AMP V9.1

UNIVERSAL SMART KEY REPEATER FOR KEYLESS ACCESS SYSTEM.

➢ PURPOSE OF THE DEVICE

The complex AMP is designed to provide emergency access to vehicles equipped with keyless entry systems. Access to such cars is provided by relaying signals from the original smart key.

➢ SUPPORTED MODELS

Audi - all models 2005-2024;
BMW - all models 2003-2024 (**E, F, G** series);
Bentley, Infinity, Hyundai, Jeep - all models before 2024;
Range Rover/Jaguar - all models 2009-2024;
Mercedes Benz - all models 2003-2024;
Mitsubishi, Mazda, Nissan, Opel, Peugeot, Renault, Rolls-Royce, Seat, Skoda, VW - all models before 2024;
Lexus/Toyota: all models 2006-2024 (key types **D4**, **94**, **98**, **88**, **39**, **39**, **A8**, **A9**, **AA, BA**);
Porsche: all models before 2024;
Tesla: all models equipped with smart key.

* **If the car brand is not in the list, it is necessary to experimentally determine the mode that ensures the operation of the complex for such a car brand.**

➢ SUPPORTED FREQUENCIES

433**MHz** (Europe), 434**MHz** (Europe), 868**MHz** (Europe), 315**MHz** (America), 312**MHz** (Japan).

➢ THE KIT

- **KeyTester** (big block, fig. 1);
- **AutoTester** (small block, fig. 2);
- **Power supply unit** (12V);
- **Charging device**;
- **External antenna** (blue marked jack, fig. 5);
- **External antenna** (red marked jack, fig. 6).

ATTENTION!!! THIS DEVICE IS USED AS A TEMPORARY SOLUTION IN EMERGENCY CASES FOR AUTO SERVICES, DEALERS, AND POLICE OFFICERS! NOT INTENDED FOR PERMANENT USE! THE MANUFACTURER IS NOT LIABLE FOR THE USE OF THE DEVICE FOR CRIMINAL PURPOSES!

➢ DESCRIPTION OF DEVICE OPERATION

The relay complex AMP consists of 2 blocks: a big block (**KeyTester,** fig. 1) and a small block (**AutoTester,** fig. 2).

- **KeyTester** is intended for scanning and transmitting signals from the key to AutoTester.
- **AutoTester** receives the signal from the key, relayed by KeyTester, and transmits it to the car.

➢ CONDITIONS OF USE AND TECHNICAL SPECIFICATIONS

1. Unlocking the doors and starting the car possible only if KeyTester is placed within the range of the original key, while AutoTester is placed near the vehicle. In this case, the operating modes corresponding to the vehicle must be turned on on KeyTester and AutoTester.
2. For stable key transmission, the distance from the KeyTester to the key should be between 2 and 9 meters (depends on the make of the car and the charge level of the battery in the key). When using an external antenna (available upon request), the distance increases to 12-17 meters.
3. To unlock the door, AutoTester must be at a distance of about 10-20 cm from the door handle or receiving antenna. The antenna can be located between the front and rear doors, in the middle of the rear door, in the car's thresholds, in the pillar between the doors, or in another location (you can find it yourself experimentally).
4. The working distance between KeyTester and AutoTester can vary from 30 to 100 meters (depending on the terrain, level of interference, and side emissions). This distance is determined by the range of operation of the original key in the close/open mode.

5. To activate relay transmission (under the condition of correctly placing KeyTester near the key), touch the door handle or open the door by placing the turned-on AutoTester in the designated location. The AutoTester indicator **(fig.1, pos. C)** will start flashing periodically (indicating the reception of a signal from the car). If all the conditions for placing KeyTester and AutoTester are are met, and the car is within the range of the key, the key signal starts being relayed to the car. After that, it is possible to unlock the car and start it. If the relay mode is activated, the car will automatically unlock when the door is opened.

6. After unlocking and opening the car, it is possible to turn on the ignition and start the car by pressing the "START" button. In this case, AutoTester is placed in the car interior near the receiving antenna of the keyless entry system. Depending on the car model, the reception antenna can be placed near the gear shift lever, above the driver's feet, near the passenger seat, close to the Start button, near the armrest, or in another location.

➢ KeyTester CONTROL ELEMENTS (fig. 1, big block)

1) Power button of the device **(fig. 1, pos. B)**
(when the button is turned on, the device's power indicator lights up **(fig. 1, pos. A)**.

Attention!!! The hidden button (**fig. 1, pos. F**) is used to prevent accidental power-on during transportation of the device.

2) Low battery Indicator **(fig. 1, pos. D)** (when the battery is fully charged, the indicator does not light up, but with an acceptable discharge, there may be a weak glow).

3) Mode switch button **(fig. 1, pos. E)** (the button toggles between preset operation modes by sequential pressing. For the correct operation of the complex, the selected operating mode must match in KeyTester and AutoTester).

4) External antenna **(fig. 1, pos. H)** (**blue marked jack**) – Mercedes Benz (before 2020), Audi (before 2022), Porsche (before 2023). External antenna **(fig. 1, pos. H)** (**red marked jack**) - Mercedes Benz (after 2020), Europe, Korea, Japan.

5) LEDs and indication of operating modes **(fig.1, pos. C).**

Fig.1

➢ **AutoTester CONTROL ELEMENTS** (**fig. 2**, small block)

1) Power button of the device (**fig. 2, pos. B**)
(when the button is turned on, the device's power indicator lights up (**fig. 2, pos. A**).

Attention!!! The hidden button (**fig. 2, pos. F**) is used to prevent accidental power-on during transportation of the device.

2) Low battery Indicator (**fig. 2, pos. D**) (when the battery is fully charged, the indicator does not light up, but with an acceptable discharge, there may be a weak glow).

3) Mode switch button (**fig. 2, pos. E**) (the button toggles between preset operation modes by sequential pressing. For the correct operation of the complex, the selected operating mode must match in KeyTester and AutoTester).

4) LEDs and indication of operating modes. **(fig.2, pos. C).**

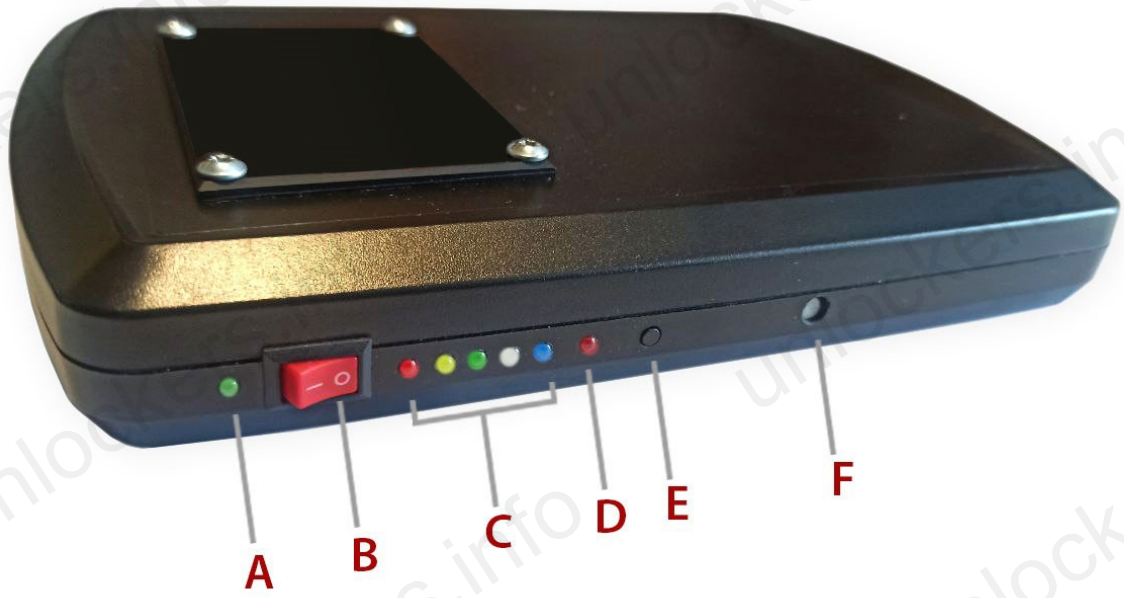

Fig.2

❖ **OPERATING MODES**

- **Red** LED (Japan) - models (key types D4, 94, 98,88, 39) before 2017, LC200 up to 2014, Volvo 2017-2024.
- **Orange** LED (Japan New) - models (key types 39, A8, A9, AA) 2014 - 2024 (RX, NX, LX, LC300).
- **Green** LED (Europe) - BMW, Porsche, Bentley, VW, Mitsubishi, Nissan, Mercedes before 2011, etc.
- **White** LED (Europe New) - all models New Mercedes 2021-2024, Range Rover/Jaguar 2010-2024, BMW 2020-2024. This mode may be used for other European and Japanese models.
- **Blue** LED (Mercedes and Audi) - Mercedes models after 2011-2020 (FBS4), Audi 2008-2022, Porsche 2018-2023.

* **If the car brand is not in the list, it is necessary to experimentally determine the mode that ensures the operation of the complex for such a car brand. At the same time, the selected operating mode is set to the same for KeyTester and AutoTester.**

(Indication examples for KeyTester)

(Indication examples for AutoTester)

Fig.3

❖ EXTERNAL ANTENNA

An external antenna for KeyTester (connection point **fig. 1, pos. H**) increases the distance from the key to the KeyTester to 12-17 meters. In most cases, the complex is effectively used without an external antenna. The kit includes 2 external antennas with **red** or **blue** markings on the jack, which are connected to the corresponding connectors. (**fig. 4**).

1) The external antenna with **blue marking** on the jack (**fig. 5**) is used in vehicles - Mercedes Benz (up to 2020), Audi (up to 2022), Porsche (up to 2023). The antenna is connected to the corresponding socket with the **blue marking** next to it and is accompanied by **blue** LED indicator (**fig.4**).

2) The external antenna with **red marking** on the jack (**fig. 6**) is used in vehicles - Mercedes Benz (after 2020), Europe, Korea, Japan. The antenna is connected to the corresponding connector with the **red marking** near the socket and is accompanied by **red**, **orange**, **green** or **white** LED indication (**fig.4**).

ATTENTION!!!

⚠ During use, the external antenna should be straightened into a shape as close to a circle as possible and should not be placed near metal surfaces!

⚠ Connecting the antenna to the incorrect socket will cause device damage!!!

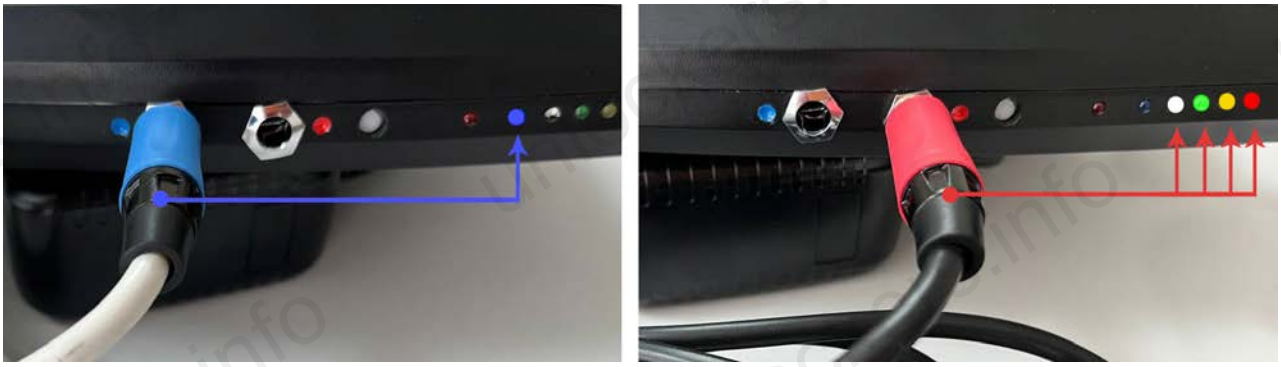

Fig.4

Fig.5

Fig.6

❖ **CHARGING THE DEVICE**

Charging the device is carried out by removing the battery compartment cover and connecting the battery cable to the charging device **(fig.7 – 8)**.

Fig.7

Fig.8