

COMICA
PROFESSIONAL AUDIO EQUIPMENT

CVM-WS60 COMBO

UHF 1-Trigger-2 Flexible Mini Wireless Microphone



User Manual

Foreword

Thanks for purchasing COMICA WS60 COMBO UHF 1-Trigger-2 flexible mini wireless microphone.

To ensure the correct use and safety of the product, please carefully read this instruction before using and properly assemble and operate.

Main Features

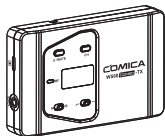
- . 1-Trigger-2, Universal for Smartphone & Camera
- . Built-in Smartphone Holder Design, Flexible and Convenient
- . Mini and Compact, Working Distance Up to 60m
(Open Area 60m, 30m in Area with Obstacle)
- . 12 Channels for Multiple Devices Work Together
- . M/S Switch, 10-Levels Gain Adjustment, Muting Functions
- . Real-time Monitor
- . Built-in Rechargeable Lithium Battery
- . Volume Dynamic Monitor
- . Lattice LCD Display, High Resolution

Notice

- ⚠ Transmitter should be used more than 20cm from Receiver, when the distance is less than 20cm, Receiver's wireless signal receiving part will take protect action to shut down wireless signal receiving, then audio may be intermittent, which is normal.
- ⚠ In the case of stereo/mono mode switch, please preset the mode before using to avoid the transient interference caused by switching during usage.
- ⚠ The product utilizes TRRS-TRRS output cable, different with most TRS-TRS, or TRS-TRRS output cables in the marketplace, cannot use it universally.
- ⚠ The working distance will be affected by the surrounding environment. Please try to keep the environment open without interference during usage.
- ⚠ Do not use this equipment in the vicinity of heat source or interference source, such as radiator, oven, refrigerator or air conditioner, smartphone, intercom or next to the WIFI AP.
- ⚠ For Smartphone users, please set to 'Flight Mode' during the usage to avoid incoming call interference.
(It does not support the partial default audio mode of android systems, the third-party APP is recommended to be used in this case).
- ⚠ Please keep this product in dry environment.
- ⚠ Do not expose the device in rain or humid environment, otherwise there will be a danger of short circuit.

Packing List

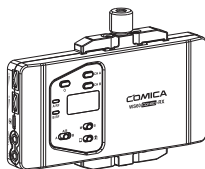
Main Parts:



Lavalier Transmitter (TX)



Hand-held Transmitter (HTX)



Receiver (RX)

Purchase Options:

WS60 COMBO = 2TX + RX



TX

+



TX

+



RX

WS60 HTX:



Accessories:

- ① 3.5mm Mic Audio Input Cable
- ② 3.5mm TRRS -3.5mm TRRS Audio Output Cable
- ③ Belt Clip
- ④ Wind Muff
- ⑤ Portable Case
- ⑥ Ball Head
- ⑦ Tabletop Tripod
- ⑧ USB-C Charging Cable
- ⑨ User Manual
- ⑩ Warranty Card



①



②



③



④



⑤



⑥



⑦



⑧



⑨

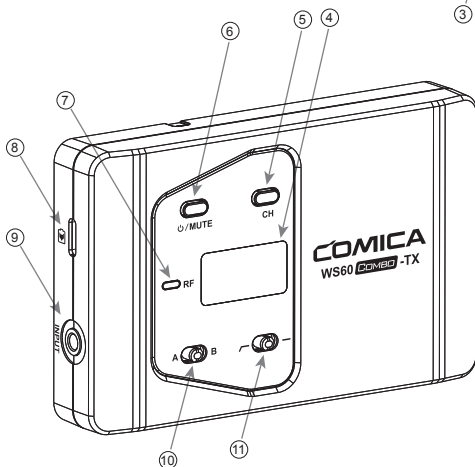
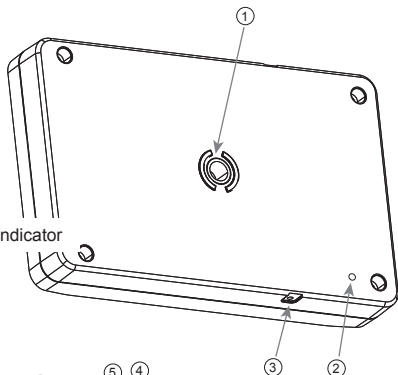


⑩

Components

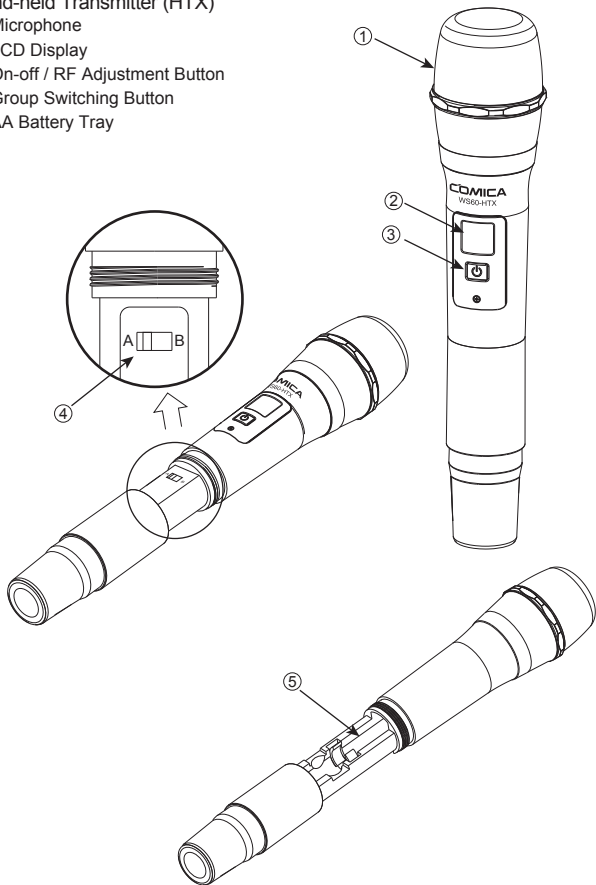
Lavalier Transmitter (TX)

- ① 1/4 Connecting Hole
- ② Reset Hole
- ③ Belt Clip Connection Hole
- ④ LCD Screen
- ⑤ Group Selection Switch
- ⑥ On-off / Muting Button
- ⑦ Matching / Muting Status Light Indicator
- ⑧ USB-C Charging Interface
- ⑨ MIC / LINE IN Input Jack
- ⑩ Group Switching Button
- ⑪ LCF (Low Cut Filter) Switch



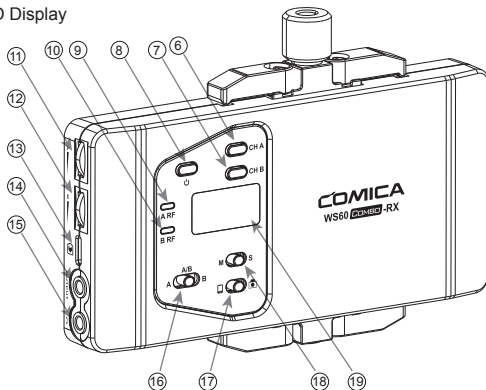
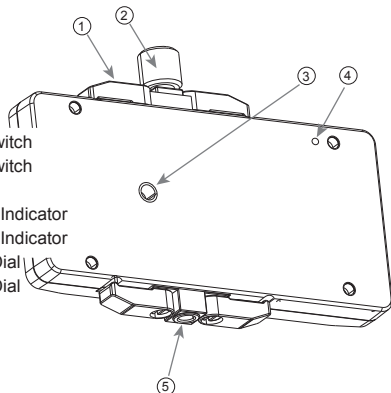
Hand-held Transmitter (HTX)

- ① Microphone
- ② LCD Display
- ③ On-off / RF Adjustment Button
- ④ Group Switching Button
- ⑤ AA Battery Tray



Receiver (RX)

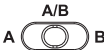
- ① Smartphone Clamp
- ② Locking Screw
- ③ 1/4 Connecting Hole
- ④ Reset Hole
- ⑤ 1/4 Connecting Hole
- ⑥ Group A Channel Selection Switch
- ⑦ Group B Channel Selection Switch
- ⑧ On-off Button
- ⑨ Group A Working Status Light Indicator
- ⑩ Group B Working Status Light Indicator
- ⑪ Group A Volume Adjustment Dial
- ⑫ Group B Volume Adjustment Dial
- ⑬ USB-C Charging Interface
- ⑭ 3.5mm Audio Output Jack
- ⑮ 3.5mm Monitoring Jack
- ⑯ Group Switching Button
- ⑰ Smartphone/Camera Switching Button
- ⑱ Mono/Stereo Switching Button
- ⑲ LCD Display



Function Button Instruction

Lavalier Transmitter (TX) 	On-off/Muting Button 	Long Press	Power ON/OFF
		Short Press	Muting Mode (The Mute Mode only works after the screen lighted up)
	Channel Selection Switch 	Short Press	Channel Selection
	Group Switching Button 	Push	Left is Group A Right is Group B
	LCF Switch 	Push	 Is Low Cut Mode  Normal Recording
Hand-held Transmitter (HTX) 	On-off/ Channel Selection Button 	Long Press	Power ON/OFF
		Short Press	Channel Selection
	Channel Selection Button 	Push Left	Group A
		Push Right	Group B

 low-cut function will filter out the low-frequency part of the audio source, such as the chirping and crowd noise, and the main audio source will be more crisp. Turn off the low cut to restore the true, the main source will be more vigorous, but it can be adjusted according to actual needs.

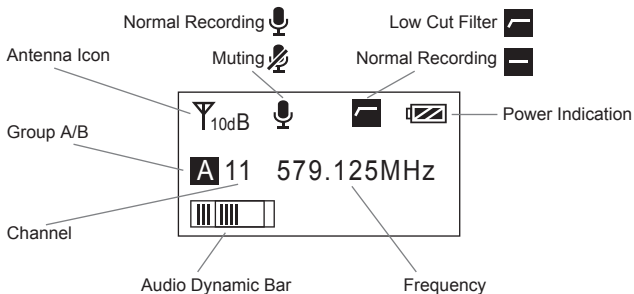
Receiver (RX) 	On-Off Button 	Long Press	Power ON/OFF
	Channel Selection Switch 	Short Press	Press CH A is to select Group A's Channel Press CH B is to select Group B's Channel
	Group Switching Button 	Push	Push left to A , Open Group A only Push to middle A/B , Open both Group A and Group B Push right to B , Open Group B only
	Mono/Stereo Switch 	Push	M Mono Mode S Stereo Mode
	Smartphone/Camera Switching Button 	Turn	 Smartphone Mode  Camera Mode
	Group Volume Adjustment 	Turn	A  Group A volume adjustment B  Group B volume adjustment



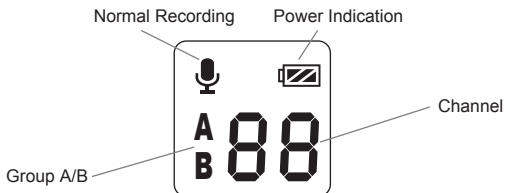
Due to mobilephone's input limitation of external mic, stereo mode only supports camera but not mobile phones. Stereo will be automatically identified as mono while in mobile phone working mode.

Screen Display

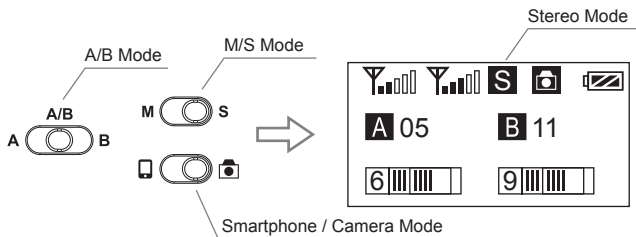
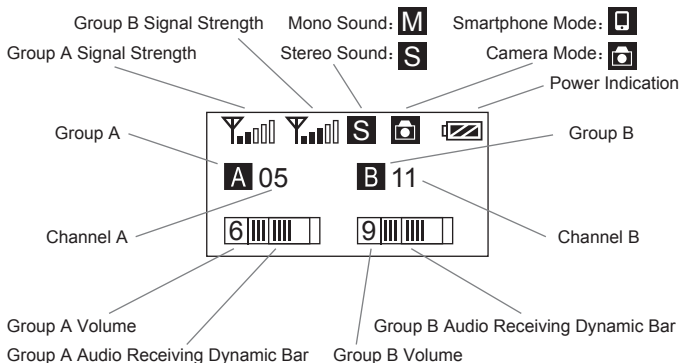
Lavalier Transmitter



Hand-held Transmitter



Receiver



Indicator Light Instruction

Lavalier Transmitter (TX)	RF	Green Light Keeps on	Normal Recording Status (The status works for transmitter only. The receiver can pick up the sound when channel matched successfully.)
		Red Light Keeps on	Muting Mode
		Red Light Flickers	Low- power Reminder
Receiver (RX)	A RF	Green Light Keeps on	Normal working status after channel matched successfully
		Red Light Flickers	Channel matching is unsuccessful
	B RF	Green Light Flickers	Low-power Reminder
		Red Light Keeps on	Group closed

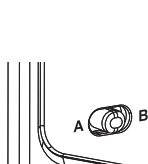


A RF: Group A working status light indicator

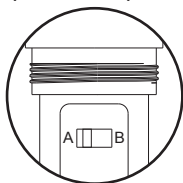
B RF: Group B working status light indicator

The matching methods of Receiver and Transmitter

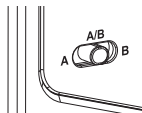
1. Switch the Receiver's Group to "A", "B" or "A/B", then switch the transmitter's Group to corresponding "A" or "B"



(Lavilier Transmitter)



(Hand-held Transmitter)

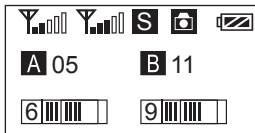


(Receiver)

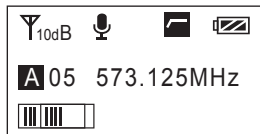


One-Triggered-One: Switch the Receiver's Group to "A" or "B"
One-Triggered-Two: Switch the Receiver's Group to "A/B"

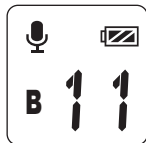
2. Adjust the same group's channel of receiver and transmitter to be consistent



(Receiver)



(Transmitter)



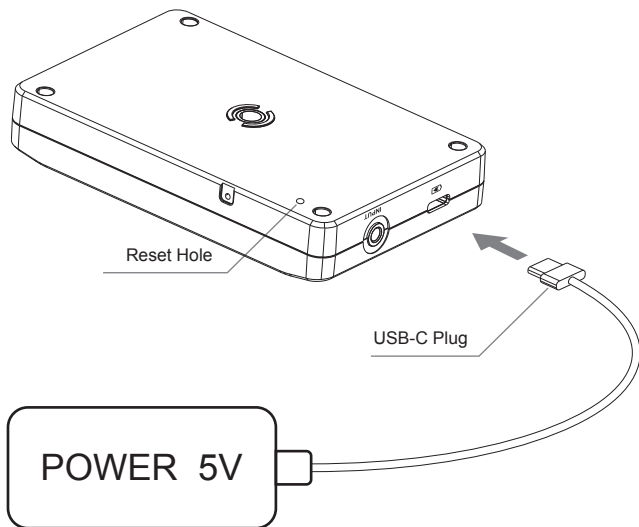
(Transmitter)



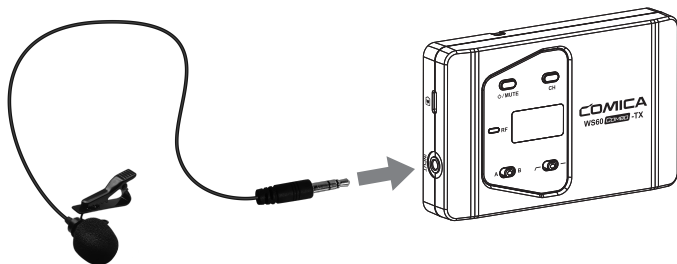
When the working status light indicator keeps on in GREEN, it matched successfully

Lavalier Transmitter (TX)

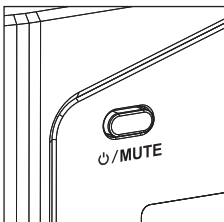
1. Plug the USB-C charging cable into the USB-C charging interface then connect an external power for charging; Insert the reset pin into the reset hole to reset it when the device is crash



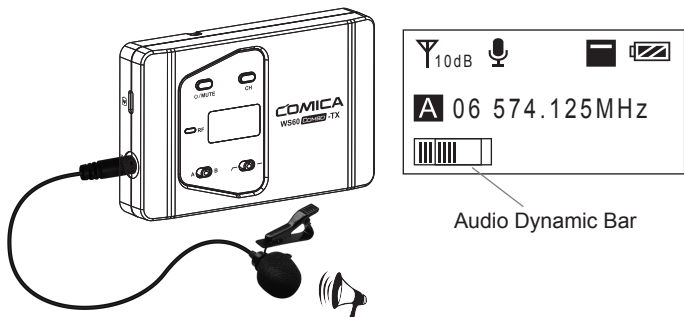
2. Insert the 3.5mm Mic Audio Input Cable into the MIC/ LINE IN Input Jack



3. Long press the On-off Button to open the transmitter



4. Target the Mic to the audio source and check whether the Lavalier Transmitter is working properly according to the audio display bar on the screen.



5. Connect the belt clip to the transmitter through the connection hole

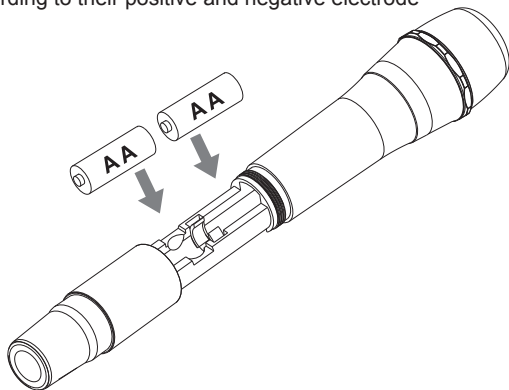


6. It can be used after matched successfully with Receiver

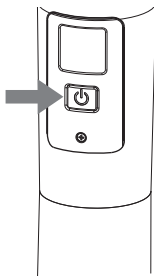
 Please refer to the matching steps for channel matching

Hand-held Transmitter

1. Install the battery into the hand-held Transmitter's battery tray according to their positive and negative electrode



2. Long press the On-off Button to start the hand-held transmitter



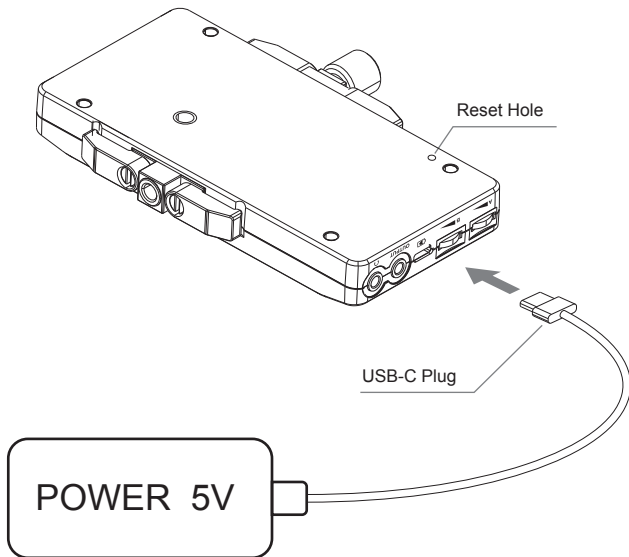
3. It can be used after channel matched successfully with Receiver



Please refer to the matching steps for channel matching

Receiver

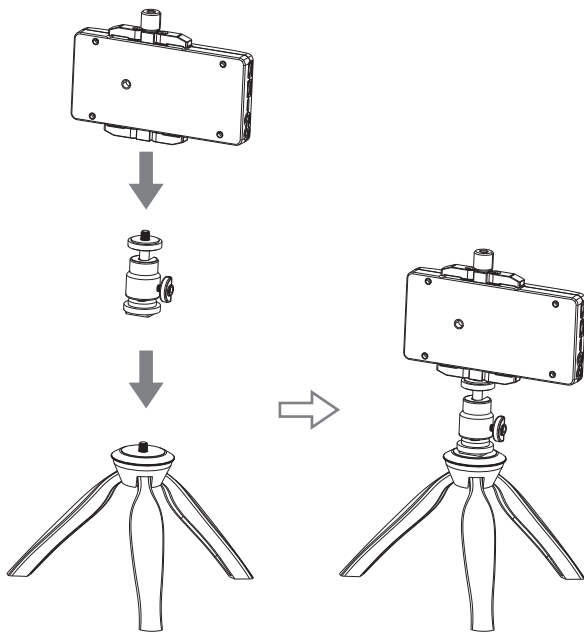
1. Plug the USB-C charging cable into the USB-C charging interface then connect an external power for charging; Insert the reset pin into the reset hole to reset it when the device is crash



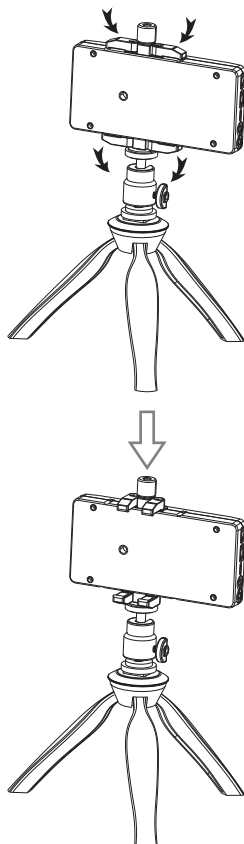
2. Using Methods

2.1 Method one: Using with Tripod

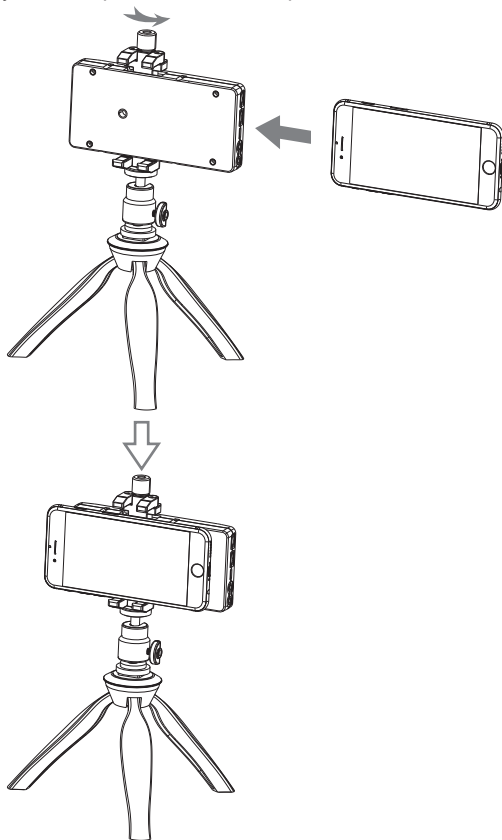
2.1.1 Connect Receiver and Tripod



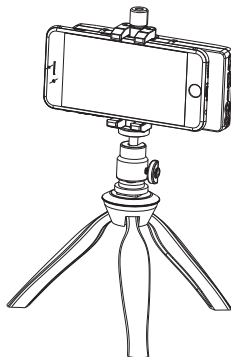
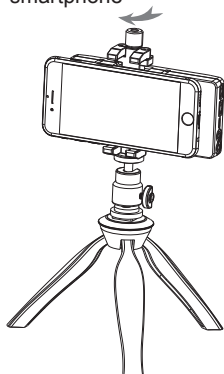
2.1.2 Rotate the four clamps to the front side.



2.1.3 Fixing the locking screw to an appropriate height, then clamp your smartphone in a suitable position

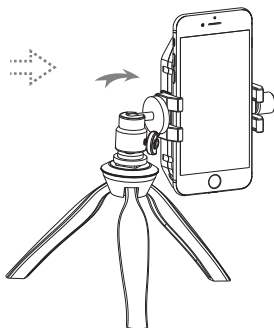


2.1.4 Rotate the locking screw until it fastened and fix your smartphone



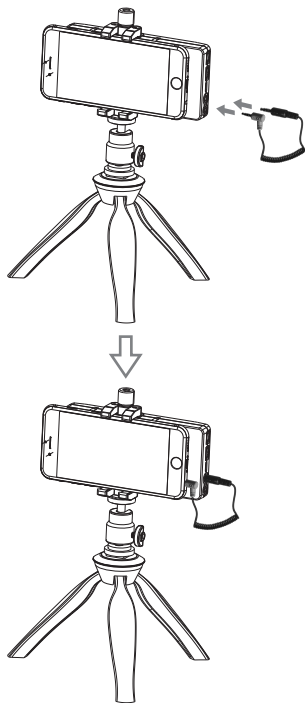
(Vertical Mode)

☞ It can be adjusted to different angles according to your needs



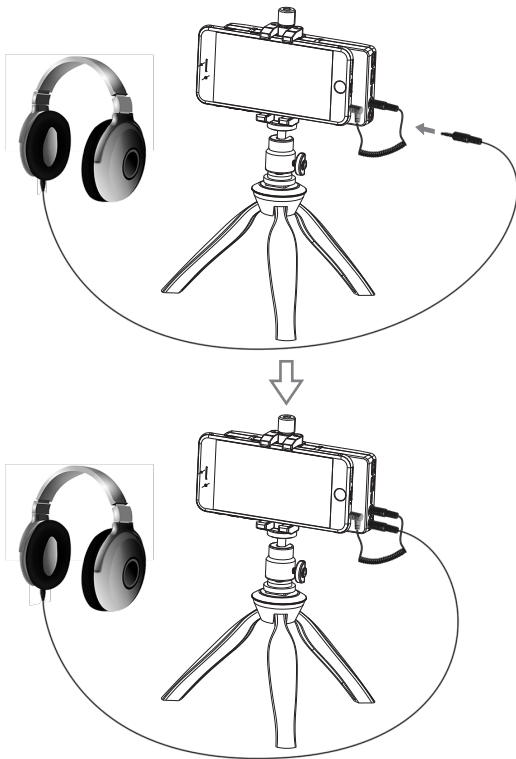
(Horizontal Mode)

2.1.5 Connect the receiver and your smartphone with 3.5mm-3.5mm Audio Output Cable



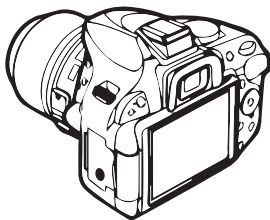
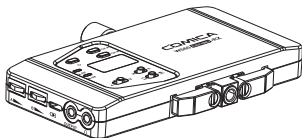
☞ This product uses 3.5mm TRRS output interface, phone with other interface should be prepared with corresponding adapter cable to use

2.1.6 Plug your earphone into “ 3.5mm monitoring jack” to realize real time monitoring

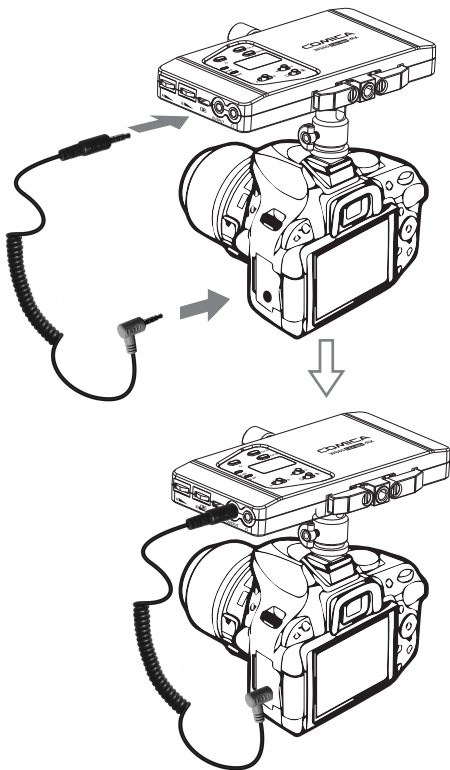


2.2 Method two: Using with your Camera

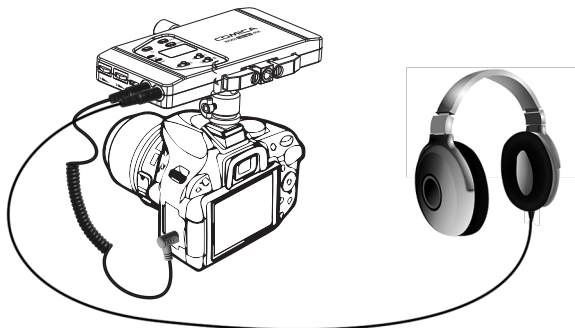
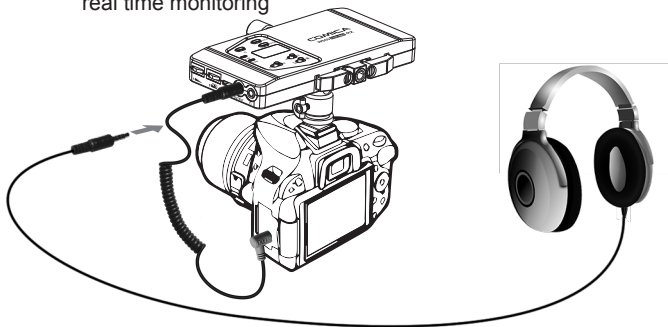
2.2.1 Connect your Camera to the Receiver with the ball head



2.2.2 Insert the Mic Audio Input Cable into the 3.5mm jack of the Receiver and your Camera respectively



2.2.3 Plug your earphone into “3.5mm monitoring jack” to realize real time monitoring



3. It can be used after channel matched successfully with Transmitter



Please refer to the matching steps for channel matching

Specification

Lavalier Transmitter (TX)

Channel	12
Duration	8 hours
Antenna	Built-in Antenna
Stray Radiation	< -60dBc
Sound Delay	< 20ms
Audio Distortion	< 0.5%
Signal/ Noise	> 65dB
Audio Input Socket	3.5mm TRS
Battery	Li-po Battery 1150mAh 3.7V
Dimension	104×65.2×18mm
Working Temperature	0℃~+50℃
Storage Temperature	-20℃~+60℃

Hand-held Transmitter (HTX)

Channel	12
Duration	4 Hours
Signal/Noise	> 65dB
Antenna	Built-in PCB Antenna
Stray Radiation	< -60dBc
Sound Delay	< 20ms
Audio Distortion	< 0.5%
Battery	AA Batteries×2pcs
Dimension	Φ 53.5 (MAX)×248mm
Working Temperature	0℃~+50℃
Storage Temperature	-20℃~+60℃

Receiver (RX)

Channel	12
Duration	8 Hours
Antenna	Built-in Antenna
Sensitivity	-90dBm
Sound Delay	< 20ms
Audio Distortion	< 0.5%
Radiation Frequency	20Hz~18KHz
Signal/Noise	> 65dB
Audio Output Socket	3.5mm TRRS
Monitor Interface	3.5mm TRS/TRRS
Battery	Li-po Battery 1150mAh 3.7V
Dimension	134.5×65.4×18mm
Working Temperature	0℃~+50℃
Storage Temperature	-20℃~+60℃

COMICA
PROFESSIONAL AUDIO EQUIPMENT

CVM-WS60 COMBO

UHF 一拖二无线多功能迷你麦克风



用户使用手册

前 言

感谢您购买CVM-WS60 COMBO UHF 一拖二无线多功能迷你麦克风。
为保证产品的顺畅使用及安全，请在使用前严格阅读本说明书，并正确组装及操作。

产品主要功能

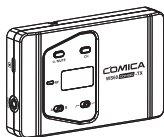
- 一拖二，同时支持手机、相机
- 一体式手机夹设计，灵活易用
- 小巧轻便，工作距离高达60m
(空旷无干扰环境60m，有障碍或干扰环境30m)
- 12频，可进行多机位多场合混用
- M/S 切换、无级音量可调、静音等多种功能
- 可实时监听
- 内置可充电锂电池
- 音量动态监测
- LCD点阵屏、高清易视

注意事项

- ⚠ 正常使用时发射器应距离接收器20cm以上，当小于20cm时，接收器的无线信号接收部分将会进行保护动作，从而关闭无线信号接收，音频可能出现间断，此为正常现象；
- ⚠ 进行立体声/单声道切换时，请在使用前提前设置好，避免在使用过程中切换带来的短暂电流干扰；
- ⚠ 此产品采用TRRS-TRRS（4节-4节）输出线，同市场大多的TRS-TRS（3节-3节）、或TRS-TRRS（3节-4节）等输出线不同，无法通用；
- ⚠ 工作距离会受到周围环境的影响，使用过程中请尽量保持环境空旷无干扰；
- ⚠ 请勿将本设备放置在热源或干扰源附近使用，如散热器、烤箱、WIFI热点、对讲机或其它无线设备旁边；
- ⚠ 手机用户在使用过程中将手机设置为‘飞行模式’以避免来电干扰；（不支持部分安卓系统默认模式下的录音系统，建议此时于第三方APP模式下使用）
- ⚠ 请在干燥环境中对该产品进行储存；
- ⚠ 不要在雨中或潮湿环境中使用该设备，否则会有短路的危险；

包装清单

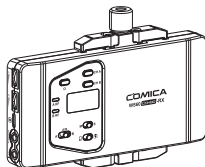
主体:



领夹发射器 (TX)



手持发射器 (HTX)



接收器 (RX)

搭配选择:

WS60 COMBO= 2TX + RX



TX

+



TX

+



RX

WS60 HTX:



配件:

- ① 3.5mm 麦克风音频输入线
- ② 3.5mm TRRS-3.5mm TRRS音频输出线
- ③ 腰带夹
- ④ 防风毛
- ⑤ 便携包
- ⑥ 小云台
- ⑦ 三脚架
- ⑧ USB-C充电线
- ⑨ 说明书
- ⑩ 保修卡



①



②



③



④



⑤



⑥



⑦



⑧



⑨

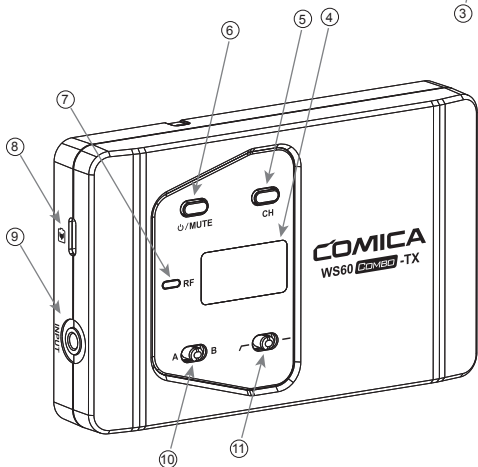
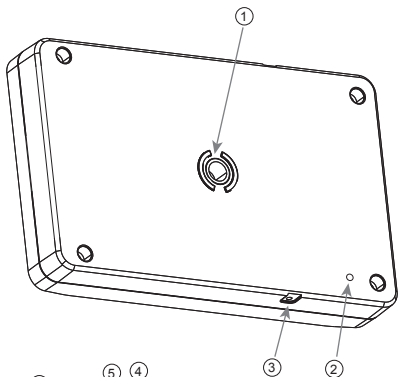


⑩

部件说明

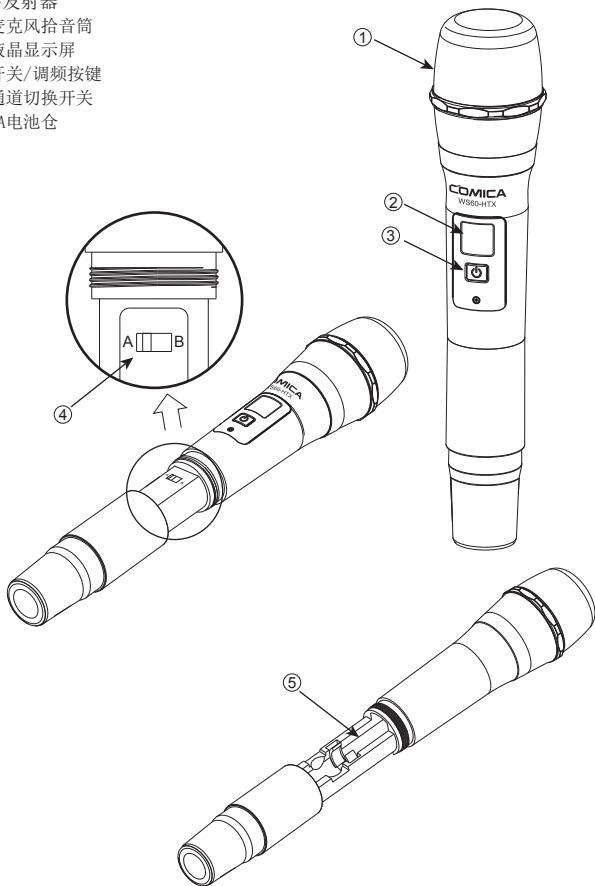
领夹发射器

- ① 1/4 连接孔
- ② 复位孔
- ③ 腰带夹插孔
- ④ 液晶显示屏
- ⑤ 频道选择开关
- ⑥ 开关/静音按键
- ⑦ 状态指示灯
- ⑧ USB-C 充电接口
- ⑨ MIC / LINE IN 外音输入接口
- ⑩ 通道切换开关
- ⑪ 低切功能切换开关



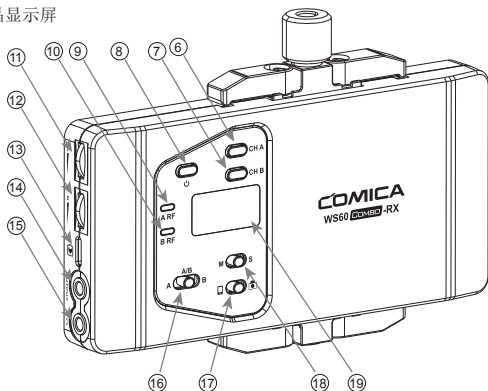
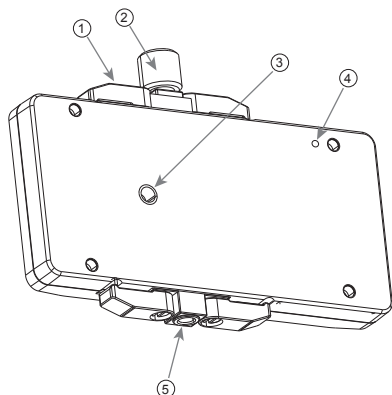
手持发射器

- ① 麦克风拾音筒
- ② 液晶显示屏
- ③ 开关/调频按钮
- ④ 通道切换开关
- ⑤ AA电池仓



接收器

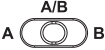
- ① 手机固定夹
- ② 锁紧旋钮
- ③ 1/4 连接孔
- ④ 复位孔
- ⑤ 1/4连接孔
- ⑥ A通道频道选择开关
- ⑦ B通道频道选择开关
- ⑧ 开/关按键
- ⑨ A通道工作状态指示灯
- ⑩ B通道工作状态指示灯
- ⑪ A通道音量调节
- ⑫ B通道音量调节
- ⑬ USB-C充电接口
- ⑭ 3.5mm音频输出接口
- ⑮ 3.5mm监听接口
- ⑯ 通道切换开关
- ⑰ 手机/相机切换开关
- ⑱ 单声道/立体声切换开关
- ⑲ 液晶显示屏



按键说明

领夹发射器 	开关/静音 按键 	长按	开机 / 关机
		短按	静音 (静音功能的开启在屏幕点亮后方可生效)
	频道选择开关 	短按	选择频道
	通道切换开关 	拨动	左为“A”通道 右为“B”通道
手持发射器 	开关/调频 按键 	长按	开机 / 关机
		短按	频道选择
	通道选择开关 	左推	A通道
		右推	B通道

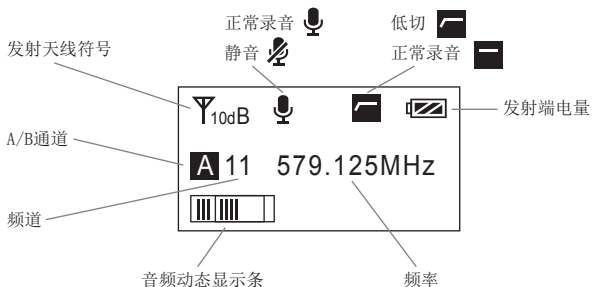
 低切功能开启会把音源低频部分过滤掉，比如野外昆虫的鸣叫声和人群的噪音，主音源也会更清脆；关闭则真实还原环境的声音，主音源会更浑厚，可根据实际需要调整。

接收器 	开关按键 	长按	开机 / 关机
	频道选择开关 	短按	CH A 为选择A通道频道 CH B 为选择B通道频道
	通道切换开关 	拨动	A 为单独开通A通道 A/B 为开通A和B通道 B 为单独开通B通道
	单声道/立体声切换开关 	拨动	M 为单声道 S 为立体声
	手机/相机切换开关 	拨动	 为手机模式  为相机模式
	通道音量调节 	转动	A 为A通道音量调节 B 为B通道音量调节

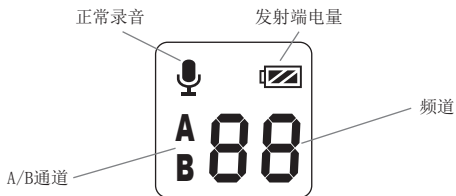
 由于手机外置麦克风输入的限制，在手机模式下自动切换为单声道，无立体声功能。

屏显说明

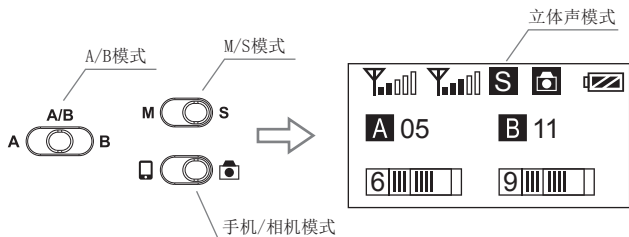
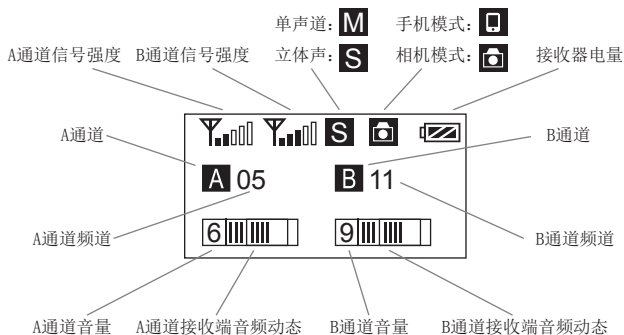
领夹发射器:



手持发射器:



接收器：



指示灯定义

领夹 发射器	RF	绿灯长亮	正常录音状态 (此状态仅针对发射器, 频道匹配成功后, 接收器方可拾音)
		红灯长亮	静音状态
		红灯闪烁	低电量提醒
接收器	A RF B RF	绿灯长亮	频道匹配成功后的正常工作状态
		绿灯闪烁	频道匹配不成功
		红灯闪烁	低电量提醒
		红灯长亮	通道关闭

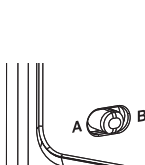


A RF: A通道工作状态指示灯

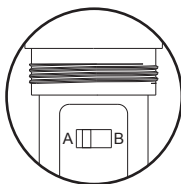
B RF: B通道工作状态指示灯

发射器与接收器配对方式

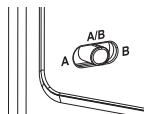
1. 将接收器的通道开关根据需求调至“A”、“B”或“A/B”，将发射器调节至相应“A”、“B”



(领夹发射器)



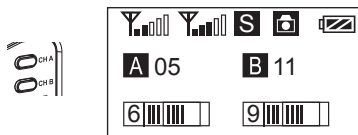
(手持发射器)



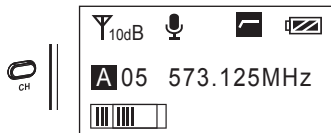
(接收器)

👉 一拖一模式下，将接收器通道调至“A”或“B”
一拖二模式下，将接收器通道调至“A/B”

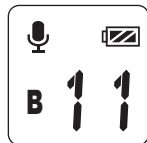
2. 将发射器与接收器同一通道的频道调节为一致



(接收器)



(发射器)

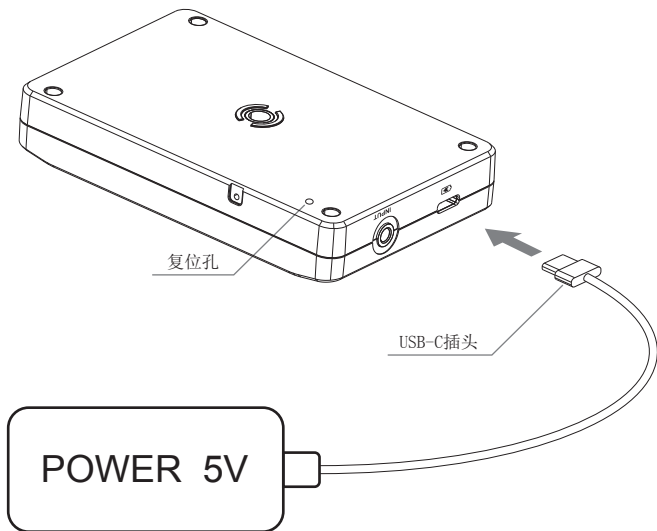


(发射器)

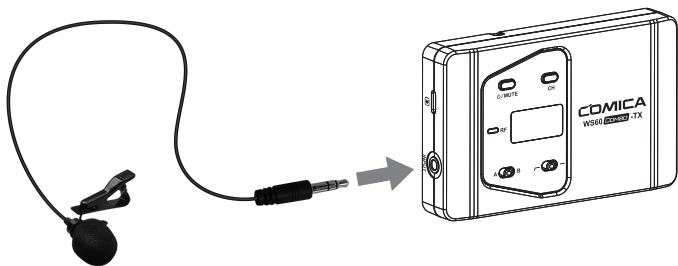
👉 指示灯为绿灯常亮则显示配对成功

领夹发射器

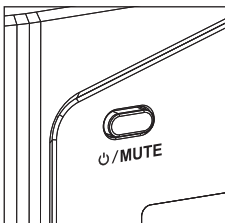
1. 使用USB-C充电线插入USB-C充电接口并连接外部电源即可充电;当出现死机等异常现象时,使用针状物插入复位孔可进行复位



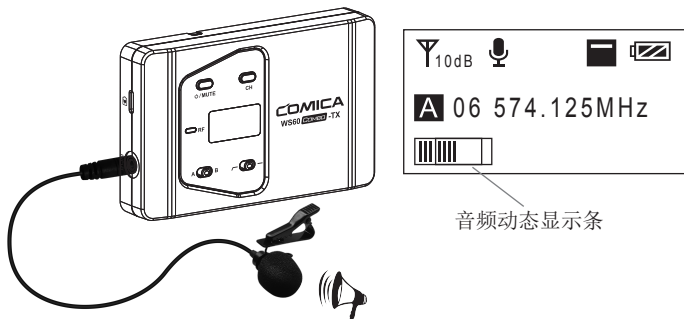
2. 把3.5mm麦克风音频输入线插入MIC / LINE IN外音输入接口



3. 长按电源开关打开发射器

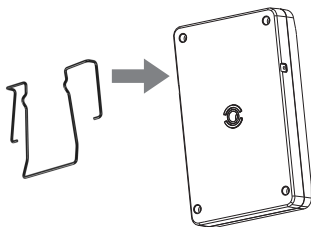


4. 将MIC对准音源，根据屏幕上的音量指示条检测发射器是否正常工作



5. 使用方式

把腰带夹接到连接孔

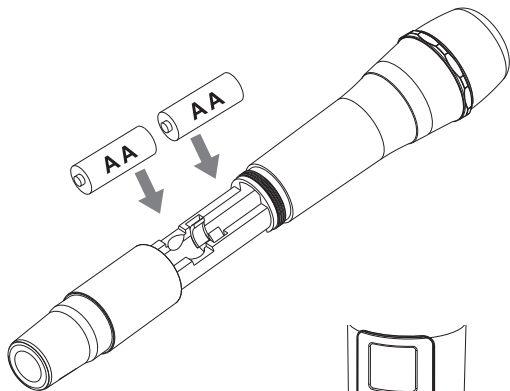


6. 与接收器进行频道匹配成功后，即可使用

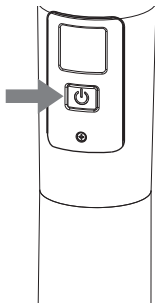
 频道匹配请见配对方式部分

手持发射器

1. 将电池按照正负极指示装入发射器电池仓



2. 长按电源开关打开手持发射器

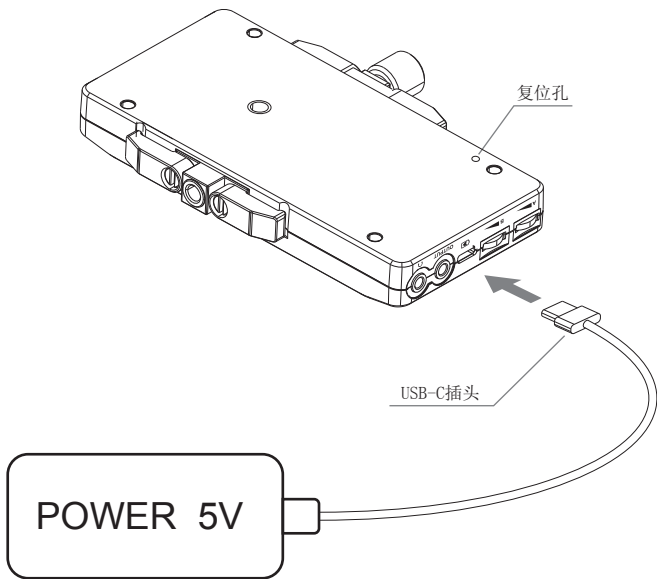


3. 与接收器进行频道匹配成功后，即可使用

 频道匹配请见配对方式部分

接收器

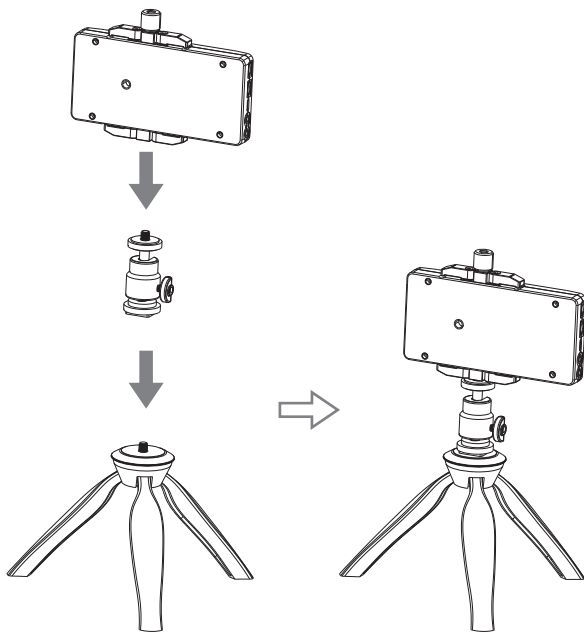
1. 使用USB-C充电线插入USB-C充电接口并连接外部电源即可充电;当出现死机等异常现象时,使用针状物插入复位孔可进行复位



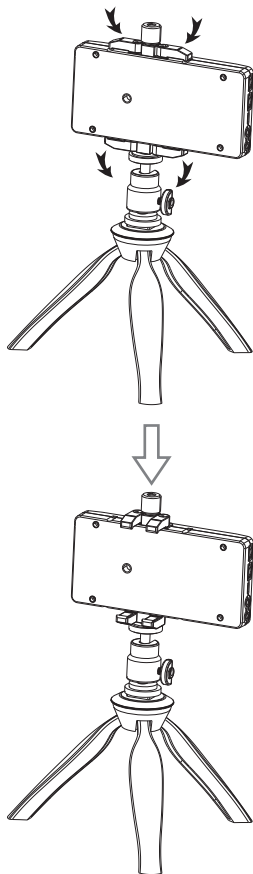
2. 使用方式

2.1 方式一：搭配三脚架使用方式

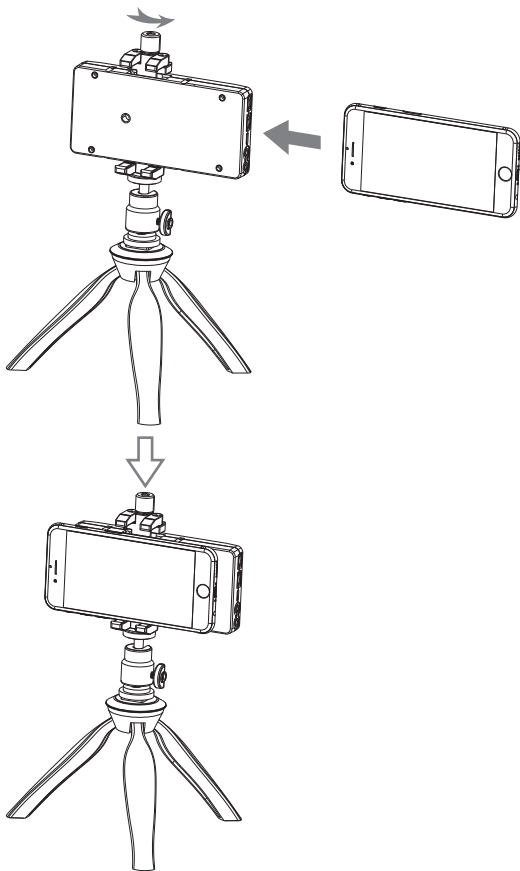
2.1.1 连接接收器与三脚架



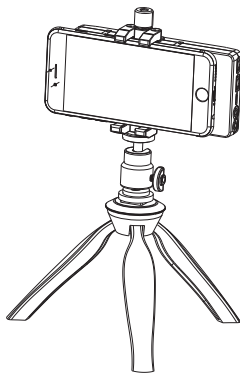
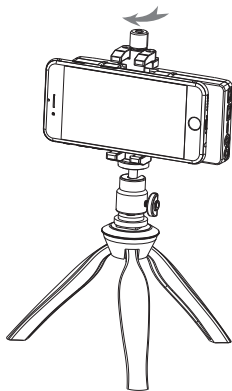
2. 1. 2把固定夹旋到正面



2.1.3 把锁紧旋钮旋到适合高度, 把手机放至固定夹适当的位置

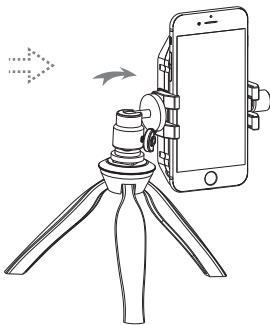


2.1.4 把锁紧旋钮旋紧, 把手机固定住



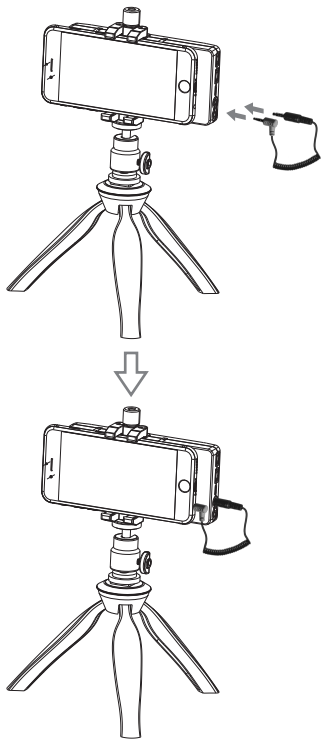
(水平模式)

👉 可根据不同需求调整到相应角度使用



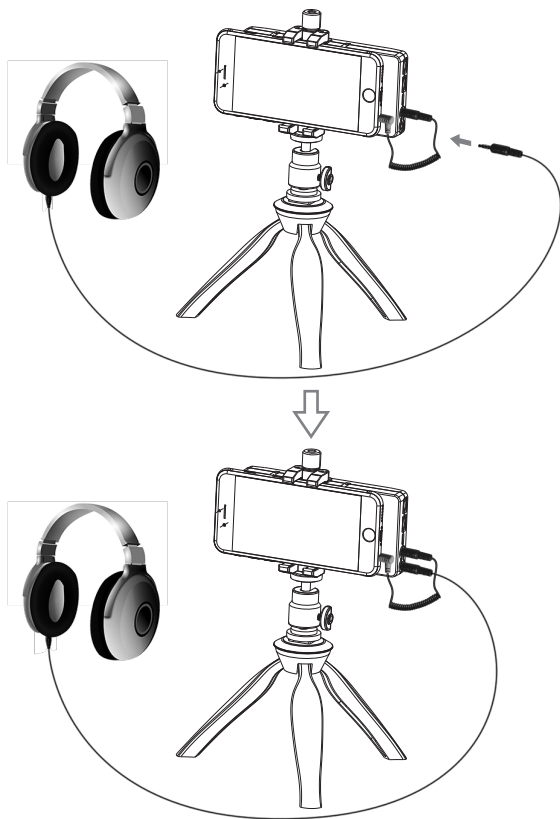
(竖直模式)

2.1.5 使用3.5mm TRRS-3.5mm TRRS音频输出线连接接收器与手机



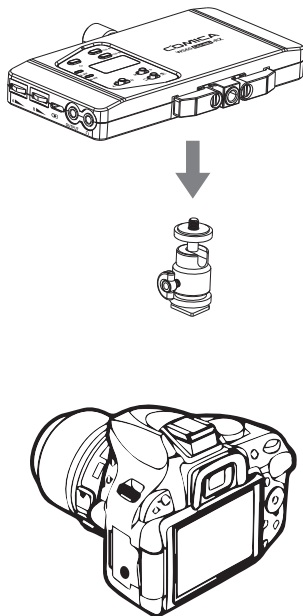
👉 本产品采用3.5mm TRRS接口输出，其他接口的手机请自行配备相应的转换线使用

2.1.6 把耳机插入“3.5mm监听接口”可实时监听

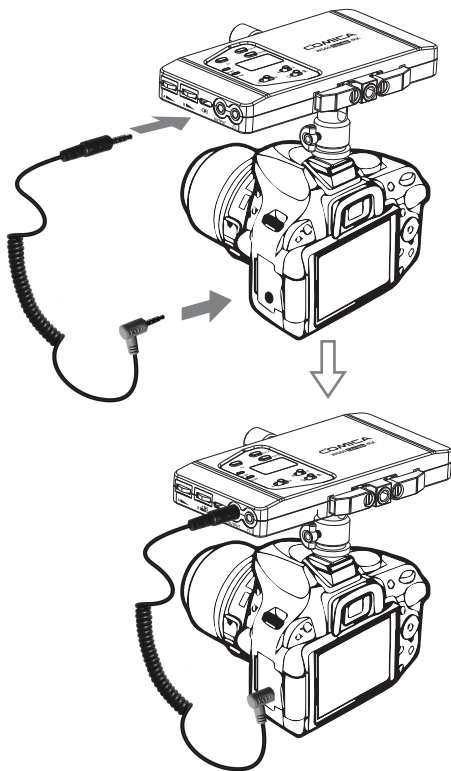


2.2 方式二：搭配相机使用方式

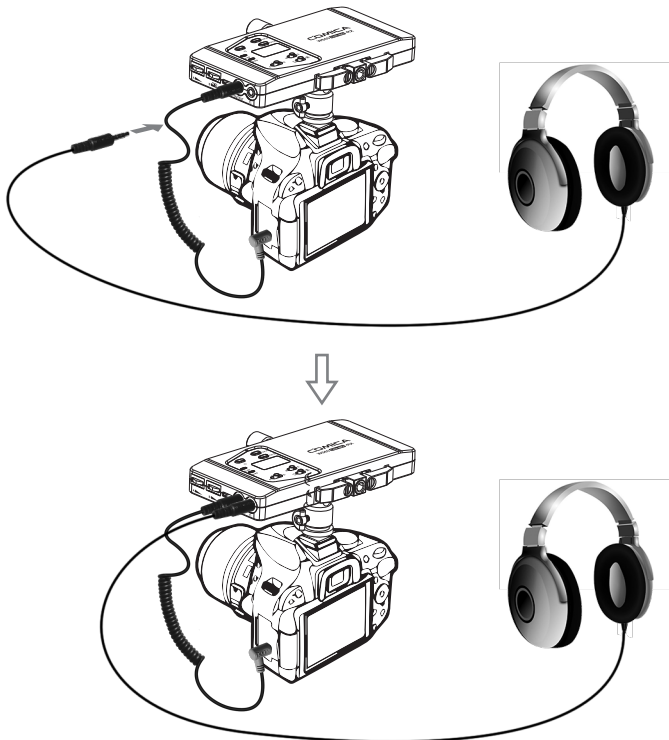
2.2.1 通过小云台连接接收器与相机



2.2.2 使用3.5mm TRRS-3.5mm TRRS音频输出线连接接收器与相机



2.2.3 把耳机插入“3.5mm监听接口”可进行实时监听



3. 与发射器进行频道匹配成功后，即可使用

 频道匹配请见屏幕操作部分

技术规格

领夹发射器 TX

频道数	12
续航时间	8小时
天线	内置天线
杂散辐射	$< -60\text{dBc}$
声音延迟	$< 20\text{ms}$
音频失真	$< 0.5\%$
信噪比	$> 65\text{dB}$
音频输入接口	3.5mm TRS
电池	锂聚合物 1150mAh 3.7V
尺寸	104 x 65.2 x 18mm
工作温度	$0^{\circ}\text{C} \sim +50^{\circ}\text{C}$
存储温度	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$

手持发射器 HTX

频道数	12
续航时间	4小时
信噪比	>65dB
天线	内置PCB天线
杂散辐射	<-60dBc
声音延迟	<20ms
音频失真	<0.5%
电池	两节AA电池
尺寸	Φ 53.5 (MAX) x 248mm
工作温度	0℃ ~ +50℃
存储温度	-20℃ ~ +60℃

接收器 RX

频道数	12
续航时间	8小时
天线	内置天线
接收灵敏度	-90dBm
声音延迟	<20ms
音频失真	<0.5%
频率响应	20Hz ~ 18KHz
信噪比	>65dB
音频输出接口	3.5mm TRRS
监听接口	3.5mm TRS/TRRS
电池	锂聚合物 1150mAh 3.7V
尺寸	134.5 x 65.4 x 18mm
工作温度	0°C ~ +50°C
存储温度	-20°C ~ +60°C



www.comica-audio.com