RemoteAmp Blue
Wireless Headphone Amplifier

User Guide

JK Audio

Description

JK Audio combines *Bluetooth* Wireless Technology with professional audio electronics in a rugged new belt pack design.

RemoteAmp Blue allows IFB monitoring through a cell phone equipped with *Bluetooth* Wireless Technology. This is a listen only connection designed for voice IFB or full bandwidth stereo music listening.

RemoteAmp Blue pairs to your cell phone like any *Bluetooth* wireless headset. The line input jacks and separate volume controls allow wired operation in parallel with the *Bluetooth* connection. The XLR line level input accepts either a balanced mono signal or a party line intercom feed (listen-only). The 1 watt, 1/4" stereo headphone jack will cut through any crowd noise. Or you can connect an IFB earpiece to the 3.5 mm stereo earpiece jack.

BluePack also pairs to *Bluetooth* equipped sound cards and music players in full bandwidth A2DP stereo mode.

Safety Precautions

RemoteAmp Blue contains a headphone amplifier that is more powerful than a 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 track-side 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.

Note: While RemoteAmp Blue was designed to be very rugged and durable, it is not waterproof and care should be taken to keep the unit dry.

1. This control will adjust the combined level of audio from the 3.5 mm Stereo Line In and the XLR Line In jacks.

2. This LED flashes red when the RemoteAmp Blue has a stereo listen-only audio connection to your *Bluetooth* device. If the music is

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paused, such as when you receive an incoming phone call, the red stereo LED will turn off until the music resumes playing.

3. This LED flashes blue when setting up or using a *Bluetooth* connection. See page 11 for timing diagrams. The LED will illuminate briefly when the unit is first powered on.

4. The Bluetooth control will set the level of audio from your *Bluetooth* input.

5. This red LED indicates when the power is turned on. 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.

6. Press this Power button in to activate the unit. Press again to turn the unit off.

7. The blue Multi-Function Button (MFB) is used to establish a connection with your *Bluetooth* enabled cell phone, laptop or other device.
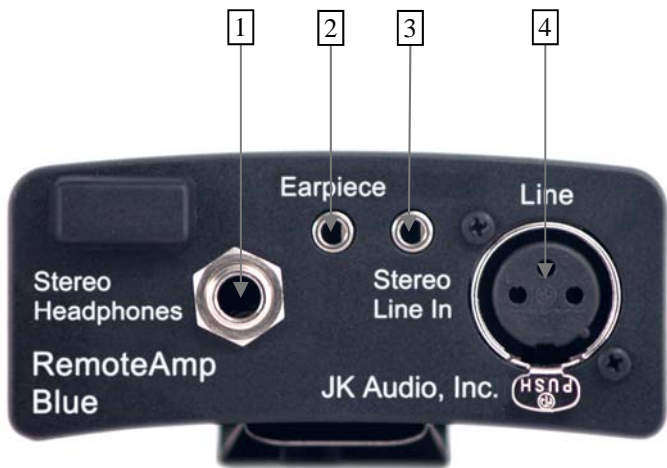
Connection

1. Connect your headphones to this 1/4" jack. The 1 watt stereo headphone output gives you a mix of the XLR line input, 3.5 mm Stereo Line In and *Bluetooth* audio.

2. The unbalanced 3.5 mm stereo Earpiece output jack provides a mix of the XLR Line input, 3.5 mm Stereo Line In and *Bluetooth* audio.

3. Connect the output of your other audio device to this unbalanced stereo 3.5mm Line In jack.

4. Connect the output of your audio console to the XLR Line In jack. This input is line level only and is not suitable for a microphone.

   You can use the balanced XLR and unbalanced 3.5 mm inputs simultaneously. The Stereo Line In allows recordings to be mixed with the audio feed from your console and your cell phone (or laptop) *Bluetooth* connection.

   This headphone amplifier can be connected to a ClearCom, RTS or Telex 3-pin XLR party line intercom link so you can monitor the feed, even while listening to the 3.5 mm stereo input.

Bluetooth Wireless Technology

Establishing a *Bluetooth* connection varies with different cell phones. On your phone, find and select the option to set up a connection. Press and hold the blue button (Multi-Function Button or MFB) on RemoteAmp Blue for a full 5 seconds and release. The blue LED will flash rapidly, about every 100 ms, as RemoteAmp Blue enters Pairing Mode.

There is a difference between "Pairing Mode" and "Idle Mode". The very first time you connect to a new device you must be in Pairing Mode. When you hold the *Bluetooth* MFB in for 2 seconds and release, the blue LED will come on steady for a moment, then it will flash at a rate of 200 ms on and 2 seconds off. This first stage is Idle Mode. Holding the MFB in for 5 seconds before release will activate pairing mode. In pairing mode the LED flashes rapidly, about every 100 ms. Once in pairing mode, any *Bluetooth* enabled device within range can pair with RemoteAmp Blue. After pairing is complete, the connection to that device is secure.

Bluetooth Wireless Technology

Now go to your *Bluetooth* device and search for *Bluetooth* connections. If this is the first time you have paired with this device, select the option to add an audio device. When the cell phone has found the new device, select from the list the device ID of "JKRBxxxx" where the "xxxx" corresponds to the last 4 digits of the unit's serial number. Enter "Yes" when asked to Bond with this device. Enter the pin number as "0000".

When bonding is complete, the blue LED will flash at a rate of 1 sec on, 2 sec off. Once RemoteAmp Blue has been added to your cell phone, subsequent connections can be made more quickly from Idle Mode.

To disconnect from the *Bluetooth* device, simply press the MFB and hold for 5 seconds. Depending on the model of cell phone, if left unused in Idle Mode or if a live call is disconnected, the RemoteAmp Blue may automatically disconnect *Bluetooth*.

To clear the connection history and return to factory reset, hold the MFB button in for at least 20 seconds. After resetting, the RemoteAmp Blue will return to pairing mode.

Bluetooth Wireless Technology

The *Bluetooth* interface will first attempt to connect in Hands Free mode to a cell phone, allowing 3.4 kHz telecom bandwidth. If this is not available, it will attempt to connect in Wireless Headset mode to any product, such as a laptop computer, that allows a *Bluetooth* wireless audio connection. The Wireless Headset mode offers up to 20 kHz audio bandwidth.

RemoteAmp Blue supports A2DP (Sink), Hands Free and Headset profiles with BlueCore 5-Multimedia technology. You will be able to receive full bandwidth stereo audio from any cell phone that supports A2DP.

While all phones and portables are different, typically if you connect in cell phone Hands Free mode, you will have a mono connection. If you connect to a music player, you will be in stereo mode. Consult your cell phone or portable device for more details.
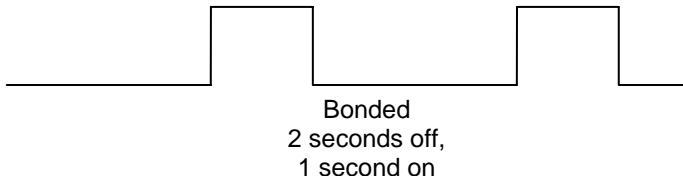
Bluetooth Wireless Technology

Bluetooth **LED pattern to initiate Bonding**

Initialize
2 sec off,
2 sec on

Idle Mode
2 sec off,
200 ms on

Pairing Mode
100 ms off,
100 ms on

Hold *Bluetooth* MFB in at least 5 sec
to reach Pairing Mode the first time
a new device is connected,
> 2 sec thereafter to easily
connect from Idle Mode

Bluetooth **LED pattern after Bonding**

Bonded
2 seconds off,
1 second on

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FAQs

? **What is the range of the *Bluetooth* receiver?**

! RemoteAmp Blue will receive audio signals up to 25 feet from your *Bluetooth* device.

? **How long will the battery last?**

! Based on our tests using a standard alkaline battery, with RemoteAmp Blue about 1 meter from a *Bluetooth* device the battery should last for about 10 hours under normal use.

? **Can I connect a microphone to the XLR input?**

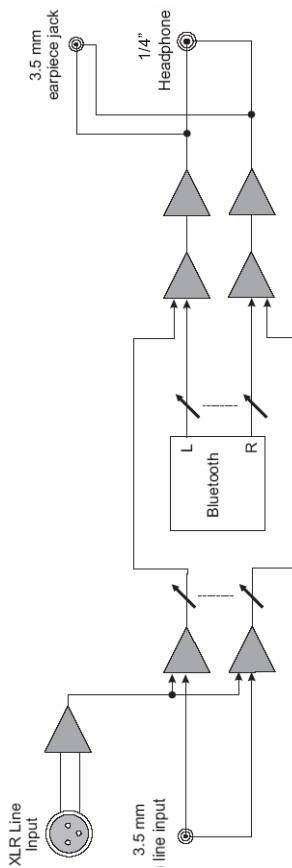**!** No, this input is line level only. You need to connect your mic to a mixer or pre amp first.

? **Can I connect this to my intercom unit?**

! Yes, this headphone amplifier works well when connected to a ClearCom, RTS or Telex 3-pin XLR party line intercom link so you can monitor the feed, even while listening to the 3.5 mm stereo input.

? **Can I pair my RemoteAmp Blue to two cell phones and receive audio from two locations simultaneously?**

! No, your RemoteAmp Blue can only be paired to one *Bluetooth* enabled device at a time.

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Specifications

Inputs:

Female XLR:	Balanced, 20k ohms, 0 dBu nom.
3.5mm Stereo Line In:	Unbalanced, 20k ohm, -10 dBu nom.

Outputs:

Stereo Earpiece:	Unbalanced, 3.5mm, 100 ohms, 40 mW, 20 Hz - 20 kHz
Stereo Headphone:	1/4", 8 ohms, 1 watt per channel, 20 Hz - 20 kHz

Bluetooth

Standard:	*Bluetooth* 2.0
Distance:	25 feet (8 meters)
Frequency response	
Hands Free mode:	300 Hz - 3400 Hz
Headset mode:	TX 30 Hz - 17 kHz RX 30 Hz - 20 kHz

Power:	One 9-volt battery
Size:	4.7" x 3.75" x 1.65" (12 x 9.5 x 4.2 cm)
Weight:	10 ounces (275 grams)

FCC-B Part 15 Compliance

This device 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 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 communication. 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/her own expense.

Changes or modifications not expressly approved by JK Audio can void the user's authority to operate the equipment.

Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

The internal antennas used for this mobile transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Warranty

The model RemoteAmp Blue is covered by a 2 year warranty to be free from defective workmanship and materials. In the event that the RemoteAmp Blue needs repair, you must call us to get an authorization, and then carefully pack and ship it to us. You will pay for shipping to us and we will pay for return back to you, UPS ground. No free repairs will be made if the defect was caused by misuse, weather conditions, or other cause, except for defective workmanship or materials.

THERE ARE NO EXPRESSED OR IMPLIED WARRANTIES WHICH EXTEND BEYOND THE WARRANTY HERE MADE.