KTM immobilizer emulator, CAN

ZADI-2, 2014 up:

E-lock, Keyless (Race ON)

Supported:

KTM Duke, 660, 990, 1050, 1190 with mechatronic ignition switch **ZADI E-lock (ZADI-2)**, 1290 Adventure, Duke with **ZADI Race ON** (keyless) systems, 4D keys, 2014 up. Programming usually is NOT necessary, emulator is Plug & Play.

Installation:

Install emulator in place of original immobilizer unit: **GND**, **+BAT**, **CAN-Hi**, **CAN-Lo**, **RaceON** button, "**Kl.15**" according to wiring diagrams. In case of E-lock it is possible to use original microswitch (short to GND when IGN ON), attach it to emulator **BTN** pin.

- First startup – **JMP must be OPEN** to allow self teaching mode.
- **Self alignment:** switch ignition ON/OFF several times (do not start bike!). Check if **GREEN LED** goes on permanently. If it remains blinking most likely there are communication / compatibility problems with ECU, must proceed with manual setup!
- **Manual setup:** make alignment manually using CAN logger or MBcan with configurator software. Must send 3 frames with VIN number in ASCII like below (**VBKVS9402CM988179** = ascii 56 42 4B 56 53 39 34 30 32 43 4D 39 38 38 31 37 39):
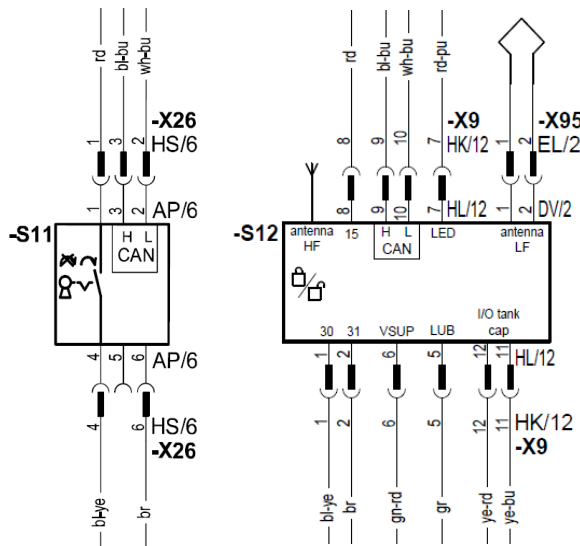
```
7FE   8   30 31  56 42 4B 56 53 39      01VBKVS9
7FE   8   30 32  34 30 32 43 4D 39      02402CM9
7FE   8   30 33  38 38 31 37 39 00      0388179
```

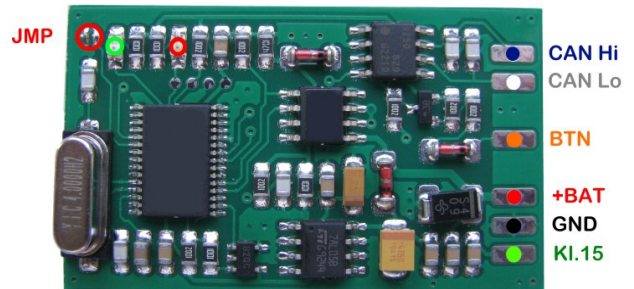If data accepted, emulator must respond with:

```
7FF   8   4F 4B 21 2D 2D 2D 2D 2D      OK!-----
```

- If everything seems OK, **place solder joint (short JMP) to avoid any data updates by accident and allow low power operation / sleep mode!** Job done.

Wire colors: bike wiring, at immobilizer connector.
NOTE: wire colors from immo to connector may differ!

CAN-Hi:	**BLU / BLK**
CAN-Lo:	**BLU / WHT**
LUB (BTN):	**GRN**
Kl.30 (+BAT):	**BLK / YEL**
Kl.31 (GND):	**BRN**
Kl.15 (IGN):	**RED**

LEDs on emulator board:

- **GRN** blinks – "KL.15" on, waiting for communication, communication incomplete;
- **GRN** on permanently – "KL.15" on, code sent (ECU authorized);
- **RED**: "Kl.15" load, normally OFF. Goes ON if current is above normal (> 1A), BLINKS if short circuit or excess load detected (> 2A).
- **GRN** and **RED** both switching: JMP is open, configuration mode active, Kl.15 off.

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cartools