ELDOR KUBO

For ASW-NEXT

Short User Manual

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June 2023

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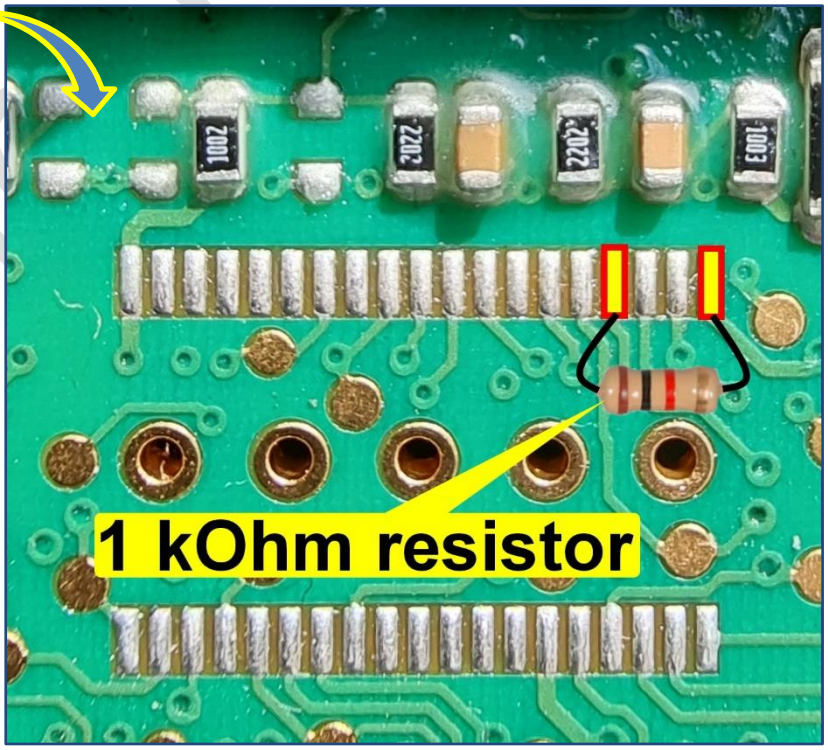
1. What to do first?

ECU must be set to **BOOT** mode for a Flash memory access by **CAN-BUS**.

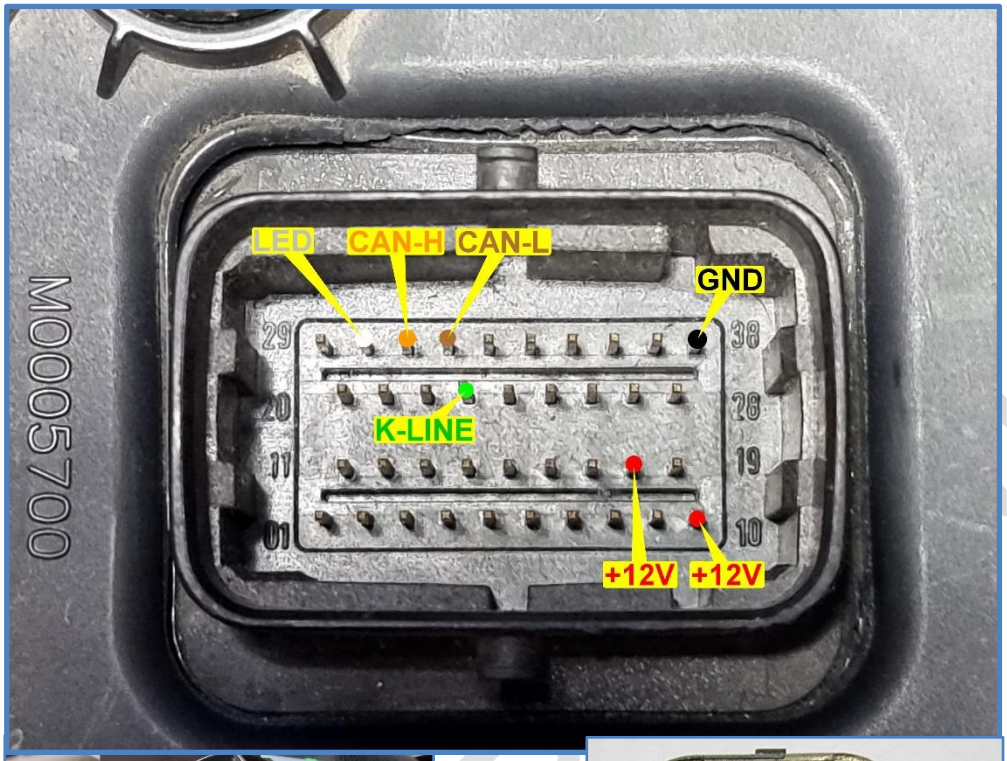
First you must to open plastic cover to get access to the PCB. Unclip metal clips and carefully lift-up plastic cover with a screwdriver or knife. It comes out easily.

Solder 1 kOhm BOOT resistor as in the picture:

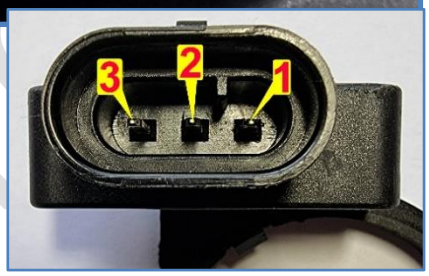


NOTE: To avoid MCU damage please make sure the ECU is fully disconnected from power supply when soldering BOOT resistor!!! Do not even connect a GND wire from ECU to power supply!!!

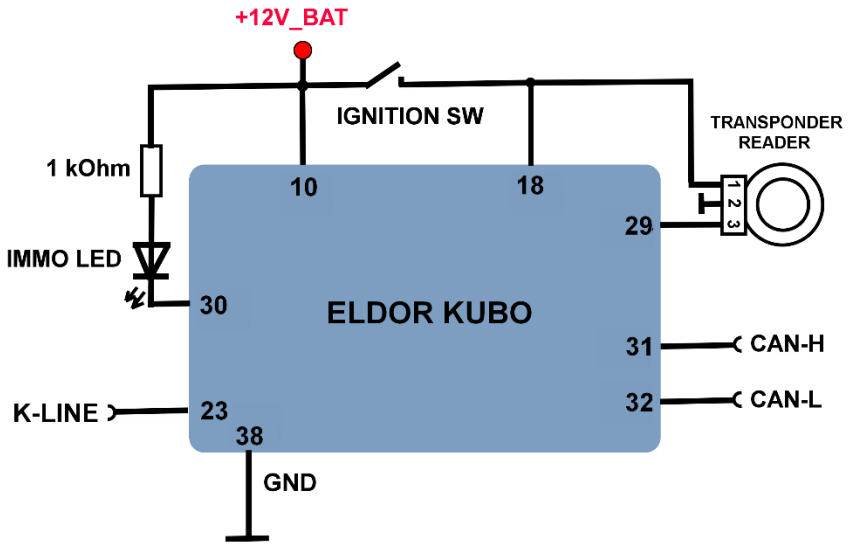
2. How to connect?



Antenna on the ignition lock



Transponder Reader (Antenna) pinout



NOTE: **Transponder reader (antenna) must be mounted on the ignition lock when testing on-the-bench or in the scooter. Transponder cannot be read by ECU without ignition lock being inside the antenna! IMMO LED will blink fault code 2 (KEY NOT DETECTED).**

3. What‘s next?

- Make sure the 1kOhm BOOT resistor is soldered properly to PCB
- According to pinout picture connect ASW-NEXT cables to ELDOR KUBO:

  CAN-L – to pin **32**

  CAN-H – to pin **31**

  GND – to pin **38**

  +12V red wire – to pin **10**

- Run PC software
- Connect USB cable from interface of ASW-NEXT to PC
- Apply +12V power to crocodile clips of ASW-NEXT
- Turn on ignition to ELDOR KUBO by applying +12V supply to pin **18** of ELDOR KUBO

From this point **ECU is waiting unlimited time** for commands from software of ASW-NEXT.
Press <**Set BOOT Mode**> to activate Flash access functions.

Full Flash image (768 kB) of MCU SPC5533 can be read and reprogrammed.

NOTE: Regular diagnostic functions (Read Identification, Reset TPS, Read/Erase DTC) *does not require ECU to be opened* to connect BOOT resistor to the PCB.

These functions can be accessed by K-Line (on the bench or by diagnostic connector) without any intervention to inside ECU.

These functions do not work by CAN-BUS!

NOTE: Now software of ASW-NEXT support FLASH CRC repair feature.

You can check and repair CRCs before to proceed with ECU reprogramming, when FLASH file was previously modified for any reason (e. g., for chip tuning purposes).

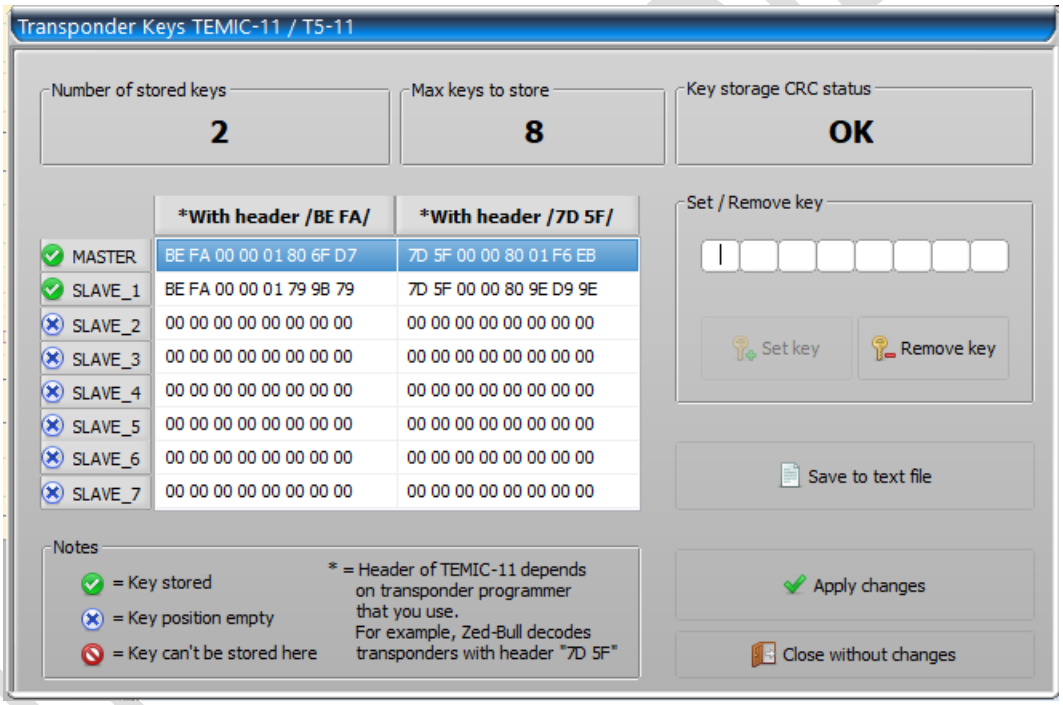
Load (or read from MCU) a FLASH file and use <**Check & Repair FLASH CRC**>.

4. Key making

Transponder key values can be read and set by CAN-BUS directly from / to **ELDOR CUBO** being set to **BOOT** mode. They also can be extracted and set from / to **SPC5533 FLASH** dump that was previosly read and saved.

✓ To deal with transponder values by CAN-BUS

- Open plastic cover of **ELDOR CUBO**
- Solder 1 kOhm resistor as in the picture from Chapter **1** to set **BOOT** mode
- Connect ASW-NEXT wires to **CAN-L** , **CAN-H**, **GND** and both **+12V** pins of **ELDOR CUBO** as in the picture from Chapter **2**.
- Press „**Set BOOT Mode**“
- Press „**Read / Set Keys**“



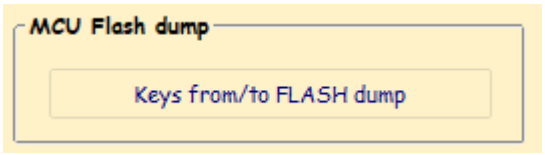
Now you can:

- ✓ Save key values to the text file for futher transponder making
- ✓ Edit current values of existing keys
- ✓ Add more keys (up to 8 in total, 1x **MASTER** and 7x **SERVICE**)
- ✓ Remove selected keys
- ✓ Write changes to **ELDOR KUBO** by pressing „**Apply changes**“

✓ To deal with transponder values by SPC5533 Flash dump

- Load **Flash** file

- Press button



Same dialog „**Transponder Keys**“ will pop-up.
Now you can:

- ✓ Save key values to the text file for futher transponder making
- ✓ Edit current values of existing keys
- ✓ Add more keys (up to 8 in total, 1x **MASTER** and 7x **SERVICE**)
- ✓ Remove selected keys
- ✓ Write changes **to Flash file** by pressing „**Apply changes**“

NOTE: No CRC repair is required after keys were added / removed from FLASH file. Software of ASW-NEXT will do this for you automatically.

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