

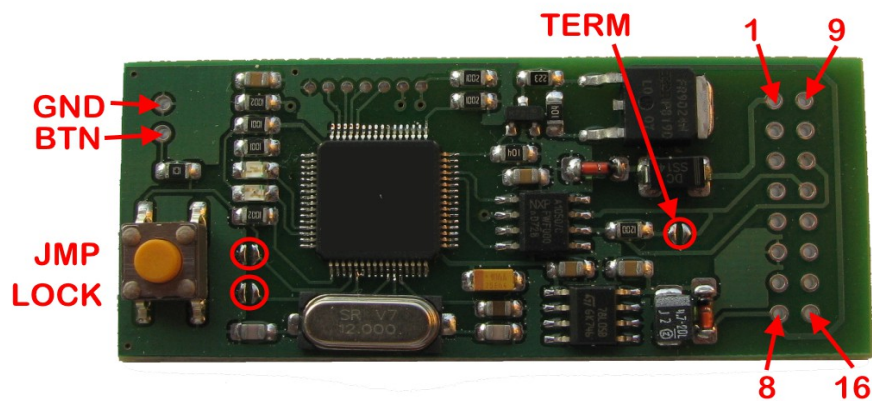
# RFHUB - radio frequency hub emulator, Chrysler, Jeep, Dodge, RAM etc..

for CAN based systems

## Purpose:

Designed for ECU start authorization / ignition monitoring. Self teaching, for CAN based systems (16-pin connector, Hitag2 keys). Designed for original connector (not included, use your own!).

FCA cars with HitagAES keys and / or FIAT engines / ecu are NOT COVERED.



## Jumpers:

- **TERM:** CAN lines are terminated with 120 ohm load if shorted;
- **LOCK:** if shorted, no immo data update is allowed. While jumper is open, emulator never goes to sleep and remains active;

## Pinout (used pins only):

- 1 output:** +IGN (wire "15"), hot at RUN or START
- 6** GND,
- 8** +BAT,
- 11** CAN Lo
- 12** CAN Hi

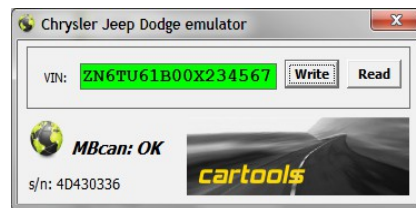
current load (pin 1) must not exceed 5A.

## Additional pin:

- **BTN:** external START/STOP button input (active: pin to GND through pushbutton).

## 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.
- 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

