

Ford / Mazda IMMO emulator, Type-1

CAN, ver.2

Ford B platform: 2006 - 2016 - Fiesta, Ecosport, B-Max, Courier...

Ford Cx platform: up to 2011 - Focus, Kuga, Connect...

Mazda 3, 5, 6, CX5 etc: 2006 up.

Designed for:

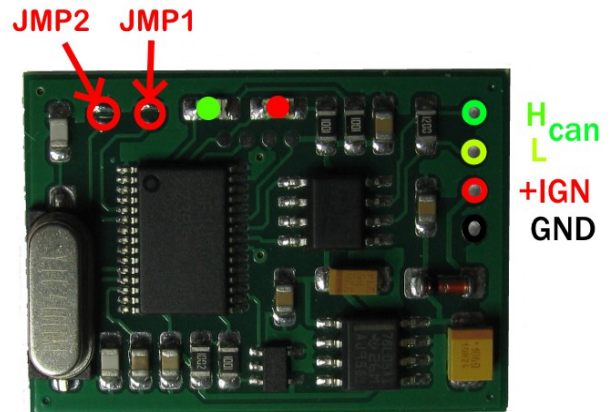
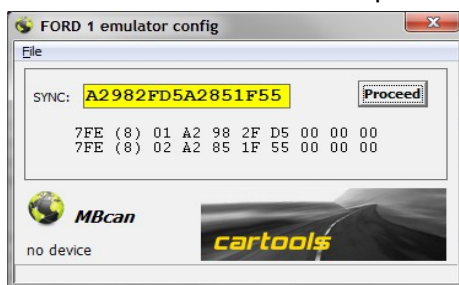
ECU authorization. Emulator is NOT Plug&Play, must store 8-byte SYNC before usage.

JMP1: configuration -

- **open** for CFG mode,
- **short** for normal mode (SYNC locked).

JMP2: operation mode -

- **open** for all 2009-up and Mazda,
- **short** for older Ford up to 2009



Configuration:

- JMP1 on emulator board must be open to allow configuration mode and SYNC update, set JMP2 according to specification. Two alignment methods possible -
- Method 1: launch configurator software, enter SYNC (or load ECU dump), press "Proceed". You will see 2 CAN messages on screen. If MBcan is already attached messages are transmitted to CAN immediately. If success SYNC field goes green. Otherwise store SYNC into emulator using any suitable CAN logger by sending these 2 messages at 500 Kbaud, STD ID. Check response - must receive 7FF (8) with actually stored SYNC - it must match, in addition both RED and GREEN LEDs on emulator board must go on for 1 second.
- Method 2: set ECU for alignment using diagnostic tool. At next IGN_ON emulator will request SYNC directly from ECU - both RED and GREEN LEDs must go on if success.
- Note that SYNC in ECU eeprom / d-flash is stored in reverse order.
- Some models: if key reader is attached directly to ECU (key data is stored in ECU) ECU still need second authorization from dashboard, must use two emulators in this case (Ford 4D + Type1).

Installation:

- Must attach four wires: CAN-Hi, CAN-Lo, GND (ground), +IGN (terminal "15"). You may install emulator anywhere close to HS-CAN network and necessary power wires - inside ECU, near OBD connector etc.
- If engine is authorized and car starts, switch everything off and place solder joint on emulator board (short JMP1) to avoid any updates by accident. Job done!

LED behaviour:

- **RED** and **GREEN** both must blink shortly at power-up, then -
- **RED** goes ON while ECU is authorizing, then according to authorization result -
 - **GREEN** goes ON for 1 second - **OK**, ECU is authorized,
 - **RED** remains ON for 1 second or more - **NOT OK** (wrong SYNC code?).
- If there is no **RED** and **GREEN** LED activity after power-up (except startup blink) - ECU is not communicating, no ECU request, no authorization necessary or something simply went wrong.