




JK Audio BlueDriver-F3 Wireless Audio Interface User Guide

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JK Audio

JK Audio BlueDriver-F3 Wireless Audio Interface



Features

- **HD Voice:** >6 Hours on Internal Li-Ion Battery
- **Trim Pot Adjusts Mic Level :** 3 Pin Female XLR Input
- **Mini USB Power Jack :** 3.5mm Earpiece/Headphone Output

In the Box

- **USB Charger Cable (CN108):** 1m Stereo 3.5mm Cable (CN104)



Caution: To prevent possible hearing damage, avoid listening at high volume levels for long periods.

Overview

Introducing the BlueDriver-F3.

The BlueDriver-F3 wireless audio interface uses Bluetooth wireless technology to add wireless possibilities to your microphone or the mic level output of your audio mixing console. BlueDriver-F3 can connect as either a Master or Slave and provides a 2-way, full duplex voice band audio path when connected to a device using the Hands-Free profile.®

Additionally, music bandwidth stereo audio can be sent using the A2DP profile. Be aware that the standard A2DP music profile includes a 150 millisecond transmission latency.

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

HD Voice is available on many third party headsets and cell phones. 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.

Getting to know your BlueDriver-F3

1. **Connect Button:** The <Connect> button is used to turn on the BlueDriver and initialize connections (Pages 6-7). This button is also used to disconnect and turn off the BlueDriver (Page 8).
2. **Role Select Switch**
 1. Before you turn the Blue Driver on, be sure to set the Role Select Switch to the correct position.
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.
 2. Select <Headset> if you will be using your BlueDriver with a Bluetooth enabled headset or any device that emulates a headset.
 3. Select <Phone> if you will be using your BlueDriver with a cell phone or other master device. Please note that wireless phones typically cannot receive A2DP stereo audio.
3. **Power**
 1. BlueDriver should be fully charged before its first use. While this battery will normally charge in about 2 ½ hours, please allow 4-5 hours for this first charge, or until the LED turns off.
 2. Connect the USB cable to the mini USB connector on your BlueDriver and a USB power source to charge the battery. The red LED will flash to indicate that the battery is charging, once charging is complete, the LED will turn off.

3. If the battery becomes completely discharged for an extended period of time, the red LED will not flash until it can begin its charge cycle. This may take several minutes.
4. If the USB cable is connected when the unit is shut down, the blue LED will stay lit. If the unit is in use, the blue LED will indicate the current connect mode. Feel free to use your BlueDriver while it is charging.

Note: BlueDriver-F3 draws very little power when charging. Unfortunately, some portable power banks automatically turn off if the target device does not draw enough power.

4. Receive → Headphone

1. The 3.5mm headphone output contains the audio received from your Bluetooth device. This audio is suitable for a live phone call back to the radio station or monitoring audio/video playback.

Note: Units BEFORE serial number #BDF301949 feature a recorder output instead of the headphone output.



Mic Trim

A small flat blade screwdriver can be used to adjust the trim pot on the back of the unit. This adjusts the level of the audio coming from the microphone as it is sent to the Bluetooth enabled device.

Bluetooth Wireless Technology

Pairing Mode

From the powered-off state*, hold the <Connect> button for 6 seconds, then release to activate Pairing Mode.

In Pairing Mode, any Bluetooth enabled device within range can pair with your BlueDriver. 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

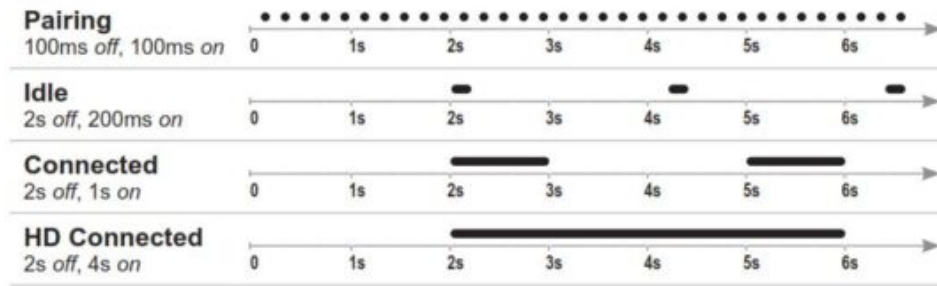
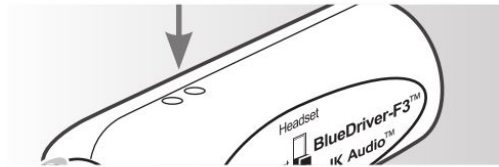
From the powered-off state*, hold the <Connect> button for 3 seconds, then release to activate Idle Mode.

In Idle Mode, BlueDriver searches for paired devices. Connected Mode After bonding is complete, the connection to that device is secure. BlueDriver returns to Idle Mode when a connection is dropped or terminated.

See page 8 for instructions on how to turn off BlueDriver-F3. For instructions on how to pair to a cell phone or headset, see pages 6-7.

Bluetooth Status LED

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



Pairing to a Cell Phone

1. While BlueDriver is off, set the Role Select Switch to <Phone>.
2. From the powered-off state*, hold the <Connect> button on the BlueDriver for at least 6 seconds. Upon release, the blue LED should flash rapidly as the BlueDriver enters Pairing Mode.
See page 8 for instructions on how to turn off BlueDriver-F3.
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 of "JKBDRVF3xxxx" where: xxxx is the 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. (2 s off, 4 s on for HD Voice). Subsequent connections can be made more quickly from Idle Mode by holding the <Connect> button for only 2 seconds before releasing.

Pairing to a Headset

1. While BlueDriver is off, set the Role Select Switch to <Headset>.
2. Following manufacturer's instructions, set your headset to Pairing Mode.
3. From the powered-off state*, hold the <Connect> button on the BlueDriver for at least 6 seconds. After you release it, the blue LED should flash rapidly if the BlueDriver is in Pairing Mode.
See page 8 for instructions on how to turn off BlueDriver-F3.
4. When bonding is complete, the blue LED will flash at a rate of 2 seconds off, 1 second on. (2 s off, 4 s on for HD Voice). Subsequent connections can be made more quickly from Idle Mode by holding the <Connect> button for only 2 seconds before releasing.

Disconnecting from a Device

To disconnect from a device, turn off Bluetooth on your phone or power off the connected headset/device. Alternatively, turn off the BlueDriver.

If left unused in Idle or Pairing Mode, the BlueDriver will automatically disconnect in two minutes and power off.

Turning off BlueDriver-F3

From the powered-on state, hold the <Connect> button for 5 seconds, then release to turn off BlueDriver-F3. If the blue LED continues to flash or blink after releasing, then the <Connect> button was:

- Released too early.
- Held more than 10 seconds.
- Pressed after BlueDriver-F3 was left unused and powered off automatically.

Connection History

BlueDriver retains a history of the 16 most recent devices. To clear connection history and return to factory default, with the BlueDriver powered off, set the switch to the <Headset> or <Phone> position, then hold the <Connect> button in for at least 20 seconds. After resetting, the BlueDriver will return to Pairing Mode.

Reconnect to Paired Devices

To reconnect to a device saved in Connection History, the BlueDriver should be in Idle Mode (see page 4) and the Role Select Switch in the correct position. BlueDriver-F3 will automatically connect to a paired device that is Bluetooth-enabled, powered-on and within range.

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



Wireless Audio for Smartphone Video

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, BlueDriver-F3 isolates the audio you want and allows Bluetooth audio recording directly into your smartphone or tablet using your existing professional dynamic mic.

1. Plug BlueDriver-F3 into the bottom of a dynamic microphone.
2. Pair 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
FILMIC PRO	✓	✓
LU-Smart	✓	✓
Movie Pro		✓
Bluetooth Audio Widget	✓	
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 BlueDriver-F3 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.

Wireless Applications

Live Man-On-The-Street Interviews

Broadcast high quality phone interviews using your favorite mic and headphones. Simply plug BlueDriver-F3 into the bottom of a dynamic microphone, then pair to a cell phone and place a call as usual. This setup allows voice band, bi-directional audio to and from your cell phone. The <Rec> headphone output contains the audio received from your Bluetooth device. This audio is suitable for a live phone call back to the radio station or monitoring audio/ video playback.

Note: Units BEFORE serial #BDF301949 feature a recorder output instead of the headphone output.



Backup Audio for Remote Broadcasts

You may have the finest IP CODEC available, but if the internet goes down, there goes the remote. Simply plug BlueDriver-F3 into the mic-level master audio output of your mixer or CODEC. Pair to your cell phone which is dialed into the station. This setup allows voice band audio, through your cell phone, back to the station. The mini cable provided with your BlueDriver allows you to connect the <Rec> output from the BlueDriver-F3 to an unbalanced mono or stereo input to allow for monitoring the return audio from the station. Be sure to use a mixminus setup to ensure that the caller's audio is not returned to them through the cell phone connection.

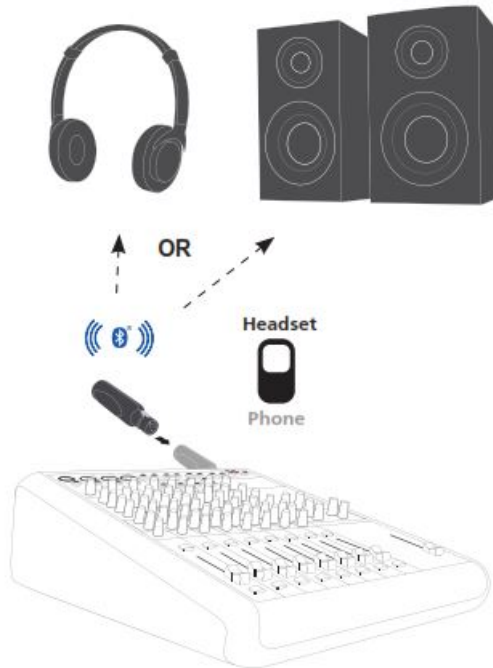


FAQ: Why can't I hear audio from the <Rec> output when connected to my mixer? The BlueDriver F3 <Rec> output is an unbalanced output which needs to be connected to an unbalanced input on your mixer. If you are connecting to a balanced input, Left and Right channels will cancel each other out. Try connecting to a stereo line input instead.

Transmit A2DP Audio

The "Headset" mode of BlueDriver-F3 connects to Bluetooth headphones or wireless speakers, and provides full bandwidth A2DP audio. Simply plug BlueDriver-F3 into the mic-level master audio output of your mixer or playback system, then pair to your headphones or speaker. Also keep in mind that the 3 pin XLR is a balanced mono connection. BlueDriver-F3 sends the mono XLR signal to both left and right channels of the Stereo A2DP Bluetooth signal. A2DP is a one-way transmission, with nothing coming back on the return channel.

Note: Be aware that the standard A2DP music profile includes a 150 millisecond transmission latency.



Broadcast High Quality Audio

Through Our Wireless Link Our BlueDriver-F3 (<Headset> mode) and BlueDriver-M3 (<Phone> mode) can be paired together to create a full A2DP music bandwidth wireless link. Range is limited to 66 feet, but this may be just enough for your application. A2DP is a one-way transmission, with nothing coming back on the return channel.

Note: Be aware that the standard A2DP music profile includes a 150 millisecond transmission latency.



FAQ's

What is the range of the transmitter/receiver?

BlueDriver-F3 transmits and receives audio signals up to 66 feet from your Bluetooth wireless technology enabled 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 BlueDriver-F3 as close as possible to your Bluetooth device to conserve battery power.

Why won't the BlueDriver-F3 pair with my phone?

If this is the first time you are trying to pair to this cell phone, you might be in Idle Mode instead of Pairing Mode and your BlueDriver-F3 is not being recognized. Make certain that the Role Select switch is set to <Phone>. If the BlueDriver is set to <Headset>, it might be discovered by the phone, but will be unable to connect when selected.

Why won't BlueDriver connect to my device?

Ideally, the master device will search for the headset device. If the BlueDriver isn't pairing with your device, try turning the second device on first from your initial attempt to connect.

Why doesn't the BlueDriver-F3 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 (see page 8), then power the unit back on before the change takes effect.

How long will the charge on the battery last?

Based on tests with BlueDriver-F3 about 1 meter from a Bluetooth device, the battery should last for >6 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 long does it take to recharge the battery?

BlueDriver-F3 can fully charge the internal battery in about 2 ½ hours. These batteries do not have a "charging memory" and they can be recharged at any time without changing their life expectancy.

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.

Will BlueDriver-F3 work with my condenser mic?

BlueDriver-F3 does not provide phantom power to condenser microphones.

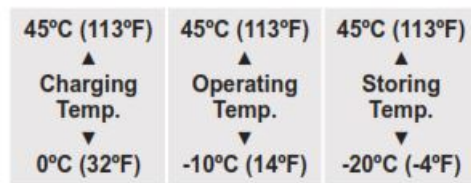
Technical Information

Battery Information

BlueDriver 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 BlueDriver, 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.

Safety Precautions

While BlueDriver was designed to be very rugged and durable, it is not waterproof and care should be taken to keep the unit dry. To maintain quality performance and prolong battery life, this device should be charged, operated and stored within the temperature ranges below.



Input

- **Connection:** 3 pin female XLR
- **Impedance:** 1k ohms
- **Level:** -34 dBu nom.

Output

- **Connection:** 1/8" (3.5mm) stereo
- **Impedance:** 16 ohms
- **Level:** 35 mW (750 mVRMS)

Power

- **Connector:** Mini-USB Series B
- **Battery:** (250 mAh) Internal Lithium-Ion Polymer Rechargeable

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.

Dimensions

- **Size:** 1.1" x 4.4" (2.8 cm x 11.2 cm)
- **Weight:** 2.1 oz (60 g)

Bluetooth Wireless Technology

- **Standard:** Bluetooth 3.0
- **Range:** 66 feet (20 meters)
- **Frequency Response:**
 - **Hands-Free (Full Duplex):** 300 Hz–3.4 kHz
 - **Hands-Free (Full Duplex HD):** 50 Hz–7 kHz
 - **A2DP (Master» Headset):** 30 Hz–17 kHz
- **End-to-End Latency:**
 - **Audio-for-Video or Audio Recording:** 25 ms using HD Voice Profile.
 - **Streaming Full Bandwidth Audio:** 150 ms using Bluetooth A2DP Profile.

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

BlueDriver will first attempt to connect using the Hands-Free Profile. If the Hands-Free Profile is not available, BlueDriver will attempt to connect using the A2DP streaming Profile.


Declaration of Conformity

Manufacturer's Name:	JK Audio, Inc.
Manufacturer's Address:	1311 E 6 th Street Sandwich, Illinois 60548 USA
Declares that the product:	
Product Name:	BlueDriver F3™ Wireless Audio Interface
Model Numbers:	BlueDriver F3
Conforms to the following Product Specifications:	
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
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 2015/863	
The Technical File containing supporting documentation is maintained at:	
JK Audio, Inc (Corporate Headquarters) Compliance Manager 1311 E 6th Street Sandwich, Illinois 60548 USA +1-815-786-2929 phone +1-815-786-8502 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.

Documents / Resources

 BlueDriver F3™ Wireless Audio Interface JK Audio	JK Audio BlueDriver-F3 Wireless Audio Interface [pdf] User Guide BlueDriver-F3, Wireless Audio Interface, Audio Interface
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References

- [JK JK Audio](#)

Manuals+.