

FORD 4D key emulator

for ECU / GEM with external key reader based on TMS3705 chip

Purpose:

For FORD cars with external amplifier (transponder basestation with coil) based on TMS3705A chip. Emulates 4D (DST40) key and amplifier itself. If amplifier is connected to ECU directly (4D key stored inside ECU) it allows to make Plug&Play ECU. Also it is usable on cars where key data is stored inside GEM / BCU as a simple key & amplifier replacement.

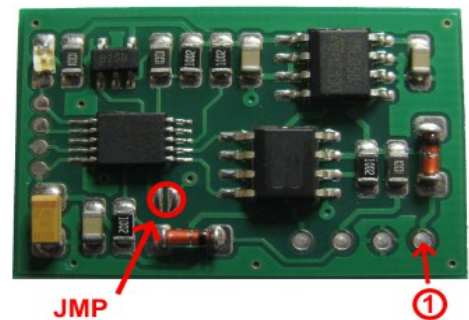
Installation:

Emulator is 1:1 pin compatible with original amplifier:

- pin1 **+12v**,
- pin2 **GND**,
- pin3 **data to** amplifier,
- pin4 **data from** amplifier (K-line for configuration).

JMP settings:

- open - key data update via k-line allowed;
- short (solder joint placed) - update via K-line is prohibited.

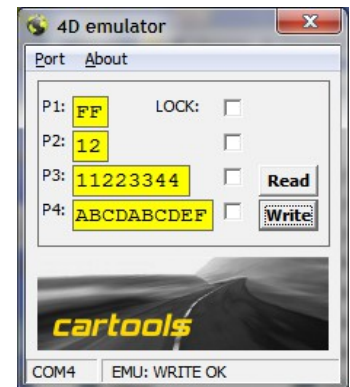


Alignment:

You can copy existing 4D key data into emulator using any suitable K-line adapter connected to pin4 and configurator software. Another option - you can store any valid key data into emulator and perform key teaching procedure.

Things to know:

- Even if JMP is shorted, key data can be updated by ECU/GEM/BCM like they can do with original key. Emulator acts as a regular DST40 transponder, if page locks aren't set they may be updated or locked from immo side.
- You can read or write key data through K-line at any time if JMP is open.
- It is not mandatory to short JMP, emulator works for immo with JMP already open. Although it is highly recommended to short it after all alignment jobs, tests and explorations completed.



LED on emulator board:

Short bling at power-up, short blink each time when "RF field ON" - key is accessed.

If everything is OK and "key" is recognized as valid, you must see one or two short blinks when switching IGN ON. Long series of short blinks usually means "key" data is wrong or "key" not recognized by immo.

