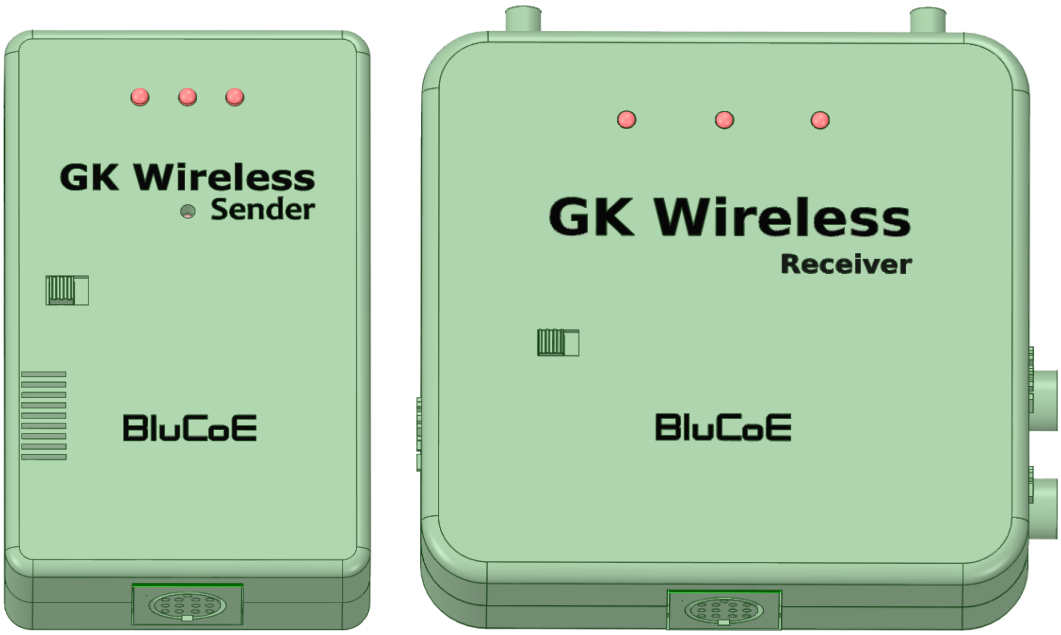
BluCoE
BlueCollars Electronics

User Manual

GK Wireless System



GKWS052 **GKWR052**

The GK Wireless system is a wireless replacement for a 13-pin DIN cable between a Roland GK3 divided pickup and a guitar synthesizer. It prevents stumbling over the long cable, provides a more robust connection and gives you more freedom of movement.

Table of Contents

Important safety instructions

Precautions

WARNING - When using electric products, basic precautions should always be followed, including the following:

- READ this user manual
- KEEP this user manual for reference
- HEED all warnings ⚠
- FOLLOW all instructions
- DO NOT use this device near water, rain or moisture
- CLEAN ONLY with a dry cloth
- DO NOT block any ventilation openings
- DO NOT store near any heat sources such as open flames, radiators, stoves, or other apparatus that generate heat
- PROTECT the power cord from being walked on or pinched
- ONLY USE attachments and accessories specified by the manufacturer
- UNPLUG the device during thunder storms and when not in use for a long period of time
- REFER all servicing to qualified service personnel
- DO NOT attempt to modify this product. Doing so could result in personal injury and/or product failure
- Operate this device inside only, within the temperature range of -20 to 50 degrees Celsius
- Remove batteries when device is not in use.

Waste Electrical and Electronic Equipment Directive

At the end of its life this product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.

What is in the box?

Included items

I1

GK Wireless Sender
Model: GKWS052

I2

GK Wireless Receiver
Model: GKWR052

I3

Footswitch

I4

Receiver 13-pin standard DIN cable

I5

Jack cable

I6

2x RP-SMA antenna, 3dBi

Optional accessories (buy separately)

O1

Sender 13-pin standard DIN cable

O2

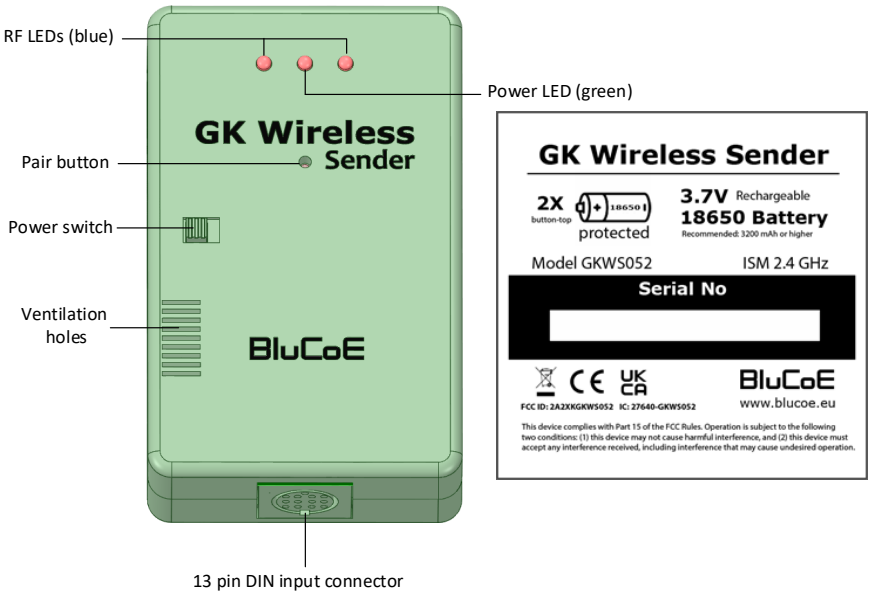
Sender 13-pin locking DIN cable

O3

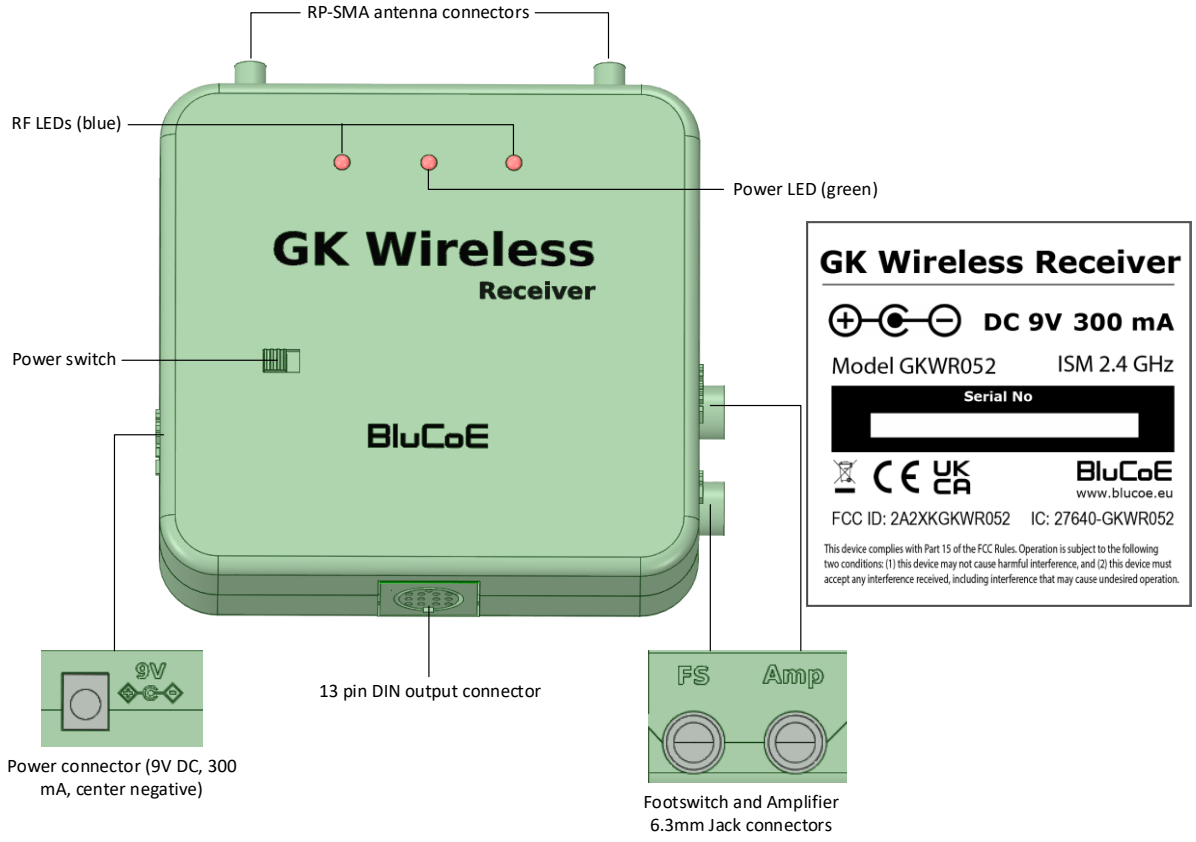
Sender 13-pin right-angle DIN cable

Product Overview

GK Wireless Sender



GK Wireless Receiver



Power on/off

Batteries for the sender

Open the battery cover on the back of the sender to insert two protected 18650 rechargeable batteries with button top (not included). It is recommended to use 3200 mAh or higher batteries.

 Only use **protected** 18650 batteries with a button top. Unprotected batteries have no current protection and may cause a fire in case of a short circuit.

 Remove batteries when sender is not in use.

Power adapter for the receiver

The receiver can operate with a standard 9V 300 mA power adapter with center negative polarity (not included). This is the same adapter as used by most guitar effect boxes.

 Actually, the receiver accepts any voltage between 5V and 20V DC with center negative polarity.

 Use a dedicated power adapter for the receiver. Daisy chaining the power from other equipment may cause a hum in your sound.

Power switches

Slide the power switch to the right on both the sender and the receiver. The green power LED turns on and the blue RF LEDs are flashing or solid, depending on the state.

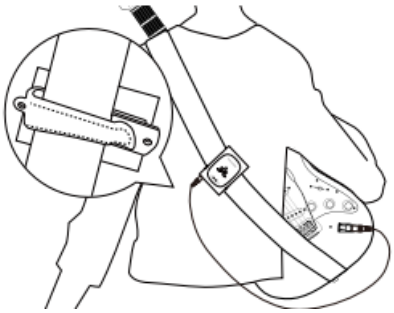
If the blue RF LEDs are flashing then the sender and receiver need to be paired. Press the pair button on the sender once with a pen or other small pin. When the pairing succeeds, the blue RF LEDs will turn solid.

 A sender remembers when it is paired to a receiver, so next time you turn on the sender and receiver they will connect automatically and the blue RF LEDs turn solid immediately.

Once the blue RF LEDs are solid, then the sender and receiver are connected and ready for use.

Setting up the GK Wireless System

1. Insert fully charged 18650 protected batteries with button top in the sender.
2. Connect the sender DIN input to your GK3 (or compatible) with one of the optional 13-pin DIN cables.
3. The sender comes with a belt clip. Clip the sender to your guitar strap during use.



The sender transmits radio waves. Keep the sender at least 20cm (7.85 inches) away from your body.

4. Connect a power adapter to the receiver connector
5. Connect the receiver DIN output to your synthesizer with the included 13-pin DIN cable.
6. Optionally, you can connect a footswitch to the receiver FS jack input and a second guitar amplifier to the receiver Amp jack output. Now if the footswitch white indicator LED is on you are playing through your guitar synthesizer. If it is off, you are playing through your second guitar amplifier.

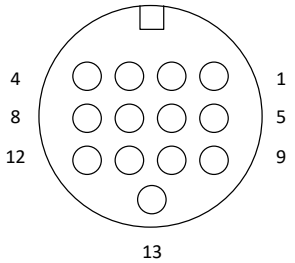
This is useful for performances when you want to use both the guitar synthesizer and a regular guitar amplifier. Connect your regular amplifier as second amplifier and switch instantaneously between the synthesizer and regular amplifier with the footswitch.

With no footswitch is attached, the receiver defaults the GK3 divided pickup signal to the receivers DIN output. *Similar to playing through a DIN cable*

Main Specifications

Frequency band	2.4 GHz ISM license free band
Tuning bandwidth	2400-2483 MHz
Modulation scheme	Other Wideband with Adaptive Frequency Hopping, 18 channels @ 4 MHz bandwidth
Antenna type and gain	This radio transmitter [IC: 27640-GKWR052] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device. Receiver: 2x RP-SMA antenna, Gain 3 dBi Sender: 2x PCB antenna, Gain 3dBi
RF output power	100 mW e.i.r.p. max
Range	Up to 20 m (65 ft)
Transmit mode	Proprietary digital
Audio Frequency Response	20 Hz – 20 KHz
Sample rate	24 bits @48 KHz sample rate
Audio latency	~16 ms
Operating temperature	-20°C to 50°C, -4°F to 122°F
Power requirements	Receiver: Adapter; 5 – 20 V DC (9V typical), 300 mA Center negative polarity Sender: 2x rechargeable Li-ion battery; 3,6 V DC 18650 protected with button top
Battery life	Sender: ~7 hours (@ 3500 mAh batteries)
Dimensions	Receiver: 113.60 (W) x 109.25 (H) x 33.50 (D) mm 4.47 (W) x 4.3 (H) x 1.32 (D) in. Sender: 65.50 (W) x 105.30 (H) x 31.80 (D) mm 2.58 (W) x 4.15 (H) x 1.25 (D) in. Footswitch: 60 (W) x 118.50 (H) x 50.70 (D) 2.36 (W) x 4.67 (H) x 2 (D)
Weight	Receiver: 112 g (3.95 oz.) Sender: 96 g (3.38 oz.) Footswitch: 166 g (5.86 oz.)

13-pin DIN female connector



1. Divided pickup string 1
2. Divided pickup string 2
3. Divided pickup string 3
4. Divided pickup string 4
5. Divided pickup string 5
6. Divided pickup string 6
7. Guitar pickup output
8. Synthesizer volume
9. Guitar/Mix/Synth switch
10. S1 switch
11. S2 switch
12. +7V
13. -7V

Service

When you need service, contact BluCoE via the website: https://www.blucoe.eu/contact

Office address:

BlueCollars BV
Beemdheuvel 28
5685 AE Best
The Netherlands

Warrantee

Warrantee is one year after purchase. Carry-in (or shipping cost for customer)

Certifications

The wireless system may be operated in countries that accept at least one of the following markings.

CE / UKCA

This product meets the Essential Requirements of all relevant European directives and is eligible for CE and UKCA marking.

Hereby, BlueCollars BV declares that the radio equipment is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.blucoe.eu/compliance

Meets essential requirements of the following European Directives:
WEEE Directive 2012/19/EU, as amended by 2008/34/EC
RoHS Directive EU 2015/863
RED Directive EU 2014/53
Note: Please follow your regional recycling scheme for batteries and electronic waste

FCC Regulatory 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.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment 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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

ISED Regulatory Compliance

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) L'appareil ne doit pas produire de brouillage;
(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 5 mm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 5 mm entre le radiateur et votre corps.