



SMART Fortwo Mk1 (W450) immo emulator

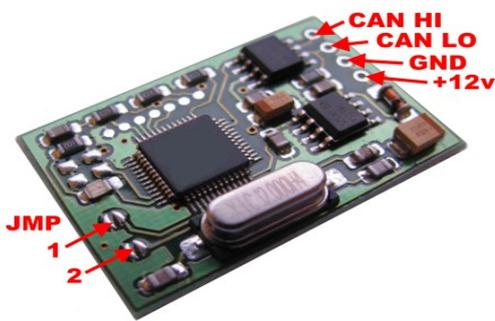
Immo by RC, CAN, 500kB

Description :

Device emulates valid immobilizer signal. Compatible with MCC SMART cars with immo by RC (radio only, no LF transponder in key). Emulator is **not** plug & play, must be personalized (aligned) to car ECU.

Installation:

Connect device directly to CAN, attach ground wire and power supply (use terminal "15", hot when ignition ON).



Jumpers (JMP):

- **both open:** configuration mode, it is possible to read or store SYNC into emulator using CAN logger or MBcan;
- **any or both shorted:** normal working mode, SYNC update is not allowed.

Alignment:

Read SYNC from ECU (7 bytes), store it into emulator using CAN logger or MBcan device. Short any or both jumpers. Done.

With CAN logger:

- emulator must be in configuration mode (JMP 1 and JMP 2 both open), CAN speed must be set to 500kB.
- request actually stored SYNC - send `7FE 8 FF FF FF FF FF FF FF`, emulator must respond with frame `7FF 8 xx xx xx xx xx xx xx CS`, where xx is actual SYNC and CS is valid checksum.
- store SYNC into emulator - `7FE 8 xx xx xx xx xx xx xx CS`, emulator must respond as previously, with 7 bytes actual SYNC: `7FF 8 xx xx xx xx xx xx xx CS` - response must match the request. If it doesn't match - SYNC is not stored correctly, must repeat procedure.



Read or Write emulator using MBcan:

if success background will change color to green. If no success it goes red (must repeat procedure or verify jumper settings). Emulator must be in configuration mode (both jumpers open).

How to find 7 bytes SYNC in ECU – usually not too much places where you can see 7 randomly generated bytes in ECU EEPROM dump. For example in 0261205005 ECU (24c04 eeprom) SYNC is located starting from 0x02A to 0x030 in plain, before VIN number. If in trouble you can change SYNC “on the fly” (JMP left open) and test ECU reaction - must trigger ignition OFF-ON after each SYNC rewrite.

LED on emulator board:

- 1 short blink at startup,
- 8 short blinks: ERROR, ECU not authorized (possibly wrong SYNC),
- 1 long blink (>1sec): OK, ECU is authorized.

