BlueSet™
Wireless Headset Interface

User Guide

JK Audio

Description

The BlueSet series of intercom headset adaptors use *Bluetooth® Wireless Technology* to add wireless freedom to your intercom system. BlueSet replaces the wired headset on your intercom belt pack, allowing you to connect to your *Bluetooth* enabled headset or cell phone.

Female and male XLR four and five pin versions are available to connect to different types of intercom systems:

BlueSet-F4

BlueSet-F5

BlueSet-M4

BlueSet-M5

Introduction

To achieve maximum battery capacity, BlueSet should be fully charged before its first use. While this battery will normally charge in about 2 1/2 hours, please allow 4-5 hours for this first charge. Connect the power supply cable to the mini USB connector on the BlueSet to charge the battery. The red LED will illuminate to indicate when the battery is charging. Please see page 9 for more information. This device can be used with the power cable connected if desired.

BlueSet connects directly to the headset jack on your Party-Line belt pack unit, replacing the dynamic or electret headset. Before you turn the BlueSet on, be sure to set the Headset/Phone switch to the correct position. If you change that switch while the unit is on, you will need to power the unit off, then power the unit on before the change takes effect.

Mode Switch
In the *Bluetooth* world, a device is either a Master (like a cell phone, sound card or music player) or a Slave (like a headset or car hands-free kit).

Select Headset if you will be using BlueSet with a *Bluetooth* enabled headset or any device that emulates a headset.

Select Phone if you will be using BlueSet with a cell phone or other master device.

Bluetooth Wireless Technology

BlueSet will be activated when you press the Connect button. The blue LED on the side of the unit will flash in different sequences to indicate the current connection status as described in the following sections.

Connecting to a *Bluetooth* Cell Phone
Set the Handset / Phone switch to the Phone position.

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 brown Connect button on BlueSet for at least 5 full seconds. After you release the Connect button, the blue LED should flash rapidly if BlueSet is in Pairing Mode.

Now go to your phone and search for *Bluetooth* devices. 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 "JKBSETgpxxxx" where:

> g   = XLR gender
> p   = XLR pin count
> xxxx = last four digits of serial number

Bluetooth Wireless Technology

Enter "Yes" when asked to Bond with this device. Enter the pin number as "0000".
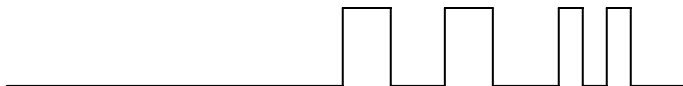
When bonding is complete, the blue LED will flash at a rate of 1 sec on, 2 sec off. Once BlueSet has been added to your cell phone, subsequent connections can be made more quickly from Idle Mode.

> **Tech Notes:** There is a difference between "Pairing Mode" and "Idle Mode". The first time you connect to a new device you must be in Pairing Mode. When you hold the *Bluetooth* Connect button in for about 2 seconds, the blue LED will begin to flash at a rate of 200 ms on and 200 ms off. This first stage is Idle Mode. Continue to hold the Connect button in for another three seconds. After releasing the Connect button, the LED flashes more rapidly, about every 100 ms. This is Pairing Mode. You must hold the Connect button in for a <u>full 5 seconds</u> to reach Pairing Mode. Once in pairing mode, any *Bluetooth* enabled device within range can pair with BlueSet. After pairing is complete, the connection to that device is secure.

The belt pack Mic/Talk button controls audio from the cell phone into the intercom system.

Bluetooth Wireless Technology
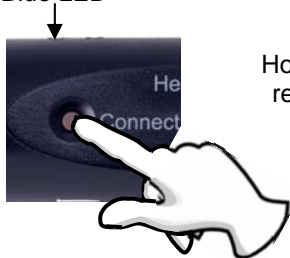
Bluetooth **LED pattern to initiate Bonding**

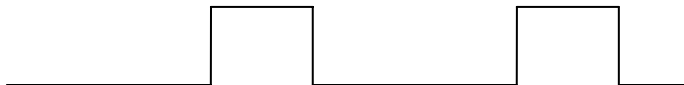Initialize   Idle Mode   Pairing Mode
200 ms off,   100 ms off,
200 ms on   100 ms on

Blue LED

Hold Connect button in > 5 sec to
reach Pairing Mode the first time
a new device is connected,
> 2 sec thereafter to connect
from Idle Mode

Bluetooth **LED pattern after Bonding**

Bonded
2 seconds off,
1 second on

Bluetooth Wireless Technology

Connecting to a *Bluetooth* Headset
Set the Handset / Phone switch to the Headset position.

The first time you connect to a new headset, you should be in a "quiet" environment with no other *Bluetooth* enabled devices within range that might also be in Pairing Mode. Following manufacturer's instructions, set your headset to Pairing Mode. Hold the Connect button on BlueSet in for at least 5 full seconds to activate Pairing Mode. BlueSet will automatically pair to the first device it finds that is in Pairing Mode. The next time you pair to the same headset, you can connect from Idle Mode instead of pairing mode. Please see "Tech Notes" on page 5 for more information about these modes.

Connection History
BlueSet retains the most recent 16 headset and 16 phone devices in memory. To clear either connection history and return to factory reset, from the power-off state set the switch to the Headset or Phone position, then hold the Connect button in for at least 20 seconds. After resetting, BlueSet will return to pairing mode.

Power

Power On/Off
Pressing the Connect button will turn the BlueSet on. To turn the power off, press and hold the Connect button for a full five seconds. If left unused in Idle Mode or if a live call is disconnected, BlueSet will automatically disconnect *Bluetooth* in two minutes and power will be turned off.

Power Up Sequence
When reconnecting to a device that is still in BlueSet's pairing history, the device that will be in Slave mode should be powered up first. Then when the Master device is turned on, it will find the Slave device during its power up cycle.

When reconnecting to your cell phone, the switch on BlueSet should be set to Phone and the BlueSet should be turned on first.

When reconnecting to your *Bluetooth* headset, the switch on BlueSet should be set to Headset and the headset should be turned on first.

Disconnecting from a *Bluetooth* Device
To disconnect from any *Bluetooth* device, simply press the Connect button and hold for 5 seconds. If left unused in Idle Mode or if a live call is disconnected, the BlueSet will automatically disconnect *Bluetooth* in two minutes and power will be turned off.

Power

Connect the supplied cable to the mini USB Power jack on the side of the unit to recharge the internal battery.

If the battery is almost fully discharged when the power cable is connected the red LED on the side of the unit will light steady to indicate the unit is receiving a slow charge. Then the red LED will blink while the unit receives a full charge before it resumes a steady light to indicate a slow charge to complete the charge cycle.

If the power cable is connected when the unit is shut down, the blue LED will remain on steady. If the power cable is connected while the unit is in use, the blue LED will flash to indicate the current connect mode as described on pages 4-7.

BlueSet contains a rechargeable Lithium-Ion battery. These batteries do not have a "charging memory" and can be recharged at any time without changing their life expectancy. All rechargeable batteries have a limited life and will gradually lose their capacity to hold a charge. This loss of capacity is irreversible. To get the most from your BlueSet, the battery should not be allowed to fully discharge. If this unit is not in use, the battery should be recharged at least every 90 days. The Lithium-Ion battery in this device is not user replaceable. Please contact JK Audio or a factory authorized service center for battery replacement.

Other Features

A 3.5 mm stereo output jack contains a mic level signal suitable for recording, with the beltpack headphone signal on the left channel and the *Bluetooth* return audio on the right.

A small flat blade screwdriver can be used to adjust the Mic Trim pot on the back of the unit. This adjusts the level of the audio coming from the *Bluetooth* device as it is sent into the Belt Pack headset connector.

The XLR pinout on these devices is as follows:

Pin 1: Headset mic (low)
Pin 2: Headset mic (high)
Pin 3: Headphone (low)
Pin 4: Headphone (high)

Pin 5: Headphone (high) - for BlueSet-F5/M5

Note: Pins 4 and 5 are mixed together on the BlueSet-F5/M5 to accommodate dual-sided headsets.

Specifications

Output:

Stereo Line Out:	1/8" (3.5mm) ,
Impedance:	1000 ohms
Level:	15 mV RMS, (-34 dBu) nom.

*Bluetooth***:**

Standard:	*Bluetooth* 2.0
Distance:	33 feet (10 meters)
Profile:	HF - full duplex voice
Frequency response:	300 Hz - 3400 Hz

Size: 1.1" x 4.4" (2.8 cm x 11.2 cm)

Weight: 2.1 ounces (60 grams)

Battery: Internal Lithium-Ion Polymer Rechargeable (battery not user replaceable)

Power Supply: 120-240 VAC (included)

Output:	5V DC, 50 ma
Connector:	Mini-USB Series B

Operating temperatures for these devices is –10 to +60° C (14 to 140° F). When not in use, they should be stored at –20 to +45° C (-4 to 113° F) to prolong battery life.

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

FAQs

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

! BlueSet will transmit and receive audio signals up to 33 feet from your *Bluetooth* device. Maximum range of the paired device also determines the usable distance. Many cell phones and headsets have a maximum range of 10 feet.

? **Why can't I get the BlueSet to accept a password and pair with my new phone?**

! If this is the first time you have bonded to this cell phone, you might be in Idle Mode instead of Pairing Mode and your BlueSet is not being recognized. You need to hold the Connect button in for a <u>full 5 seconds</u> to reach Pairing Mode the first time. Please check pages 4-5 for more information about Pairing Modes.

? **Why doesn't the BlueSet change connections when I move the switch from Headset to Phone?**

! If you change this switch while the unit is on, you will need to power the unit off, then power the unit back on before the change takes effect.

FAQs

? **What kind of intercom headset jack is this compatible with?**

! BlueSet can be used to replace an electret or dynamic intercom headset.

? **How long does it take to recharge the battery?**

! BlueSet can fully charge the internal battery in about 2 1/2 hours. These batteries do not have a "charging memory" and they can be recharged at any time without changing their life expectancy.

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

! Based on tests with BlueSet about 1 meter from a *Bluetooth* device, the battery should last for about 10 hours under normal use. As an indicator of low battery, the blue LED will grow dim and then extinguish a short while before the battery is completely exhausted and the unit shuts down.

? **How do I replace the battery in this unit?**

! This is not a user replaceable battery. Please contact JK Audio or a factory authorized service center for battery replacement.

Declaration of Conformity

BlueSet conforms to the following Product Specifications:

Safety:	AS/NZS 60950.1:2003
	CAN/CSA-C22.2 No. 60950-01-03
	UL Standard 60950-01 1st edition
	Nemko-CCL File Number
	NA201010004
ESD:	EN 55024:1998
	EN 61000-3-2
	EN 61000-3-3
Emissions:	EN 55022:2006
	AS/NZS CISPR 22 (2002)
	FCC Part 15, Subpart B
	ICES-003
Bluetooth Radio:	EN 300.328
	FCC Part 15.247
	FCC ID QOQWT32AE
	IC 5132A-BGTWT32AE

Supplementary Information:

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

> LVD 2006/95/EC (Safety)
> EMC 04/108/EEC (EMC)
> RoHS Directive 2002/95/EC

FCC-B Part 15 Compliance

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 undesired operation.

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

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.

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Warranty

The model BlueSet is covered by a 2 year warranty to be free from defective workmanship and materials. In the event that the BlueSet 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.