

## TESTER REMOTE CONTROL SYSTEM v1.0

The diagnostic complex is intended for testing the remote-control system of the car's central lock by employees of service and other services. Any illegal actions using this complex are prosecuted by law.



### Description of the device

The diagnostic complex is designed to test remote control systems for the central locking of TOYOTA/LEXUS 88, A8, A9 and SUBARU F3 cars with types of keys.

The diagnostic complex (hereinafter referred to as the "device") consists of two elements: the hardware and the program running the Android OS. The program can be installed on any mobile device running the Android operating system (software version 11 and higher).

After launching the application, the main page will open (Fig. 1).

To get started, you need to click on the button with the Bluetooth symbol.



After connecting the mobile device and the hardware, all buttons in the application will become active as in Figure 1.



Fig 1

It is necessary to create a memory cell to record the data of the vehicle's remote system by pressing the CREATE CELL key.





If you need to select previously saved data, you must select the saved cell by pressing the **SELECT CELL** key. 

After creating a key cell or selecting a previously created one, you must press the **NEXT** key. The Figure 2 page opens.

Next, you need to select the brand of the car, the radio frequency range of the region, the type of key to be diagnosed. Confirm the selection by pressing the **CONFIRM** key. The page Figure 3 opens. **Information with the name of the cell, the selected type and frequency range of the key will be at the top of the page.**

Figure 2

To calculate the data, it is necessary to poll the **KEYLESS** system of the car and the key. For the system 88, a sequential (in one time period) reading of the key and the car by **KEYLESS** is necessary (the reading order is not important). For A8, A9 systems, the sequence and moment of reading the **KEYLESS** system of the car and the key are not important.

Steps:

- Press the **KEY SCAN RUN** key. 
- Wait for a successful reception from the key. 

The **RID**, at the top of the page, will be populated with key data.



In the case of receiving data from one of the **LOCK / UNLOCK** buttons pressed on the key, the device will offer to calculate the key password by activating the **CALC RUN** button. 



Figure 3.

- If data is received only from **KEYLESS**, then press the **CAR SCAN RUN** button. 

Go to any car door (with the existing **KEYLESS** antenna) and activate the request from it by touching the door opening handle. Wait for a successful reception from the car. The device will  prompt you to calculate the activation key password

**CALC RUN** buttons. 

Pressing this key will start the procedure for calculating the key password.

Depending on the selected type of remote control system for central locking (88, A8, A9), the testing procedure will take different times (up to 6.5 hours).

At the end of the calculation, the state of the **CALC RUN** indicator will change



The key becomes active **TO KEY MODE**.

For testing the **KEYLESS** system or the **REMOTE CONTROL** system

It is necessary to press the **TO KEYMODE**. An inscription will appear on the screen about readiness of key emulation (Fig. 4).

When testing the **REMOTE CONTROL** system, when you press the control buttons on the virtual key, the opening / closing of the car starts working after the meter is synchronized. When testing the **KEYLESS** system, the open/close counter must be synchronized with the +100 and +500 buttons located below the key image.

The operation of the device on the **KEYLESS** channel begins to function immediately after switching the device to **KEYMODE**.



Figure 4.

#### Supported Automotive Systems:

Toyota Auris: 2012 - 2018

Toyota Avensis: 2012 - 2022

Toyota Yaris: 2012 – 2022

Toyota Land Cruiser 200: 2015 – 2021

Toyota Land Cruiser 150: 2018 – 2022

Toyota RAV4: 2012 – 2018

Toyota Camry 2012 – 2022

Toyota Prius 2015 – 2022

Toyota CHR 2016 - 2022

Toyota Alphard 2015 - 2022

Toyota Highlander 2015-2022

Toyota Corolla 2012-2019

Lexus LX570: 2015 – 2022

Lexus NX: 2015 - 2022

Lexus RX: 2015 – 2022

Lexus ES: 2012 – 2022

Lexus IS: 2012 - 2022

Lexus GX: 2018 – 2022

Lexus LS: 2012 – 2022

Lexus RC: 2014 – 2022

Subaru Forester: 2016 - 2022

Subaru Outback : 2016 – 2022

Subaru Legacy: 2016 - 2022

Subaru LEVORG: 2016 - 2022

Subaru XV: 2016 – 2022

**Note:** *The reception range at a frequency of 433 MHz is about 10-12 meters, the range at frequencies of 312,315 is about 5-6 meters.*