# Aprilia RSV4 / Dorsoduro

# Full LCD Instrument Cluster COBO

## For ASW-NEXT

Short User Manual

Immo-Tools.lt

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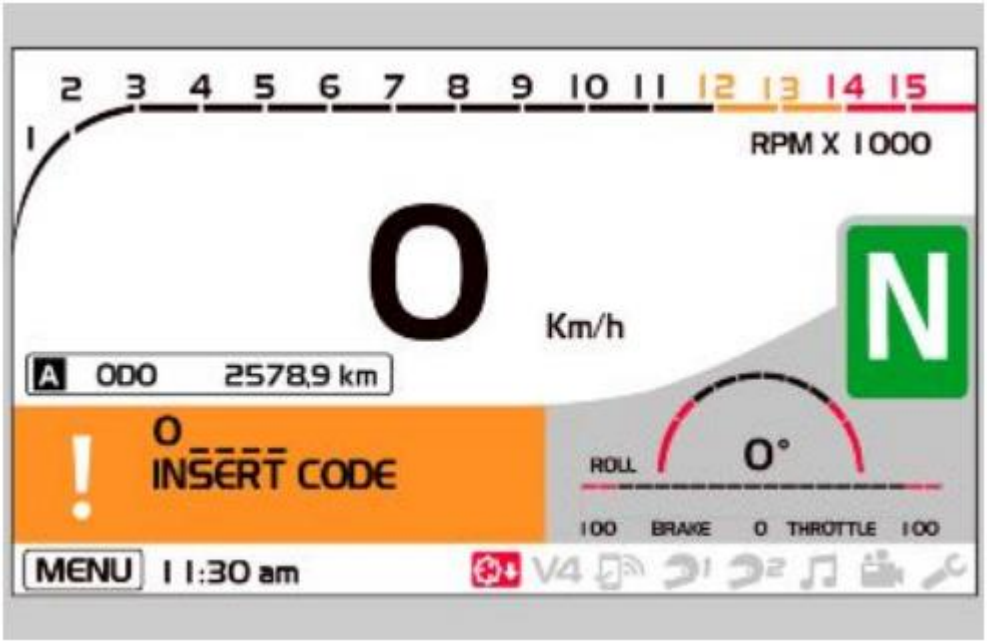
## Important notes:

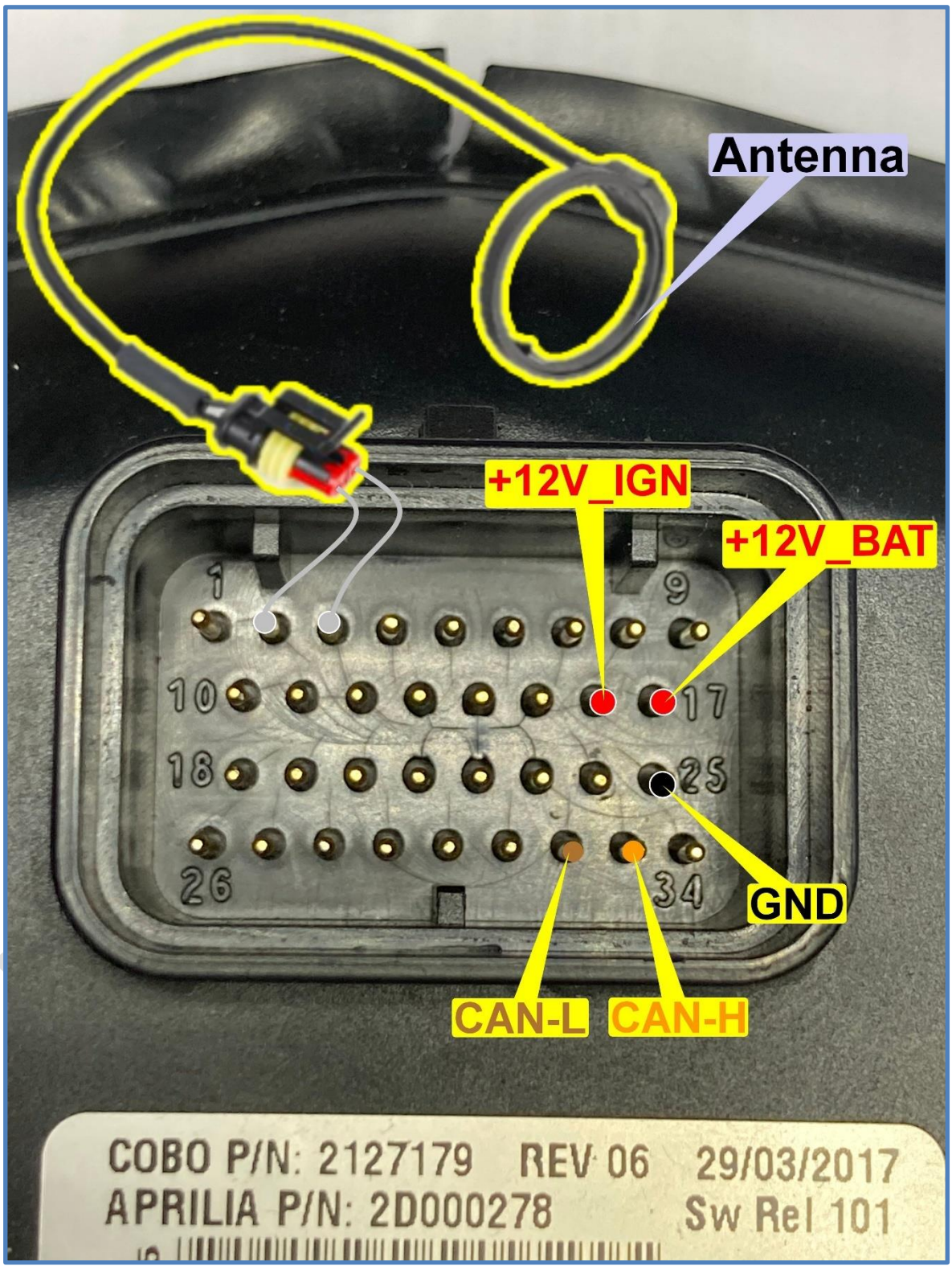
**This option applies only to instrument cluster with a large color LCD made by COBO**

**Some software functions will trigger message INSERT CODE on the screen of instrument cluster (picture below).**

**To enter code in the on-the-bench connection will require joystick, wired-up to the CAN-BUS of the instrument cluster because instrument cluster by itself has no buttons to enter this code with. Better use functions that require USER CODE in the motorcycle directly with ASW-NEXT connected to motorcycle's diagnostic connector.**



## 1. How to connect?




**NOTE:** Key antenna is for transponder acceptancy test only

## 2. Software functions

- **Reset Service Remainder**
- **Reset User CODE**
- **Reset Keys**

  Erases all keys and stores value of the key that is in the ignition lock. Up to 4 keys can be programmed during this procedure. Requires **USER CODE.** Follow messages on the LCD screen of instrument cluster.

- **Set Odometer**

  Set new odometer value. Mileage increase, decrease or set zero is available.

EEPROM dump functions:

- **Read / Set odometer in the EEPROM dump**
- **Read USER CODE from the EEPROM dump**
- **Read / Set Keys in the EEPROM dump**

Group of dump functions do require **24C512** content to be previously read from instrument cluster using suitable **EEPROM programmer**.
EEPROM R/W by diagnostic is not implemented.

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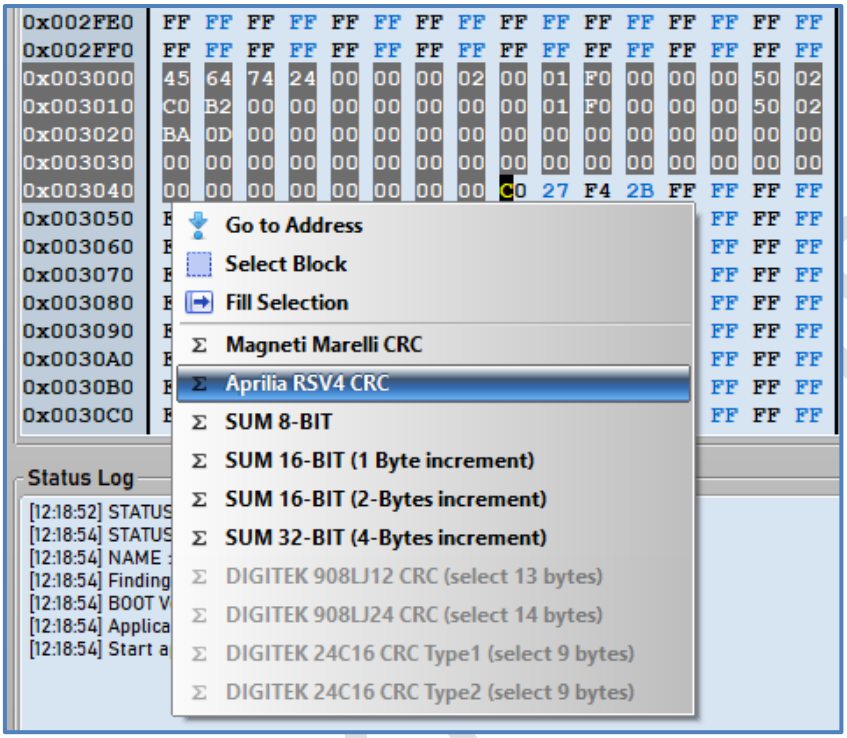
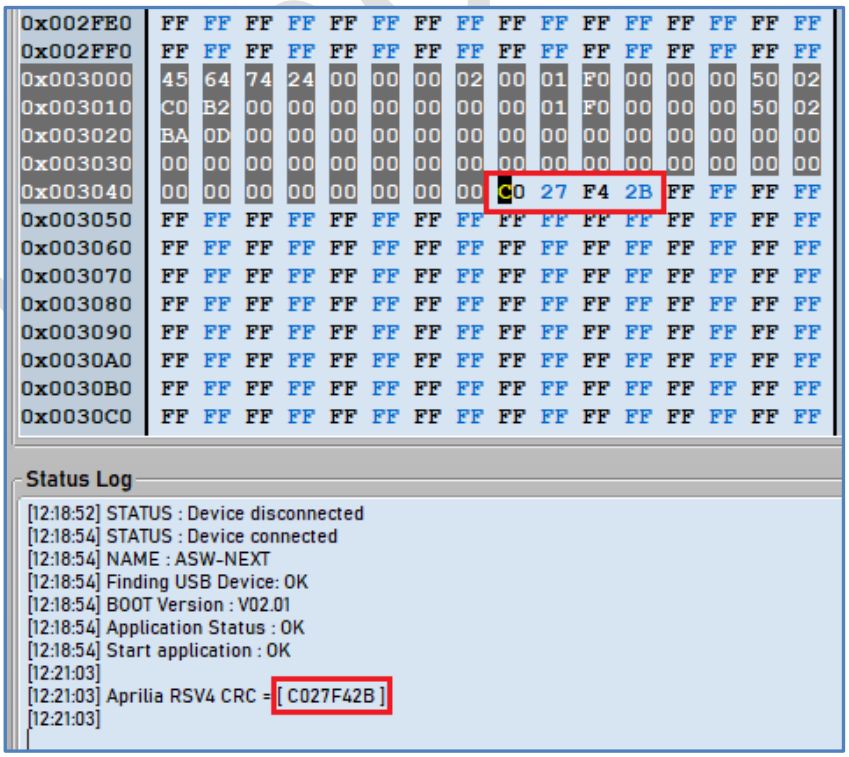
## 3. CRC for EEPROM 24C512 dump

You are free to edit EEPROM content manually but CRC for modified data block must be updated with correct value. Occupied EEPROM area is divided into information blocks where every block starts with ‚**Edt$**' and ends with 32-bit CRC. Select block in the HexEditor window and right-click with mouse on the selected block. Choose ‚**Aprilia RSV4 CRC**'. Update 4 bytes of calculated CRC if necessary.