

User Manual for Dash 7"

- Voltage: 8-18 V DC
- Operating Temperature: -40 to +150 degrees Celsius
- Aluminum construction
- Dimensions: width 20cm, height 13cm, depth 3cm
- Display: 7" TFT LCD Touch Display in aluminum framing

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1. Disclaimer and Warranty

Disclaimer

PRD bears no responsibility for any damage caused to individuals or materials during the installation or use of its products. PRD products are intended for off-road use only and do not guarantee compliance with local safety or emissions laws!

Warranty

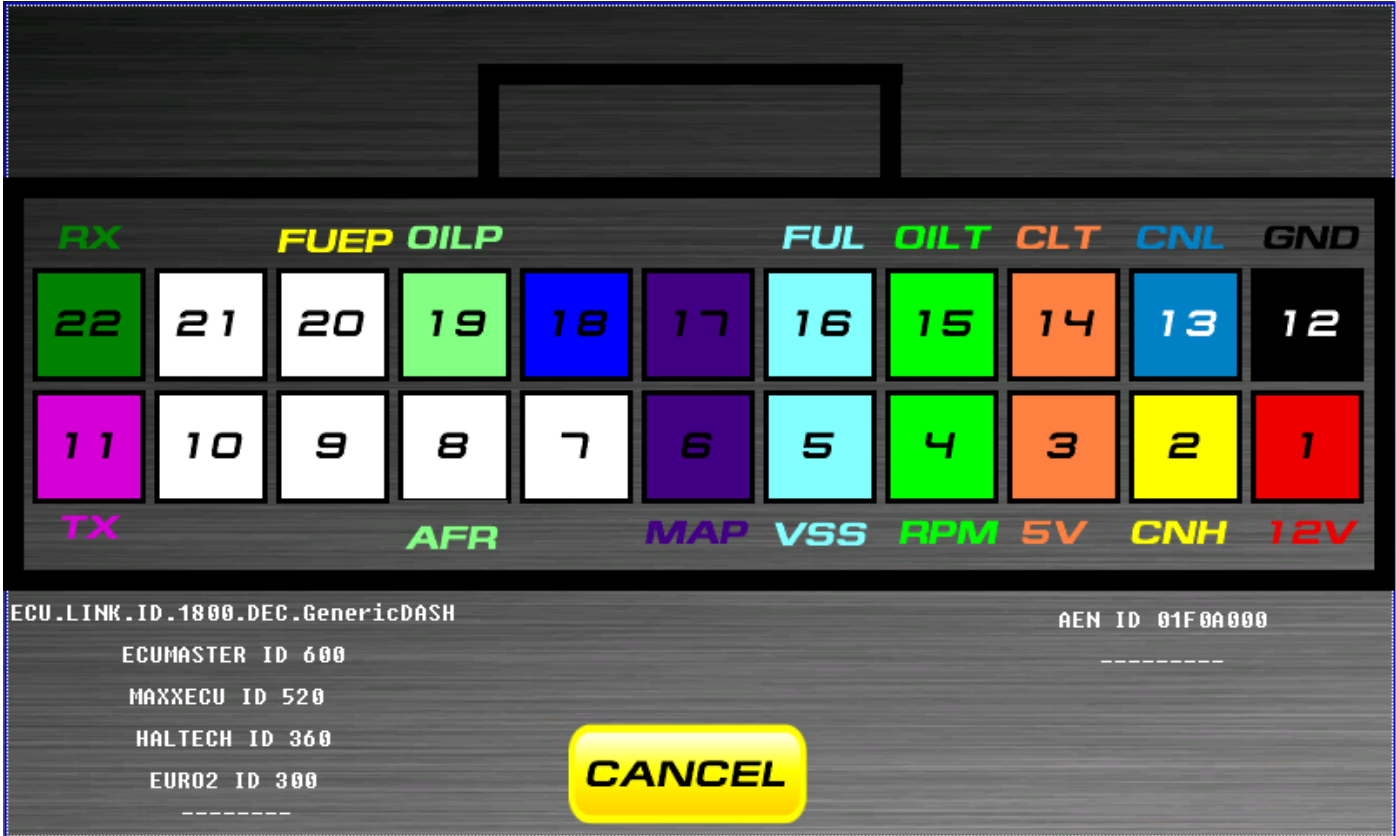
The product is warranted for one year from the date of purchase. This warranty does not cover finishes, normal wear and tear, or damage resulting from accidents, misuse, unauthorized use, attempts at repair or service by unauthorized service centers, neglect of reasonable maintenance, or PRD products that have been modified or used for commercial purposes.

2. Installation

2.1. Dash 7" Connection Diagram

Connection Pinout and Wiring Diagram of DASH 7"

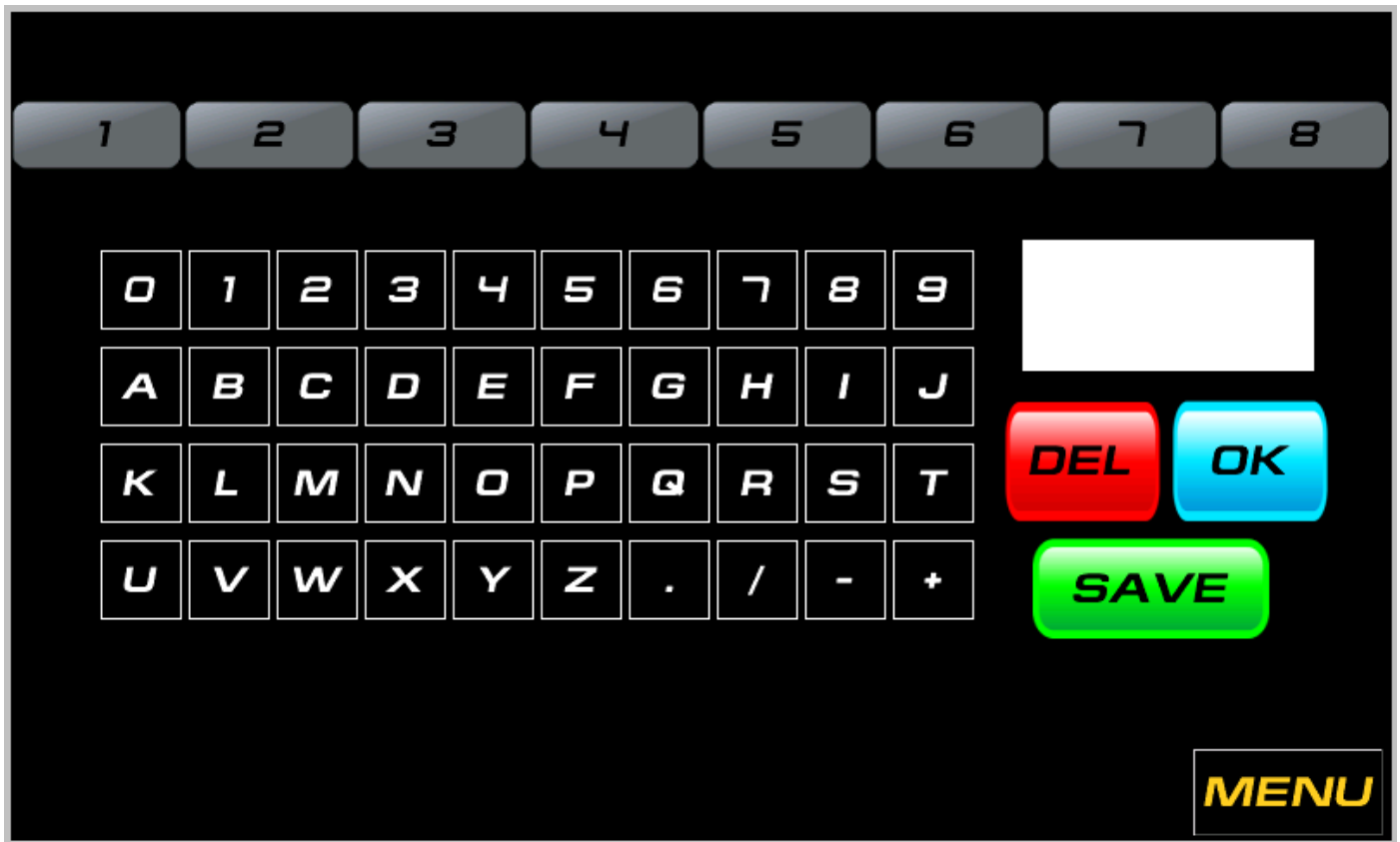
Please refer to the connector on the cable side.



2.2 Device Buttons and Controls

The control panel features 8 customizable buttons, which communicate via CAN with any device (PDM / ECU).

These buttons can be named according to your needs.



2.3 Step-by-Step Installation

The installation of the Dash 7" instrument panel is extremely simple. Complete the following process step by step:

Connecting the following four wires:

- 12V power supply for the switchable (red wire).
- Ground to the vehicle chassis (black wire).
- CAN LOW (-) (white-black wire).
- CAN High (+) (pink-black wire).

Once you complete these connections, you should open the "MENU" tab, select your ECU, adjust the speed, and then press "SAVE."

The Dash instrument panel will initiate communication with your ECU.

Dash Menu

The screenshot shows the 'MENU' screen of the Dash 7 instrument panel. The interface is dark-themed with green and white text. On the left, there are four dropdown menus: 'ECU Mode' set to 'MAXXECU', 'CAN Speed' set to '500 Kbps', 'Shift Mode' set to 'MODE 1', and 'Main Page' set to 'DASH_1'. Below these are three buttons: 'SENSORS', 'BUTTONS', and 'Units'. At the bottom left, there is a 'BUTTON' button and a serial number field 's/n:' followed by 'DASH 7'. On the right side, there are several settings with input boxes: 'Shift RPM', 'ECT Wrn C', 'Brightness' (with a slider), 'OilPr Wrn (kpa)', 'OilTemp Wrn C', 'fuel tank max', and 'fuel tank warn'. At the bottom right, there are three large buttons: 'UPDATE' (orange), 'CANCEL' (yellow), and 'SAVE' (green).

MENU			
ECU Mode	MAXXECU		
CAN Speed	500 Kbps		
Shift Mode	MODE 1		
Main Page	DASH_1		
SENSORS	BUTTONS	Units	
CAN	GPS	help	
BUTTON			
s/n: DASH 7			
Shift RPM		<input type="text"/>	
ECT Wrn C		<input type="text"/>	
Brightness		<input type="range"/>	
OilPr Wrn (kpa)		<input type="text"/>	
OilTemp Wrn C		<input type="text"/>	
fuel tank max		<input type="text"/>	
fuel tank warn		<input type="text"/>	
UPDATE		CANCEL	SAVE

ECU Mode = Protocol CAN

MENU

ECU Mode

CAN Speed

Shift Mode

Main Page

SENSORS

BUTTONS

DTA

AEM

KMS

Shift RPM

ECT Wrn C

Brightness

OilPr Wrn (kpa)

OilTemp Wrn C

fuel tank max

fuel tank warn

BUTTON

UPDATE CANCEL SAVE

s/n: DASH 7

CAN Speed = CAN Communication Speed

MENU

ECU Mode

CAN Speed

Shift Mode

Main Page

SENSORS

BUTTONS

Units

Shift RPM

ECT Wrn C

Brightness

OilPr Wrn (kpa)

OilTemp Wrn C

fuel tank max

fuel tank warn

BUTTON

UPDATE CANCEL SAVE

s/n: DASH 7

3. Device Communications, CAN BUS

We already have a wide range of CAN protocols in the system. Upon request, we can add a system that we don't currently have.

- OBD-11bit
- OBD-29bit
- ECUMASTER
- LINK
- MAXXECU
- DTA
- AEM
- KMS
- HALTECH
- EURO2
- HONDATA_PRO
- MTRON
- VAG
- SYVECS7

MENU

ECU Mode [Dropdown Menu]

CAN Speed [Dropdown Menu]

Shift Mode [Dropdown Menu]

Main Page [Dropdown Menu]

Sensors [List of Sensors]

Buttons [List of Buttons]

Shift RPM [Input Field]

ECT Wrn C [Input Field]

Brightness [Slider]

OilPr Wrn (kpa) [Input Field]

OilTemp Wrn C [Input Field]

fuel tank max [Input Field]

fuel tank warn [Input Field]

UPDATE **CANCEL** **SAVE**

BUTTON

s/n:

DASH 7

4. Device Configuration

4.1 Analog Inputs

The Dash 7" instrument panel is equipped with 6 analog inputs, allowing you to directly add additional sensors to the Dash if you don't have them in your ECU.

- MAP (Manifold Absolute Pressure) Sensor
- AFR (Air-Fuel Ratio) / Lambda Sensor
- Water Temperature
- Oil Temperature
- Fuel Gauge
- Oil Pressure
- Fuel Pressure

Each input has its own "calibration page" to adjust to each sensor.

SENSOR CALIBRATION #1

CLT
ENABLE ☐

0	0	0	0	0	0	0	0	0	0	0
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

OILT
ENABLE ☐

0	0	0	0	0	0	0	0	0	0	0
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

OILP
ENABLE ☐

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

SENSOR#1 **SENSOR#2** **SENSOR#3** **CANCEL** **SAVE**

SENSOR CALIBRATION #2

FUELP

ENABLE ☐

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

FUEL

ENABLE ☐

0	0	0	0	0	0	0	0	0	0	0
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

AFR

ENABLE ☐

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

SENSOR#1

SENSOR#2

SENSOR#3

CANCEL

SAVE

SENSOR CALIBRATION #3

MAP

ENABLE ☐

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

RPM Multiplier

ENABLE ☐

0.0

VSS Multiplier

ENABLE ☐

0.0

SENSOR#1

SENSOR#2

SENSOR#3

CANCEL

SAVE

4.2 Digital Inputs

The Dash 7" instrument panel is equipped with 2 digital inputs, allowing you to directly add additional sensors to the Dash if you don't have them in your ECU.

- Engine RPM
- Vehicle Speed (VSS, km/h)

Each measurement has its own multiplication factor to correspond to the desired value.

SENSOR CALIBRATION #3

MAP
ENABLE ☐

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

RPM Multiplier
ENABLE ☐

0.0

VSS Multiplier
ENABLE ☐

0.0

SENSOR#1 SENSOR#2 **SENSOR#3** CANCEL SAVE

5. Menu Description and Configuration

MENU

ECU Mode	MAXXECU ▼	Shift RPM	<input type="text" value="0"/>
CAN Speed	500 Kbps ▼	ECT Wrn C	<input type="text" value="0"/>
Shift Mode	MODE 1 ▼	Brightness	<input type="range" value="100"/>
Main Page	DASH_1 ▼	OilPr Wrn (kpa)	<input type="text" value="0"/>
		OilTemp Wrn C	<input type="text" value="0"/>
		fuel tank max	<input type="text" value="0"/>
		fuel tank warn	<input type="text" value="0"/>

SENSORS	BUTTONS	Units
CAN	GPS	help

BUTTON

s/n: DASH 7

UPDATE **CANCEL** **SAVE**

5.1. Shift Mode

This is a dropdown menu where you can choose between 3 different modes for the LED shift indicator lighting.

The screenshot shows a software interface titled "MENU" with a black background and green text. On the left, there are four settings: "ECU Mode" set to "MAXXECU", "CAN Speed" set to "500 Kbps", "Shift Mode" (which is the active dropdown menu), and "Main Page" set to "DASH 1". The "Shift Mode" dropdown menu is open, showing three options: "MODE 1" (highlighted in green), "MODE 2", and "MODE 3". Below these settings is a grid of buttons: "SENSORS", "CAN", "BUT", "GPS", and "help". At the bottom left is a "BUTTON" label. On the right side, there are several controls: "Shift RPM" and "ECT Wrn C" each with a square button containing a small square; "Brightness" with a horizontal slider; and four more square buttons containing small squares, labeled "OilPr Wrn (kpa)", "OilTemp Wrn C", "fuel tank max", and "fuel tank warn". At the bottom right are three large buttons: "UPDATE" (orange), "CANCEL" (yellow), and "SAVE" (green). In the bottom left corner, there is a label "s/n:" followed by "DASH 7".

MENU

ECU Mode MAXXECU ▾

CAN Speed 500 Kbps ▾

Shift Mode ▾

Main Page DASH 1

MODE 1

MODE 2

MODE 3

SENSORS **BUT**

CAN **GPS** **help**

BUTTON

Shift RPM □

ECT Wrn C □

Brightness

OilPr Wrn (kpa) □

OilTemp Wrn C □

fuel tank max □

fuel tank warn □

UPDATE **CANCEL** **SAVE**

s/n: DASH 7

5.2. Main Page

This is a dropdown menu where you can select which default page will start once the control panel is powered on.

The screenshot shows a configuration menu titled "MENU" on a black background with green and white text. On the left, there are labels for "ECU Mode", "CAN Speed", "Shift Mode", and "Main Page", each followed by a dropdown menu. The "Main Page" dropdown is currently open, showing options "DASH_1", "DASH_2", "DASH_3", and "DASH_4", with "DASH_1" highlighted in green. Below these are two columns of settings: "Shift RPM", "ECT Wrn C", "Brightness" (with a slider), "OilPr Wrn (kpa)", "OilTemp Wrn C", "fuel tank max", and "fuel tank warn", each with a corresponding input field. At the bottom left, there are buttons for "SENSORS", "BUTTON", "CAN", and "G". At the bottom right, there are three large buttons: "UPDATE" (orange), "CANCEL" (yellow), and "SAVE" (green). The bottom left corner shows "s/n:" and the bottom center shows "DASH 7".

Setting	Value
ECU Mode	MAXXECU
CAN Speed	500 Kbps
Shift Mode	MODE 1
Main Page	DASH_1
Shift RPM	
ECT Wrn C	
Brightness	
OilPr Wrn (kpa)	
OilTemp Wrn C	
fuel tank max	
fuel tank warn	

5.3. Shift RPM

Here you can enter the RPM limit value. This same value is used for the LED Shift Light.

MENU

ECU Mode	MAXXECU ▼	Shift RPM	<input type="text" value="0"/>
CAN Speed	500 Kbps ▼	ECT Wrn C	<input type="text" value="0"/>
Shift Mode	MODE 1 ▼	Brightness	<input type="range" value="100"/>
Main Page	DASH_1 ▼	OilPr Wrn (kpa)	<input type="text" value="0"/>
		OilTemp Wrn C	<input type="text" value="0"/>
		fuel tank max	<input type="text" value="0"/>
		fuel tank warn	<input type="text" value="0"/>

SENSORS	BUTTONS	Units
CAN	GPS	help

BUTTON

s/n: DASH 7

UPDATE**CANCEL****SAVE**

5.4. Warnings / Alarms

All warnings used with your ECU (via CAN) can be utilized and will appear (when active) on each page as occasional messages.

All primary warnings for oil pressure, oil temperature, water temperature, fuel tank level, as well as maximum fuel tank level, can be configured in the menu.

MENU

ECU Mode **MAXXECU** ▾

CAN Speed **500 Kbps** ▾

Shift Mode **MODE 1** ▾

Main Page **DASH_1** ▾

Shift RPM

ECT Wrn C

Brightness

OilPr Wrn (kpa)

OilTemp Wrn C

fuel tank max

fuel tank warn

SENSORS	BUTTONS	Units
CAN	GPS	help

BUTTON

UPDATE **CANCEL** **SAVE**

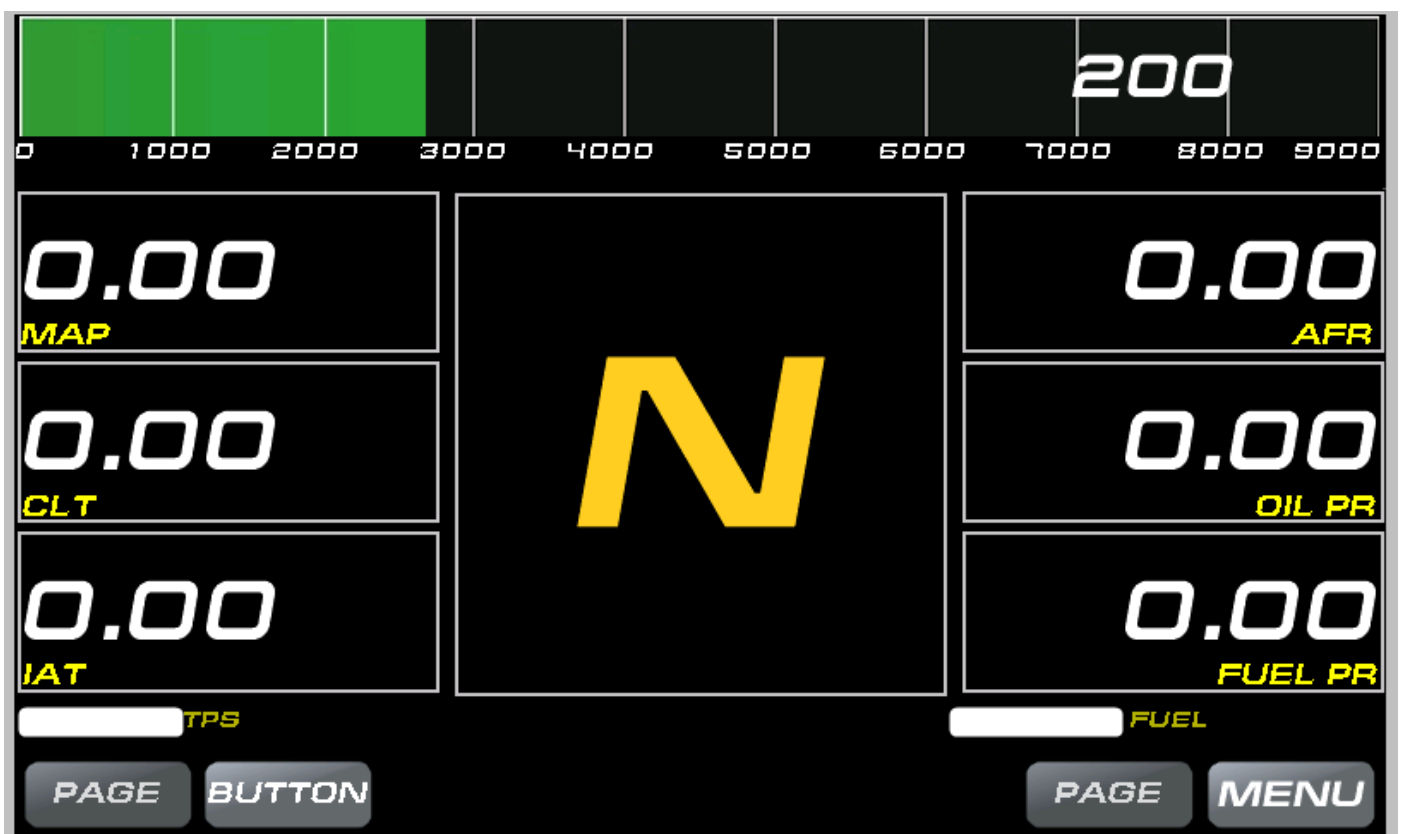
s/n: **DASH 7**

5.5. Dashboard Pages

Currently, we have 4 default pages that will cover all needs. These pages can be updated if required, or we can also create new pages upon request.

Note that all values can be modified by simply touching the value for 2 seconds. This will direct you to a new screen containing all available CAN messages from the protocol you have selected.

Page 1



Page 2



Page 3





5.6 Screen Operation: Menu Selection by Cell Press for Ease of Selection.

In screen operation, if you press on a value cell for two seconds, a menu will appear containing all available values, allowing you to select the one you wish to view.

VSS	ADV	EGT2	AFR	WHEEL_SLIP	
CLT (C)	INJDC	EGT3	AFR2	ETH_CONC%	
F.PR (BAR)	INJPW	EGT4	RPM	TRAN_TEMP	
OIL.PR (BA	DW	EGT5	LAMBDA_C_A	COOLANT_P	
GEAR	ANA1	EGT6	LAMBDA_C_B	FUEL_LEVEL	
IAT	ANA2	EGT7	LAMBDA	BATTERY	
MAP (BAR)	ANA5	EGT8	LAMBDA2	GPS_SPEED	
OIL.T (C)	ANA6	EGT_HIGH	LAMBDA_T		
TPS_%	EGT1	EGT_DIFF	BOOST_TARG		CANCEL

5.7. Measurement Units

You can change the unit of measurement through the menu by clicking on the "Units" button. This will take you to a new window with the options for kPa/bar for pressure and Celsius or Fahrenheit for temperature.

Pressure

Temperature

BACK

5.8. CAN Output

We have a dedicated page for CAN outputs where you can send your messages to another device, such as GPS speed, activation buttons, etc. This is under development, and we are planning many new features soon.

There is also an indication for the fuel quantity with ID 755 in 0 and 1 byte.

CAN-Bus Output

ID DEC	DLC	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
666	8					Speed H	Speed L	Switch	Analog

Switch	names	1	2	3	4	5	8
--------	-------	---	---	---	---	---	---

Custom fuel level value: 0 to 255 liters;

ID	DLC	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x755	8	fuel H	fuel L						

CANCEL

SAVE

5.9. LEDs

The LEDs on the dashboard front are only used for the rev limiter. They will light up when you reach the engine's RPM limit. We plan to update them in the future with new interesting features.

5.10. GPS and Performance Indicators

Our dashboard features its own built-in GPS module, which can be used to measure the vehicle's speed and for performance purposes such as 0-100 km/h, etc.

