GS-Dash

USER GUIDE

Thanks.

Dear Customer,
First, we would like to thank you for choosing the GS-Dash, our new display showing data sampled by EVO4S and EVO5 loggers.
With GS-Dash you can view values coming from the ECU, from accelerometers as well as from the GPS.

GS-Dash features 4 multitasking RGB alarm LEDs and 5 configurable RGB shift lights. Thanks to its small size it is particularly suited for small cockpit installations like bikes and formula cars.

Please, keep in mind that we are constantly working to improve our software and firmware; so periodically check our website www.aim-sportline.com for updates.

www.aimshop.com

What is GS-Dash?

GS-Dash has been designed to show data sampled by EVO4S/EVO5 loggers. It is a fully customer configurable, high-contrast brilliant dash developed for race car/bike installations. To maximize data readability, you need plenty of room: this is why GS-Dash features a wide 268x128 pixels display.

The screen can be back-lighted in one of seven available RGB colours. The incorporated ambient light sensor makes brightness and contrast ideal in all light conditions.

GS-Dash features a pop up keyboard that appears pressing any key.

Which data does it manage?

GS-Dash manages all data coming from EVO4S or EVO5 loggers, to say from a wide range of sources, including your vehicle ECU, internal accelerometers and gyro, GPS, analog/digital inputs, external expansions as well as predefined math channels.

How many pages does it show?

GS-Dash can show up to eight different pages.

Is it possible to configure the pages?

You can choose among a wide library of page styles, defining the data to be shown.

End of scales and measure units can be easily configured using Race Studio 3 software (release 3.14.00 or higher) freely downloadable from our website.

How do alarm LEDs and shift lights work?

You can configure both choosing colour and defining the logic for turning them on or off. You can also set alarm LEDs blinking frequency.
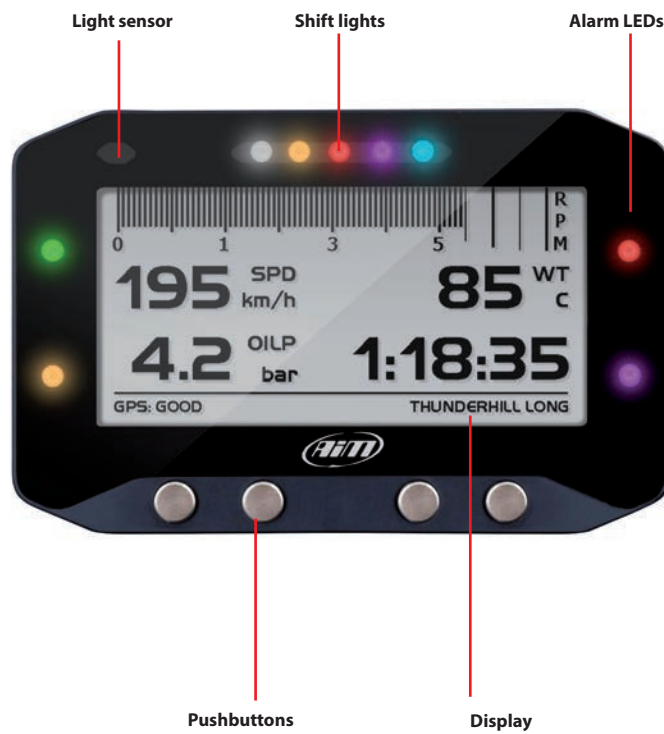
2. What is in the kit

The kit includes GS-Dash with spiral cable

GS-Dash Display

Light sensor **Shift lights** **Alarm LEDs**

195 SPD km/h 85 WT C

4.2 OILP bar 1:18:35

GPS: GOOD THUNDERHILL LONG

Pushbuttons **Display** **Aluminum Body**

4. How to install and connect GS-Dash to EVO4S/EVO5

GS-Dash has to be connected via CAN bus to your EVO4S/EVO5 (firmware version 1.24.31 or higher) as follows:

■ for EVO4S: connect GS-Dash cable to "Exp." connector

■ for EVO5: connect GS-Dash cable to the cable labelled "Exp" of EVO5 – 37 pins connector harness

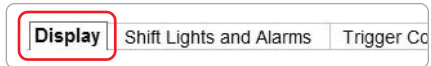

5. How to configure GS-Dash

GS-Dash receives its configuration parameters from EVO4S/EVO5, so you must configure the logger in order to make GS-Dash display your data the way you like.
Therefore select in EVO4S/EVO5 configuration GS-Dash as the display.
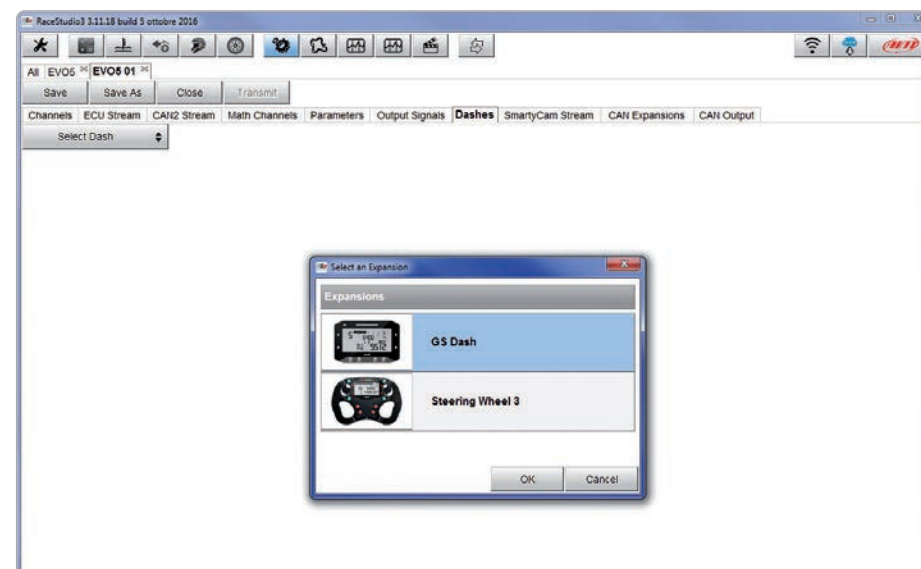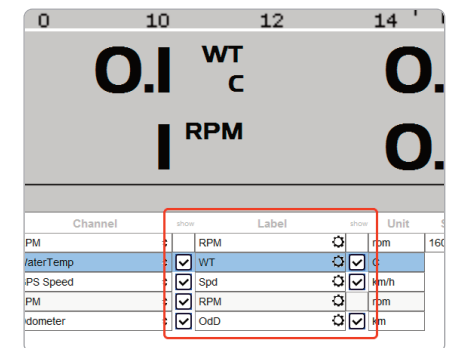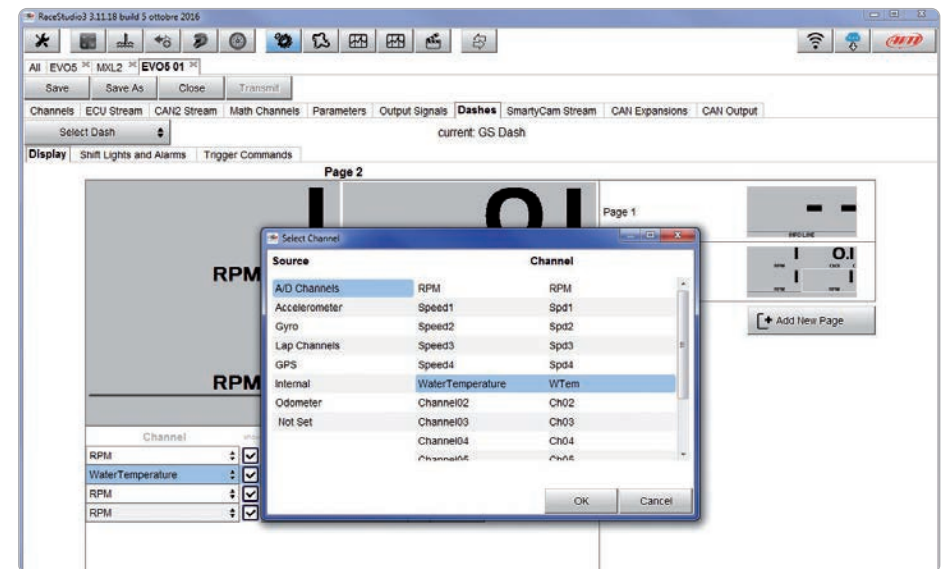
Then choose "Display" layer.

GS-Dash can show different page types showing from 1 up to 8 fields (or 4 fields and the RPM bar graph) and you are asked to select the one you prefer.
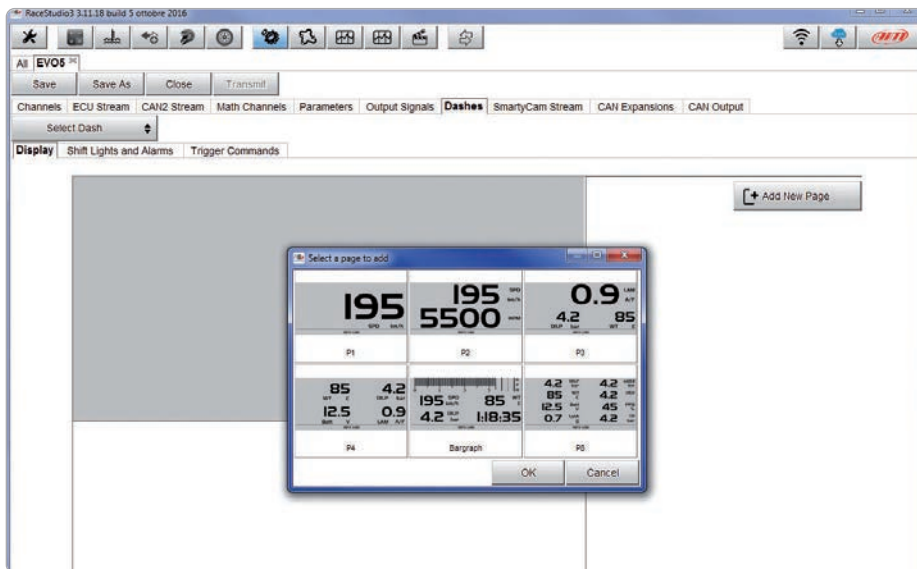

5.1 Display configuration

When the page appears, just click on the field you want to set. "Select Channel" panel is prompted (see below). Set it and press "OK". Repeat the same operation for each field.

Once all the channels have been set, you can enable/disable or modify each channel label and show/hide its measure unit.

In the page showing the RPM bar graph you can set the channels you prefer in any field. Please note that lap times – i.e. Best, Predictive, Rolling, +/- Best – are to be shown on the right fields only. Hiding channel label, the lap time visualization becomes bigger.
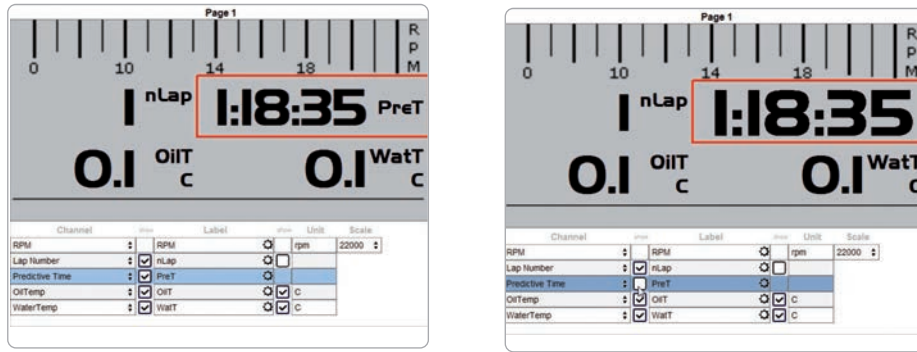
5.2 Shift lights and alarms configuration

Click "Shift Lights and Alarms" tab to manage shift lights and Alarm LEDs.

At the very first configuration the system asks you to configure an alarm and shows you all alarms already set for your master logger (EVO4S/EVO5).

Alarms configuration

Here you can define the event the system has to check and the effect of that event.
Fill the description field in order to easily identify that event in the future.

Describe the Alarm: it can be a single event like "Water temperature higher than 100°C" or a combination of events, like in the example: "Water temperatures higher than 100°C" and "RPM is higher than 6000". Describe what to do when an alarm arises.
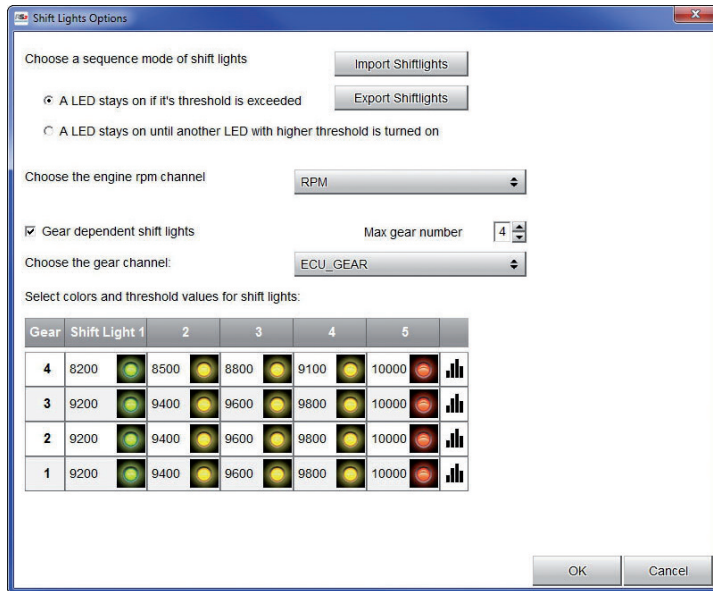
GS-Dash can:

■ turn a LED on: you have to select the colour and the behaviour: in the example a red led (LED1) starts blinking continuously
■ popup a message: fill in the message
■ display a measure: select the measure to display

You can also decide if the action is to be performed until:
■ the condition remains ON
■ the power is turned OFF
■ the driver presses a pushbutton
■ data are downloaded

Shift Ligths configuration

Pushing the shift lights setting icon [icon] you enter shift lights configuration panel.

Here you can manage, for each LED, colour and RPM threshold value which will turn it on.
You can decide if:

■ keeping the LED on if its threshold is exceeded as in the example above or
■ keeping the LED on until another LED with higher threshold is turned on

You can select the Engine RPM channel to be used: engine RPM or ECU RPM.
If LEDs are managed in dependence upon the gear number like in the example above you have to fill in the Max gear number and per each gear number you have to define colours and levels at which to turn them on.
Using the top right pushbuttons you can import/export shift lights settings.
Press "OK" to save and exit.

5.3 Trigger commands configuration

"Trigger commands" function allows to manage directly from GS-Dash also operations performed by EVO4S/EVO5 like switching LEDs on/off, opening/closing circuits, pushing buttons etc...
Enter "Trigger Commands" layer:
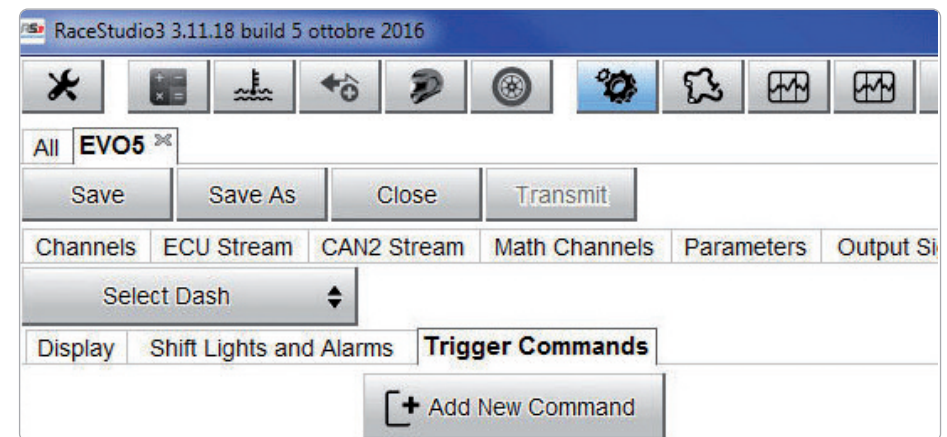
At the very first configuration the page shows up empty. If – on the contrary - your logger configuration already features one or more alarm(s)/event(s) the page shows them all – see below.
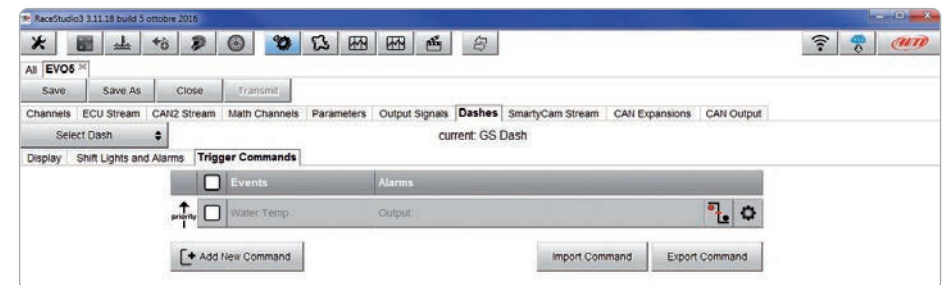
You can associate a command clicking on the setting icon [icon] or add a totally new command creating also the event (push "Add New Command"). In this second case the new event will be shown in "Shift Lights and Alarms" page too.

In both cases the commands you can associate are:
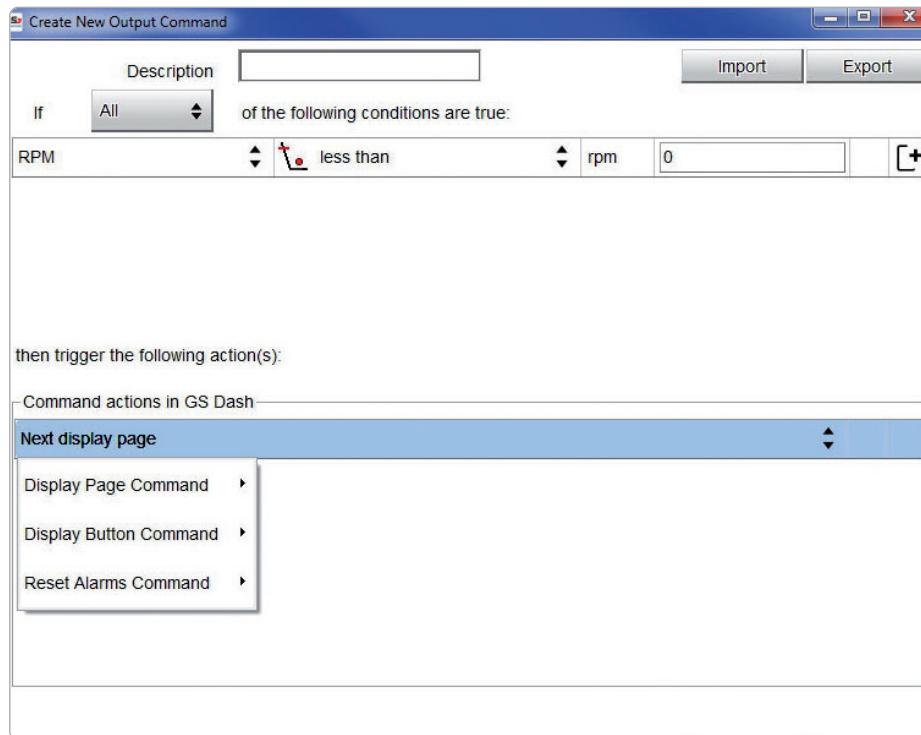
■ Display Page Command: you can display previous or next page
■ Display Button Command: you can command as if one of the buttons has been pushed
■ Reset Alarms Command: you can command to reset all alarms or to reset only those alarms corresponding to a specific set ending condition

6. Keyboard features

GS-Dash can perform some operations via the pop up keyboard. Pressing any key it shows up as in the image below:
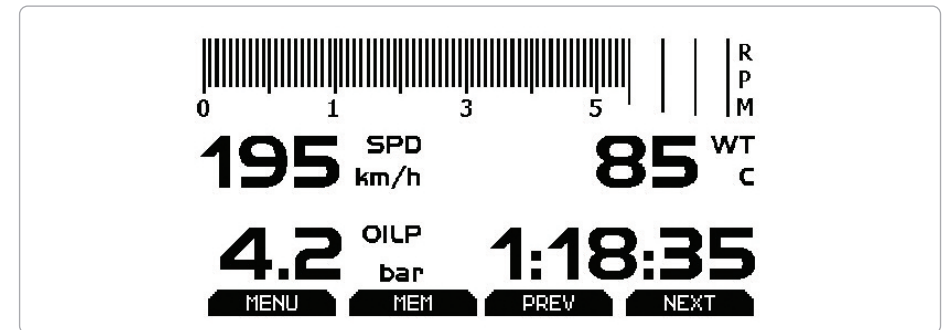
Press "MENU".

In this page you can:
■ enable/disable the backlight
■ manage tracks: clicking the track icon, a list of the 30 nearest tracks - sorted by distance - appears. GS-Dash will show you the track you are actually racing even if there are different tracks in the same area.
■ see GS-Dash firmware version
■ delete data stored in EVO4S/EVO5 memory

7. Data recall

When the session is over you can easily recall data sampled by your master logger (EVO4S/EVO5) pressing MEM in the pop up keyboard.
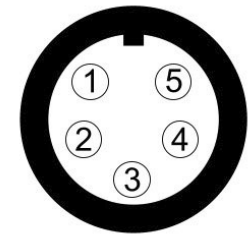
The page shows the three best lap times as well as max speed.
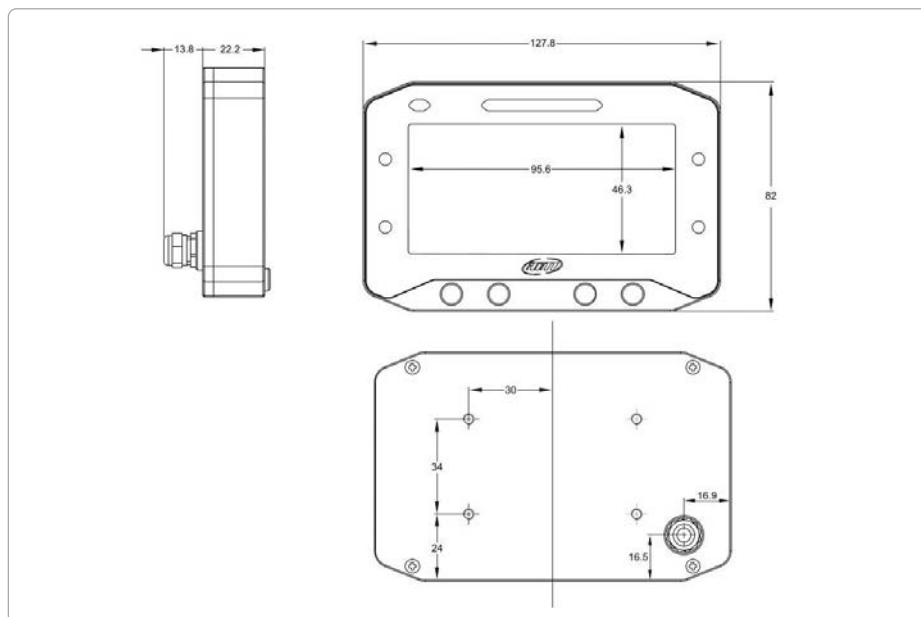Use the keyboard to see other tests and change the page.

MAX RPM		MAX SPEED	
15206		82.0	
Lap	Best Laps	RPM	mph
7	0:48.76	14572	82.0
		7258	25.4
9	0:48.87	15206	81.3
		9654	24.8
8	0:48.96	14482	80.7
		9101	25.4

8. Technical characteristics

GS-Dash pinout is:

PIN	Pin function
1	CAN+
2	GND
3	nc
4	CAN-
5	+Vb

Display resolution	268x128 pixels
Backlight	7 configurable RGB colours
Ambient light sensors	Yes
Shift lights	5 configurable RGB LEDs
Alarm LEDs	4 configurable RGB LEDs
Display pages	8 fully configurable
Body	Aluminium
Pushbuttons	Metallic
Dimensions	127.8x82x22.2 mm
Weight	380g
Waterproof	IP65

Our web site **aimshop.com** is constantly updated.

Please check it frequently and download the latest versions of the firmware of your products.