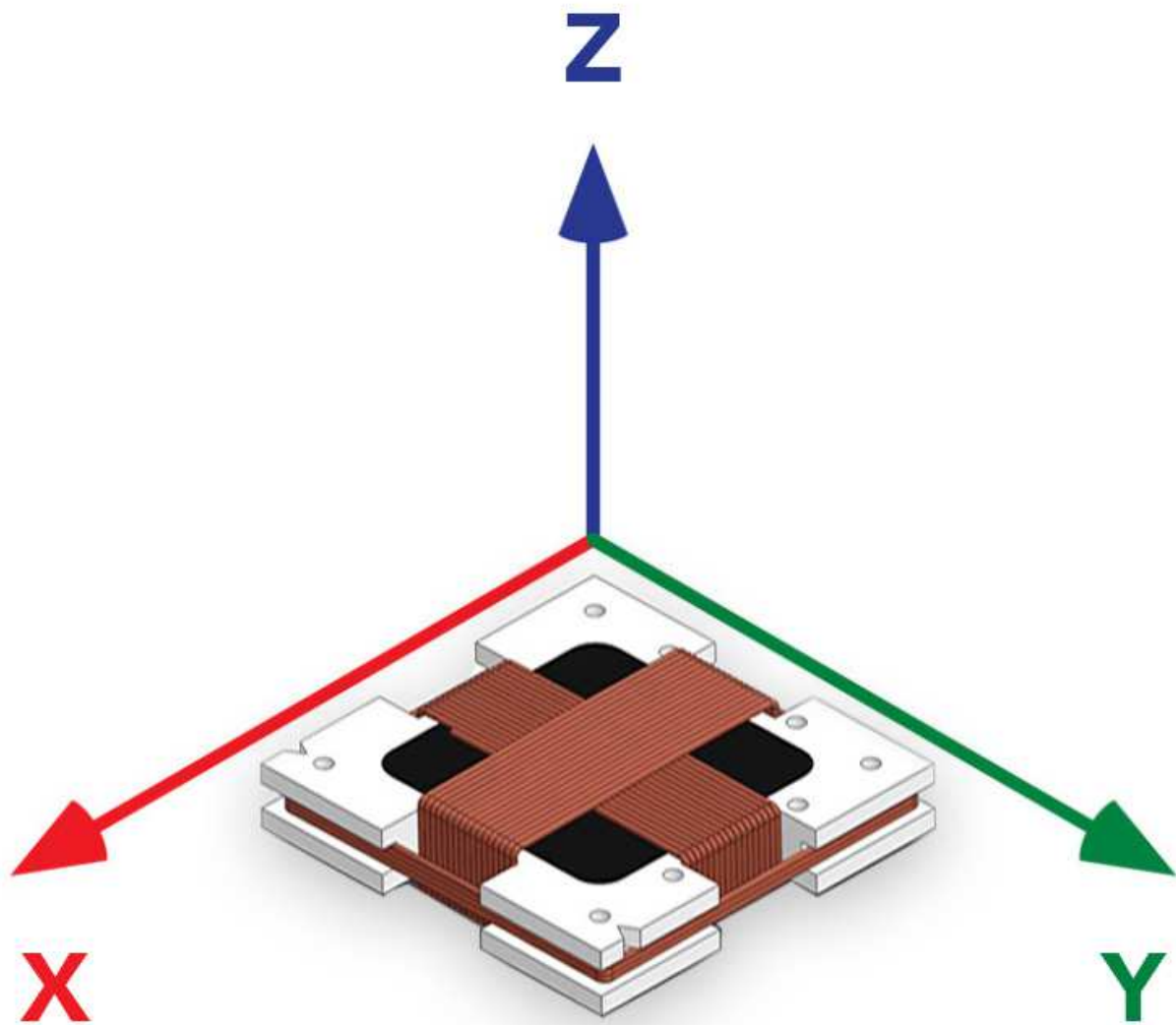


Volna-3SEN



3D COIL INSIDE

The unique technology of translating the signal levels from the 3D antenna (in three directions - as in the original key!) applied in the VOLNA-2 (3D) device has made it possible to multiply the quantity and quality of triggering and raise the device's efficiency to a completely new level!

The device designed for retransmission of requests, in one-way direction ("SHORT MODE"), and in both directions ("LONG MODE"). Long mode activated optionally at the request of the customer. In this mode the distance can reach 300-500 meters in a straight line visibility from the car to the key. In "SHORT MODE" the answer from the key must reach the car on its own. The working distance from the car to the key is from 15m to 100meters, depending on the type of key, the state of its battery and various interferences. The device allows you to open the doors and start the car engine.



Selection of the operating mode - One of the switches is turned down (**ON**), all the others are turned up (**OFF**). The operating mode **MUST BE SELECTED** only on the repeater (CAR SIDE BOX). KEY SIDE BOX should always be switched up (**OFF**). Optionally, you can control this device via smartphone, then switches on BOTH boxes must be UP (**OFF**)

This device allows you to work with both an internal and an external antenna. The distance with internal antenna is from 4m to 7m. With external antenna - from 8m to 15m. (the distance depends on the operating mode and the car brand). An external antenna is connected through a circular connector located on the front of the device. Switching from internal to external or vice versa is carried out automatically when the connector is switched from an external antenna. The external antenna is designed for 3 frequency ranges (20 kHz, 125 kHz, 134 kHz), it should be used only in expanded form, trying to give it a circular shape.

Position of the switches (Modes):

Mode-123 «20 kHz»



MERCEDES X166, X164, W222 (FBS-3 и FBS-4) and same , also AUDI A_,Q5,Q7 from 2015m.y. AUDI Q8.

Mode-1234 «125kHz» - supports almost all of the keyless systems working on 125kHz range



- AUDI (all of 125kHz)
- BMW (all of 125kHz)
- RANGE ROVER/LANDROVER/JAGUAR (all of 125kHz)
- CADILLAC (all of 125kHz)
- CITROEN (all of 125kHz)
- FORD (all of 125kHz)
- HYUNDAI (all of 125kHz)
- INFINITY (all of 125kHz)
- KIA (all of 125kHz)
- MAZDA (all of 125kHz)
- MERCEDES (221, old MLW164 и GLW166 - where 125kHz is used)
- NISSAN (all of 125kHz)
- OPEL (all of 125kHz)
- PEUGEOT (all of 125kHz)
- PORSCHE (all of 125kHz)
- RENAULT (all of 125kHz)
- SEAT (all of 125kHz)
- SKODA (all of 125kHz)
- SUZUKI (all of 125kHz)
- TESLA (all of 125kHz)
- VOLKSWAGEN (all of 125kHz)

Also other models which using same frequency

Mode-12345 «134 kHz»



TOYOTA and SUBARU (key types D4,94,98,88)
Also other models which using same frequency

Mode – 47 «134kHz»



TOYOTA from 2016 m.y. (key type 9A)

It should be noted that this list for all of the listed modes may not be complete, you will be able to supplement it during use of the device

The above MODES can be switched "on the fly" without restarting the device.

Indication carried out by 3 LED's.

WHITE (transparent LED) - indication of the algorithm operation and the presence of interferences instead of requests.

RED (color red) - availability of requests.

GREEN, RED (matte white) - Multi-function indicator, flashing slowly - waiting for requests, flashing quickly - sending requests. It also indicates a strong or weak communication signal between devices. If blinking green - an excellent confident signal, red - the devices are at a critical distance from each other.

DEVICE MUST BE SWITCHED OFF BEFORE CHARGING

After device is turned on, the red LED lights for a long time or the device turns off automatically- the battery is discharged, turn off the device and charge it. The lithium-polymer battery consists of three separate batteries, therefore, there are three indicators on the charger (charger). Charge until all three LEDs light up green on the charger. If the devices are not fully charged, unstable operation is possible. If you have fully charged both devices, but the functionality has not recovered - replace the batteries. Periodically inspect the batteries in each device, if there are signs of swelling - replace the battery. When connecting the charging connectors, the correct position of the connector must be observed. The device uses powerful batteries, incorrect charging connection will lead to smoke and possible fire of the device, be careful and attentive. Always visually check the charging process! Never leave the device connected to the charger unmonitored - there is a risk of spontaneous battery ignition. Below are the different types of chargers that can be used to charge the battery, they differ only in functionality.



Battery replacement

1. Replace the battery only if it is not charging or the operating time of the device has decreased to 1 hour or less.
2. To do this, unscrew the two screws at the bottom of the device in the area of the battery cover.

Device not intended for criminal use

3. Remove the cover.
4. Disconnect the battery connector by pulling on the wires leading to the connector.
5. Detach the battery from the case by pulling on the edge of the battery. It will take a lot of effort.
6. Purchase a new battery of the same size.
7. Install the battery into the compartment.
8. Pay attention to the tabs on the connector. Plug in the connector.
9. Close the compartment and tighten the two screws.



SPECIAL MODE – « **Transport mode** ».

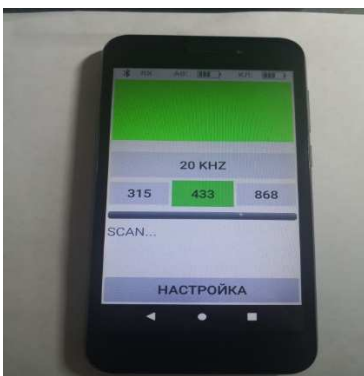
Made for the convenience of moving the device (transportation), as well as convenience and protection against accidental activation.



All of the switches on both device must be set to **ON** (DOWN) ,as pictured above.If you switch devices in this mode,they shortly switches on, blink several times and then switch off.

1.Usage of the Smartphone:

With the help of a special Android APP installed on smartphone, you can control and visually observe the operation of devices.



Device not intended for criminal use