TOYOTA

immo emulator

For 2-byte immo systems

Description :

Emulator (EMU) replaces original TOYOTA immobox, works with all systems where 2-byte SYNC code used, works via IMO / IMI (EFII / EFIO) lines. There are several immo systems implemented in TOYOTA cars:

- older ones use fixed TYPE_CODE, same for exact model line. This means ecm from one Corolla will work on another, but wouldn't work on Avensis. Usually 4C keys used, most of them haven't separate EEPROM in ECM at all, there is no alignment via OBD pins TC and CG implemented.
- Later systems use TYPE_CODE and SYNC. If you are going to align ECM using TC-CG bridge for 30 minutes, TYPE_CODE is essential.

Preparing:

Must store valid data into emulator. Attach power supply and K-line adapter (pin K on emulator board), store data using configurator utility. There are several options:

- ***Fixed code*** – store 2 bytes (TYPE_CODE for older ones or SYNC from ECM dump for later ones, usually it is in plain). Place solder joint to short jumper on emulator board to avoid further rewrites. Emulator is ready for installation. Although, TC-CG bridge method will fail if you try to perform it. Anyway, it's a common method.

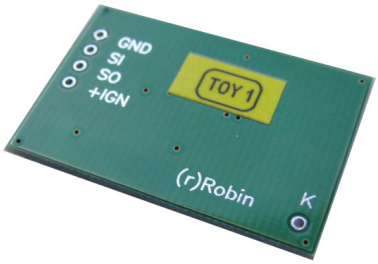
- ***Advanced methods*** for experts:
  - ***Type code / immo*** – must enter TYPE_CODE and SYNC from immo dump. Note that SYNC code from IMMO usually doesn't match SYNC code from ECM!
  - ***Type code / ecm*** – must enter TYPE_CODE and SYNC from ECM dump;
  - ***ecm / immo*** – must enter SYNC from ECM dump and SYNC from IMMO dump.

All necessary values for advanced methods are generated automatically and stored into emulator. If you are going to use TC-CG bridge, just enter right TYPE_CODE. SYNC is not important in this case (can be any) because you are going to perform self – alignment procedure anyway. **Do not short jumper – eeprom updates must be allowed!**

Installation:

Must attach 4 wires:

- **EFII / IMO** line → to SI pin on emulator board (ECM sends request to IMMO);
- **EFIO / IMI** line → to SO pin on emulator board (IMMO sends, ECM receives);
- **+12v** from main relay (or IG),
- **GND**



LED on emulator board:

- LED is ON when ECM request received,
- 4 short blinks acknowledge that data from K-line received and stored.

Important: Wiring diagrams you can find at TOYOTA tech info site: https://www.toyota-tech.eu/