

Pro Smart v2.1

Toyota / Lexus
2015 - 2018 MY



1. Purpose of the device

The device **ProSmart v2.1** is designed for emergency start of the car and programming the keys in case of their loss.

The device works with SmartKey system that uses new generation SmartEcu (for example, 89990-48430, 89990-48450, 89990-50370, 89990-60470 etc). **Access to the contents of SmartEcu memory in such systems is impossible. These systems are used in cars 2015-2018.**

- **Toyota:** Land Cruiser, Land Cruiser Prado, Highlander, RAV4, CHR, Camry;
- **Lexus:** GX, RX, NX, LS, LX.

Smart keys with ID 88, A8, A9 are used in systems with SmartECU of the new generation.

Attention !!! ProSmart v2.1 performs emergency start car and key programming using another SmartECU (new or used ECU with a key binded to this unit).

ProSmart v2.1 is special adapter with the needle-probes for connection to the LIN bus of the vehicle + OBD adapter (See fig. 1).



fig. 1

For emergency start of the car and programming of the smart-keys the following procedures are performed:

- **ResetImmo** - resetting the vehicle immobilizer ECU;
- **SmartAdaptation** - binding another Smart ECU (new or used ECU with the key binded to unit) to the car SmartKey system;
- **AddKey** - binding additional smart key (if necessary).

2. ResetImmo procedure

ResetImmo is performed by **ProSmart v2.1** via the LIN bus.

To perform ResetImmo requires:

- 1) **Unplug all connectors from Smart ECU !!!**
- 2) Connect **ProSmart 2.1** to SmartECU connector using the needle probes. (See fig. 2-5)
** The colors of wires may differ from those shown in the photo.*



Fig. 2

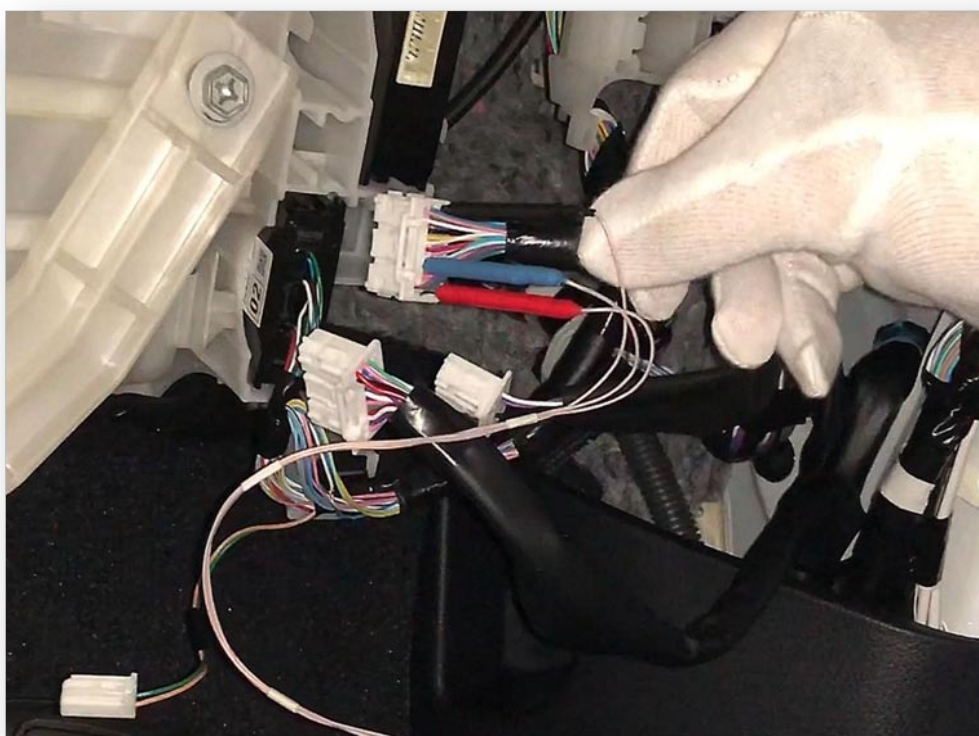


Fig. 3



Connection table (Smart ECU connector J41) for Lexus RX, Hybrids and LS 500H	
Pin number of J41 connector	Color of the needle-probe
18	Black
13	Blue
4	Red

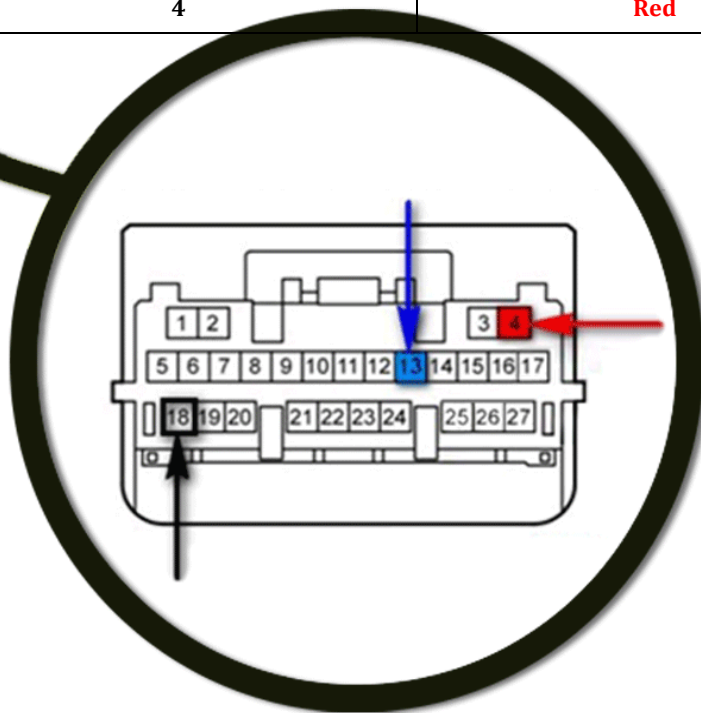


Fig. 4



Connection table (Smart ECU connector J41) for Lexus LX, Prado and LC 200	
Pin number of J41 connector	Color of the needle-probe
11	Black
6	Blue
10	Red

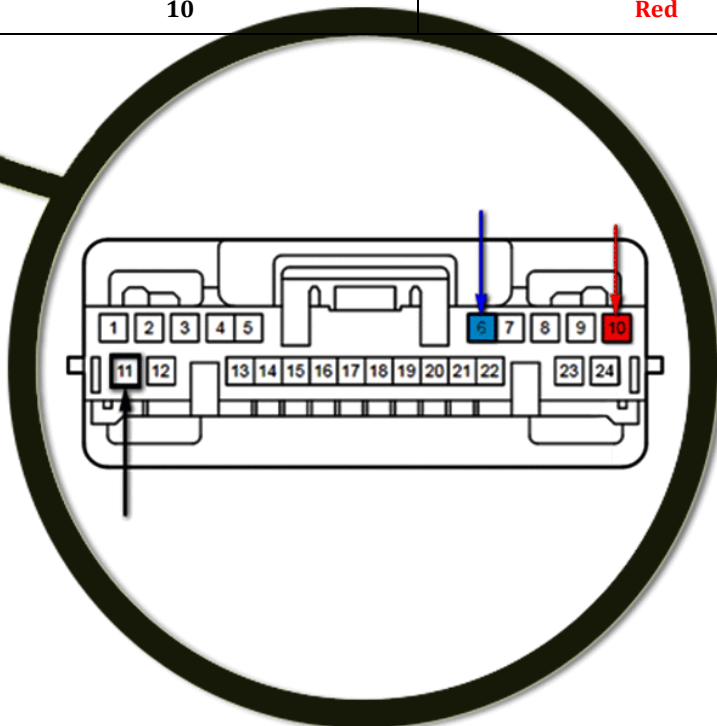


Fig. 5

After connecting **ProSmart** communicates with Immo ECU adapter the LED indicates the status of the procedure. **Single green flashes** mean a successful connection to Immo ECU.

- 3) To start **ResetImmo**, press button on the adapter. The LED starts to flash rapidly in **green**;
- 4) Completion of the procedure. The LED turns green for 2 seconds and then periodically repeats the **double green flashes**. This means that Immo ECU reset is complete successfully.

List of possible LED signals	
LED Signals	State of the procedure
Single flashing (green color)	The connection is established
Single flashing (red color)	Incorrect connection or LIN bus is damaged
Fast flashing of the LED (green color)	Procedure of reset is in progress
Double flashing of the LED (green color)	Reset of Immo ECU is complete
The LED constantly turns red	Error during the reset procedure

3. SmartAdaptation

After resetting Immo ECU, you must perform Smart Adaptation procedure. That's the binding of the **new or used Smart ECU** to the car.

🚦 **Attention !!!** Binding of **the used SmartECU** is possible only if you have a **smart-key that is already bound to this electronic unit!** The device works with SmartKey system that uses new generation SmartEcu (eg 89990-48430, 89990-48450, 89990-50370, 89990-60470, etc). During SmartAdaptation process, the smart key binds to the car automatically.

Procedure of adaptation:

- 1) Connect Smart ECU to the car;
- 2) Set OBD adapter switch to **position #1**;
- 3) Turn the ignition off;
- 4) Insert the OBD adapter into the OBD connector. After connecting the adapter emits **single beep**;
- 5) Bring smart-key to "Start" button. **One beep** will sound and smart-key LED will light up;
- 6) Remove smart-key from "Start" button;
- 7) Wait OBD adapter emits **three beeps**. Disconnect the adapter from the OBD connector.
- 8) The SmartECU binding procedure is complete. You can start a car with this new smart-key.



4. AddKey procedure

The AddKey procedure is performed if you need to bind additional smart keys.

Procedure for adding a key:

- 1) Set the switch of the OBD adapter to **position #2**;
- 2) Turn the ignition off;
- 3) Insert the OBD adapter into the OBD connector. After connecting the adapter emits **double beep**. The immobilizer lamp on the dashboard will stop flashing and go out;
- 4) Within 30 seconds, bring the **bound smart key** to the Start button. **One beep** will sound and smart-key LED will light up;
- 5) Remove the smart-key from the car;

- 6) Within 30 seconds, bring additional smart key to the Start button;
- 7) After a single beep, remove smart-key from "Start" button;
- 8) If the **second single beep** sounded, it means the additional key is successfully binded. After that, you need to remove the smart key from the vehicle.

If the second audio signal does not sound, this means the smart key is not registered.

The key may not be registered for the following reasons:

- ✓ Type of smart key does not match the type of key used in the vehicle. In this case, you must use the appropriate smart-key;
- ✓ Smart key is locked (the key is binded to another car). You need to unlock this key using a special programmer, or use a new smart key.

9) To continue registering smart keys, you need to repeat steps 6-8.

10) After you finish the binding of the last smart key, you need to wait OBD adapter emits **three beeps**. Disconnect the adapter from the OBD connector.

AddKey procedure is complete. After completion of the procedure the immobilizer lamp starts flashing on the dashboard.

TO PURCHASE THE EQUIPMENT, AS WELL AS CONSULTING, MAINTENANCE,
PLEASE CONTACT US:

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