TRC v3.0

The **TRC 3.0** 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).

<center>*Supported models, Keys And Frequencies*</center>

Toyota / Lexus: all models 2017-2025 with smart key types **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).
* Key scanning for B9/BA is only possible in REMOTE mode.
* Key types 98, D4, 88, and A8 will be added later (some vehicles from 2003 to 2015).

<center>*THE KIT*</center>

• 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. Not intended for permanent use!

<center>*DEVICE OPERATION (Step-by-step guide):*</center>

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).
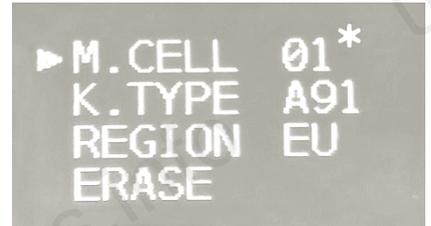
✓ *The menu items match the operating modes.*

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:

39 – **[39S/39D].**
39S [single-frequency] **2016–2024**, **39D** [dual-frequency] **2016–2024** – Hilux, Porte (see model list)**;**
A9 – [A91/A92]
A91 – **2016–2020** – GX, LC, RC, RX;
A92 – **2020–2022** – CHR, Camry, Prius Hybrid, RX (see model list);
AA – ES, LS, UX, Highlander, RAV4, Avalon **2018–2022** (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 **A9/AA**
   keys);
 ▪ **DOOR SCAN** – scanning the door handle (supported only for **A9/AA** keys).

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

REMOTE *(scanning mode for 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**".

✓ *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 AA/A9/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").*
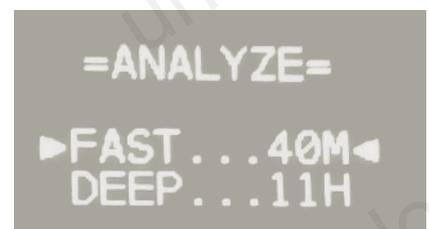
➤ **DOOR SCAN** (scanning vehicle door handle)

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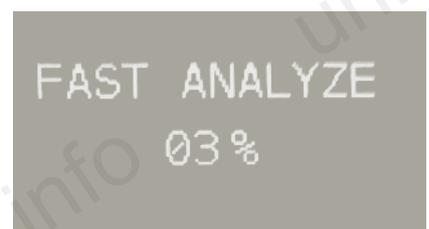
*Before starting ANALYZE mode, make sure the **key** and **region** settings are correct.*

a) Activate the **ANALYZE** key calculation mode and select either the **FAST** or **DEEP** method.
• **FAST** – fast analysis mode - up to 40 minutes (for original keys);
• **DEEP** – deep analysis mode - up to 11 hours (If the car is paired with a non-original key (e.g., Chinese manufacture).

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.

a) To record the external emulator, select and activate **WRITE EMU** mode;
b) The message "**PLACE EMU NEAR COIL**" should be on the screen;
c) On the external key-emulator, press and hold **both buttons** for more than **3 seconds.**
d) Wait for the moment when the LED on the external emulator starts flashing rapidly for **30** seconds.
e) Place the emulator on the device. Key-emulator will be written in **1** second.
f) 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*

a) Turn off the device;
b) Connect the **micro-USB** cable;
c) Turn on the device - the screen will display "**USB**";
d) 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)*

Europe (Standard)

Europe (Boosted)

America/Asia (Japan)

List of supported models

Lexus

Model	Year	Key
ES 250/350	2018 – 2021	AA
ES 300	2022+	BA/B9
GX	2020 – 2023	A91
IS	2021 – 2023	A91
LC	2017 – 2022	A91
LS	2018 – 2023	AA
LS 500/500H	2020 – 2023	AA
LX570	2020 – 2022	A91
LX600	2022+	BA/B9
NX	2020 – 2022	A91
NX	2022+	BA/B9
NX 450h + Hybrid	2023+	BA/B9
RC	2020 – 2023	A91
RX	2015 – 2020	A91
RX	2020 – 2022	A92
RX	2022+	BA/B9
RX 450h + Hybrid	2024+	BA/B9
RZ 450e	2023+	BA/B9
TX	2023+	BA/B9
UX	2018 – 2023	AA

Toyota

Model	Year	Code
Alphard / Vellfire	2015 - 2022	A91
Alphard / Vellfire	2023+	BA
Avalon	2019- 2023	AA
Aygo	2014-2019	39
bZ4X	2023+	BA
Camry	2017 - 2023	A92
Camry	2024+	HTAA / HTBA
CHR	2016 - 2023	A92
CHR	2016 - 2023	A92
Corolla	2019+	HTAA / HTBA
Corolla Cross	2022+	HTAA / HTBA
Crown	2023+	BA
Fortuner	2016-2024	39
4Runner	2020-2023	A91
GR86		F4
Granace	2019-2023	A91
Harrier	2023+	BA
Hiace	2013+	39
Hiace	2019 - 2023	AA
Highlander	2020 - 2023	AA
Grand Highlander	2024+	BA
Hilux	2016-2024	39
Hilux	2024+	HTAA / HTBA
Izoa	2016-2023	A91
Innova	2016-2022	39
Kluger	2019-2023	AA
Land Cruiser 300	2022+	BA
LC 200	2020 - 2022	A91
Mirai	2020 - 2022	AA
Mirai	2023+	BA
Noah/Voxy	2022+	BA
Porte/Spade	2012+	39
Prado LC 150	2021 - 2023	A91
Prado LC 250	2023+	BA
Prius	2015 - 2022	A92
Prius Prime	2016 - 2022	A91
Prius Prime	2023+	BA
Prius	2023+	BA
Prius USA	2023+	HTAA / HTBA
Prius Plugin Hybrid	2015 - 2022	A92
Prius Prime Hybrid	2015 - 2022	A92
RAV4	2018 - 2023	AA
RAV4 Plugin Hybrid	2021+	BA
RAV4 Prime Hybrid	2021+	BA
Revo	2016-2024	39
Sequoia	2020-2022	A91
Sequoia	2023+	BA
Sienna	2023+	BA
SW4	2016-2024	39
Tacoma	2021-2022	A91
Tacoma	2023+	BA
Tundra	2020-2022	A91
Tundra	2023+	BA

Venza	2023+	BA
Yaris	2021+	HTAA / HTBA
Yaris Cross	2022+	HTAA / 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