) mode combines two audio inputs by panning them all the way to the left and right when they are sent to the camera's mic input. The T1 signal will be sent to the camera from the receiver's left output channel. Audio source T2 will send audio on the right channel. Adjusting the T1 and T2 output volumes will change their respective output volumes (L/R) independently. This method allows the signals to be balanced/mixed as desired during the editing/mixing stage.



M MODE

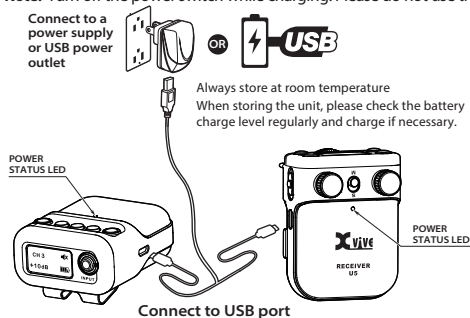
M (mono) mode mixes the T1 and T2 audio signals and sends the same audio signal to L and R output channel. You can set the left and right output volumes separately, but you can't change the level blend once the video is recorded. However, although the L and R signals are identical, the audio can be panned so that one side is louder and the other is a quieter (-6 dB, for example) "safe" option.

BATTERIES AND CHARGING

The U5 transmitter and receiver each use one Xvive U5B rechargeable lithium battery. The batteries can be charged while installed in U5 transmitters or receivers; or you can use the U5C battery charger, sold separately along with three backup U5B batteries.

The U5 package includes a Dual USB charging cable, which connects to any 5V USB charger adapter or other USB charging device; it charges the transmitter and receiver at the same time.

Note: Turn off the power switch while charging. Please do not use the U5 while charging, as this may reduce battery life.



POWER STATUS LED, INDICATES POWER STATUS

LED off = 100% ~ 30%

Solid red = 29% ~ 11%

Flickering red = less than 10%

CHARGING TIMES

BATTERY LIFE

15 minutes

30 minutes

30 minutes

1 hour

1 hour

2 hours

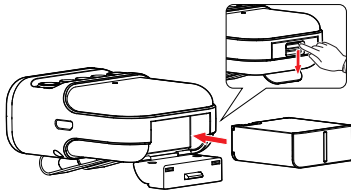
2.5 hour

5 hours

INSTALL THE BATTERY

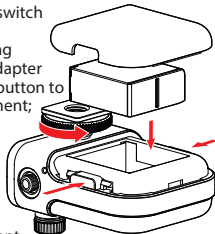
TRANSMITTER

1. Press and hold the POWER switch to turn off the power;
2. Press and slide the battery button to open the battery compartment and install the battery;
3. Insert U5B battery into the battery compartment with the terminals facing the right way; close the compartment. Make sure the battery compartment is locked securely.



RECEIVER

1. Press and hold the POWER switch to turn off the power;
2. Loosen the bottom clamping screw of the shoe mount adapter
3. Press and slide the battery button to open the battery compartment; install the battery.
4. Insert U5B battery into the battery compartment with the terminals facing the right way and close the compartment. Make sure that the battery compartment is locked securely.



Please fully charge the battery prior to first use of the U5. During charging, the power status indicator LED will illuminate; once the unit is fully charged, the power status indicator light will automatically turn off.

PRODUCT SPECIFICATIONS

Frequencies	2400-2483.5 MHz
Wireless range	Up to 100 ft / 30 m; depends on RF signal absorption, reflection and interference
Dynamic range	MIC: 99 dB; LINE: 107 dB
Signal-to-noise ratio	MIC: 95 dB; LINE: 107 dB
Battery life	5 Hours (Xvive USB battery)
RF sensitivity	-86 dBm
Total harmonic distortion	0.2%
RF output power	10 mW E.I.R.P. max
Operating temperature range	-18°C to 57°C (battery characteristics may limit this range)
Available channels	Up to 6
Latency	6 ms
High-resolution audio	24-bit / 48 kHz

TRANSMITTER

Dimensions	51 x 34 x 65mm
Weight	55.2 g without battery
Transmitter type	Beltpack
Housing	Molded plastic and cast metal
Charging voltage & current	5 V 2 A
Impedance	Input 4.7 k Ω (1 KHz)
Audio input connector	3.5 mm mono TRS jack
Frequency	Broad 20 Hz-20 KHz frequency response; Mic mode with 100 Hz high-pass filter
Rms	Input max RMS (Gain=0 dB) = Mic: 460 mV RMS; Line: 2 V RMS
Phantom power	Mic mode: 5 V; Line mode: none
Battery	Xvive USB battery: 3.8 V Rechargeable Li-ion, 830 mAh
Battery life	Up to 5 Hours
Antenna impedance	50 Ω
Antenna type	1/4 wave sleeve dipole, non-removable
Number of antennas	1
Display	OLED
Input gain control range	Mic: -6 to +12 dB; Line: 0 to +12 dB
RF output level	10 mW
Audio output max level	Mic input: -20 dBV; Line input: +6 dBV

RECEIVER

Receiver type	Beltpack
Dimensions	54 x 44 x 65 mm
Weight	53 g without battery
Housing	Molded plastic and cast metal
Charging voltage & current	5 V 2 A
Battery	Xvive USB battery: 3.8 V rechargeable Li-ion, 830 mAh
Impedance	Output 470 Ω (1 KHz)
Output connector	3.5 mm stereo TRS jack
Max output level	2 V RMS
Battery life	Up to 5 hours
Antenna impedance	50 Ω
Antenna type	1/4 wave sleeve dipole, non-removable
Number of antennas	4 (True diversity for both channels simultaneously)
Display	OLED
Audio output max level	0 dBV
Frequency response	20 Hz to 20 kHz
Output gain control range	-54 dB to +24 dB

LV1 LAVALIER MICROPHONE

Microphone	Electret condenser microphone
Dimensions	φ 8 × 19 mm (cable: 1.6 m)
Weight	13 g
Directivity	Omni-directional
Sensitivity	-32 dB ±3 dB
Frequency response	30 Hz to 20,000 Hz
Impedance	2.5 kΩ ±30%
Signal-to-noise ratio	75 dB
Current consumption	400 μA Max
Operating voltage	3.3 V (2.5 V to 10 V)
Maximum input sound pressure level	120 dB SPL

U5B BATTERY

Voltage	3.8 V DC
Rated capacity	830 mAh
Watt hour	3.15 Wh
Max charge voltage	4.35 V

Dimensions	30 x 13 x 31mm
Weight	23 g

TROUBLESHOOTING

ISSUE	SOLUTION
No sound	<ul style="list-style-type: none">• Check that an audio source has been connected to the input jack; make sure the microphone or line-in device is connected properly;• Turn up the transmitter input gain to an appropriate level;• Check that the mute switches on both the transmitter and receiver are off;• Ensure that the receiver's audio output has been connected correctly to the camera or other recording equipment;• Turn up the gain on the receiver to an appropriate level;• Check that the power switches on the transmitter and the receiver are both turned on, and that the batteries are at least partially charged;• Ensure that the transmitter and receiver are both on the same channel.
Distorted audio	<ul style="list-style-type: none">• Turn off the automatic volume adjustment of the camera and set it to manual adjustment;• Try turning down the output level of the receiver;• Make sure the transmitter input mode is set to Mic or Line, as appropriate;• Try turning down the transmitter volume.

TROUBLESHOOTING

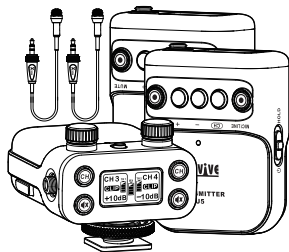
ISSUE	SOLUTION
Voice too low	<ul style="list-style-type: none">• Turn up the camera input level;• Turn up the receiver output level;• Turn up the transmitter input gain• See pages 22-23
Signal instability: RF LED flickering	<ul style="list-style-type: none">• See "2.4 GHz spectrum overview and interference" on page 15.
Multiple connections	<ul style="list-style-type: none">• Make sure the receivers are both set to the same channel as the transmitter you want them to receive audio from.

U5 SERIES

U5T2

2 Transmitters + 1 Receiver

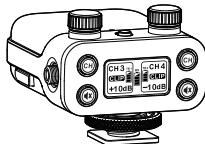
2 Lavalier microphones (LV1)
3 Batteries (U5B)



U5R

1 Receiver

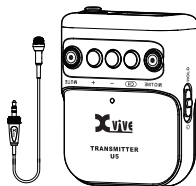
1 Battery (U5B)



U5T

1 Transmitter

1 Lavalier microphone (LV1)
1 Battery (U5B)

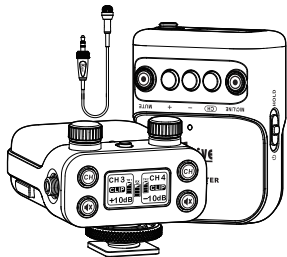


U5 SERIES

U5

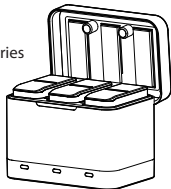
1 Transmitter + 1 Receiver

1 Lavalier microphone
1 Battery (U5B)



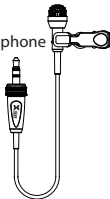
U5C

1 Battery Charger for three U5B batteries
3 U5B rechargeable batteries



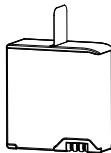
LV1

1 Lavalier microphone
1 Windscreen
1 Mic clip



U5B

1 Battery



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Note: The manufacturer reserves the right to change these specifications without notice.