How to use
MaxxECU MDash Android App

2015-04-27

Important information!
(must be read before use)

Dynotuning ▪ Engine Management ▪ Motorsport

1 - Introduction

MaxxECU MDash is an Android app that communicates wirelessly via Bluetooth between MaxxECU and an Android-based phone or tablet. ALL sensor data and engine parameters that are connected to MaxxECU can be viewed in MDash!

Text marked with "blue" in this manual are references to the PC-software MTune.
Internal references to sections or pictures are made with **bold text**.
MTune screenshots of version 1.83 and MDash 1.63b/1.83.

MDash works on all Android devices with Android 4.2.2 or newer.
MaxxECU MDash is tested and developed on Google (ASUS) Nexus7.
Mount the supplied antenna on the MaxxECU, and make sure to have the charger for plugged in becuase Bluetooth mobile communication consumes a lot of battery power!

2 - MaxxECU settings

For MaxxECU to communicate with MDash there must be a password assigned in MaxxECU. This is done with the PC-software MTune. Installation of MTune is explained in MaxxECU Handbook chapter **4.3.1**
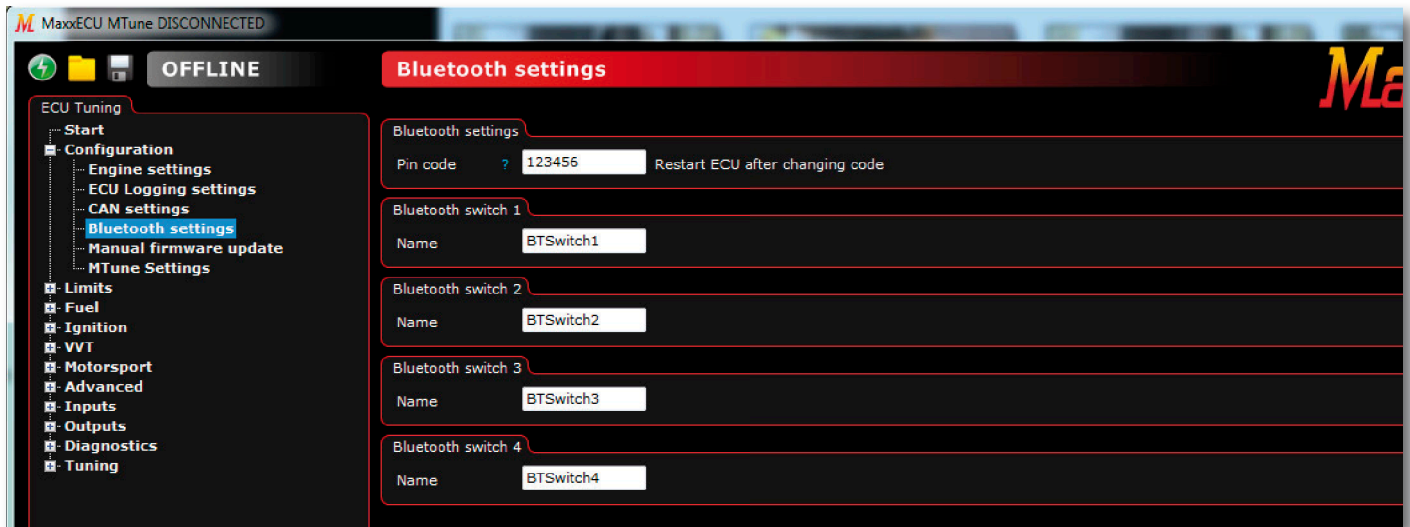

Fig 2a - When Mtune is connected with MaxxECU, go into Configuration -> Bluetooth settings and enter the password you want. Preferable use a good and powerful password (az, 0-9). Once the password is set, MaxxECU must be restarted.
MDash 1.83 and newer has the ability to add buttons in app to control functions in MaxxECU. Instead of using traditional switches connected to MaxxECU input.
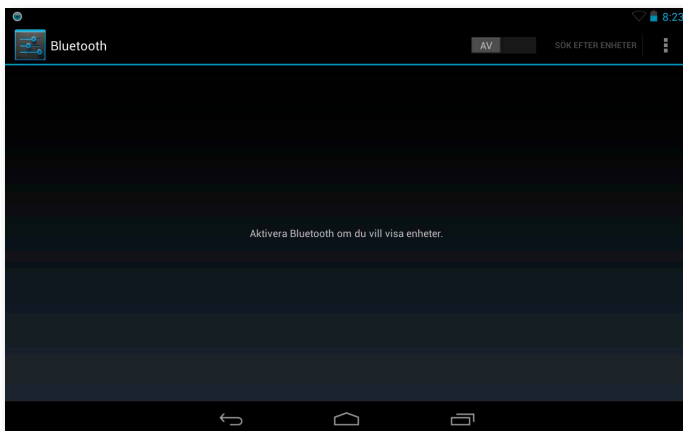
3 - Android Bluetooth settings

Fig 3a - Bluetooth settings in Android can be found by tapping forward to Settings and Bluetooth. Activate the Bluetooth by sweeping the OFF button to ON.
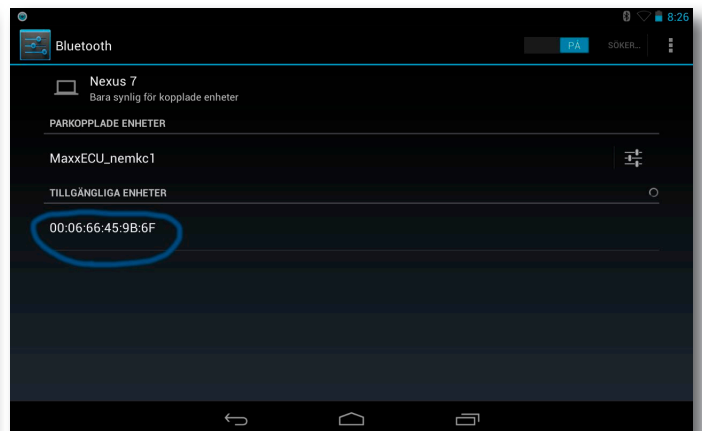
Fig 3b - When Bluetooth is enabled on your Android device, they must be "paired". Tap on the newly found device as shown above. Bluetooth's communication range is 5-20meters depending on environment.
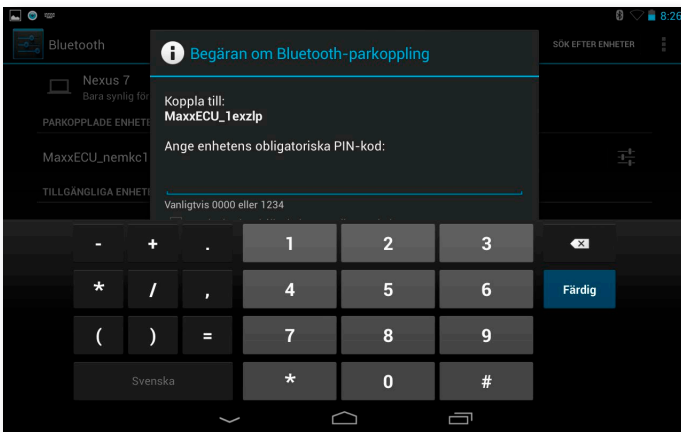
Fig 3c - In order to pair an Android device with MaxxECU we must here enter the password.
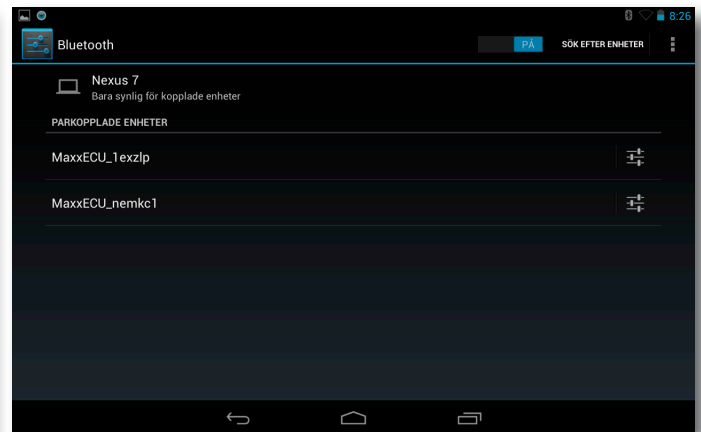

Fig 3d - When pairing is complete, your MaxxECU device appears in the list of paired devices in Android.

Fig 3e - Mdash is not currently available on Google Play but only available for download directly from www.maxxecu.eu
After downloading the app, simply approve "install from unknown sources".
Activation of this is done in Android's settings, Security and "Unknown sources" ("Allow installation of applications from unknown sources").
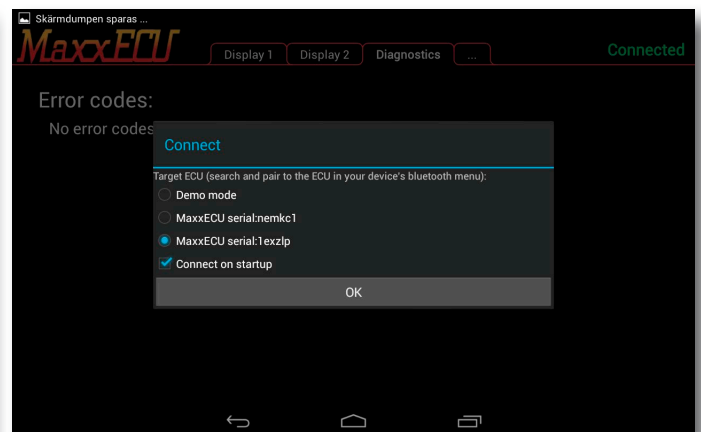

Fig 3f - Once the app is installed, a shortcut is among the apps on your device. Click MDash icon to start the program and the following dialog box will appear. Select the device you want to connect to, check the "Connect on startup" to avoid this dialog in the future.

4 - MDash handling

MDash app is build upon a "grid" which you must understand before you begin to add and move different gauges.
Positioning is based on where you touch, and top left of the selected gauges ("Gauge") or text ("Value text").
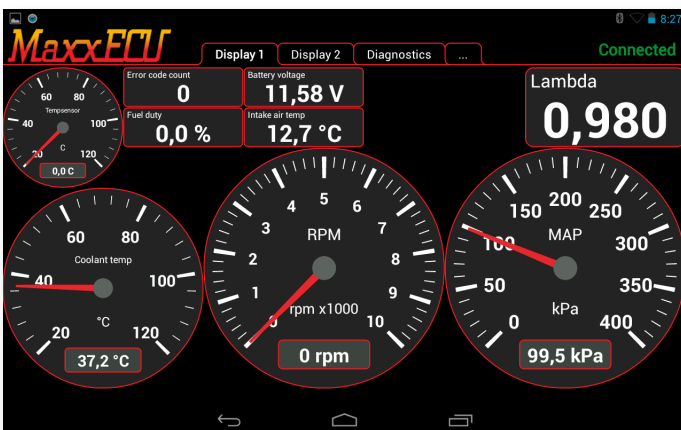

Fig 4a - MDash is composed of a tab system with several and separate panels: "Screen 1", "Screen 2" and "Diagnostics".
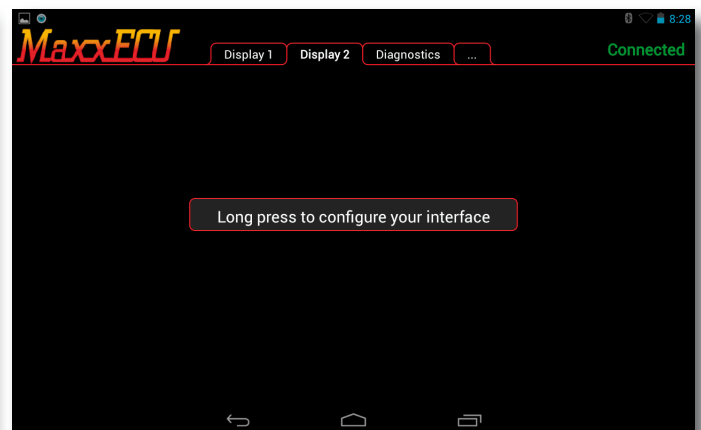

Fig 4b - Display 2 is by default empty and we will use this page to learn how to build up a panel from scratch with a blank page. Touch the tab "Display 2".
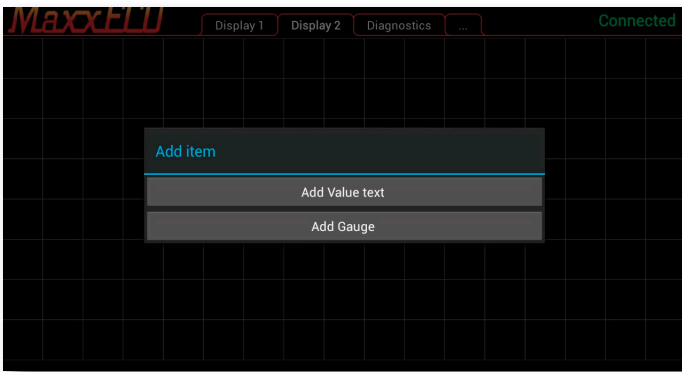
Fig 4c - Tap and hold the display background, the following dialog box appears. Options to create a meter ("Add Gauge") or a text ("Add Value text") will show. In the following example, we choose to add a round tachometer, tap "Add Gauge". Note that the meter will be placed with it's top left corner where you "tap and hold".
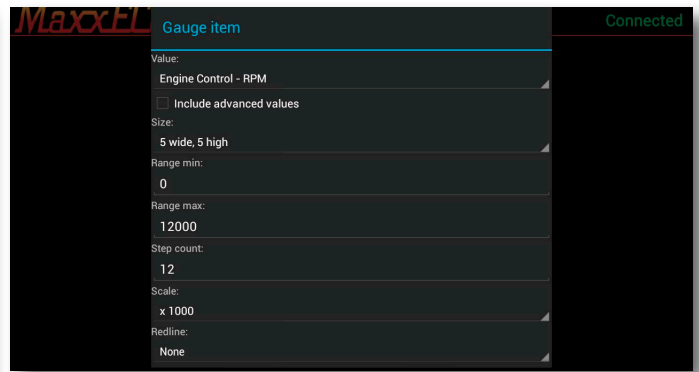

Fig 4d - A new dialog box will appear where you can choose which value you want to display. For instance, select "Engine Control - RPM" in the list. Choose size which depends on the space available. In this example there are no other meters near, and therefore, this meter can be made large.
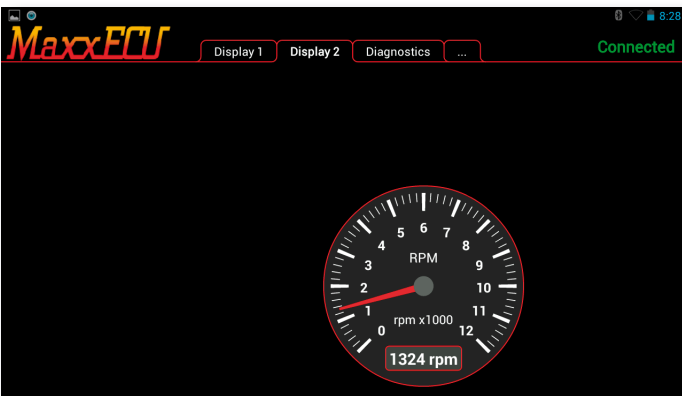

Fig 4e - Examples of a tachometer without redline marking. Apparently, the placement of the gauge is not quite where we wanted it, see Figure **4f** to move / change / remove.
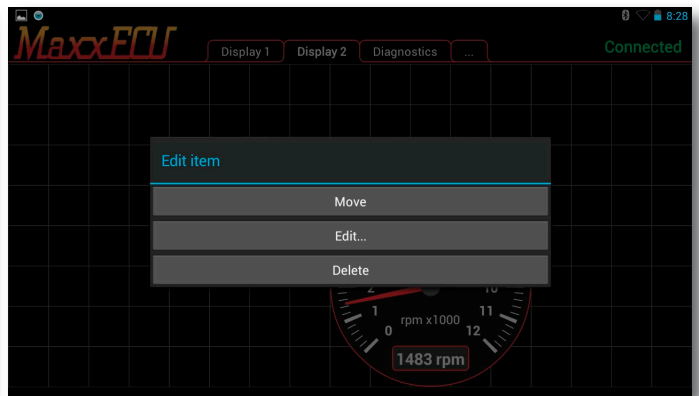

Fig 4f - Tap and hold on the gauge until this dialog box appears. Tap "Move" and then point somewhere in the grid. "Edit" displays a new dialog box for modifying the existing meter characteristics.
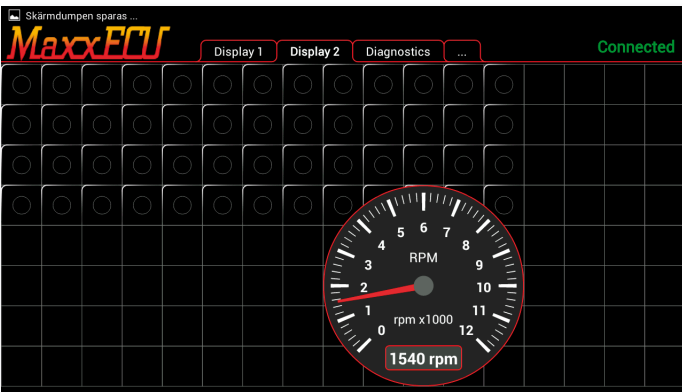

Fig 4g - The grid that appears when you choose to move ("Move"), a meter ("Gauge"), or text value ("Value text").
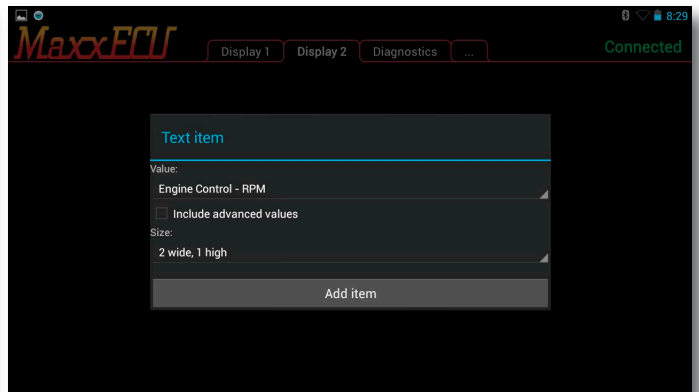

Fig 4h - Tap anywhere on the screen to add a text value ("Add Value text"). Select engine value in the list and select size.
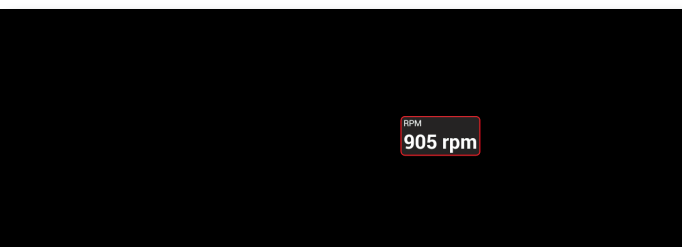

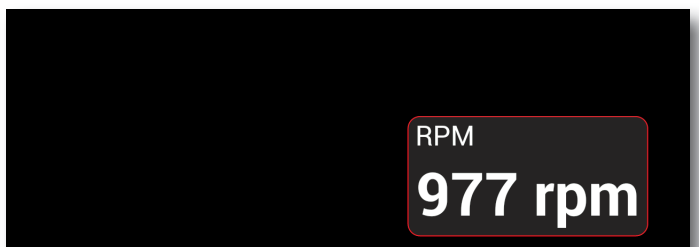Fig 4i - Example text ("Value text").

Fig 4j - Here we have enlarged text value by tap and hold on the "meter", select "Edit" and changed the size ("Size").
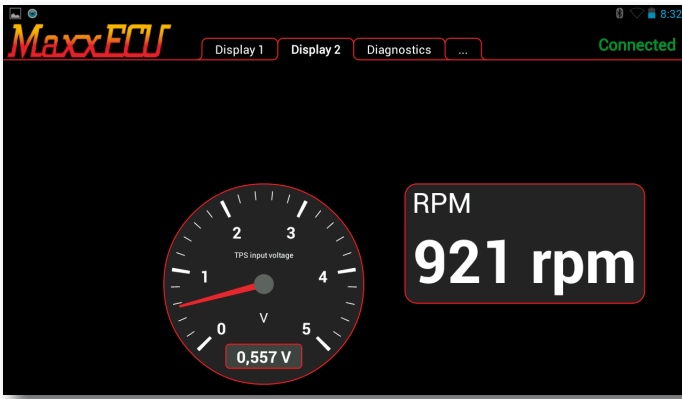
Fig 4k - Example of a gauge that shows current voltage from the throttle sensor and a text value that indicates speed.
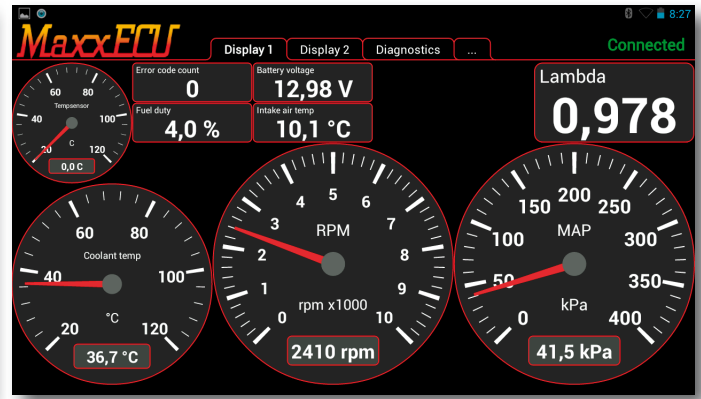

Fig 4l - Example view of combined meters.

4.1 - MDash input handling

MTune 1.83 supports "digital inputs" from MDash to control functions like different boost levels, launch, anti-lag and such functions by using Virtual Inputs.
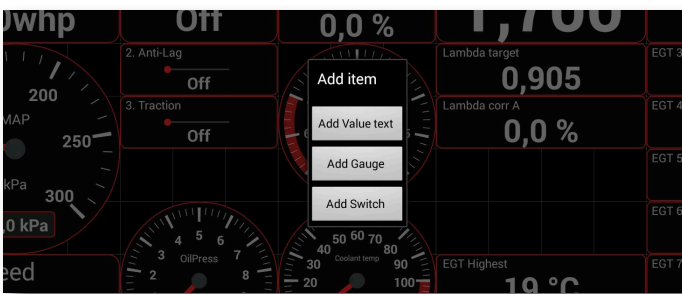

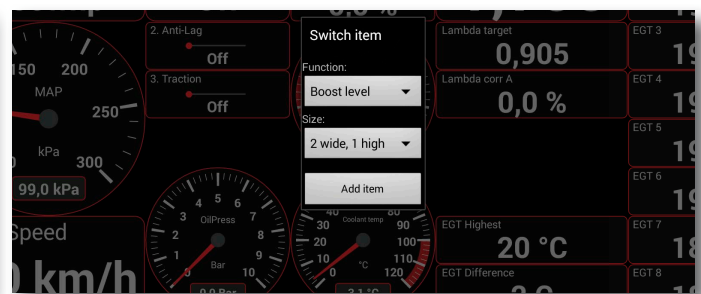Fig 4.1a - Tap and hold on the surface background, and the following dialog will appear. Tap the "Add Switch".

Fig 4.1b - A new dialog box will pop up. Choose Boost level or one of the four digital inputs that can be uesed in MaxxECU. Digital inputs –> BT Switch 1 - 4. Must be used as a virtual input.
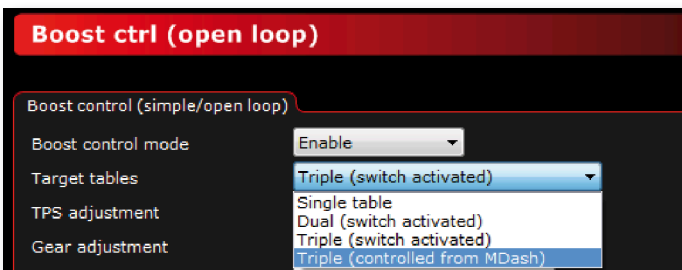

Fig 4.1c - For MDash to be able to control different levels of boost, Target Tables in MTune needs to be updated like picture above, controlled from MDash.
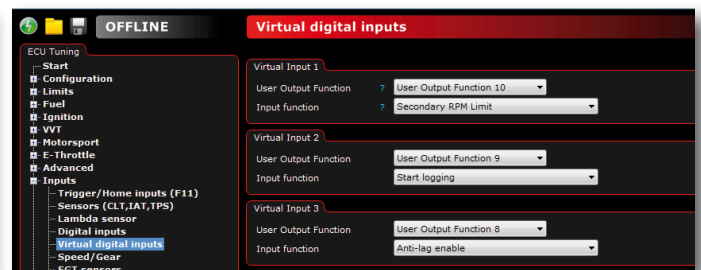

Fig 4.1d - For MaxxECU to use MDash buttons, a virtual input is needed and function must be set in MTune.
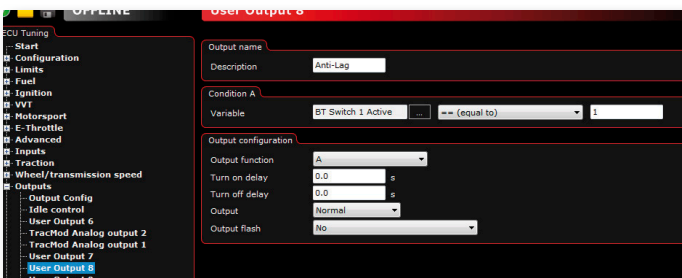

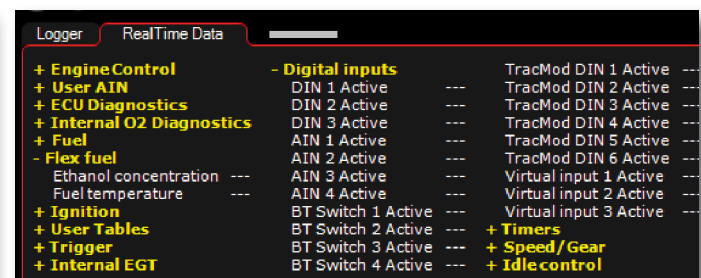Fig 4.1e - When the Virtual Input is added, it can then be used in MTune as an input.

Fig 4.1f - In the tab RealTime Data, Digital Inputs the real time status of MDash switches can be seen.

Fig 4m - Nexus 7 tablet mounted in car.

Fig 4n - Active holder for Nexus 7 tablet.

5 - Error codes handling

MaxxECU has built-in error code handling, which are linked inside MDash for viewing.
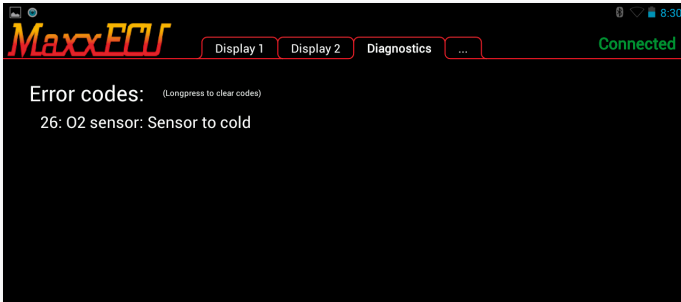

Fig 5a - Tap on "Diagnostics" to access the error code handling system. The above example shows error code for internal lambda sensor. Tap and hold to erase the error code.
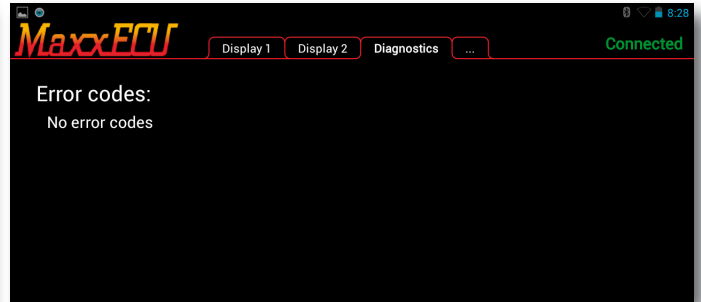

Fig 5b - No error codes.

NEW in MDash 1.83 is that a psysical button can be connected to any digital inputng (DINx, AINx), activated as "MDash page/Reset CEL(hold)" and causes MDash to change tabs, and also to erase fault codes. Handy if gloves as used...

5 - Advanced varnings.

MaxxECU also has built-in warning system which can alert the driver for various things like high coolant temperature, low oil pressure, differences between the cylinders' exhaust temperatures.
All varnings configured in MTune will be displayed on MDash panel!
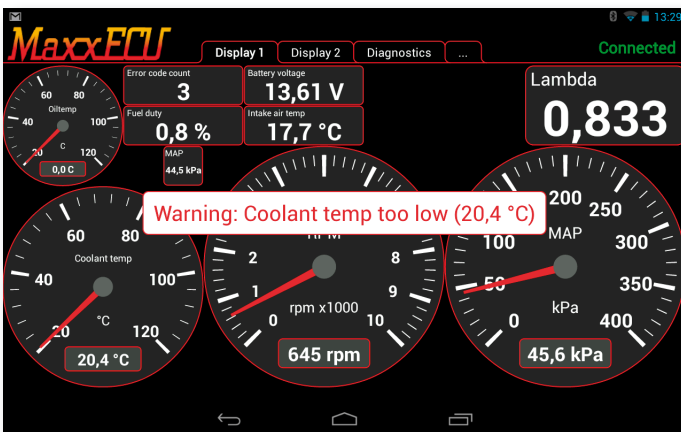See **6.3.9** in MaxxECU handbook for further information and examples.

Fig 5c - Examples of how warnings are placed above the existing gauge panel to indicate a possible problem.

6 - Final words

We would like to thank you for your confidence in your choice of MaxxECU. We have worked extremely hard, and put a lot of time creating an engine control unit to make it "a little better".

In the unlikely encounter of a problem which is considered to be beyond your control, please contact customer support.
You are very welcome to make suggestions on how to improve our product further!

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