



BluePack™ Wireless interview tool



User Guide

JK Audio

Welcome

Thank You

Thank you for purchasing the JK Audio BluePack. Please read this guide for instructions on using it.

Getting Assistance

If you have technical or application questions:

In the US & Canada, call us toll free at: **800-552-8346**

All other countries dial: **815-786-2929**
(M-F 8:30-5:00pm Central Time Zone)

Email us at: support@jkaudio.com

Or, check out our FAQ section for answers to common questions.

Limited Warranty

BluePack is covered by a 2 year warranty to be free from defective workmanship and materials. To obtain service, contact JK Audio by phone or email for return authorization. Once authorized, you will carefully pack and ship the faulty product and all accessories to us. You will pay for shipping to us and we will pay for return back to you.

This warranty does not cover damages due to accident, weather, fire, flood, earthquake, misuse, unauthorized repairs or modifications, or damages occurred in shipping, only defective workmanship or materials.

There are no expressed or implied warranties which extend beyond the warranty here made.

Safety Precautions



Caution, Avoid Listening at High Volume Levels for Long Periods

Outerloop 3.5 contains a headphone amplifier that is more powerful than the typical consumer product.

JK Audio products are designed for the broadcast industry. The broadcast professional must be able to hear headphone signals over the ambient noise level. From the cheering crowd at a football game to trackside at a car race, the program material or cues must be heard at high volumes without distortion.



Road Safety

Never use headphones while driving or cycling, etc. It can be dangerous to turn up the volume even while walking. Doing so may hinder your hearing and can be hazardous on the roadways or at pedestrian crossings.



Handle with Care

While Outerloop 3.5 was designed to be very rugged and durable, it is not waterproof and care should be taken to keep the unit dry.

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Features

HD Voice*

3.5 Mm Stereo Line Input and Output

Bluetooth Wireless Technology

¼" Stereo Headphone Jack

XLR Mic Input

>10 Hours on one 9 Volt Alkaline Battery

HD Voice

While standard phone calls have a narrow bandwidth of 300 Hz to 3.4 kHz, HD Voice calls offer 50 Hz to 7 kHz bandwidth. The additional 1.5 octaves on the low end gives voice a more natural sound, while the additional upper octave dramatically improves speech clarity and intelligibility.

Wireless HD Calls

To take advantage of this extended bandwidth, both phones on the call must support HD Voice, and both phones must be on the same carrier, in coverage areas that support HD Voice.

Overview

Truly Mobile Field Reporting

BluePack allows live reporter on-the-street interviews through a phone or tablet using Bluetooth Wireless Technology. Simply pair to your mobile device like a Bluetooth wireless headset. This sleek belt pack provides a professional look and feel to field reporters and remote talent.

The professional microphone preamp and powerful headphone amplifier make sure the message gets through. A 3.5 mm stereo line input jack allows recordings to be mixed into the broadcast. The 3.5 mm stereo line output jack provides your full bandwidth microphone signal on the left channel and Bluetooth return

audio on the right channel. This allows you to make a full bandwidth backup recording using your favorite recorder.

The stereo headphone output gives you a mix of the XLR microphone input, 3.5mm input, and Bluetooth audio. This powerful ½ watt stereo headphone amplifier will cut through any crowd noise.

BluePack features HD Voice technology, allowing 7 kHz Wide Band Speech phone calls when used with compatible phones on compatible networks, or when using wide band voice codec apps. Read our HD Voice primer for more details.



Record Better Audio for Video

Wirelessly connect any dynamic microphone to your smartphone and record broadcast-worthy interviews while adding professionalism by placing a real microphone in the subject's hand.

While a smartphone's built-in mic picks up every sound in the area, BluePack isolates the audio you want and allows Bluetooth audio recording directly into your smartphone or tablet using your existing professional dynamic mic.

1. Plug your mic and headphones into BluePack.
2. Pair BluePack to a cell phone.
3. Enable the Bluetooth-Mic input in the in-app settings and start recording.

Your built-in camera app may not currently support a Bluetooth microphone. The following video recording apps support a Bluetooth microphone input.

Compatible Apps	 GET IT ON Google Play	 Download on the App Store
Cinema FV-5	✓	
FILMIC PRO		✓
LU-Smart	✓	✓
Movie Pro		✓

These are the only apps available at the time of this publication. Please check our web site for an updated list.

During playback, your smartphone may attempt to play audio through BluePack as if it were a headset. Disable the Bluetooth-Mic input if you don't hear audio playing from the speakers or headphones on your phone during playback.

Controls & Indicators



1. Mic Control

Controls the level of your microphone input.

2. Peak Indicator

The peak LED indicates clipping on the input channel if the level is set too high. The microphone and Aux Send are a combined input. If you see this red LED flashing, you should decrease the **<Mic>** and/or **<Aux Send>** input levels.

Controls & Indicators

3. Aux Send Control

Adjusts the level of audio from the 3.5 mm Aux Send input jack.

4. Stereo LED (Listen-Only)

The <st> LED flashes **Red** when the BluePack has a stereo listen-only (Headset) audio connection with your Bluetooth device.

When you receive an incoming phone call, the stereo LED will turn off.

This LED will flash **Green** when the unit is in Master mode, sourcing stereo A2DP audio to a Bluetooth enabled headset device

5. Bluetooth LED

See section on Bluetooth Wireless Technology.

6. Headphones Control

Sets the level of audio sent to the headphone output jack.

7. Power Indicator

LED indicates when the power is turned on and dims when the battery charge is getting low.

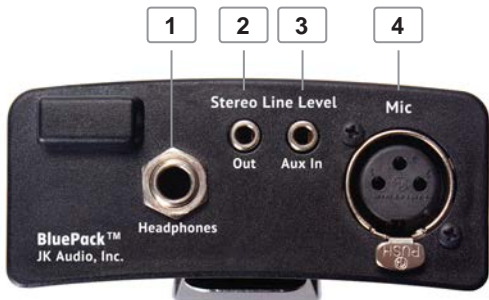
8. Multi-Function Button (MFB)

Establish a connection with your Bluetooth enabled cell phone, laptop or other device.

9. Power Button

Press to activate the unit. Press again to turn the unit off.

Getting Connected



1. Headphones

Connect your headphones to this 1/4" jack. The stereo headphone output gives you a mix of the XLR mic input, 3.5 mm Aux Send input and the Headset Interface audio.

2. Stereo Line Level Output

The unbalanced 3.5 mm stereo fixed line level output jack provides your full bandwidth microphone signal on the left channel and the Bluetooth audio on the right channel.

This stereo output jack allows you to make a full bandwidth recording using your favorite recorder for transfer back at the station or over the web.

3. Stereo Line Level Aux In

Connect the output of your other audio equipment to this unbalanced stereo 3.5mm Aux In jack. This enables you to add background music or sound clips to your remote broadcast. This audio is not present at the Stereo Output but will be sent to the Headphone jack.

4. Mic Input

Connect your dynamic microphone to the XLR jack. This device will not provide phantom power for a condenser type microphone.

You can use both the balanced XLR and unbalanced 3.5 mm inputs simultaneously. The line level Aux In jack allows recordings to be mixed into the broadcast with your microphone to be sent out through the Bluetooth connection.

Bluetooth Wireless Technology

Pairing Mode

Press the blue <MFB> for **6** seconds while the unit is on, then release to activate *Pairing Mode*.

In *Pairing Mode*, any *Bluetooth* enabled device within range can pair with your BluePack. When you're first connecting to a new device, you should be in an environment with no other *Bluetooth* wireless technology enabled devices within range that might also be in *Pairing Mode*.

Once the pairing process is complete the unique device ID is stored in Connection History. Subsequent connections can be made from *Idle Mode*.

Idle Mode

Press the blue <MFB> for **4** seconds when the unit is on, then release to activate *Idle Mode*.

In *Idle Mode*, BluePack searches for paired devices.

Connected Mode

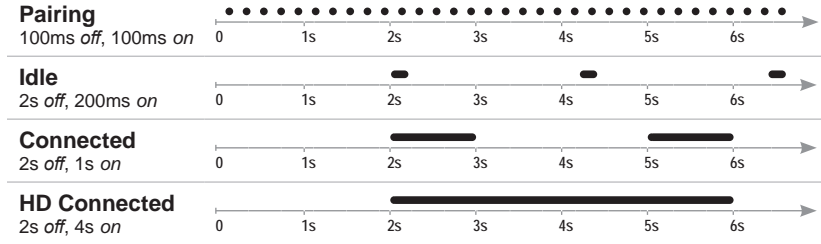
After bonding is complete, the connection to that device is secure. BluePack returns to *Idle Mode* when a connection is dropped or terminated.

For instructions on how to pair to a cell phone, see page 8.

Bluetooth Wireless Technology

Bluetooth Status LED

The blue LED on the front of the unit flashes in different sequences to indicate the current connection status.



Bluetooth Wireless Technology

Pairing to a Cell Phone

1. While BlueDriver is off, set the **Role Select Switch** to **<Phone>**.
2. From the **powered-on** state, press the blue **<MFB>** button on the BluePack for at least **6** seconds. Upon release, the blue LED should flash rapidly as the BluePack enters *Pairing Mode*.
3. On your device, find and select the option to set up a connection. When the cell phone has found the new device, select from the list the device ID. Depending on the gender of model, the device ID is "**JKBPxxxx**" where: **xxxx** = last four digits of the serial number.

Note: Connecting via *Bluetooth* wireless technology varies with different cell phones.

4. If asked for a pin, enter "**0000**".
5. When bonding is complete, the blue LED will flash at a rate of **2** seconds *off*, **1** second *on*. (**2s off, 4s on** for HD Voice). Subsequent connections can be made more quickly from *Idle Mode*.

Bluetooth Wireless Technology

Switching between Master and Headset Modes

To switch between Master and Headset mode, you must start from the Bluetooth power-off state.

1. Power off the unit, then back on again.
2. Hold the **<MFB>** down for **11** seconds then release.
3. The **<st>** LED on the top of the BluePack will flash:

Green when it is in Master mode.

Red when it is in Headset mode.

The **<st>** LED only indicates whether the BluePack is in Master or Headset Mode on Startup and when the Master/Headset role is switched.

The timing of the LEDs while pairing with another device should remain the same for either state.

Master Mode Streaming State

Simply tap the **<MFB>** button to toggle between stereo A2DP and mono Hands-Free profiles. This can only be done while the unit is in Master mode.

During A2DP streaming, the **<st>** LED will be lit **Green**.

The **<st>** LED will not be lit when the Hands-Free profile is in use.

Bluetooth Wireless Technology

Disconnecting from a Device

To disconnect from the Bluetooth device, simply press the <MFB> and hold for **5** seconds or simply power the unit off.

When a Bluetooth connection is dropped or terminated, BluePack returns to *Idle Mode*.

If the unit is in Idle Mode for >2 minutes without a connection, Bluetooth will automatically shut off. You may restart Bluetooth by pressing the <MFB> for 2 seconds.

Connection History

BluePack retains a history of the 16 most recent devices. To clear connection history and return to factory default, hold the <MFB> button in for at least 20 seconds. After resetting, BluePack will return to *Pairing mode*.

Reconnect to Paired Devices

To reconnect to a device saved in **Connection History**, the device that will be in Headset mode should be powered up first. Then when the Master device is turned on, it will find the Headset device during its power up cycle.

Note: Connecting via *Bluetooth* wireless technology varies with different cell phones.

What is the range of the Bluetooth transmitter/receiver?

BluePack will transmit and receive audio signals up to 65 feet from your Bluetooth device. The maximum range of this product is achieved when a clear line of sight is maintained between connected devices, but may also be limited by interference due to the environment. While this product offers extended range capabilities, maximum usable range is limited by the weaker of the two paired/connected devices. Transmitting signals over longer distances will require more power, therefore you should keep BluePack as close as possible to your Bluetooth device to conserve battery power.

Can I pair my BluePack to two cell phones and send my audio to two locations simultaneously?

No, your BluePack can only connect to one Bluetooth enabled device at a time. Paired devices remain in the history for easy connection later.

How long will the battery last?

Based on our tests using a standard alkaline battery, the battery should last for >10 hours under normal use. Lithium batteries can significantly increase the battery life, but at a higher cost. As an indicator of low battery, the red power LED will grow dim and then extinguish a short while before the battery is completely exhausted and the unit shuts down.

FAQs

Can I use my Bluetooth headset with my cell phone while I have my phone connected to the BluePack?

No, your cell phone can only be connected to one Bluetooth enabled device at a time. In the standard mode of operation, your cell phone will be connected to our device as if the BluePack were a headset. So you need to use a microphone and headphones connected to the BluePack.

If I have an audio source connected to the Aux In jack, will that audio also be present at the Output mini jack?

No, the stereo mini jack output only contains audio from the <Mic> input and the connected Bluetooth device. This input would be a good place to add background music or sound clips during a live interview that is being sent to your broadcast studio via the Headset Interface.

Can I send and receive audio at the same time?

Yes, you can have full duplex conversations. The stereo line output contains your microphone audio on the Left channel and audio from the Bluetooth device is on the Right channel.

Why is the peak LED still red after I turned down the mic volume level?

The microphone and Aux Send are a combined input. If you see this red LED flashing, you should decrease the **<Mic>** and/or **<Aux Send>** input levels until the combined input is no longer clipping.

My BluePack won't pair with my cell phone. Why won't it accept the PIN?

If this is the first time you have paired the BluePack with this cell phone, make certain you are in *Pairing Mode* and not *Idle Mode*. You must hold the **<MFB>** in for approximately **6** seconds to reach *Pairing Mode* the first time you connect.

Can I have full duplex stereo conversations if my stereo headset uses A2DP?

No, the A2DP profile is only used for stereo music streaming. Full duplex conversations will be in mono.

What is the Difference between Bluetooth Profiles?

Headset: Facilitates mono, full-duplex audio between two paired devices.

Hands-Free: Similar to Headset profile, but allows the receiving device more control over the call, such as volume, accept/reject/end a call.

A2DP (Advanced Audio Distribution Profile): Simplex stereo music streaming.

Technical Information

Specifications

Input

Impedance / Level

Female XLR Mic: 2k ohms / -34 dBu nom.

1/8" (3.5mm) Stereo Line: 20k ohms / -10 dBu nom.

Output

1/8" (3.5mm) Stereo: 100 ohms / -10 dBu nom.

Headphone 1/4" Stereo: 8 ohms / ½ watt per channel

Bluetooth Wireless Technology

Standard: Bluetooth 3.0

Range: 66 feet (20 meters)

Frequency Response:

Hands-Free (Full Duplex): 300Hz–3.4kHz

Hands-Free (Full Duplex HD): 50Hz–7kHz

A2DP (Master » Headset): 30Hz–17kHz

End-to-End Latency = 150ms

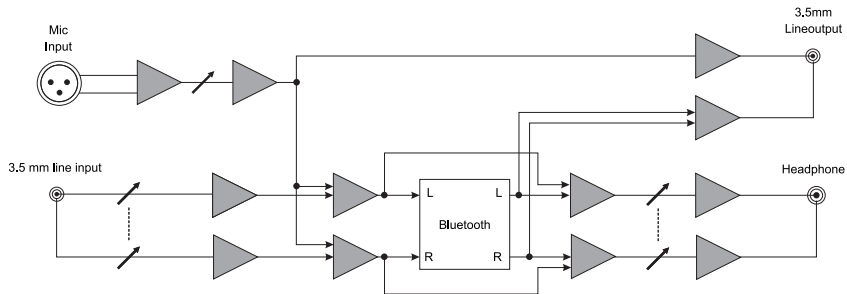
Misc

Power: 9 VDC Battery

Size: 4.7" x 3.75" x 1.65" (12 x 9.5 x 4.2 cm)

Weight: 10 oz (275 g)

Block Diagram



Declaration of Conformity

Manufacturer's Name: JK Audio, Inc.
Manufacturer's Address: 1311 E 6th Street
Sandwich, Illinois 60548 USA

Declares that the product:

Product Name: BluePack™ Wireless Interview Tool
Model Numbers: BluePack

Conforms to the following Product Specifications:

ESD: ESD: EN 61000-3-2, 3-3, 4-3, 4-4, 4-5, 4-6, 4-11
EN 301 489-17 V1.2.1

Emissions: EN 55022:1998, +A, 2000+A3, 2003 Class B
ETSI EN 300.328 V1.6.1: 2000
FCC Part 15, Subpart B

Bluetooth Radio: EN 300.328
FCC Part 15.247
FCC ID QOQWT32AE
IC 5132A-BGTWT32AE

FCC Compliance Notice

The product herewith complies with the requirements of the following Directives and carries the CE marking accordingly:

R&TTE Directive 1999/5/EC
EMC Directive 89/336/EEC, 92/31/EEC, 93/68/EEC
RoHS Directive 2002/95/EC

The Technical File containing supporting documentation is maintained at:

JK Audio, Inc (Corporate Headquarters)
Compliance Manager
1311 E 6th Street
Sandwich, Illinois 60548 USA
815-786-2929 phone
815-786-8502 fax

FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with

the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by JK Audio can void the user's authority to operate the equipment.

BluePack™

Wireless Interview Tool



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