

UST MINI V1.2

TOYOTA/LEXUS UNLOCK & EMERGENCY ENGINE START TOOL



FOR ALL MODELS 2021 - 2025



➤ DEVICE CAPABILITIES

- Connection to a CAN line (car headlight, Multiplex Network Door ECU or via an adapter to the Smart ECU).
- Disabling the factory alarm system and unlocking the doors (opening/closing the car's central locking system).
- Transponder key emulation; the device memory stores the key from only one car (*the keys must be new (BA, B9) or not original but prepared (BA)*).
- Without a phone, only basic functions work - disarming the alarm, opening the car, ignition.
- The following additional functions work with the phone - closing/opening the car, changing the car ID, adding keys, removing keys, programming Smart ECU, updating the device.
- After using device **the car keys remain functional** (**NO NEED TO RESTORE !!!**) and all systems operates in standard way! **NO NEED to carry out** diagnostics, programming or registering (binding) procedures!!!

Attention!!! The device is intended for legal use to demonstrate the anti-theft protection of cars, the necessary legal evacuation of cars from unauthorized parking areas by employees of car service centers and towing services. Any use of the device for illegal purposes is punishable by law!

➤ SUPPORTED MODELS

TOYOTA / LEXUS: models from **2021 to 2025** (europe, usa, asia/japan - see model list).

➤ SUPPORTED KEY TYPE – BA, B9.

- original new keys (used keys are not suitable)
- non-original BA keys (China), prepared as new

➤ THE KIT

- UST MINI;
- The cable with the needles (for connection to CAN);
- OBD cable (for connection to OBD);
- The adapter (for connection to Smart ECU);
- Smartphone.

➤ DEVICE CONNECTION OPTIONS

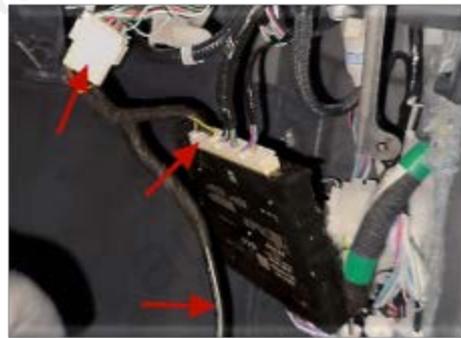
- ☑ **Headlight ECU** - use the cable with needles (Toyota RAV4 01/2023 - 05/2025, Lexus NX before 02/2023 and etc.);
- ☑ **MND ECU** (*Multiplex Network Door ECU*) - use the cable with needles (all models);
- ☑ **Smart ECU** (use the adapter)
- ☑ **OBD** (the mode will be added in future updates).



Connecting with needles to
Headlight ECU



Connecting with needles to MND ECU
in the trunk (tailgate)



Connecting to Smart ECU
via the adapter

➤ OPERATION OF THE DEVICE (operating modes)

1. Autonomous operation mode, using UST MINI device (power bank)

- Disabling the factory alarm system;
- Unlocking the doors (car central locking);
- Key transponder emulation.

2. Operation mode using a smartphone

- Locking/unlocking the car, disarming the alarm;
- Programming new keys and deleting old ones (except the current key);
- Programming the Smart ECU in the car (preparation and programming);
- Changing the vehicle ID;
- Updating the device and installing additional functions.

➤ **OPERATION SEQUENCE** (Step-by-step instruction)

❖ **AUTONOMOUS OPERATION MODE** (with UST MINI device)

1. Turn on the device (using the switch on top), the white LED will light up;
2. Connect the device depending on the selected connection option:
 - with the needle cable to the MND ECU CAN bus;
 - with the needle cable to the headlight control unit;
 - via the adapter to the Smart ECU.

* **For connection points, see the section "Device Connection Points".**

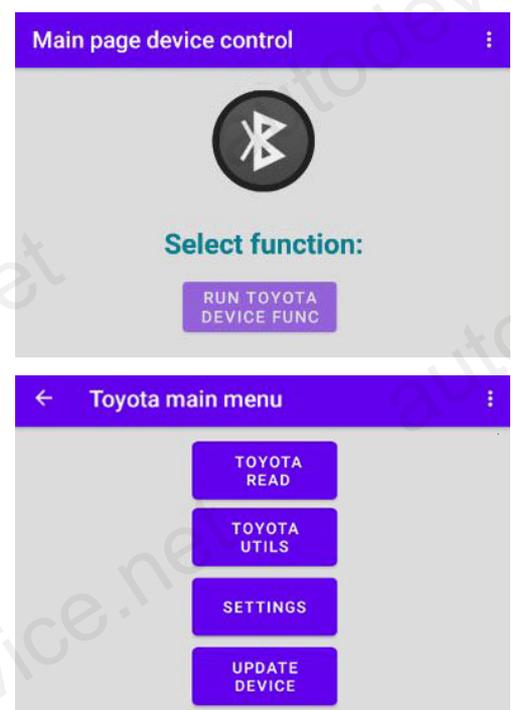
3. The doors will unlock and the alarm will be turned off. Open the doors and prepare to start the car.
4. To start the car, simply bring the device (Power bank) close to the «**START**» button to enable the start. Once the car is started, you can begin driving.
5. To restart, just turn on the device and bring it to the «**START**» button.

❖ **SMARTPHONE OPERATION MODE**

1. Turn on the smartphone and activate **Bluetooth**;
2. Turn on the **UST MINI** device;
3. Find the device «**TLB10**» and pair with it;
4. Launch the «**Device main**» application (*grant all permissions to the app in the phone settings*);
5. The **program menu** will open:

* **RunToyota DeviceFunc** (Select the functions)

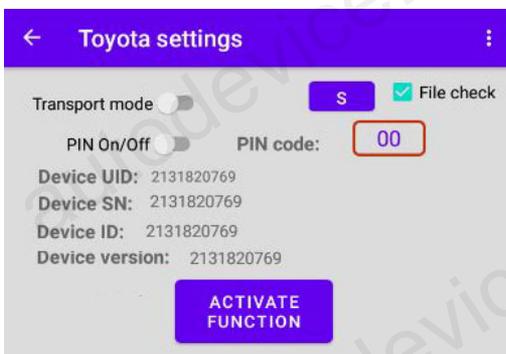
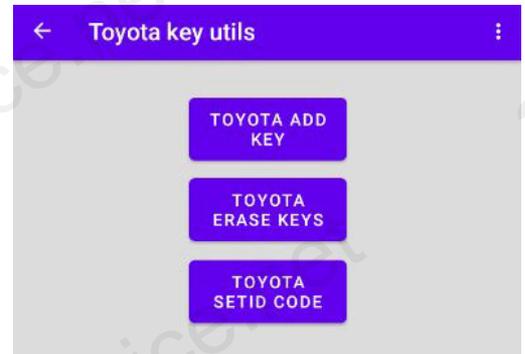
- **Toyota Read** (establishing a connection with the car to perform further functions.)
- **Toyota Utils** (utilities)
 - ✓ **Toyota Key Utils** (utilities for working with keys)



- **Toyota Add Key** (adding a key)
- **Toyota Erase Keys** (deleting keys)
- **Toyota SetID Code** (programming Smart ECU on the car)
- ✓ **Toyota Antitheft** (functions menu open/close)
 - **Unlock Car** (open the vehicle)
 - **Lock Car** (close the vehicle)
- ✓ **Toyota Vin Utils** (changing the vehicle ID)
- **Settings** (Settings)
 - ✓ **Activate Function**
 - **Update Device** (Device update)
 - ✓ **Go To Boot Mode**

6. Turn on the ignition and connect via the OBD cable.

- *Before working via smartphone, the current vehicle must be read through the CAN (Headlight, MND Block, Smart ECU).*

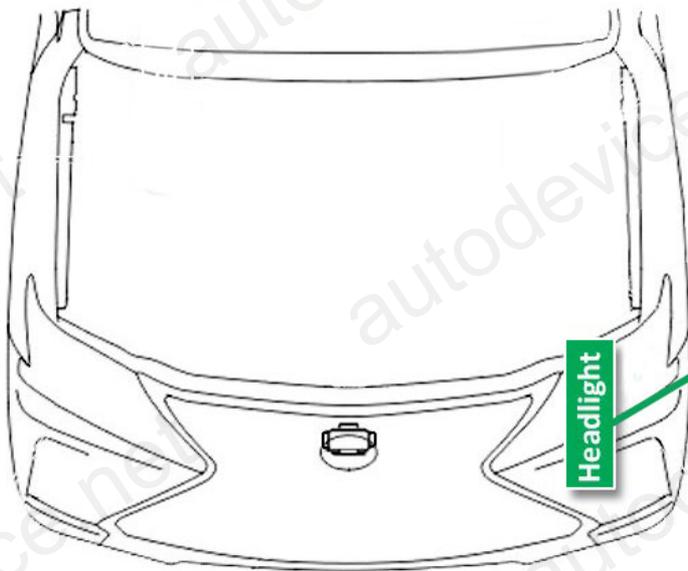


➤ **DEVICE CONNECTION POINTS**

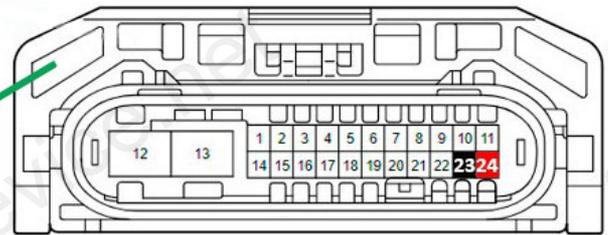
In the case when the car is armed and all doors are closed, access to the CAN bus is possible **only**:

- 1) By connection via the connector of the left headlight control unit. (Lexus NX before 02/2023 and etc.).

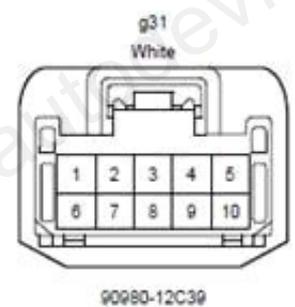
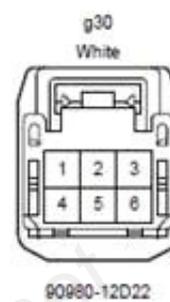
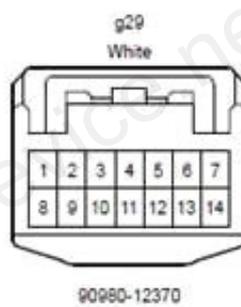
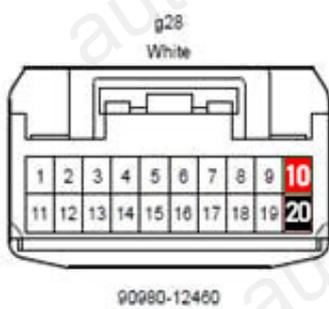




■ CAN - HIGH
■ CAN - LOW



- 2) By connecting via the MND ECU (Multiplex Network Door ECU) tailgate control module connector. From 02/2023, access to the headlight control unit is impossible because the manufacturer has made changes to the vehicle's electrical circuit. Therefore, it is necessary to make a hole opposite the MND ECU connector and connect the needles to connector **g28**, pin **10 (CAN HI)** and pin **20 (CAN LOW)**.

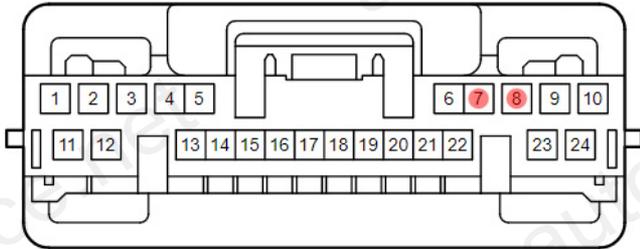


Module connectors of *Multiplex Network Door ECU* (tailgate control module).

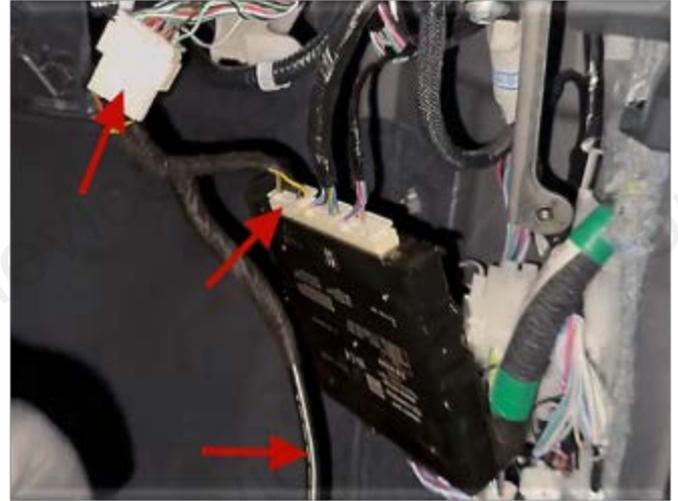
- If the trunk door isn't automatic and the MND ECU block is missing, other connection points inside the vehicle are required for access. This situation is possible in simple Toyota models, in Lexus cars the MMD ECU unit is usually installed.

- ☑ Depending on the vehicle configuration, other connection points are possible (in doors, Body ECU, Smart ECU, etc.). In such cases, it is necessary to study the car's electrical circuits, and the locations of its electronic blocks, wiring, and connection sockets.

3) By connection via special adapter to Smart ECU.



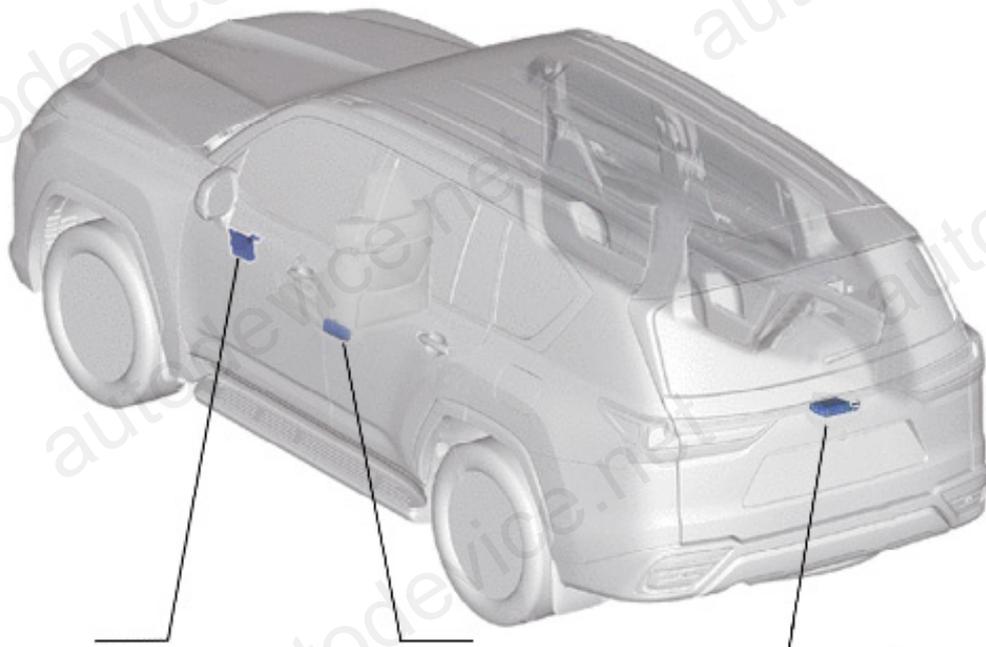
Smart ECU module connectors



➤ **APPENDIX**

➤ **CONNECTION POINTS**

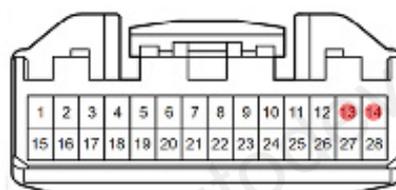
A1) Connection points for Lexus LX



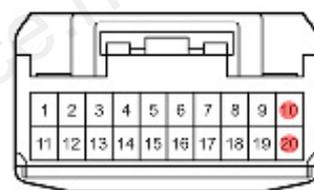
OUTER MIRROR CONTROL ECU



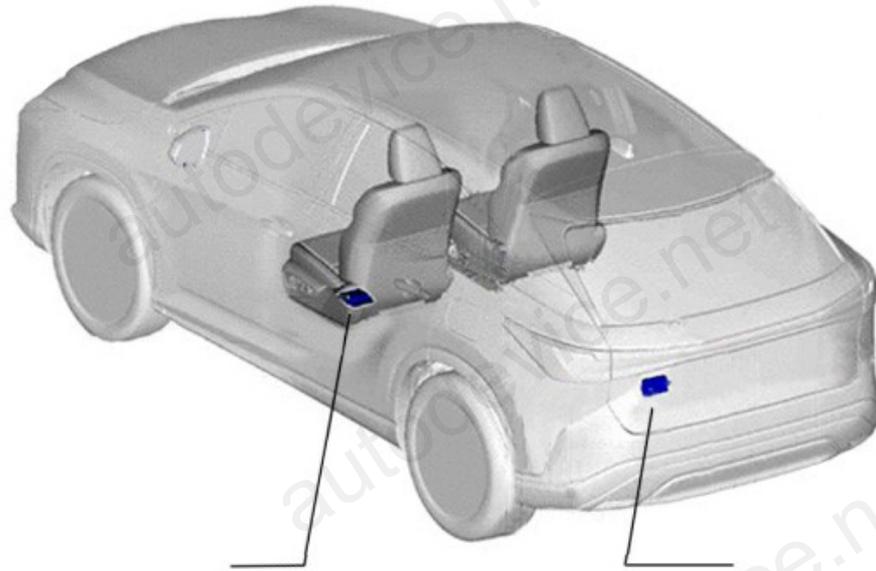
POSITION CONTROL ECU



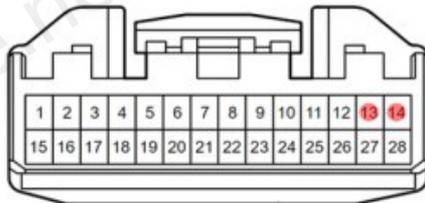
MULTIPLEX NETWORK DOOR ECU



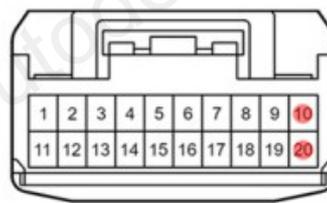
A2) Connection points for Lexus RX



POSITION CONTROL ECU



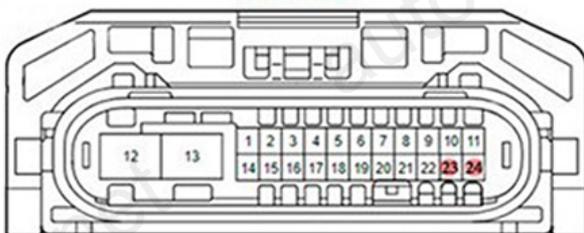
MULTIPLEX NETWORK DOOR ECU



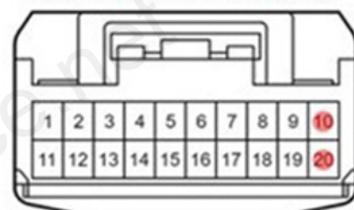
A3) Connection points for Lexus NX



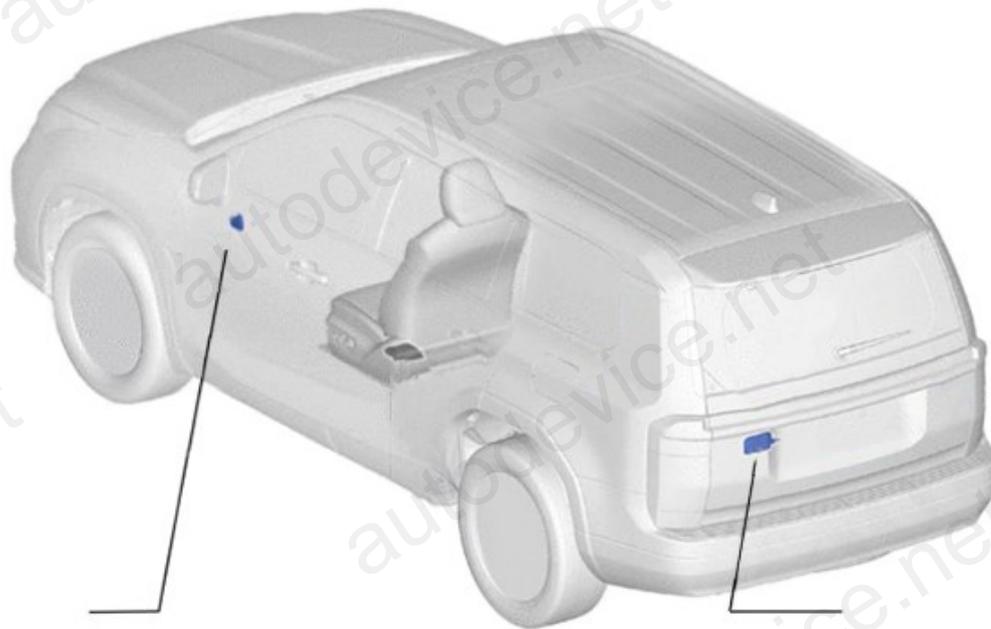
HEADLIGHT



MULTIPLEX NETWORK DOOR ECU



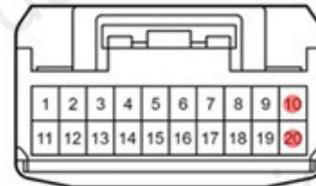
A4) Connection points for Lexus GX



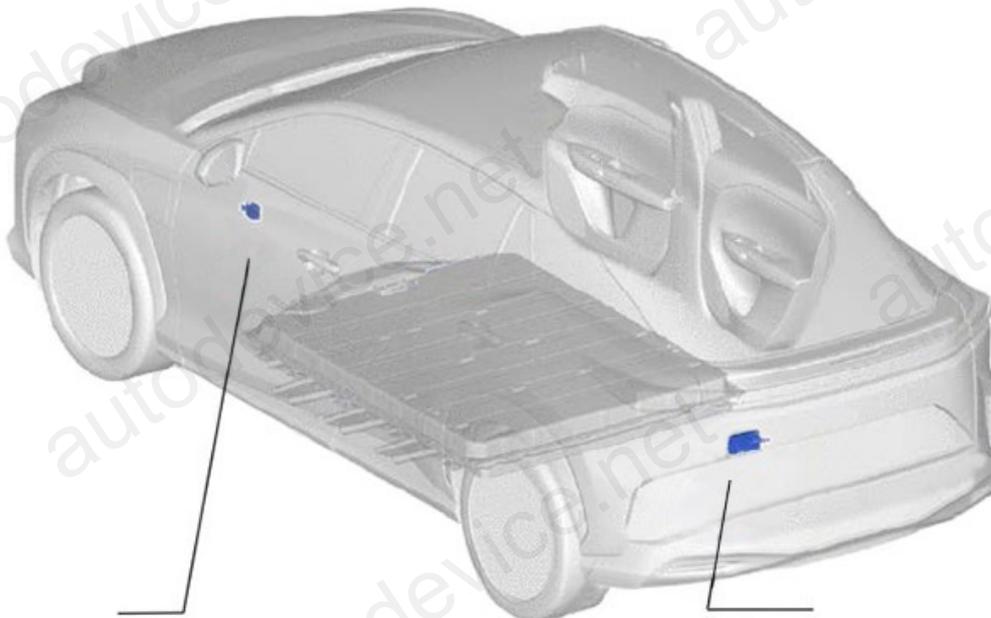
OUTER MIRROR CONTROL ECU



MULTIPLEX NETWORK DOOR ECU



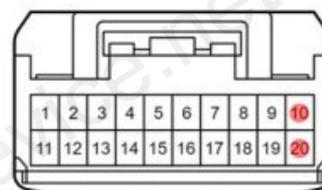
A5) Connection points for Lexus RZ



OUTER MIRROR CONTROL ECU



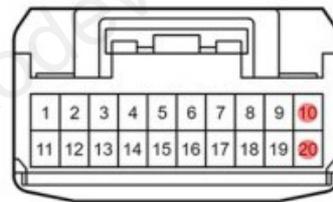
MULTIPLEX NETWORK DOOR ECU



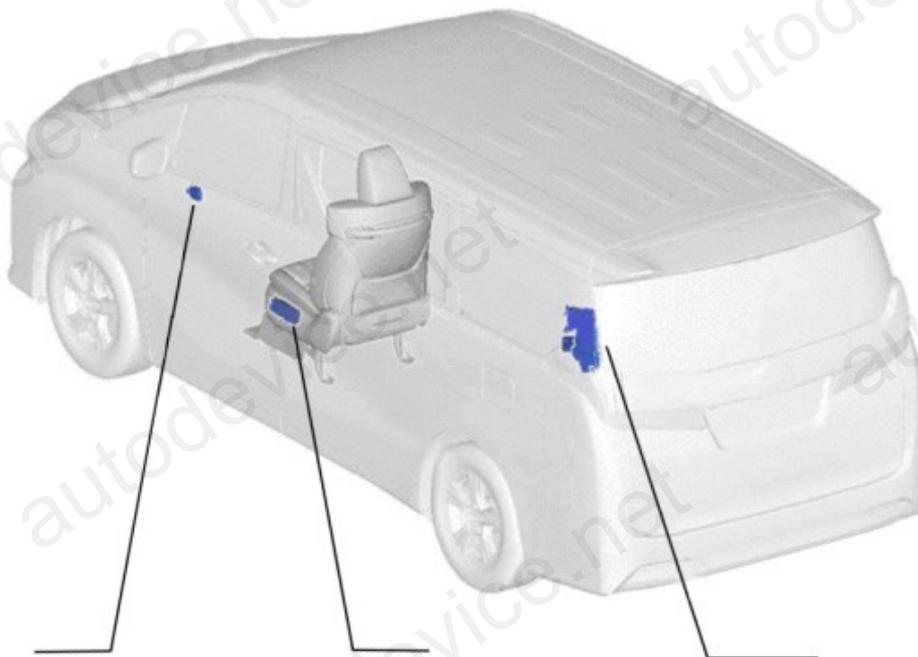
A6) Connection points for Lexus LBX



MULTIPLEX NETWORK DOOR ECU



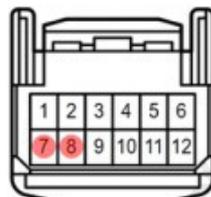
A7) Connection points for Lexus LM / Toyota Alphard



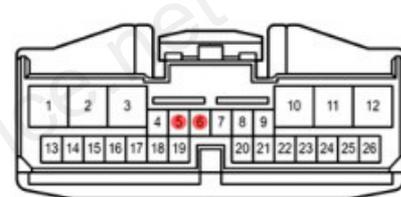
OUTER MIRROR CONTROL ECU



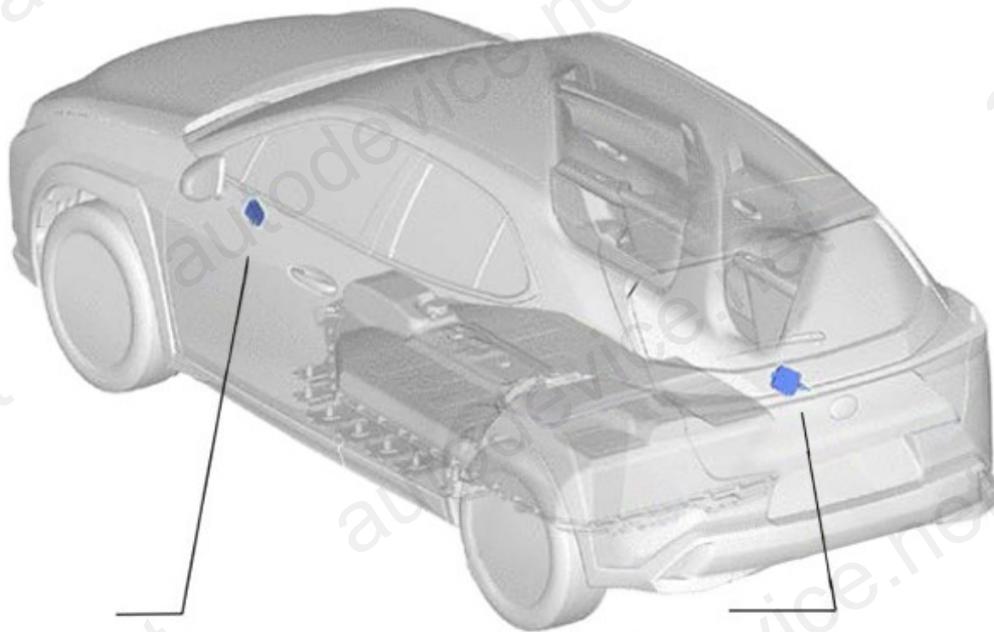
POSITION CONTROL ECU



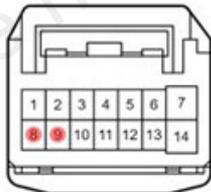
MULTIPLEX NETWORK DOOR ECU



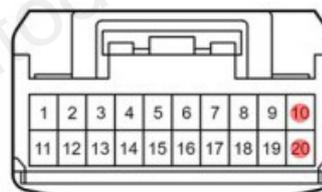
A8) Connection points for Lexus UX



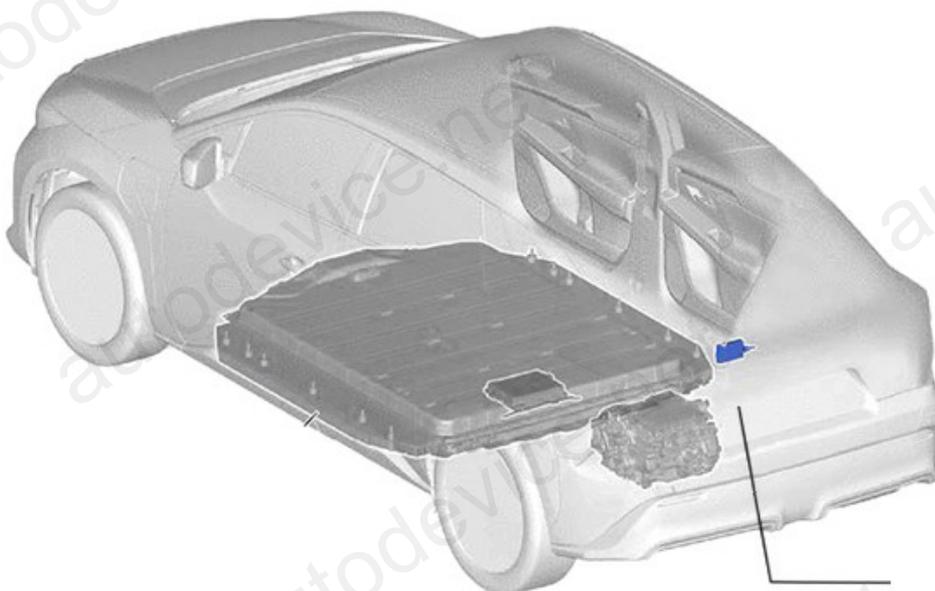
OUTER MIRROR CONTROL ECU



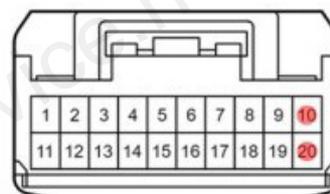
MULTIPLEX NETWORK DOOR ECU



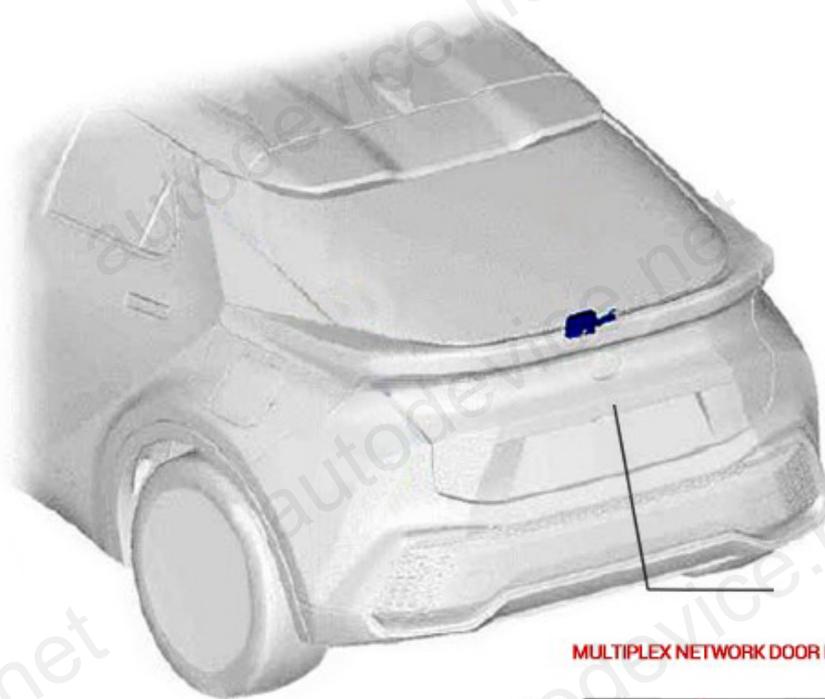
A9) Connection points for Toyota BZ4X



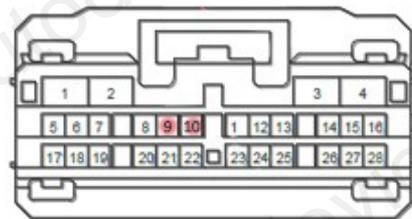
MULTIPLEX NETWORK DOOR ECU



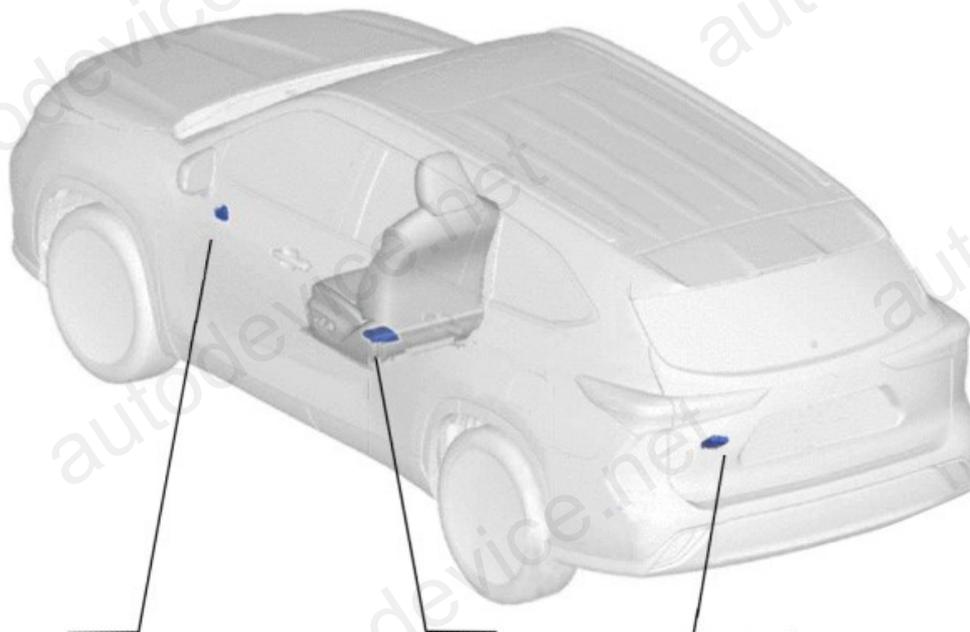
A10) Connection points for C-HR 2023



MULTIPLEX NETWORK DOOR ECU



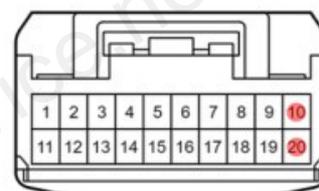
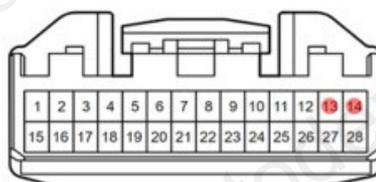
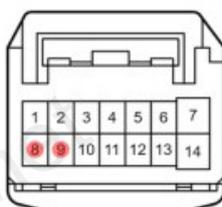
A11) Connection points for Highlander



OUTER MIRROR CONTROL ECU

POSITION CONTROL ECU

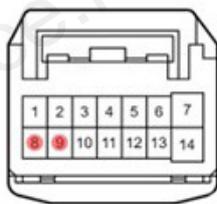
MULTIPLEX NETWORK DOOR ECU



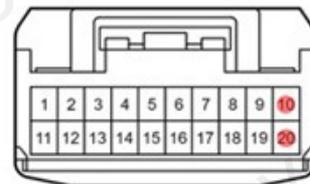
A12) Connection points for Land Cruiser 250



OUTER MIRROR CONTROL ECU



MULTIPLEX NETWORK DOOR ECU



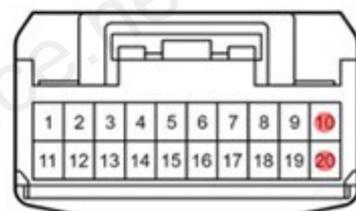
A13) Connection points for Land Cruiser 300



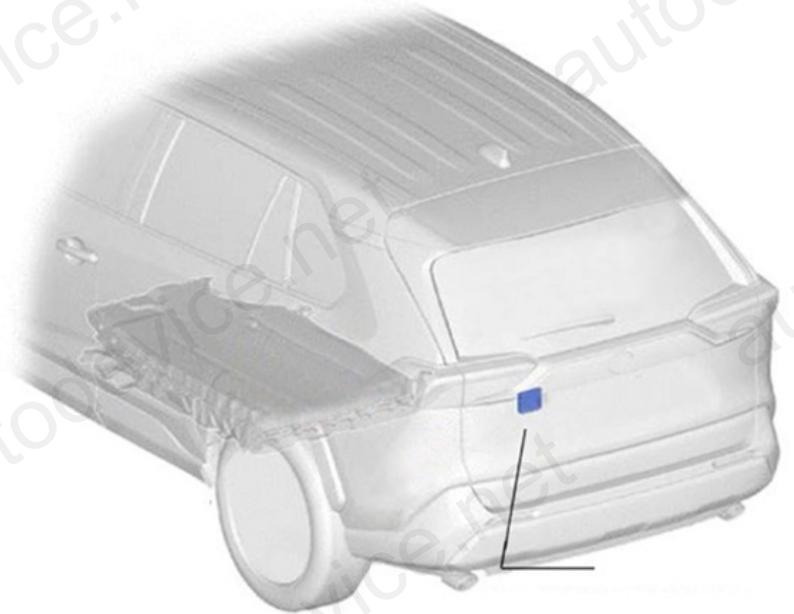
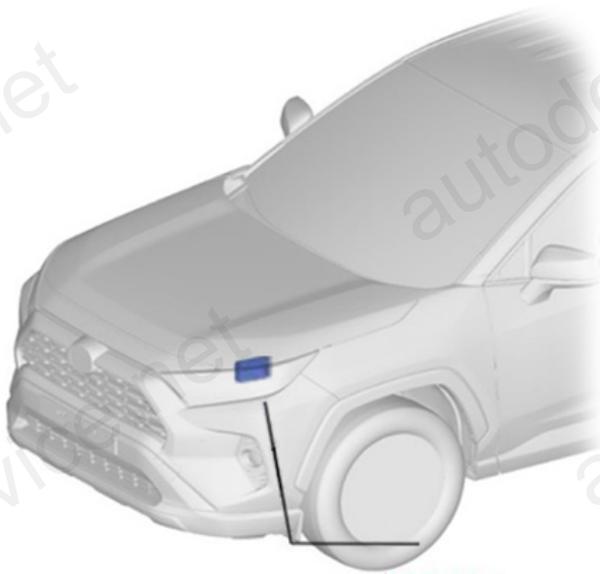
OUTER MIRROR CONTROL ECU



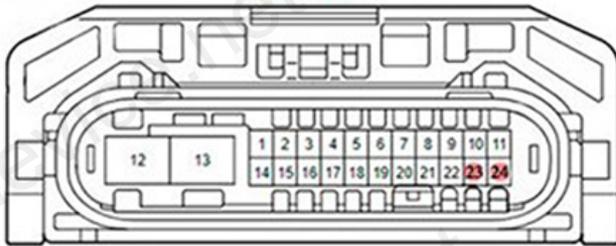
MULTIPLEX NETWORK DOOR ECU



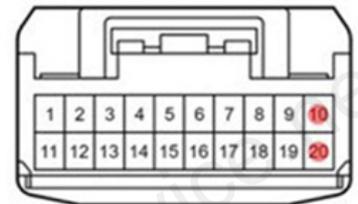
A14) Connection points for Toyota RAV4 PHV



HEADLIGHT



MULTIPLEX NETWORK DOOR ECU



➤ **MODEL LIST**

Lexus		
Model	Year	Key
GX550	2023+	BA- B9
LX600	2022+	BA- B9
NX	2022+	BA- B9
NX450h+ Hybrid	2023+	BA- B9
RX	2022+	BA- B9
RX450h+ Hybrid	2024+	BA- B9
RZ450e	2023+	BA- B9
TX	2023+	BA
TX Plug-in Hybrid	2023+	BA
TX 500h F – Sport	2023+	BA
UX	2023+	BA- B9
LBX	2024+	BA
LM350/500h	2024+	BA- B9

Toyota		
Model	Year	Key
Alphard/ Vellfire	2023+	BA
BZ4X	2023+	BA
C-HR	2023+	BA
Crown	2023+	BA
Highlander (USA)	2024+	BA
Grand Highlander (USA)	2024+	BA
Harrier	2021+	BA
Land Cruiser 300	2022+	BA
Land Cruiser 250	2024+	BA
Mirai	2023+	BA
Noah/Voxy	2022+	BA
Prius	2023+	BA
Prius Prime	2023+	BA
RAV4 Plug-in Hybrid	2021+	BA
RAV4 Prime Hybrid	2021+	BA
Sequoia	2023+	BA
Sienna	2023+	BA
Tacoma	2023+	BA
Tacoma i-Force MAX	2023+	BA
Tundra	2023+	BA
Tundra i-Force MAX	2023+	BA
Venza	2023+	BA
Camry XV80	2023+	BA

Attention!!! This device is intended for legal use for demonstrating anti-theft protection of vehicles, necessary for the legal evacuation of vehicles from unauthorized parking by auto service personnel and towing services. Any misuse of the device for illegal purposes is punishable by law!