

ColorMFA

firmware v2.9.4_b31

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Main Screen

Main screen visually divided into 4 areas:



- Top display area: for indication of OEM Radio system information or two custom chosen parameters.
- Middle display area: for indication of main car parameters or navigation info.
- Message display area: for indication of current messages (Errors and Warnings) or «OK» in case everything is fine.
- Bottom display area: Gear box status (Selected gear, shift light or mode) in center and custom chosen parameters on the left and on the right.

Main screen controlled by OEM wiper stalk buttons: "Up", "Down" and "Reset". Using buttons "Up", "Down" changes parameters in Middle display area, press "Reset" button to show Main menu or switch to Navigation info screen (see clause [Navigation info](#))

Top display area

In the top display area, it is possible to show data from OEM radio system / phone (when connected via CAN bus only) or two additional parameters at the user's choice (selecting parameters *Menu -> Settings -> Design -> Main screen*)



Middle display area

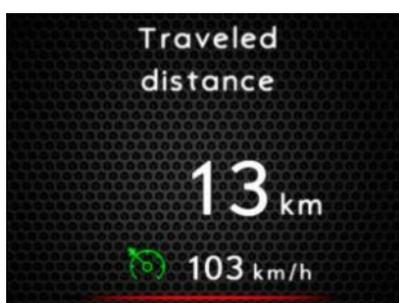
It is possible to show the following data in the middle display area which can be cycled through:



- **Travelled time**
Travelled time in current trip. Timer starts when ignition is turned on on. Automatically reset to zero when ignition is off for more than 1 hour.
- **Average speed.**
Average speed in current trip. Automatically reset to zero when ignition is off for more than 1 hour.
- **Current speed.**
Current speed indication could be in two font size: Big digits or the same as other parameters (you can choose font size of current speed in Settings).
- **Current consumption.**
Automatically reset to zero in case of ignition off more than 1 hour.
- **Average consumption.**
When current speed is less than 5 km/h data is shown in liters per hour (l/h).
When current speed is more than 5 km/h data is shown in liters per 100 km (l/100km).
(Shown units depends on Settings).
- **Torque**
Show torque which is calculated by Engine ECU.
- **Battery voltage.**
- **Engine oil level.**
- **Engine oil temperature.**
- **Air intake temperature.**
- **Engine coolant temperature.**
- **Boost pressure (for turbo-engines).**
Boost pressure indication requires additional wiring!
- **DTE (Distance to Empty)**
Calculated distance which could be covered on remaining fuel in the tank.
- **Remaining fuel in the tank.**
- **Travelled distance.**
Automatically reset to zero when ignition is off for more than 1 hour.
- **Outside Temperature**

You can choose displayed/hidden for any of above parameters in Settings ([Menu -> Settings-> Trip computer](#)).

If the car has cruise control, then when activated, the middle display area indicates the cruise mode and the specified speed (Set speed). The cruise icon is displayed in green when active or in gray if the cruise is temporarily deactivated (standby).



Messages display area

If there are errors or warnings diagnosed by ColorMFA in the car, the icons are displayed in the message display area reminding the user of present faults or warnings. By default, the icons flash, so that the user pays attention to presence of errors or warnings. Blinking can be switched off in the settings (*Menu -> Settings -> Other*).

In the absence of any errors and no warnings there is "OK" displayed in this area.



Bottom display area

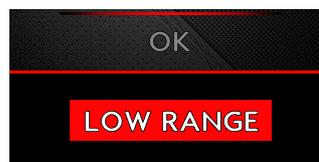
In the center of the bottom display area, the current transmission gear or the operating mode of the gearbox is displayed. Indications of proper gear number is available for manual gearbox when the transmission ratio values are correctly specified in the settings (*Menu -> Settings -> Calibration -> Gear ratios*) and for the automatic gearbox. For the automatic gearbox, you can select the display mode (*Menu -> Settings -> Gearing assist*).



If the automatic transmission has faults (errors), the data is highlighted in red and flashes to attract attention.

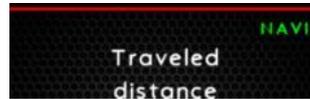
Parameters on the left and on the right side of this area can be configured in *Menu -> Settings -> Design -> Main screen*.

For cars equipped with a gearbox with a low range option, the low range and emergency / warning mode is displayed. Turning on the lowered range gearing is indicated by an ordinary inscription. In case of a malfunction or an unacceptable mode of operation, the inscription blinks.



Navigation info

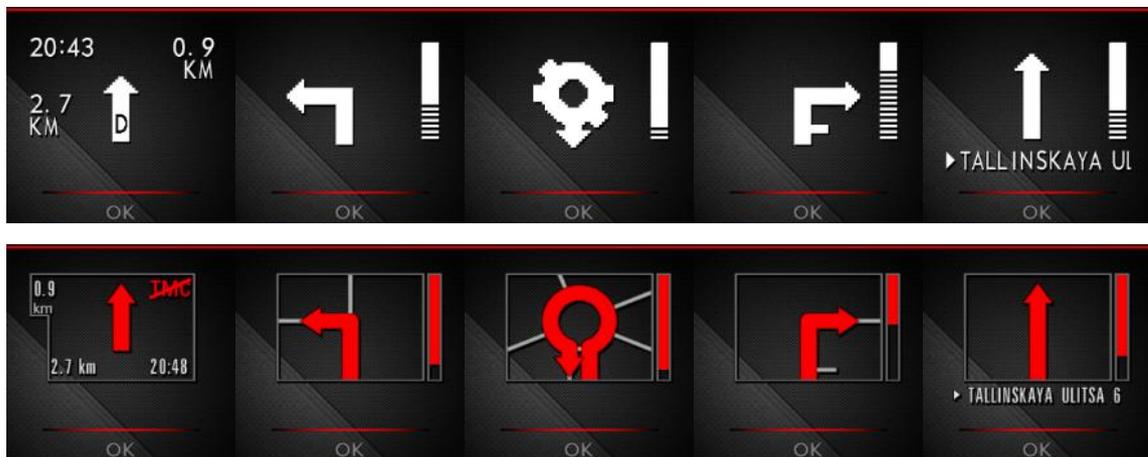
If you have data from a regular navigation system, the green "**NAVI**" appears on the main screen in the upper right corner of the middle area.



To enter the navigation display mode, press the "**Reset**" button and hold it for about 2 seconds. Returning from the navigation display back to the normal mode is also carried out by holding the "**Reset**" button. When in the navigation display mode, if the standard navigation stops displaying the data on the screen, the transition back to the normal mode is carried out automatically. If, at the same time, the navigation resumes the data transfer, then the return to the navigation display mode will also happen automatically.

The navigation info display can be enabled or disabled in the menu ([Menu->Settings->Navigation](#)). It is also possible to enable the mode in which the navigation data will be displayed automatically (immediately) as soon as navigation info is available, without additional holding of the "Reset" button.

Depending on the instrument panel in which the ColorMFA is installed, it is possible to display navigational data in both monochrome mode (installation in a factory monochrome dashboard) and in color mode (installation in a factory color instrument panel).



Hot keys and buttons

On the Main Screen you can use the following control buttons inputs:

- Short press «**Up**»: Cycle the parameters in middle display area to right.
- Short press «**Down**»: Cycle the parameters in middle display area to left.
- Short press «**Reset**»: Enter to Main Menu
- Long press (hold) «**Reset**»: Switch to Navigation screen (if navigation data is available)
- Long press (hold) «**Down**»: Disable/Enable ColorMFA screen (turns LCD off so center of instrument cluster is completely black)
- Long press (hold) «**Up**»: fast mode to backlight change (works in manual backlight mode only [Menu->Settings->Design->Backlight](#)).



In this mode, backlight can be changed by «**Up**» and «**Down**» buttons to adjust value. This mode is disabled automatically after no button press for 3 seconds.

Main menu

To enter to Main Menu, short press the "**Reset**" button.

Navigation through the menu is carried out using the "**Up**" and "**Down**" buttons, selecting the menu item or changing / applying the parameter is done by pressing the "**Reset**" button. The current menu item is highlighted in red (or main color selected in settings).

Some of menu items may be missing depending on the vehicle and the ColorMFA firmware version.



Menu structure

Measure	<ul style="list-style-type: none"> Trip data 1 Trip data 2 Summary Extended info Oil level Torque Acceleration Graphs Gauges Back 	
Settings	<ul style="list-style-type: none"> Speed limiter ECO mode Trip computer Calibration 	<ul style="list-style-type: none"> Battery voltage Speed Source Speed Consumption Boost range Gear ratios Back
	<ul style="list-style-type: none"> Gearbox mode Gearing assist. Navigation Design 	
		<ul style="list-style-type: none"> Background Main color Main screen Effects Start logo Poweroff Backlight Car image Back
	<ul style="list-style-type: none"> Coffee break Other Back 	
Diagnostic	<ul style="list-style-type: none"> > Selected ECU 	ECU List
	<ul style="list-style-type: none"> Meas.Blocks Read faults Clear faults Back 	
Messages System		
	<ul style="list-style-type: none"> Language Units CAN-monitor Screensaver MotorInfo Firmware Back 	
Service	<ul style="list-style-type: none"> Reset Settings Back 	
Exit		

Measure

Trip data 1

Trip data 2

Summary

Trip data 1	Trip data 2	Summary
Avg.speed: 76 km/h	Avg.speed: 30 km/h	Speed: 19 km/h
Max.speed: 93 km/h	Max.speed: 94 km/h	Revolution: 2497 rpm
Avg.cons.: 14.3 l/100	Avg.cons.: 13.7 l/100	Voltage: 12.03 V
Travel dist.: 42 km	Travel dist.: 99 km	Boost: 0.00 bar
Time: 00 h 32 m	Time: 03 h 05 m	Coolant t° (eng): 99 °C
Total fuel: 6.0 l	Total fuel: 13.6 l	Coolant t° (dash): 102 °C
Max.boost: 0.00 bar	Max.boost: 0.00 bar	Inlet t°: 27 °C
Max.Torque: 248 Nm	Max.Torque: 250 Nm	Oil t°: 100 °C
Statistics	Statistics	Throttle: 12.9 %
Clear	Clear	Torque: 77 Nm
Back	Back	Back

The current travel data of trip computer is indicated in «**Trip data 1**». Values automatically reset to zero when ignition is off (including car is in safe mode) for more than 1 hour. You can manually reset the data by selecting «**Clear**». «**Trip data 1**» indicates the average values gathered during the total of the current trip but no previous trips.

There's accumulated travel data of the trip computer indicated in «**Trip data 2**». These values will not automatically reset to zero. You can manually reset the data by selecting «**Clear**». Values will reset to zero in the event of a data overflow. «**Trip data 2**» indicates the average values gathered from last 5 trips.

The "**Summary**" screen displays a summary of the data with key data/parameters like RPM, temperatures, battery voltage, etc. The "**Statistics**" screen displays data based on «**Trip data 1**» and «**Trip data 2**».



Extended info

There is extended information from engine ECU indicated in the screen. This screen is available for vehicles with modified (tuned) firmware of the engine ECU only.

Extended info	
Boost:	0.00 bar
Wastegate:	0.0%
EGT:	0°C
EGT model:	0°C
AFR:	0.00
AFR des.:	0.00
MAF:	0.0 g/s
Retard:	0.0°KW
Ignition:	0.0°KW
Lambda:	0.0%

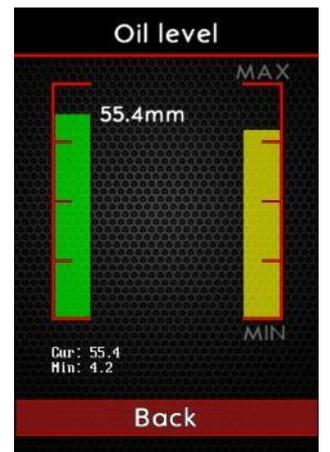
Back

Oil level

If the vehicle equipped with oil level sensor (in engine pan), current and calculated level data are displayed.

The left scale displays the current instantaneous oil level in the engine pan. The value measured by the sensor at the current time is displayed. On some types of engines, the minimum permissible level is also displayed in the form of a yellow line.

The right scale shows the calculated oil level as if you are looking at the dipstick. From the value "MIN" to "MAX". Each time the hood is opened, the calculated value is reset. To resume the data display you need to drive about 50 km.



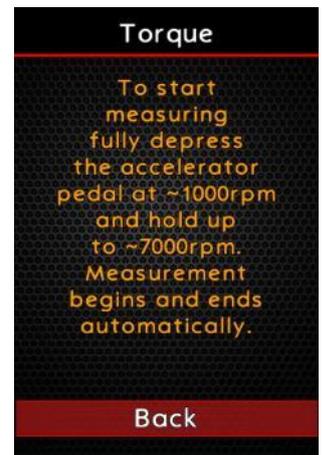
Torque

In the ColorMFA, it is possible to carry out a power measurement with a graph of torque, horsepower and boost pressure.

To carry out the measurement, go to (*Menu->Measure->Torque*) and select third gear (manually for the automatic transmission) with RPM about 1500, press the acceleration pedal to the floor (prior to kick-down position) and keep the pedal pressed until ~ 5000/7000 RPM (depending on the type of engine). As soon as the acceleration pedal is partially or fully released, the measurement will end and a graph with measured values will be displayed on the screen.

The metering data is not saved and will be erased immediately after exiting from Torque screen.

During measuring, the car can accelerate to high rates of speed. Please choose a place for measuring with a long straight away with good visibility and no other vehicles or pedestrians in the area. Please do not expose yourself and other's to danger.



Acceleration

To measure the acceleration time (from 0 to 100 km / h), go to *Menu->Measures->Acceleration*. A prompt appears on the screen. If the current conditions match requirements (the vehicle is stopped, the engine is running), then you will see the message "Start as soon as you are ready" on the screen. The timer starts running as soon as the vehicle begins moving and stops when the car reaches 100 km / h or when the timer reaches 29.99 seconds. During the measurement, the current value of the timer is displayed on the screen.



After the end of the measurement, the current acceleration time and the best recorded time in the previous measurements will be displayed on the screen. You can also see the graph of the current measuring trip on the display to show data on speed, boost and engine speed.

The best time is automatically saved. If it is necessary to erase the stored values, you can reset by selecting "Reset".

During measuring, the car can accelerate to high rates of speed. Please choose a place for measuring with a long straight away with good visibility and no other vehicles or pedestrians in the area. Please do not expose yourself and other's to danger.



Graphs

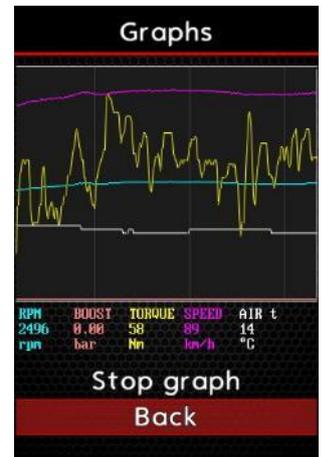
Graphs show data based on chosen parameters and their chosen colors. Up to 5 parameters allowed and color for each one.

Choose «Watch» to proceed with showing Graph.

There are notes showing colored parameters with values in cursor position under Graph. Color of parameter equal to color of line of Graph.



Choose «**Stop Graph**» to stop Graph and pause the value logging. In this mode you can choose area of Graph and switch to different positions with indication of values for current position. Up to 20 minutes of Graph data can be stored. There is no possibility to save Graph data. After exit (Back) all data will be cleared.

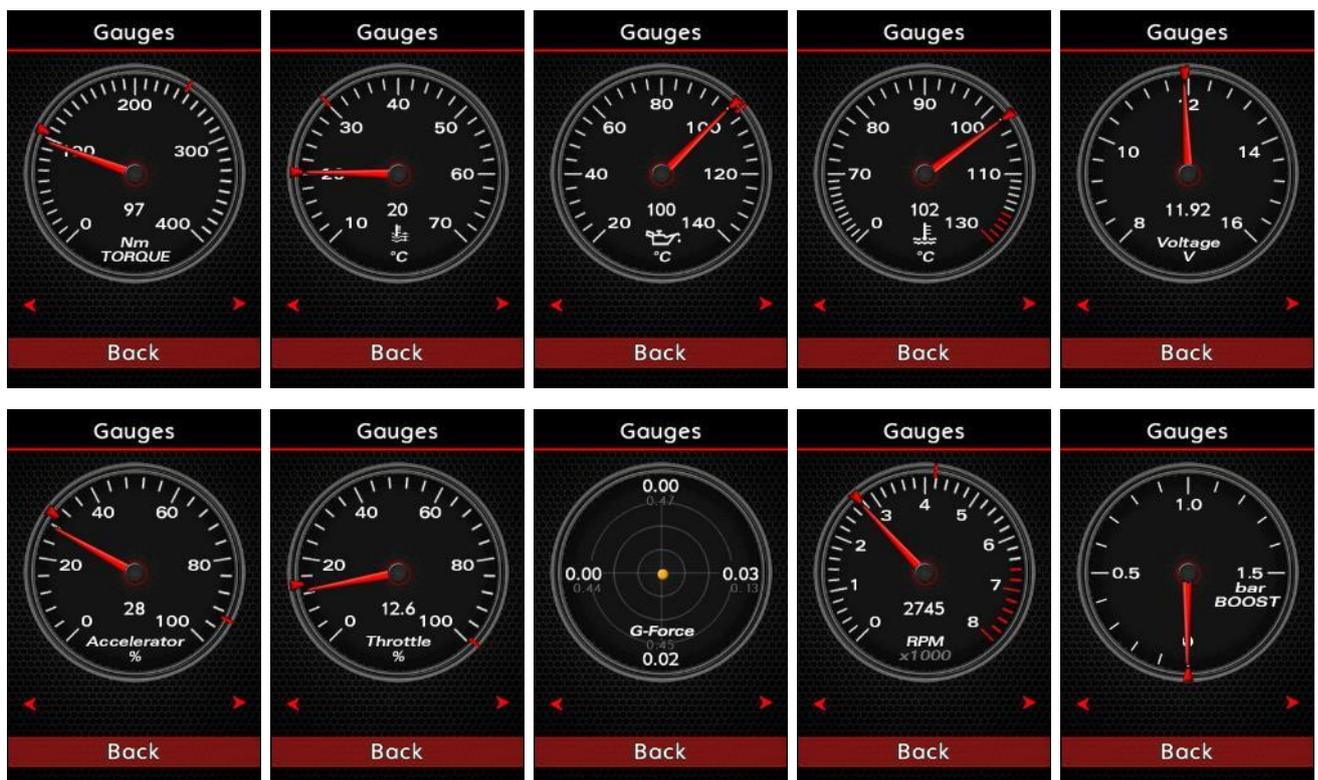


Gauges

The screen shows some parameters of the car in the form of gauges. The gauge is selected using the «Up» and «Down» buttons.

A thin red marker on the Gauge displays the maximum value recorded since the last reset or since the ignition was turned on. The thick red marker displays the maximum value recorded in the last 3 seconds.

To reset the markers of all Gauges, press and hold the «Reset» button for more than 2 seconds.

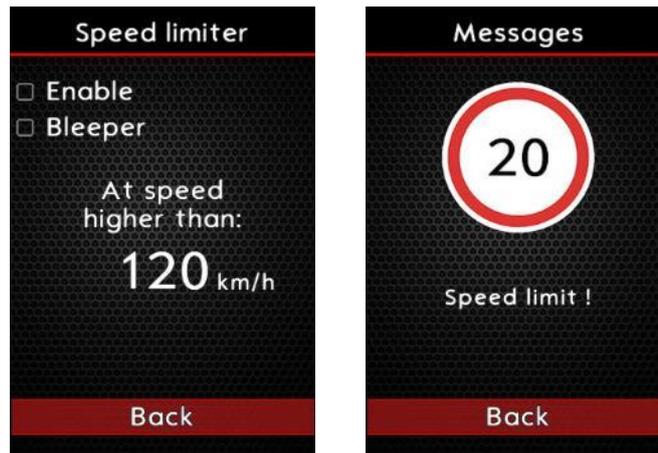


Settings

Speed Limiter

In the "Speed Limiter" screen, you can set up the warning parameters for the speed limit. You can enable / disable the alert, enable the sound alert and set up the speed at which the alarm is displayed.

The alarm is displayed on the main screen in the form of a flashing symbol indicating the speed of restriction.

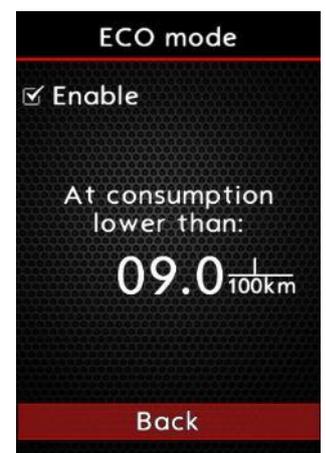


When the alarm is displayed, you can remove it from the screen by pressing the **"Reset"** button or by lowering the speed below the specified value. The alarm for exceeding speed limit will appear constantly if enabled in the menu and if the speed is great than specified (selected) limit.

ECO mode

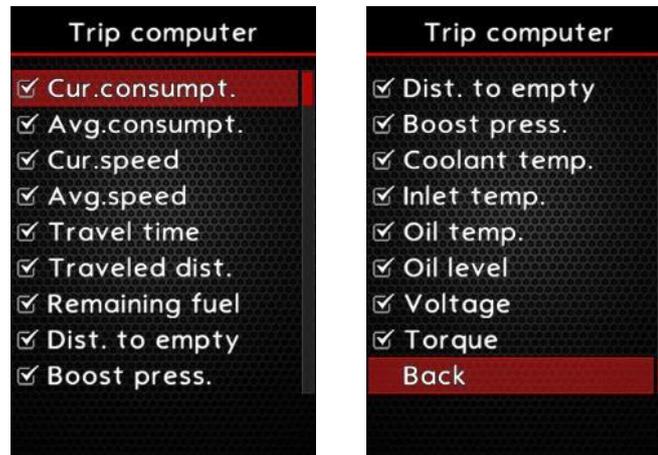
ECO mode is for reference only and does not affect the operation of the car. The screen "ECO mode" should be set to a fuel consumption value which would reflect driving in an economical manner.

Within a few seconds of vehicle motion and fuel flow rate is below the specified value, a green backlight appears on the main screen around the transmission gear indicator. This illumination represents that the current driving mode is economical and that fuel efficiency is above the specified consumption rate. The display operates at speeds above 20 km / h.



Trip Computer

Select the data displayed on the main screen in the middle display area. You can disable or enable the displayed parameters.



Calibration

Battery voltage

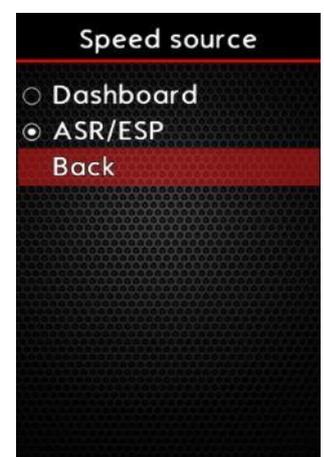
ColorMFA measures the battery voltage (vehicle's on-board power network) for display on the screen. If the voltage measured with an external measuring device (DMM) does not match the ColorMFA readings, it is possible to adjust it by entering the difference in the measured value and the current ColorMFA reading.



Speed Source

In some cars with ASR / ESP installed, it is possible to select that speed source for display on the ColorMFA screen. In most cars, velocity is measured by 2 methods: the sensor in the gearbox (connected to the dashboard) and the sensors in the wheel hubs (connected to the ABS / ASR / ESP block). If the car is equipped with an ASR or ESP system, it is possible to select the speed source to most accurately display the real speed of the car. In vehicles without ASR / ESP, there is no such choice and only the speed of the instrument panel calculated by the sensor in the gearbox is used.

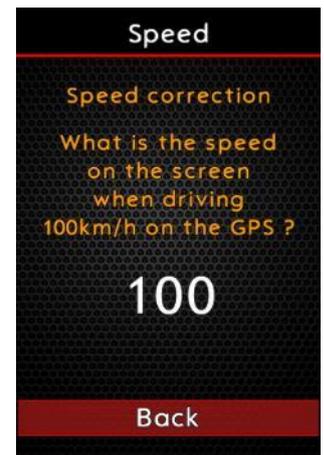
When selecting a speed source, keep in mind that other units in the car can use a different source than the chosen source in ColorMFA. This can lead to the display of the preset cruise speed and the current speed on the screen to be mismatched by 5-10 km/h.



Speed

If the current speed on the screen does not match GPS data, you can set a calibrate the displayed value.

To set a correction, please set value to 100 km/h. Perform a test run on a straight road with speed 100 km/h measured by GPS. Fix the speed value displayed on the main screen when driving in this mode and after stopping, enter this fixed (measured on screen) value in the speed settings screen.



Consumption

Usually, when using standard equipment in the car and with standard firmware in the control units (no "tunes"), ColorMFA considers the consumption to be accurate. However, if you find that the consumption is too high or too low, you can correct the calculations yourself with the help of an adjustment factor (coefficient).

To calculate the coefficient, you need to do the following:

- refuel to a full tank
- reset the values of Trip Data 1 and Trip Data 2
- drive the car for an extended period of time (avoid multiple short trips)
- fill up to full at the same station under the same conditions if possible
- note how many liters/gallons filled at the petrol station
- note how many liters/gallons were counted in Trip Data 2
- divide the values of liters/gallons at petrol station by value from Trip Data 2
- enter this calculated value in the Consumption screen



Boost range

At this setting, you may select the maximum value of the boost pressure sensor installed in your vehicle.

If boost data is available on CAN-bus than you will have option to set CAN-bus as source of boost data.



Gear ratios

For proper indication on the main screen of the current transmission gear number in vehicles with manual gearbox, it is necessary to specify the gear ratios for the current gearbox.

In case of several final drives are used in the gearbox (such as 02M), it is necessary to convert the values for the second main pair. For example:

- for gears 1 to 4, the main pair 1 with gear ratio is used. = 3.889
- for gears 5 to 6, the main pair 2 with gear ratio is used. = 3.245
- it is necessary to multiply the gear ratios of 5 and 6 gears by the gear ratio of main pair 2 and divide by gear ratio of main pair 1.
- enter calculated value to the gear ratio of main pair 1.



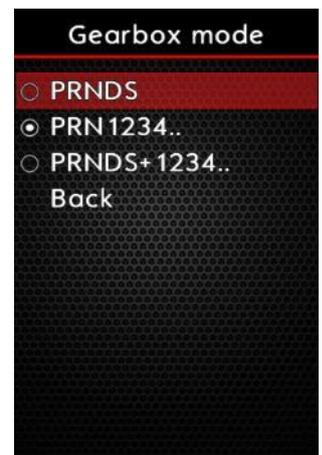
Gearbox mode

The current transmission gear is displayed on the main screen at the bottom. For an automatic transmission, you can select which data to display on the screen. The following options are available:

PRNDS - the symbol of the gearbox mode (D-drive, P-parking and etc.) will be displayed and the digit of the current gear when gearbox operated in manual mode.

PRN1234 ... - instead of the currently selected mode (D or S), the number of the current transmission gear is displayed. The symbols D and S are not shown.

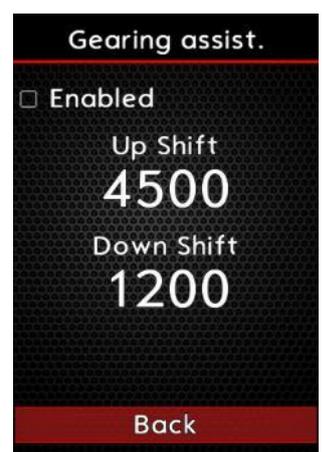
PRNDS + 1234 ... - similar to PRNDS mode, only the small digit of the current transmission gear will be indicated in the bottom corner of the transmission display window.



Gearing assist.

On this screen, you can turn on a simple shift assistant for manual gearbox. You can set at what engine RPM value to display a notification about switching to higher or lower gear.

If you go beyond the specified limits, a flashing up or down arrow appears in area of the current gear on the main screen, recommending you to switch to the higher or lower gear.



Navigation

If you do not need to display information from the navigation system, you can disable the navigation info.

On the same screen the option to show navigational data immediately on the screen, without the message "NAVI" and without holding the "Reset" button. As soon as the navigation system starts sending data, it will immediately be displayed on the screen.



Design

Background

Select the background image of all ColorMFA screens. The choice is possible from images preloaded in the ColorMFA firmware only.

Main color

Select main color of all ColorMFA screens.



Main screen

In ColorMFA, you can customize the data displayed on the main screen.

To select the data displayed in the bottom display area, use the "Up" and "Down" buttons to select the required field. When you press the "Reset" button, the selection cursor on the screen changes to flashing mode. Press the "Up" and "Down" buttons to change parameter. Press the "Reset" button to confirm the selection. A note for the description of the currently selected option is displayed in the middle of the screen.

You can also change the following:

Icons – enable showing of icons instead of displaying the units of measurement.



Audio data - when this option is disabled, two additional parameters (possible to choose which parameters to show) can be shown in the upper display area instead of the radio data.



Big Speed - when this option is enabled, the current speed is displayed in large digits on the main screen. Otherwise, the size of the digits is the same as for all the data of the main screen.

Effects

Allows you to select the transition effect between parameters when scrolling through the data on the main screen.



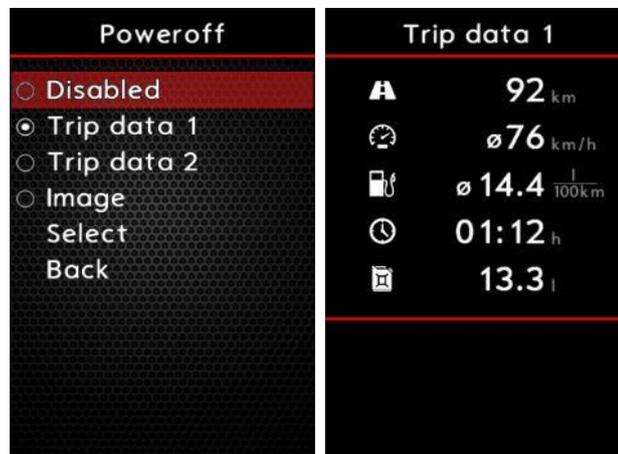
Start Logo

When ignition is switching on, a start-up screen appears on the ColorMFA screen. You can choose from pre-installed images in the firmware or download one of your own (the LogoLoader program is available on www.colormfa.ru). These can be images resized to 320x480 or an animated GIF. It is also possible to disable the start screen.



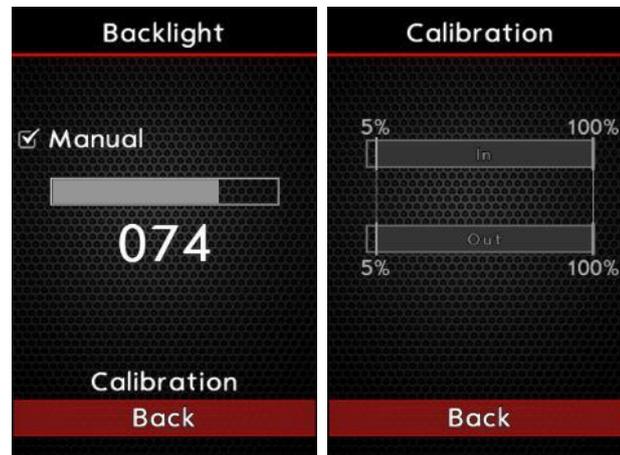
Poweroff

You can set showing the data on the screen after switching ignition off. Possible to choose Trip data 1, Trip data 2, or an image (including animated picture).



Backlight

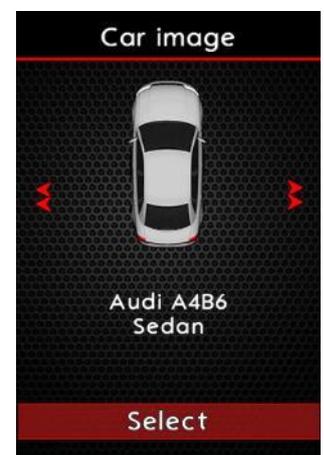
Adjust the brightness (backlight) of the screen. You can choose manual or automatic mode (automatic mode works properly only if there is an ambient light sensor in the instrument panel. Instrument panels that had a factory screen named Full FIS or MFA have this sensor. Lowline no factory screen clusters do not have this sensor). In manual mode, you can set the brightness as you like.



The correlation between the input brightness value (according to the standard dash light control module in the car) and the output value (screen brightness) can be adjusted by selecting the **«Calibration»** item. The calibration screen shows, in percent, the minimum and maximum value of the input brightness value (In) and the corresponding minimum and maximum value of the brightness of the screen backlight (Out). This setting only works when automatic brightness control mode is selected.

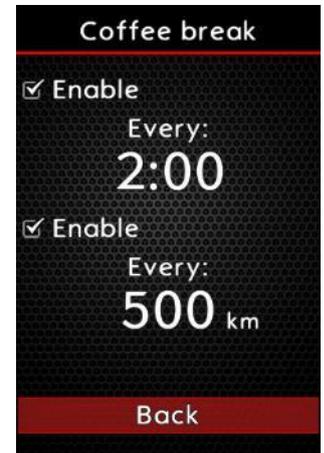
Car image

Choose a picture of the car to display the status of doors / hood / trunk. In firmware intended for a specific car model, the choice of picture may not be available if such a model was produced in a single body variant.



Coffee break

A warning about the need to take a rest break is turned on by selecting the “Enable” option on this screen. You can set the time interval or distance after which you want to display a warning. The time and distance settings work separately, possible to enable / disable the option that is more suitable for you.



Others

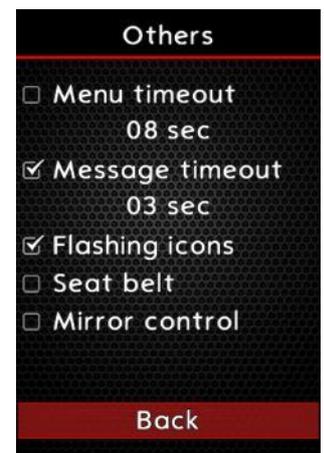
In this menu item you can turn on the menu timeout, turn on the messages timeout, turn off the flashing of the icons and turn on the mirror control.

- **Menu timeout** - when this item enabled, the device will automatically return from the menu to the main screen if there was no action from the user longer than the specified time. Time can be set as desired. Automatic return to the main screen does not work in those sections that require a long display without any action from the user. For example, in diagnostics, in torque measuring, etc.

- **Messages timeout** – If errors occur or any event requiring attention of the user (low level of the washing fluid, the need to replace the pads, etc.), a message is displayed on the main screen. The message occupies the entire screen (a malfunction / warning icon and text with a description are displayed). And by default, this message requires confirmation from the user, otherwise it will not be removed from the screen. Confirmation is by pressing the "Reset" button. When you enable the "Message Timeout" option, no confirmation is required from the user and the message itself disappears from the screen after the specified time has elapsed. To view this message again in full screen, go to the [Menu -> Messages](#). This setting is not applicable to critical messages (low oil pressure, high coolant temperature, etc.). Such messages require mandatory confirmation by user.

- **Flashing icons** - when this item is disabled, the message (alarms and warnings) icons on the main screen will be displayed permanently. When this item is enabled, it is flashing (blinking).

- **Seat Belt** - turns on the seat belt warning on the main screen.



- **Mirror control (Passenger mirror tilt)** – enables tilt of the passenger mirror when parking. If the mirror control is turned on and the mirror adjustment joystick is set to the passenger's mirror position, when the reverse gear is engaged, the mirror will go down, and when reverse gear is disengaged, it will rise again. Between the switch-on / switch-off of the rear gear and the beginning of the mirror movement, there is an interval of 5-10 seconds to ensure that the mirror does not go up and down when parking in several approaches.

The electric mirrors do not have a potentiometer, the mirror tilt is controlled by time. In connection with the fact that sand can form in the mechanisms of the mirror, ice can form, natural wear of the mechanism is possible, the movement of the mirror may not be ideal. Since there is no way to track the actual position of the mirror, due to natural reasons, it may not always return exact same position as before.

Diagnostic

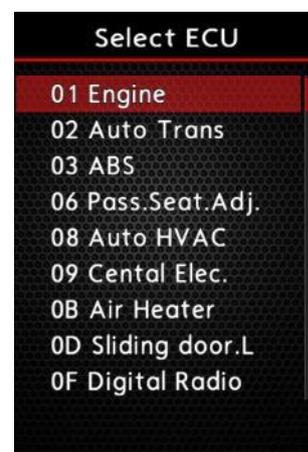
In diagnostics mode, you can view data by measurement groups, read and erase errors in the selected ECU (Electronic Control Unit).

The protocols KW1281 (K-line) and KWP2000 (K-line and CAN) are supported.



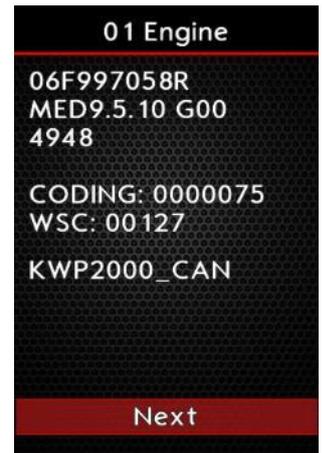
> Selected ECU

Displays the currently selected ECU. When you press the "Reset" button on this menu item, you will go to the list of ECUs for selection. The list of available ECUs depends on the make / model of the car.



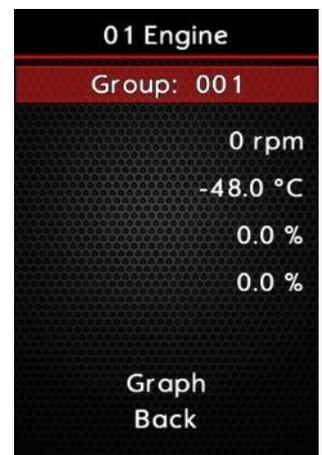
Meas.Blocks

Switch to the reading mode of the data from measurement groups in the selected ECU. At the initial stage, messages about the connection status and a screen with information about the ECU are displayed: its VAG part No., Soft coding, the protocol used, and so on. When the **"Reset"** button is pressed on the **"Next"** item, the data from measurement groups are displayed.

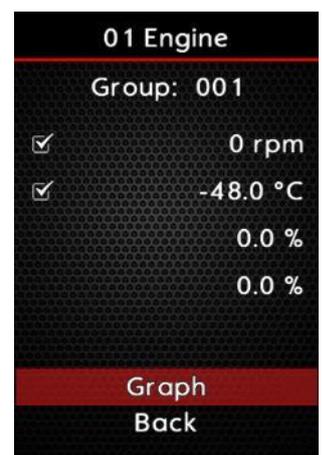


In the measurement groups, navigation is performed in a standard way, the **"Up"** and **"Down"** buttons move the cursor, the **"Reset"** button selects an item or switches to the change / confirm change mode.

To select the required group, move the cursor to the label **"Group"**, press **"Reset"** and press the **"Up"** and **"Down"** keys to increase to the desired group. For a faster transition to groups, the **"Up"** and **"Down"** buttons can be held on. When you reach the number of the desired group, you need to press "Reset" to confirm the selection. The data of the selected group will be displayed on the screen.

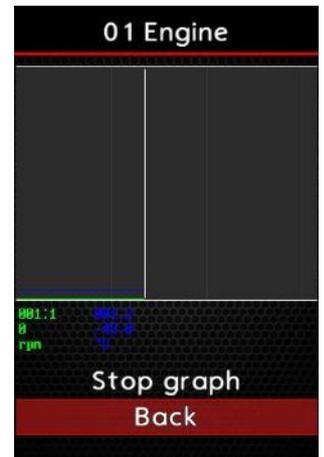


To switch to the chart display mode, you need first select the data by checking the box in the required field. You can only mark fields with numerical values (text and bit fields are not displayed on the graph) and only in one (current) group.



By selecting the **"Graph"** item, the selection of the selected data is performed. Under the graph, which group is indicated and which field in the group is displayed, the value in this field is at the cursor position and the unit of measurement. For example, 001: 1 indicates group # 001 and field # 1. The color of the description corresponds to the color of the line on the chart.

Record and display the data can be temporarily stopped by selecting the item **"Stop graph"**. In stop mode, you can select a field with a graph display and move the cursor over the recorded values. In this case, under the graph in a clear view, the value will be displayed at the current cursor position. Record this way you can up to 20 minutes of data. Data is not saved when you exit the Graph.



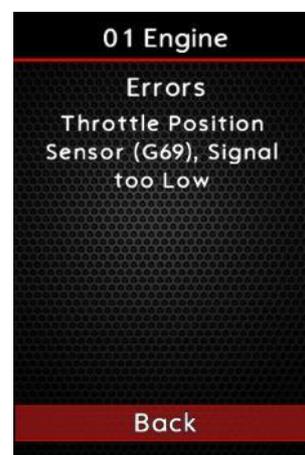
Read Faults

To read errors in the selected ECU, select the **"Read Faults"** item. After reading the data from the ECU, a list containing the VAG codes will be displayed on the screen. If there are no errors, the corresponding inscription will be displayed.

If you select the **"Clear"** option under the list with error codes, the errors from the block memory will be erased. After erasing, with a short delay, the errors are read again and return to the code list (if the errors were not deleted from the ECU, they will be listed again).



To see the text description of the error, press the **"Up"** and **"Down"** buttons to select the required code and press the **"Reset"** button. A text message will be displayed with the decoding of the selected DTC (error) code.



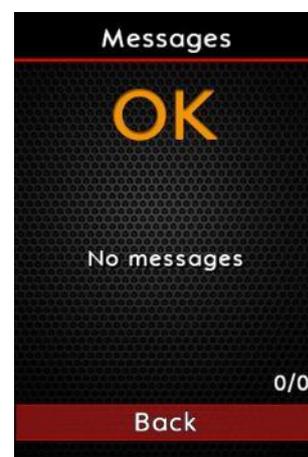
Clear faults

If there is no need to pre-read the error codes, you can immediately erase all DTCs by selecting the **"Clear Faults"** item. After erasing the DTCs from the memory of the selected ECU, with a certain delay, the current status will be read and go to the error code display mode if they remain after erasing (if DTC is permanent).

Messages

Messages (alarms and warnings) are displayed on the screen. In the case of more than one message, you can view them one by one by switching from one message to another with the **"Up"** and **"Down"** buttons. The number of the current message and the total number are indicated in the lower right corner of the screen.

If there are currently no messages, the screen shows "OK" and the message "No messages".



System

Language

Selecting the interface language.

Only the interface language is selected, the following rules apply when working with diagnostics:

- selected Russian - decoding of errors in Russian
- selected German - decoding errors in German
- selected Ukrainian - decoding of errors in Russian
- selected Spanish - decoding of errors in Spanish
- all other - decoding of errors in English



There are 16 languages supported in ColorMFA:

Russian, English, German, Bulgarian, Ukrainian, Spanish, Polish, Czech, Italian, Slovenian, French, Dutch, Romanian, Lithuanian, Slovak, Portuguese.

Units

The choice of units.

EU - European standard units of measurement: kilometers, liters, km / h, l / h, l / 100km, Celsius degrees, pressure in bars.

UK - British units: miles, liters, mph, l / h, mpg, Celsius degrees, pressure in psi.

US - US units: miles, gallons, mph, gallon / hour, mpg, Fahrenheit degrees, pressure in psi.

User set - you can separately set the necessary units of measurement for the displayed parameters:

- distance: kilometers, miles
- capacity: liters, gallons, imperial gallons
- temperature: Celsius or Fahrenheit degrees
- current consumption: liters per hour, gallon per hour, imperial gallon per hour
- average consumption: liters per 100km, miles per gallon, miles per imperial gallon, kilometers per liter
- boost pressure: bar, psi
- torque: Newton meters (N*m), foot pounds



Units are selected for the interface only, while working with diagnostics, the data is always displayed in standard European units.

TPMS

In vehicles with a tire pressure monitoring system installed, you can enable / disable this function and start the calibration mode.

Enabled - Enables or disables the operation of the TPMS.

In vehicles with TPMS units from Audi A4, the operation of the unit can not be disabled, disabling only causes the system messages to be not displayed on the screen.

Save pressure - Save the current pressure in the wheels.

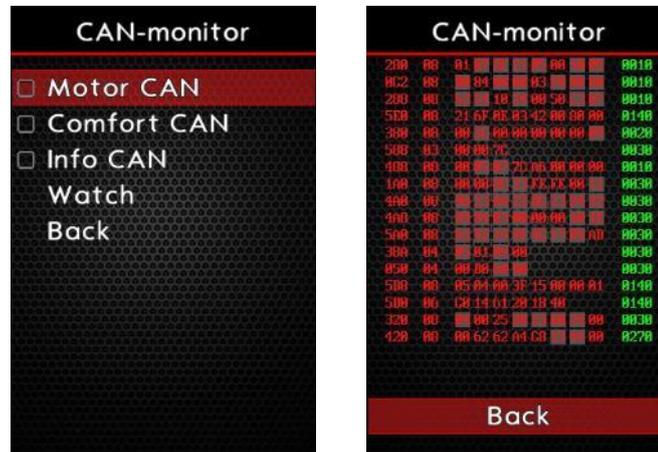
Wheel change - starts the calibration and pressure maintenance procedure in case of replacement of one of the wheels.



CAN-monitor

Displays the current data exchange on the CAN-bus of the car with the indication of the period between the messages.

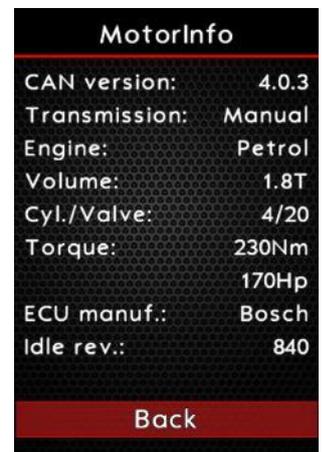
You can display data from the motor, comfort and information buses (depending on the configuration) by selection the relevant items.



MotorInfo

The current data of the engine control unit is displayed. Type of gearbox (not letter code, namely type, eg AG6 means 6-speed automatic transmission), engine size, factory power, manufacturer, idling RPM, etc.

The availability and the number of displayed data depends on the type of engine control unit.



Firmware

The current version of the firmware is displayed on the screen and the device can be switched to flashing mode (bootloader mode) for updating.

If you select **"Yes"**, the system goes into flashing mode to update the ColorMFA software. The instructions and the program for updating are included in each archive with the firmware. The latest firmware can always be found at www.colormfa.ru

If you do not need to update the software in the bootloader mode, you can exit this mode by pressing the **"Down"** button (on the Audi A48E, the **"Check"** button on the dashboard).

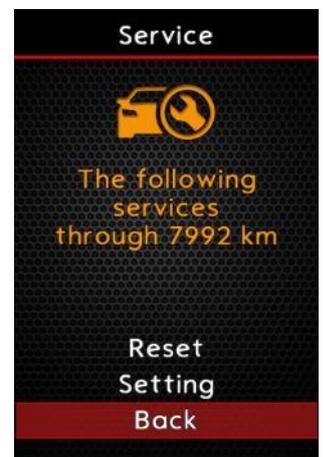


Service

The remaining mileage is displayed until the next service. Please note that Service info indicated by ColorMFA is different to Service info in Instrument Cluster itself.

Reset

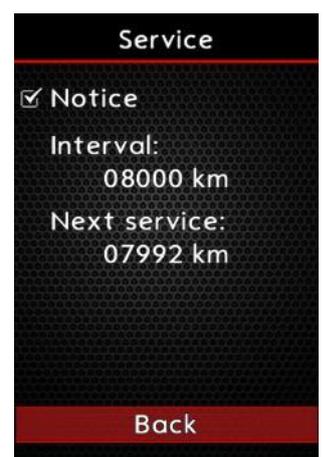
Clears the current service interval to the set values.



Settings

Allows you to specify the required interval between services, adjust the current balance to the next service and enable / disable the warning about the need to visit the service.

These settings are not related to the service interval specified in the instrument cluster via the diagnostic equipment.



Indication of open doors

When the door / hood / trunk status is changed, the car image is displayed with a visual display of the current position of the doors / hood / trunk. The open door display is only displayed if the menu is not entered.

You can remove the display from the screen by pressing the "Reset" button. Automatically, the display of the door disappears from the screen with followings:

- ignition switched off: after 5 sec. regardless of the current state of the doors.
- ignition on: after 30 seconds. if at least one of the doors is open.
- the ignition is switched on: after 3 seconds. if all doors are closed.

Not all cars can indicate the doors open status when the ignition is switched off. Early VW's with 1J0959799x CCMs require extra wiring from instrument cluster to CCM for door indicator display.



Messages (Errors and Warnings)

If there are any errors or warnings for the user in the car, a message appears showing the fault icon and the text with the description.

Messages are displayed only if the main menu is not entered.

By default, the message will be displayed on the screen until you receive a confirmation from the user (pressing the «Reset» button). However, in the *Menu->Settings->Other*, you can set the timeout of the message and after an expiration of the specified time the automatic return to the main screen will be performed. Automatic return to main screen does not work with critical errors (like low oil pressure, high coolant temperature, etc.). Critical errors are displayed with a red icon and red text and necessarily require confirmation from the user by pressing the «Reset» button.



Current errors and warnings are always displayed on the main screen in the message area in the form of icons.



If you need to see the message with a description again, you can do it by going to the *Menu->Messages*.

Launch control

Indication of the launch-control screen is possible on cars with manual transmission only. To display the screen, it is necessary, when on the main screen, while fully stationary depress the clutch pedal and fully depress the acceleration pedal with engine RPM more than 1000.

The current boost pressure and engine RPM are displayed. If the boost pressure has reached its maximum value (the maximum of those fixed at start of the launch control screen), the lower part of the screen turns red.

If the car started moving from the launch control screen, a indicator is displayed at the top of the screen about the need to switch gears (the upper part becomes green if the engine RPM are more than 4300).

Switching to the main screen occurs automatically after 3 seconds if the car is stationary (speed below 5 km/h) and the engine RPM fell below 1000.

