

SKREEM HS / FT

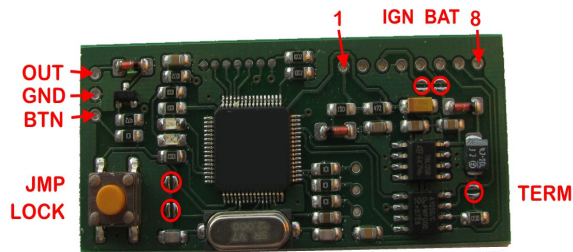
emulators for Chrysler, Jeep, Dodge, RAM etc..

for CAN-B (FT) and CAN-C (HS) based systems

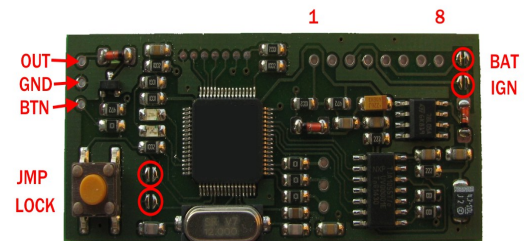
Purpose:

Designed for ECU start authorization / ignition monitoring. Self teaching, for CAN based systems (2006 and up, 8-pin connector, Hitag2 keys). Designed for original connector (not included, use your own!). Two hardware versions possible - for HS or FT CAN:

SKREEM-HS:



SKREEM-FT:



Jumpers:

- **TERM:** CAN lines are terminated with 120 ohm load if shorted;
- **JMP:** if shorted, no IGN message is sent over CAN (SKREEM HS / FT only), no push-button operation allowed, coded ignition switch is ignored.
- **LOCK:** if shorted, no immo data update is allowed. While jumper is open, emulator never goes to sleep and remains active;
- **BAT:** if shorted, emulator is powered from +BAT. By default this jumper is shorted (to make it open must cut wire between solder pads).
- **IGN:** if shorted, emulator is powered from wire "15" (hot if RUN or START). Both BAT and IGN are not allowed together, choose one of them, be careful!

Pinout (used pins only):

- 1** coded ignition switch,
- 3** +IGN (wire "15"), hot at RUN or START
- 4** GND,
- 5** +BAT (always hot, battery+),
- 6** CAN Hi
- 7** CAN Lo

Additional pins:

- **OUT:** IGN output (active GND if RUN or START, open collector, max 100mA load);
- **BTN:** external START/STOP button input (active: pin to GND through pushbutton).

Hardware configuration:

SKREEM-FT and SKREEM-HS both look very similar, same 8-pin connector used. SKREEM-FT is connected to CAN-B bus (body CAN, 83.33 kb, fault tolerant) and communicates with ECU through gateway (TIPM, power module) while SKREEM-HS is connected directly to CAN-C (chassis CAN, 500kb, high speed) and talks with ECU directly without any gateway.

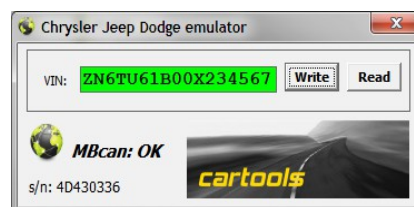
Late SKREEM units usually monitor coded ignition switch and produce IGN message over CAN. Older ones use hard wired strategy: “15” and “ACC” wires, there is no IGN message on CAN generated by SKREEM. Although, SKREEM can monitor key presence.

You can choose one of three possible strategies: coded ignition switch, push-button or hard wired ignition. Jumper settings:

- **Hard wired ignition:** JMP = short, BAT = open, IGN = short;
- **Coded ignition switch:** JMP = open, BAT = short, IGN = open;
- **Push-button operation:** jumpers as for coded ignition switch. It is possible to operate push-button if there is no key inserted or ignition switch is removed at all. Otherwise valid signal to pin1 (ign SENSE) overrides push-button operation.

Installation:

- Install hardware, place jumpers where necessary. According to design most likely you must place joint TERM if HS version used.
- first use: switch ignition ON, observe **YELLOW LED** on emulator board. Must see one short blink at power-on. After about 15 seconds must see series of short flashes. This means emulator is ready and aligned now. Switch off / on ignition, start a car. Immo indicator (in dashboard) must go off, **YELLOW LED** must go on for 1 second (long flash).
- Alternative: you can store immo data using **MBcan** and configuration utility. For FT version must use CAN gateway HS-FT (500kb to 83.33kb).
- If everything is OK, short jumper **LOCK** by placing solder joint to allow sleep mode and prevent any possible update by accident.



Yellow LED:

- one short blink at startup;
- long blink (~1 second): request from ECU received.
- 8 short blinks: new immo data received, different from already stored value.

Green LED:

- goes **ON** if IGN = RUN or START

