

Renault immo emulator

CAN 250 / 500 kB

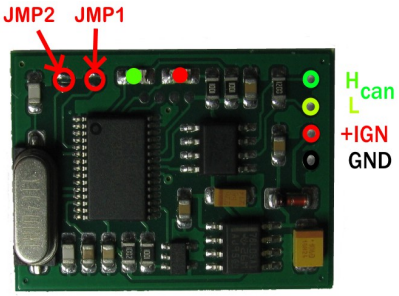
hardware ver. 2

Purpose:

Designed for ECU start authorization. Supported CAN speeds: 500 and 250 kb. Supported architecture – Renault cars with Hitag keys / keycards.

Installation:

Connect device directly to PT-CAN, attach ground wire and power supply (IGN, terminal ”15”, hot when ignition switched on).



Operating MODE and CAN speed is selectable by applying solder joints JMP1 and JMP2.

JMP1, **JMP2** settings:

- both OPEN: normal mode, 500 kB.
- both SHORT: configuration mode, 500 kB.
- OPEN/SHORT or SHORT/OPEN: normal mode, 250 kB.

Alignment with ECU:

- Common method – make ECU “virgin”. In this case ECU will perform “self alignment” procedure at first startup using ISK (6 bytes) already stored into emulator. Emulator must be configured for normal mode.
- Another method is to copy ISK bytes from ECU (or matched UCH) into emulator using any CAN logger (or MBcan hardware using special utility).

How to write ISK into emulator using CAN logger:

Emulator must be in configuration mode (JMP1 and JMP2 both shorted). CAN Communication parameters are: use STD ID, speed 500 kB. For communication with emulator must send following frames:

- To request stored ISK: `770 (7) D0 00 00 00 00 00 00`,
- To store ISK: `770 (7) C0 xx xx xx xx xx xx` where xx are 6 bytes of desired ISK,

Response from emulator: `771 (7) E0 xx xx xx xx xx xx`, where xx are 6 bytes of actually stored ISK.

How to use configurator (with MBcan):



- To **read** UCH (if supported by UCH): attach MBcan to OBD plug. Choose necessary CAN speed (250 or 500 kB), working ignition key is mandatory. Disconnect ECU, turn on ignition, press “Read”. If success you will see ISK.
- **Read** or **Write** emulator: Emulator must be in **configuration** mode (CAN speed 500 kb, JMP1 JMP2 both SHORTED). If success, background will change color to green. If no success it goes red (must repeat procedure).
- If emulator is in **normal** mode, you can read stored ISK as from UCH.

Some additional notes:

- If UCH and emulator both are connected to ECU and their ISK bytes are different, with some earlier UCH collisions are possible. To avoid this must authorize ECU first (before UCH starts to communicate) – kill immobilizer coil, remove transponder chip etc.

LED behaviour:

- **RED** and **GREEN**: short blink at startup (both LEDs together),
- **GREEN** - long blink: ECU is authorized, start allowed,
- **RED** - blinking: ECU is NOT authorized, something went wrong (collision, wrong ISK etc.).

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