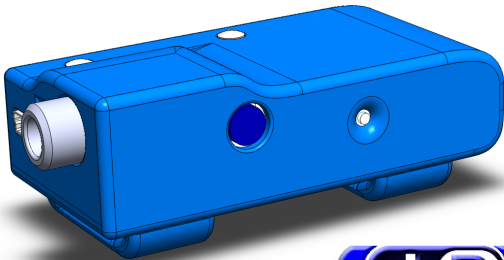


X-100 WIRELESS SYSTEM

Instruction Manual



www.JD-XLABS.com



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INTRODUCTION

Thanks for buying the X-100. Small, portable, easy to use, this battery operated system let you transmit CD quality stereo from point A to point B without wires, up to 100 feet.

In the box items are:

- One sender
- One receiver
- USB charging cables (2X)
- User manual (this guide)
- Carrying case

FEATURES

- There is no volume control but, pressing pair button on sender or receiver while playing (a quick press without activating pairing procedure) will decrease volume gradually. Volume will get back to default 100% value at the next SENDER power up.
- Any mini USB cable can be inserted to charge the units. As long as the USB device voltage is 5volt. (AC or car adapters, cell phones charger)
- Both sender and receiver have holes for strap or belt holding.
- Both sender/receiver can be operated under charge. (Infinite use)
- Made with good quality Neutrik standard ¼ stereo jack connectors. No special cables to buy. Any cable can be used.
- Up to 40 independent X-100 system can co-exist in the same room with other 2.4GHz devices without interferences.
- No external antennas to take care of. They are integrated.
- Each paired sender/receiver is independent from the others. There is no way to listen to an unpaired signal. Furthermore, it use a unique RF protocol, no ones can listen to the audio stream.

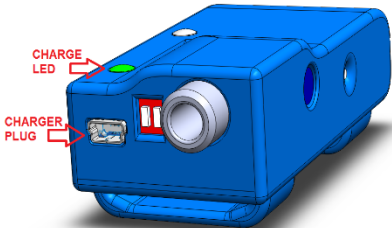
CHARGING

Both sender & receiver have built-in Lithium batteries. Plugging the "MINI-USB" connector from a computer or any other adapter will automatically start the charge. The green light will come ON as soon as the cable is plugged and will turn OFF when the charge is over. Charge time may take up to 5 hours. Units will operate from 8 to 10 hours on a single charge.

Important note

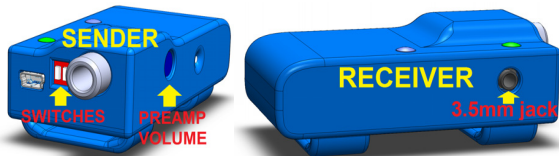
regarding the receiver:

When plugging the USB cable, the receiver will power up even if no audio cable is plugged. This is normal and the receiver will shut down by itself 5 minute later.



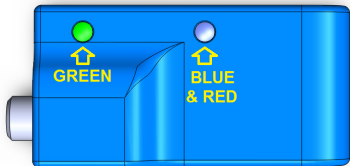
OPERATING YOUR WIRELESS

First thing is identify the sender and the receiver. The **SENDER** have the red switches with the preamp potentiometer. The **RECEIVER** have an additional 3.5mm headphones jack.



Plug your audio source (ipod) to the sender $\frac{1}{4}$ jack. On the receiver side, the audio output (headphones) is taken on the 3.5mm or the $\frac{1}{4}$ jack. Both sender and receiver will power as soon as a connector is plugged.

LED INDICATORS ON THE RECEIVER



COLOR	STATE
GREEN	ON when the battery is charging.
BLUE Steady	Streaming audio. (normal operation)
BLUE 3 fast flashes	Searching. Will flash if the audio RF link is lost or connection not established.
RED SLOW FLASH	Battery is low. About 1 hour left.
RED FAST FLASH	Pairing. Only when switch pushed. Page 10

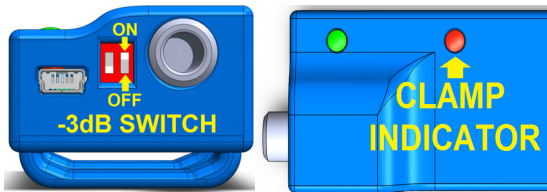
LED INDICATIONS ON THE SENDER

COLOR	STATE
GREEN	Battery is charging. Same as receiver.
BLUE Steady	Streaming audio. Same as the receiver.
BLUE 3 fast flashes	Searching. Flash when connection with receiver not established. Same as the receiver.
RED AUDIO CLAMP	If audio signal is too strong, red LED will come up indicating distortion. See details at page 8.
RED STARTUP PULSE	Battery status: When the sender is powered up (inserting jack), the red LED will come ON for a few seconds. The longer the time, the better is the charge. Full charge is about 5 seconds.
RED FLASH	Low battery indication. The faster is the flash sequence, the lower is the battery power.
RED FAST FLASH	Pairing. Same as receiver.

SENDER AUDIO CLAMP LED (-3dB Switch)

If the audio amplitude is too strong, distortion will be heard on the receiver signal. Sender red LED will turn ON when maximum volume is reached. There are two solutions:

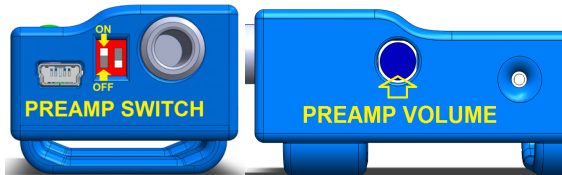
1. Lower your device source volume (ipod).
2. Remove 3dB from audio input using dip switch #2.



Activating the -3dB switch also reduce lines impedance to 300ohm. This can be good for reducing line noise.

USING SENDER BUILT-IN PREAMP (mic)

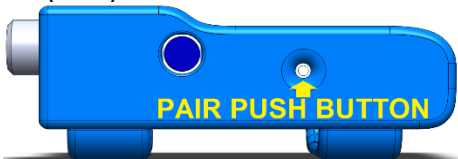
An onboard audio preamp can be used for the audio left channel (TIP). To activate it, set dip switch #1 to the upper position. The preamp volume is adjusted using the blue potentiometer. Gain varies from 1 to 50 (+20dB). Using very high gain will also increase SNR.



When preamp is used, the audio right channel is still normally enabled without any amplification and impedance stay at 10K Ω .

PAIRING PROCEDURE & VOLUME

Each units comes pre-paired together and there is no need to use pair switch. If you have many X-100 systems and want to swap senders/receivers: push sender "PAIR" button until the RED light flashes (~2 sec). Do the same on the receiver within one minute.



A quick press on sender or receiver while playing (without activating pairing procedure) will decrease volume on each press. Volume will get back to default maximum value at the next SENDER power up.

USING MULTIPLE SYSTEMS

If you are planning to use multiple systems in the same environment, make sure all the units are separated by at least 1 foot at all time. This is especially valid for setup where bunches of X-100 are all connected to the same console. Otherwise RF collision and audio cuts might occur randomly. It is also a good idea to position units in a “line of sight” maner if possible.

PROBLEMS AND SOLUTIONS

PROBLEMS	SOLUTION
The receiver turn ON when I plug the USB charger connector.	This is normal. Receiver will shut down 5 minute following this.
The ¼ jack is plugged into the unit, but I don't see any power or lights.	Charge batteries first. Connect & disconnect ¼ jack can also be tried.
Audio distortion is heard at the receiver output.	Verify connections. Try to not use cheap adapters or connectors. Also check if MIC preamp is ON and too loud (Set dip switch #1 to off).
No sound and both sender & receiver keeps flashing blue.	Try to 'pair' the units together again using procedure at page 10.
I use my computer to charge units but I noticed short battery time. Specially the receiver.	Make sure that PC power save mode does not interrupt the charge. Also, do not let the receiver connected to a shutdown computer.

SPECIFICATIONS

- CD Quality, uncompressed digital audio over-the-air from 20 Hz to 20 KHz at 16 bits, 48 KHz, 90dB SNR, THD + N = 74 dB.
- Frequency range: from 2.405 to 2.477 GHz. ISM band at 10dBm, continuous dynamic frequency selection, and diversity antennas.
- Latency: 25.5ms. From sender audio input to receiver output.
- Maximum "line of sight" transmission distance: 30m / 100 feet.
- Sender audio input impedance: 10kohm. On preamp: 1Mohm
- Run time on fully charged batteries: from 8 to 10 hours.
- Battery charge time: Maximum 5 hours. 3 hours typical.
- Batteries lifetime: 500 charge/discharge cycles.
- Dimensions: 87 mm x 40mm x 32 mm
- Compliance: FCC ID is V3CAVMDF11A, IC 7853A-AVMD7F11A
- Weight of sender is 70 grams. Receiver is 62 grams.

WARANTY INFORMATION

- JD X-LABs is offering a full warranty against manufacturing defects of 3 months from the date of purchase.
- Any repair will be freely done from 3 to 12 months, but user will pay the shipping fees.
- Battery replacement is also possible. Contact JD-XLABs for pricing.

For any questions: info@JD-XLABs.com
Visit us at: www.JD-XLABs.com



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