

TRC v4.0

The **TRC v4.0** device provides emergency access to Toyota/Lexus vehicles equipped with Keyless systems. It scans the data exchanged between the original key and the vehicle, then performs analysis and calculation (Keyless and Remote Control channels).



- 1) **Scanning** – for analysis and for creating a key emulator from the data exchanged between the original key and the vehicle.
The data can be obtained by two methods, depending on how the vehicle owner uses the key:
 - a) Scanning **REMOTE** channel from the key's buttons (open/close).
 - b) Scanning **KEYLESS** channel of the vehicle's keyless access system.

KEYLESS

- **KEY SCAN** – at the moment of opening/closing/start/stop or other actions;
 - **DOOR SCAN** – scanning signals from the car door when the device is located near the door.
- ✓ KEY SCAN and DOOR SCAN can be performed in any order.
- ✓ Before scanning, set the region and key type in the cell according to the vehicle.
- 2) **Analyze** – calculation for creating a key emulator. Before starting, verify the region and key type corresponding to the vehicle. Estimated time: from **20 minutes** to 12 hours (but usually 15-60 minutes).
 - 3) **Emulator** – emulation of the vehicle key (unlock/lock/start; all functions of the original key).

The following can be used for emulation:

Internal emulator – uses the device;

External emulator – uses the key emulator; no device is required (data from the device must be written to the emulator).

Supported models, Keys And Frequencies

Toyota / Lexus: all models 2017-25 with smart key types **88/A8/A9/AA/BA/B8/B9/39/F3/HTAA/HTBA**;

Subaru: all models 2016-2023 with smart key type **F3**;

Mazda: all models 2022+ with smart key types **HTAA/HTBA**;

Suzuki: all models 2021+ with smart key types **HTAA/HTBA**.

- * Supported Frequencies - 433MHz (Europe), 315MHz (America), 312MHz (Japan);
- * Scanning of 88/B9/BA key types is only possible in REMOTE mode;
- * Key type B9 works only in the open/close mode;
- * Key types 98, D4, 98 will be added later (some vehicles from 2003 to 2015).

THE KIT

- Scanning and emulation device;
- Emulator in the key housing;
- Antenna;
- Cables for charging and updates.

Attention!!! The device is intended as a temporary solution for emergency use by auto services, dealers, and police personnel!

DEVICE OPERATION (Step-by-step guide):

Turning on the device

- a) Turn on the power using the top-right (the screen will remain blank).
- b) Press and hold the **middle** and **right** buttons for **5 seconds** (the code 0000 will appear on the screen).
- c) There are two types of PIN codes: **demo** (5 calculation attempts) and **full** (unlimited number of calculations).
- d) Enter the Pin-code XXXX (middle button - change value; right button - next digit; left button - confirm).
- e) After entering the PIN code, the menu page will open.



Menu

- **SETTINGS** (Setting parameters);
- **SCANNING** (Scan mode);
- **ANALYZE** (Calculation mode);
- **EMULATOR** (Emulation mode).



✓ The menu items match the operating modes.

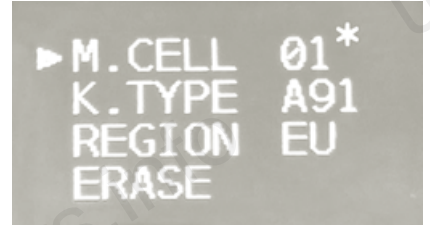
Control buttons

- Left button **#1 (ESC)** - Exit;
- Middle button **#2 (SELECT)** - down / next value;
- Right button **#3 (ENTER)** - change / confirm.



1. SETTINGS (setting parameters)

a) **M.CELL** - select the cell. Depending on the content, the cells are marked with markers (to the right of the number) - **K/D/R** or ***** (asterisk);



- **K** - the keyless entry is recorded (radio signal from the key);
- **D** - the door handle is recorded;
- **R** - the remote button is recorded;
- ***** - the cell is correctly calculated and fully functional (the cell cannot be modified, only deleted). To delete the cell (**ERASE**, bottom line), press the **ENTER** key three times within one second.

b) **K.TYPE** - select key type:

88 - **2012-17** Camry, Lexus LS, **2012-18** RAV4, **2012-19** Corolla, **2012-20** Yaris, Lexus ES (see model list);

39 - [**39S/39D**].

39S [single-frequency] **2016-24**, **39D** [dual-frequency] **2016-24** - Hilux, Porte (see model list);

A8 - **2014-21** - LX, NX, LC200, LC150, Highlander;

A9 - [A91/A92]

A91 - **2016-20** - GX, LC, RC, RX;

A92 - **2020-22** - CHR, Camry, Prius Hybrid, RX (see model list);

AA - ES, LS, UX, Highlander, RAV4, Avalon **2018-22** (see model list);

BA - [**BA/B8/B9**]

BA - standard **2022+**;

B8 - with additional UWB **2023+ (USA)**;

B9 - with additional UWB **2023+**;

F3 - Subaru **2016-2022** (see model list);

HTAA - [**AA with HITAG chip**] **2022+** Camry, Corolla, Hilux, Prius, Yaris;

HTBA - [**BA with HITAG chip**] **2022+** Camry, Corolla, Hilux (see model list).

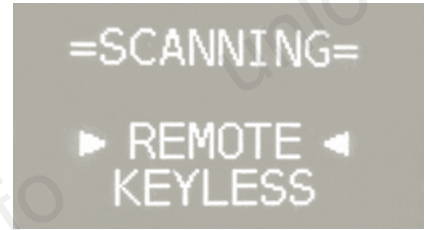
c) **REGION** - select region EU/US/JP - (Europe/America /Japan).

d) **ERASE** - delete the cell data (press button **#3 three times** within **1** second).

✓ No confirmation is required after setting up. Pressing ESC (button #1) will automatically save the configured parameters).

2. SCANNING (scan mode, connect the antenna)

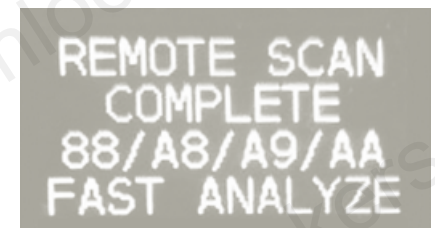
- a) **REMOTE** - scanning REMOTE channel (key fob) (available for all key types);
- b) **KEYLESS** - scanning KEYLESS channel:
 - **KEY SCAN** - scanning the key's response in Keyless-Go mode (supported only for **A8/A9/AA** keys);
 - **DOOR SCAN** - scanning the door handle (supported only for **A8/A9/AA** keys).



✓ The KEY SCAN and DOOR SCAN procedures in KEYLESS mode can be performed in any order.

REMOTE (scanning mode for 88/A8/A9/AA/BA/B9/39/F3/HTAA/HTBA)

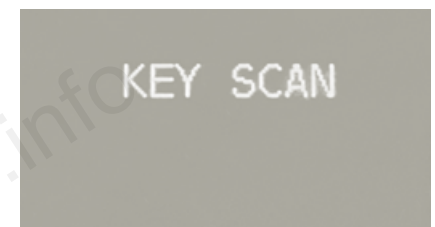
- a) Distance from key 10-30 meters;
- b) To copy the key, activate REMOTE mode. The **jammer** mode is turned on, and the client is forced to press the buttons on the original key;
- c) Wait until the client starts opening/closing the car using the buttons on the key;
- d) At this moment, the device will automatically start collecting data from the original key to create the emulator;
- e) After successful scanning, the screen will display the message "**REMOTE SCAN COMPLETE**" and the recommended **ANALYZE** calculation mode (**FAST** or **DEEP**).



- ✓ After scanning, the jammer mode stops, and the operation of the client's key returns to normal.
- ✓ There should be minimal obstacles between the device and the key.
- ✓ The device antenna must be positioned vertically during operation.

KEYLESS (mode only for key types A8/A9/AA/F3)

The KEYLESS mode consists of two mandatory scanning steps: **KEY SCAN** - key scanning, and **DOOR SCAN** - vehicle handle scanning. The scanning order does not matter.



➤ KEY SCAN (scanning the key)

- a) The distance is up to **10 meters**;
- b) Activate the **KEY SCAN mode**;
- c) The device automatically scans information about the key during vehicle actions (door open/close, engine start, etc.);
- d) "**KEY SCAN COMPLETE**" will appear on the screen.



- ✓ Key scanning is possible at a distance of up to 10 meters only during the exchange process (opening, closing, Start/Stop, or other vehicle actions);
- ✓ The car key must be within the keyless system range during opening, closing, Start/Stop, and other actions.
- ✓ When using key A9, select option A91/92. Most main models typically have these key modifications (see "List of supported models").



➤ DOOR SCAN (scanning vehicle door handle)

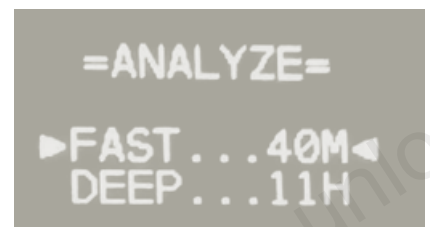
- a) Approach the car (to the handle) at a distance of **15 to 50 cm**;
- b) Activate the **DOOR SCAN mode**;
- c) Stand nearby for about **10-15** seconds or touch the handle;
- d) Wait for 4 scan passes, during operation the information "**DOOR SCAN 1,2,3,4 OF 4**" will be displayed;
- e) After successful scanning, the message "**DOOR SCAN COMPLETE**" will appear on the screen".



3. ANALYZE (calculation mode)

Before starting ANALYZE mode, make sure the **key** and **region** settings are correct.

- a) Activate the **ANALYZE** key calculation mode and select either the **FAST** or **DEEP** method.



* The recommended ANALYZE mode is automatically displayed on the screen immediately after completion of the SCANNING mode.

- **FAST** - fast analysis mode - up to 40 minutes;
- **DEEP** - deep analysis mode - up to 11 hours.



b) After a successful calculation, the message "**ANALYZE COMPLETE SUCCESSFULLY**" will be displayed on the screen.

* If the analysis in **FAST** mode fails, try running the calculation in **DEEP** mode.

* If the analysis fails, change the key settings and repeat the procedure.



ANALYZE
COMPLETE
SUCCESSFULLY

✓ Number of cells/keys - **20 pcs**.

✓ Calculation time is displayed on the screen as a percentage.

✓ The calculation procedure can be performed at any time, having accumulated information and without being tied to vehicles.

✓ The analysis is interrupted by the button **#1**.

4. **EMULATOR** (using the emulator as a substitute for the original vehicle key)

To emulate the original vehicle key, the following can be used:

- **INTERNAL EMU** - the emulator built into the device.
- **EXTERNAL EMU** - the external key emulator is used.

Emulator operating modes

1) **Keyless** - keyless access (opening/closing/Start/Stop);

2) **Remote** - physical pressing of the buttons to open/close the vehicle.

✓ Key B9 works only in the open/close mode.

✓ After using the emulator in Remote mode, pressing the open/close buttons on the original key will stop them from working. To restore the original key's functionality, keep pressing the open/close buttons ("catching up") until the key starts working again.

➤ Built-in emulator mode (Internal EMU)

To use the built-in emulator, the calculation data of the current cell is used, or you need to select another cell with a previously saved key emulator in the SETTINGS menu.



=EMULATOR=
CELL 01
TYPE 39

a) In KEYLESS mode, the emulator functions like the original key when the device is brought close to the door handle or the **Start** button.

b) In REMOTE mode, to **open** the car, press the middle button **#2** on the device (the label "ROP" will appear); to **close** the car, press button **#3** (the label "RCL" will appear).

✓ When using the A9 key, select **A91/92** option. If the emulator does not work, try switching between **A91** and **A92**.

➤ **External emulator (Write EMU)**

To use the external emulator, write the calculated key data from the selected cell into external emulator.



- To record the external emulator, select and activate **WRITE EMU** mode;
- The message "**PLACE EMU NEAR COIL**" should be on the screen;
- On the external key-emulator, press and hold **both buttons** for more than **3 seconds**.
- Wait for the moment when the LED on the external emulator starts flashing rapidly for **30** seconds.
- Place the emulator on the device. Key-emulator will be written in **1** second.
- When the recording is successful, the message "**WRITE EMU COMPLETE**" will be displayed on the device screen!



The recorded emulator is used as the original key in KEYLESS and REMOTE modes.

- ✓ If no actions are taken after holding both buttons for over **30** seconds, the key emulator will revert to previous state.
- ✓ The emulator fully emulates the operation of the remote control and Keyless-Go (**does NOT work as a transponder!**).
- ✓ The emulator configuration can be changed an **unlimited number** of times.
- ✓ The emulator uses a **CR2032** battery.

➤ **Device Firmware Update**

- Turn off the device;
- Connect the **micro-USB** cable;
- Turn on the device - the screen will display "**USB**";
- Launch the software for remote access (**AnyDesk** or **TeamViewer**).

- ✓ The firmware is individual and does NOT work with other devices.
- ✓ All key data stored in the device's memory is encrypted.
- ✓ The device is charged through the **Type-C** port;
- ✓ Update the device's software through the **Micro-USB** port.

- ✓ Opening the device will cause it to break, and the message E1 will continuously appear on the screen !!!

➤ ANTENNAS (used antenna types)



List of supported models

LEXUS		
Model	Year	Key
ES	2012 - 2020	88
ES 250/350	2018 - 2023	AA
ES	2018 - 2023	AA
GX	2017 - 2019	A8
GX	2020 - 2023	A91
GX	2020 - 2023	AA
GX 550	2023+	BA/B9
IS	2013 - 2020	A8
IS	2020 - 2023	A91
LBX	2024+	BA

LC	2017 - 2019	A91
LC	2020 - 2023	AA
LM 350/500h	2024+	BA/B9
LS	2012 - 2017	88
LS	2018 - 2023	AA
LS 500/500H	2020 - 2023	AA
LX 570	2015 - 2019	A8
LX 570	2020 - 2022	A91
LX 600	2022+	BA/B9
NX	2014 - 2019	A8
NX	2020 - 2022	A91
NX	2022+	BA/B9
NX 450h + Hybrid	2023+	BA/B9
NX	2014 - 2019	A8
RC	2015 - 2019	A8
RC	2020 - 2023	A91
RX	2015 - 2019	A91
RX	2020 - 2022	A92
RX	2022+	BA/B9
RX USA	2021 - 2022	AA
RX 450h + Hybrid	2024+	BA/B9
RZ 450e	2023+	BA/B9
TX	2023+	BA
TX Plug-in Hybrid	2023+	BA
TX 500h F Sport	2023+	BA
UX	2018 - 2023	AA
UX	2023+	BA/B9

TOYOTA

Alphard / Vellfire	2015 - 2022	A91
Alphard / Vellfire	2023+	BA
Avalon	2019- 2023	AA
Avensis	2012 - 2022	88
Auris	2012 - 2018	88
Aygo	2014-2019	39
bZ4X	2023+	BA
Camry	2012 - 2017	88
Camry	2017 - 2023	A91
Camry	2024+	HTAA
Camry XV80	2023+	BA
CHR	2016 - 2023	A92
CHR	2016 - 2023	A92
CHR	10/2023+	BA
Corolla	2012 - 2019	88
Corolla	2019+	HTAA
Corolla Cross	2022+	HTAA
Corolla Facelift	2022+	HTBA
Corolla Cross	2022+	HTBA
Facelift		
Crown	2023+	BA
Fortuner	2016-2024	39
4Runner	2020-2023	A91
GR86		F4
Granace	2019-2023	A91
Harrier	2014-2021	A8
Harrier	2023+	BA
Hiace	2013+	39
Hiace	2019 - 2023	AA
Highlander	2014 - 2020	A8

Highlander	2020 - 2023	AA
Highlander	10/2023+	BA
Grand Highlander	2024+	BA
Hilux	2016-2024+	39
Hilux	2024+	HTBA
Izoa	2016-2023	A91
Innova	2016-2022	39
Kluger	2014-2019	A8
Kluger	2019-2023	AA
Land Cruiser 300	2022+	BA
LC 200	2015 - 2019	A8
LC 200	2020 - 2022	A91
Mirai	2015 - 2020	A8
Mirai	2020 - 2022	AA
Mirai	2022+	BA
Noah/Voxy	2022+	BA
Porte/Spade	2012+	39
Prado LC 150	2017 - 2020	A8
Prado LC 150	2021 - 2023	A91
Prado LC 250	2023+	BA
Prius	2015 - 2023	A92
Prius Prime	2016 - 2022	A91
Prius Prime	2023+	BA
Prius	2023+	BA
Prius USA	2023+	HTAA / HTBA
Prius Plugin Hybrid	2015 - 2023	A92
Prius Prime Hybrid	2015 - 2023	A92
RAV4	2012 - 2018	88
RAV4	2018 - 2023	AA
RAV4	10/2023+	BA
RAV4 Plugin Hybrid	2021+	BA
RAV4 Prime Hybrid	2021+	BA
Revo	2016-2024	39
Sequoia	2020-2023	A91
Sequoia	2023+	BA
Sienna	2023+	BA
Sienna	2024+	HTBA
SW4	2016-2024	39
Tacoma	2021-2023	A91
Tacoma	2023+	BA
Tacoma i-Force Max	2023+	BA
Tundra	2020-2023	A91
Tundra	2023+	BA
Tundra i-Force Max	2023+	BA
Venza	2023+	BA
Vios/Yaris	2014-2018	39
Yaris	2012 - 2020	88
Yaris	2021+	HTAA
Yaris Cross	2021+	HTBA
Yaris GR	2022+	HTBA

SUBARU		
Forester	2016 - 2022	F3
SUZUKI		
Ignis	2020+	HTAA / HTBA
Swift	2022+	HTAA / HTBA
Swace	2021+	HTAA / HTBA
MAZDA		
Mazda 2	2022+	HTAA / HTBA

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