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Dear customer,

Thank you for having chosen a product of the DATA ACQUISITION AND ANALYSIS SYSTEMS line of GET by Athena. We are confident that our passion and experience may help you successfully express yourself in any competition you might enter and we invite you to read the hereby manual, which will surely help you use correctly your new device GET by Athena.

Developed for the requirements of the motor sports sector, D30 EVO is distinguished through its high robustness, its accurate design, its easy installation and maximum usage flexibility. The extended display clearly views data for the pilot and the signalling mechanisms warn him/her in real time on the presence of any alerts. Therefore, the D30EVO dash is an irreplaceable support in borderline situations.

Due to the integrated CAN bus interface, the installation is quick and simple: only four electrical connections are required for rendering the system operational at a hardware level. The configuration of the dashboard is assigned to the dedicated management software that allows for the customization of viewed data and alerts. Self-adhesive labels (included in the kit) help mark the alert leds.

The hereby manual aims at providing the use with a guide on the functions of D30EVO dashboards: please read carefully the hereby document for a correct use of the product.
1 ADVICES AND CAUTIONS DURING INSTALLATION

Before installing D30EVO dashboards on a vehicle, please follow the guidelines below:

• Perform assembly/disassembly operations in a place with adequate space.

• Then disconnect the poles of the vehicle’s battery.

• Any parts of the vehicle that may have been disassembled should be kept in a place where there is no risk that they might be damaged.

• The installation of the system in vehicles with endo-thermal engine must be performed on an idle engine: during assembly, contact may occur with the parts of the engine or framework that are subject to heating

• Make sure not to damage connectors and wirings during assembly/disassembly.

• Make sure you don’t lose screws and washers inside the vehicle during installation

• During installation, make sure that no installed part interferes with the guidance devices of the vehicle or with the pilot

CAUTION: A FAULTY INSTALLATION MAY RESULT IN SERIOUS DAMAGE TO INDIVIDUALS AND/OR OBJECTS
2 D30EVO: MECHANICAL SYSTEMS

In the following the mechanical systems of the D30EVO dashboard:

QUOTE IN mm
3 D30EVO: COMMANDS AND INDICATORS

1: Button Δ
2: Button O
3: Shift Light LEDs
4: Display
5: Alarm LEDs
6: Alarm LEDs
7: Connector AUX
8: Connector MAIN
4  D30EVO: PINOUT CONNECTORS

In the following the description of the connectors of the D30EVO dashboard:

**MAIN CONNECTOR:**

<table>
<thead>
<tr>
<th>PIN</th>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VBB1</td>
<td>Positive supply (VBB1)</td>
</tr>
<tr>
<td>2</td>
<td>GND POW</td>
<td>Negative supply</td>
</tr>
<tr>
<td>3</td>
<td>CANL</td>
<td>CAN bus – CANL signal</td>
</tr>
<tr>
<td>4</td>
<td>CANH</td>
<td>CAN bus – CANH signal</td>
</tr>
<tr>
<td>5</td>
<td>CANT</td>
<td>CAN bus - termination</td>
</tr>
<tr>
<td>6</td>
<td>GND SEN</td>
<td>Analogic input ground</td>
</tr>
<tr>
<td>7</td>
<td>RS_TX1</td>
<td>RS232 serial port – D30 out</td>
</tr>
<tr>
<td>8</td>
<td>RS_RX1</td>
<td>RS232 serial port – D30 in</td>
</tr>
<tr>
<td>9</td>
<td>PRG</td>
<td>Programming signal input</td>
</tr>
<tr>
<td>10</td>
<td>AN1</td>
<td>AN1 analogic input</td>
</tr>
<tr>
<td>11</td>
<td>DIN1</td>
<td>DIN1 frequency input</td>
</tr>
<tr>
<td>12</td>
<td>BEACON</td>
<td>Beacon input</td>
</tr>
</tbody>
</table>

**NOTE:** connect the CANT signal to CANH if you want to use the internal termination resistance of the D30EVO dashboard (120Ω).

**AUX CONNECTOR:**

<table>
<thead>
<tr>
<th>PIN</th>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VBB AUX</td>
<td>Supply output (similar to VBB1)</td>
</tr>
<tr>
<td>2</td>
<td>GND SEN</td>
<td>Analogic input ground</td>
</tr>
<tr>
<td>3</td>
<td>CANL</td>
<td>CAN bus – CANL signal</td>
</tr>
<tr>
<td>4</td>
<td>CANH</td>
<td>CAN bus – CANH signal</td>
</tr>
<tr>
<td>5</td>
<td>AN2</td>
<td>AN2 analogic input</td>
</tr>
<tr>
<td>6</td>
<td>DOUT1</td>
<td>Auxiliary control (open collector)</td>
</tr>
</tbody>
</table>

**CAUTION:** THE PINOUT MAY PRESENT VARIATION IN SOME APPLICATIONS
5 D30EVO: SYSTEM CONNECTION

5.1 Wiring code GL-0092-AA

Connection scheme with general wiring, code GL-0092-AA:

![Diagram of wiring connections]

### WIRING TABLE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COLOUR</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brown</td>
<td>Positive supply + VBB</td>
</tr>
<tr>
<td>2</td>
<td>Blue</td>
<td>Ground supply – GND POWER</td>
</tr>
<tr>
<td>3</td>
<td>White</td>
<td>CAN bus – CANL</td>
</tr>
<tr>
<td>4</td>
<td>Green</td>
<td>CAN bus – CANH</td>
</tr>
<tr>
<td>5</td>
<td>Grey</td>
<td>Analogic input ground – GND Sipers</td>
</tr>
<tr>
<td>6</td>
<td>Violet</td>
<td>Analogic input (0-5V) – AN1</td>
</tr>
<tr>
<td>7</td>
<td>Orange</td>
<td>Frequency input (0-12V) – DIN1</td>
</tr>
<tr>
<td>8</td>
<td>Light green</td>
<td>Ingresso Beacon – BEACON</td>
</tr>
</tbody>
</table>

**NOTES:**

- Cut the CAN BUS TERMINATION eyelet of the GL-0092-AA wiring if required for removing the internal termination of the CAN bus.
- Singly insulate the wires that are not used.
5.2 Wiring code GL-0086-AA

Connection scheme with wiring, code GL-0092-AA for ECU GP1EVO and KM3 EVO:

NOTES:

- In the depicted configuration, the M40 logger is supplied by the ECU
6 TECHNICAL CHARACTERISTICS

Hardware specifications:

- Renesas RX62T Family 32 Bit RISC 100 MHz 100 MIPS microcontroller
- Memory: 32 KB Data-Flash; 16KB RAM
- Supply voltage: 13.5 VDC nominal (admitted range 9VDC – 24VDC)
- Current consumption (on nominal voltage – with no connected loads and active alerts): < 70mA
- LCD display with 1024 segments, transflective (positive FSTN)
- Serial communication port RS 232
- Programmable communication port CAN bus High Speed (1Mb/s, 500kb/s, 250kb/s, 125kb/s in format Intel or Motorola)
- Real-time clock with integrated backup battery (autonomy up to 1 month)
- Integrated internal temperature sensor
- Integrated tri-axial accelerometer (+/- 16g)
- No. 2 analogic inputs (0-5 V)
- No. 1 input for signals in frequency (up to 15 kHz)
- No. 1 input for beacon devices
- No. 1 output for open drain (maximum current 2.5 A)
- No. 1 interface connector with MAIN Amphenol 12-pole wiring
- No. 1 interface connector with AUX Amphenol 6-pole wiring

Miscellanea:

- Programmable LCD backlight intensity
- 11 fully independent and programmable signalling/alert LEDs (surging channel, methods of ascension, brightness)
- 2 buttons for access to system menus
- External packaging of theft-proof and highly resistant plastic material
- Software updatable configuration
- PC updatable firmware
- Protection: IP66
- Weight (only dash): 385 g
7 USE OF THE D30EVO DASHBOARD

The viewed data, their layout on the display, the alerts and the number of pages are decided upon the configuration of the dashboard. Consult the corresponding chapters for the configuration of the dashboard.

7.1 Functional keys

In the following the functions of the buttons of the D30EVO dashboard:

- Button Δ: page change.
- Button O: not implemented.
8 PRINCIPLES FOR THE CONFIGURATION OF THE D30E DASHBOARD

The dashboard can be set up by using the MAYA software; consult the corresponding user manual for the installation and use of the programme.

The configuration firstly requires the setup of the parameters of the channels to view through the Dash Channels map of the Maya.

The layout of the configured channels and of the related alerts shall be done through Page type maps.

The normal layout of the dashboard foresees the use of display fields such as:

- **BAR**: bar of the engine routes with the corresponding scale labels
- **LABEL**: fields that only include the names of the channels viewed in VALUE type fields
- **VALUE**: fields devoted to the view of channel values

A range of alert leds is also available:

- **SHIFT BAR**: alert led for engine routes
- **ALARM**: led for various alerts

In the following, the graphical layout of the dashboard
The diagram below illustrates the software components of the D30EVO dashboard:

We recommend that the dashboard be configured according to the following procedure:

**NOTE:** IT IS NOT REQUIRED TO CONFIGURE ALL THE PAGES OF THE DASHBOARD, WE EVEN SUGGEST THAT YOU MAY LEAVE EMPTY MAPS
8.1 BAR type field

The bar of the engine routes includes two elements:

- 1: icon of the route bar
- 2: labels for route scale
8.2 LABEL type field

The LABEL type field is generally used for:

- identifying the value viewed in an adjacent field
- identifying the viewed page number

The figure below presents the LABEL type fields of the D30EVO dashboard:

LABEL type fields generally have 4 characters.

NOTES:

- The FIELD_XX names correspond to the relative groups of the MAYA maps.
- Do not insert special characters (e.g.: $, £, &, *, !, etc … ).
### 8.3 VALUE type field

The **VALUE** type field is generally used for:

- viewing the value of a channel
- viewing particular channels (e.g. LAPTIMER on the fields **Field_04** and **Field_05**)

The figure below presents the **VALUE** type fields of the **D30EVO** dashboard:

The length of **VALUE** type fields is represented in the table below:

<table>
<thead>
<tr>
<th>FIELD NAME</th>
<th>NO. OF CHARACTERS</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIELD_01</td>
<td>3</td>
<td>except for &quot; : &quot; . &quot;</td>
</tr>
<tr>
<td>FIELD_03</td>
<td>4</td>
<td>except for &quot; : &quot; . &quot;</td>
</tr>
<tr>
<td>FIELD_04</td>
<td>6</td>
<td>except for &quot; : &quot; . &quot;</td>
</tr>
<tr>
<td>FIELD_05</td>
<td>6</td>
<td>except for &quot; : &quot; . &quot;</td>
</tr>
<tr>
<td>FIELD_09</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FIELD_13</td>
<td>3</td>
<td>except for &quot; : &quot; . &quot;</td>
</tr>
</tbody>
</table>

**NOTE:** The **FIELD_XX** names correspond to the relative groups of the **MAYA** maps.
8.4 Signals (ALARM)

The alarm signals of the D30EVO dashboard are divided into:

- **LED...**: alarm signal
- **ALARM FIELD...**: alarm message field

The figure below presents fields of alarm LEDs:

NOTE: The names indicated in the figure correspond to the relative components of the scalars of the MAYA maps.
9 CONFIGURATION OF D30EVO: PRELIMINARY ACTIONS

Before initiating the setup of the D30EVO dashboard you must:

- Possess the MAYA software (EVO or ADVANCE license)
- Install and set up the MAYA software (see the software user manual)
- Possess the Device file of the D30EVO dashboard (see user manual of the MAYA software)
- Possess the project file of the D30EVO dashboard

The setup files (i.e. the Project files of MAYA) may be directly downloaded from the dashboard (if the device is already setup) or may be requested to the manufacturer.

BY ALL MEANS YOU SHOULD AVOID CREATING DASH CHANNEL MAPS FROM SCRATCH!!

9.1 Suggestions for the configuration of MAYA

You should perform the following settings/checks on the MAYA software:

- Set the view to Grouped in the software Preferences.
- Check the correct setup of the communication port in the software Preferences.
- Load the correct Device for the D30EVO device in the software.
9.2 Connection of the dashboard to the PC

Operate as follows:

- Start the PC and the Maya software (if you have not done it already).
- Make sure you have correctly set up the communication port in the Maya Preferences.
- Connect the programming cord to the PC (when the computer has a serial port).

- Connect the converter (if available) to a USB port of the PC and wait for Windows® to install the driver of the new peripheral device (if required, follow the directions showed by the operating system).

- Connect the D30EVO dash to the programming cord by means of the dedicated connector:
- Make sure that the programming connector (included in the cable) is disconnected (if you do not intend to programme the dashboard).

- Turn the D30EVO dashboard on.

- Check the correct connection of the dashboard to the PC clicking the Get ECU Codes control (included in the Communication menu). If communication is established correctly, you will see a window including the codes in the memory of the connected dashboard.

NOTE: this operation is not required for the connection between the dashboard and the PC, but it is useful in order to check the correct performance of cable connections and the setup of the MAYA communication port.

CAUTION: THE SHOWED CODES ARE USEFUL FOR IDENTIFYING THE DEVICE TYPE OF THE DASHBOARD CONNECTED TO THE PC.

If the dashboard device is not known, it is enough to load a random one in the Maya in order to receive some answer from the central office.
9.3 Opening a project (configuration) file from the PC

Operate as follows:

- Start the Maya software clicking the corresponding icon twice.
- Make sure that a device is loaded and that it is consistent with the project you intend to open.
- Click the Open Map Project… button (included in the File menu) or on the icon included in the Maya toolbar.
  NOTE: besides the indicated methods, you may also use Ctrl+M on the keyboard (enabling the option Enable Hot keys… in the Maya Preferences) in order to recall the function.

- Select the desired project file. If the installation procedure is followed correctly, thus creating the MayaWorkspace folder, the file should be included in the folder corresponding to the configuration type included in the dashboard. For instance, a configuration for PREMOTO3 will be saved in: MayaWorkspace \ D30EVO \ PREMOTO3

- Click the Open button at the bottom left in order to load the selected file

- All the engine maps included in the project will be loaded in the device tree (visible in the area of Device Manager); moreover, the engine map (identified by the green indicator of the tree) will also be enabled.
9.4 Downloading the configuration of the dashboard

Operate as follows:

- Start the Maya software clicking the corresponding icon twice ▶️

- Make sure that the device is connected to the PC.

- Make sure that the device viewed in the area of the Device Manager is consistent with the map you intend to download. For this purpose, it may be useful to perform the command Get ECU Codes, that helps identify the codes in the dashboard.

  **NOTE:** if no device has been loaded, load one.

- Click the Read Map from ECU button (included in the Communication menu) or on the icon included in the Maya toolbar.

  **NOTE:** besides the indicated methods, you may also use F3 functional key on the keyboard (enabling the option Enable Hot keys... in the Maya Preferences) in order to recall the function.

- Afterwards, the Maya reading command will ask you to select an engine map. The options (selectable through a click of the left key of the mouse) are the following:

  **Application:** the reading of the Application Map saved in the device will be launched – the downloaded data may be viewed (and afterwards changed) within the Application tree of the Device Manager of the Maya.

  **Map ...:** the reading of the selected map will be launched – the downloaded map may be viewed (and changed) in the device tree.

  **All:** the reading of all the maps included in the device memory will be launched – the downloaded maps may be viewed (and changed) in the Device Manager tree of the Maya.

  **CAUTION:** THE NUMBER OF MAPS OR THEIR NUMBERING MAY VARY ACCORDING TO THE CONNECTED DEVICE

  **ALWAYS SELECT THE “ALL” OPTION**
CAUTION: IN CASE A MAP HAS PREVIOUSLY BEEN LOADED IN THE SAME POSITION OF THE ONE YOU INTEND TO DOWNLOAD, MAYA WILL WARN THE USER WITH THE MESSAGE VIEWED IN THE FOLLOWING FIGURE.

NOTE: If you wish to overwrite the data, press Yes.

- Confirm the selection with the button **Ok** (bottom right of the map selection window): the reading process begins. Wait until the operation is completed.

- The downloaded engine map is loaded in the **device** tree (that can be viewed in the **Device Manager** area).

**NOTE:** When a map has been loaded, the characters **MAP # …** is outlined in green
9.5 Saving a project

After having changed a map (or after any change) you should save the new content in a project file in your PC (or on any other data storage device). The procedure described below implies that the Maya is started on the device and the maps are already loaded.

Operate as follows:

- Click the **Save Map Project**… button (included in the File menu) or on the icon in the Maya toolbar.
  NOTE: besides the indicated methods, you may also use **Ctrl+S** on the keyboard (enabling the option **Enable Hot keys...** in the Maya Preferences) in order to recall the function.

- Select the folder and input the file name of the project, confirm the save clicking the **Save** button.
  NOTE: for consistency purposes, we recommend that you should maintain the saving folder inside the MayaWorkspace.

**WITH THIS PROCEDURE, ALL THE MAPS LOADED IN THE MAYA ARE SAVED IN A SINGLE FILE, WHICH EASES THEIR MANAGEMENT**
9.6 Programming the D30EVO:

The procedure described below implies that the Maya is started on the device and the project (configuration) is already loaded.

Operate as follows:

- Make sure that the device is connected to the PC.
- Click the Download to ECU button (included in the Communication menu) or on the icon included in the Maya toolbar.

**NOTE:** besides the indicated methods, you may also use F4 functional key on the keyboard (enabling the option Enable Hot keys... in the Maya Preferences) in order to recall the function.

- Program the device connected to the PC following the instructions showed by the message of the Maya software.
- Press the **Ok** button in order to start programming and wait until the data transfer is completed.
• When the programming ends, turn the device off and remove the programming connector

**NOTE:** in case of errors in the process, check the correct connection of the device to the PC, the position of the programming connector and the correct setup of the communication port.
10 CONFIGURATION OF D30EVO

Before changing maps, please read the manual of the MAYA software: many of the concepts expressed in such document are actually omitted in this manual.

The following chapters list the available groups for the ADVANCE and EVO licenses, for the scalars in this content please see the scalars available in the DEVICE TABLE of the hereby manual.

Parameters can be selected by expanding the group you intend to change and by clicking the desired scalar twice.
Remember that you have to double click the values of the **Scalars** included in the **Groups** in order to change them: verrà aperta una finestra per l’editor dei valori.

The scalars may be of type **Value** or they may be variables that include a value:

![Edit Scaler](image1)

This type of scalars may be modifying by double clicking the box including the value and inputting the new data.

**Bitmask** scalars are variables that include a range of zeroes and ones:

![Edit Scaler](image2)

In this case, values are always changed by double clicking the mouse, but, unlike **Value** type scalars, a subsequent window will be opened so that you may select the desired value:

![Bitmask](image3)

The vectors (**Vector**) for the possible linearization of the data received and/or showed by the dashboard are also present besides scalars.
Finally the **String** component acts as a string for recognising the selected channel and/or the name viewed on the dashboard (in **Label** type fields).

10.1 Dash Channel Map

The groups present in the **DASH CHANNEL MAP** are the following:

- **Misc Register**: allows to setup the number of viewed pages, the initial page, turn on the backlight, setup the speed and byte order of the CAN, setup the serial.

- **Usr_Ch00…Usr_Ch31**: allow to setup the parameters of the user channels (channel name, CAN parameters, calibration, etc.) to be viewed on the dashboard.

**NOTE**: consult the **DEVICE TABLE** for details on scalars.

10.2 Page1…Page5 Map

The **PAGE** maps allow to view the channels setup in the **Dash Channel Map**.

The groups present in the **DASH CHANNEL MAP** are the following:

- **Misc Register**: allows to setup the number of viewed pages, the initial page, turn on the backlight, setup the speed and byte order of the CAN, setup the serial.

- **Usr_Ch00…Usr_Ch31**: allow to setup the parameters of the user channels (channel name, CAN parameters, calibration, etc.) to be viewed on the dashboard.

**NOTE**: consult the **DEVICE TABLE** for details on scalars.
11 HOW TO...

In the following you will find the most frequent operations of the D30EVO dashboard.

11.1 Changing the scale of the motor routes

In order to change the scale of the motor routes, you should change the values of the scalars in the table:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Name</th>
<th>Type</th>
<th>Description</th>
<th>Lic. EVO</th>
<th>Lic. ADV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>BLBL0</td>
<td>Value</td>
<td>Allow to setup the 7 values of the scale of the engine routes, from the minimum one (BLBL0) to the maximum one (BLBL6)</td>
<td>✓</td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>BLBL6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: the values may be changed independently in any page

The figure illustrates the value of the second label of the route scale (corresponding to 4000 rpm), setup in the Bar group of the Page1 map
### 11.2 Changing the change flash

In order to change the change alerts, you should change the values of the scalars in the table:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Name</th>
<th>Type</th>
<th>Description</th>
<th>Lic. EVO</th>
<th>Lic. ADV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm_0</td>
<td>ATHR0_ALARM</td>
<td>Value</td>
<td>Alarm limit LED1</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Alarm_1</td>
<td>ATHR0_ALARM</td>
<td>Value</td>
<td>Alarm limit LED2</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Alarm_2</td>
<td>ATHR0_ALARM</td>
<td>Value</td>
<td>Alarm limit LED3</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Alarm_3</td>
<td>ATHR0_ALARM</td>
<td>Value</td>
<td>Alarm limit LED4</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Alarm_4</td>
<td>ATHR0_ALARM</td>
<td>Value</td>
<td>Alarm limit LED5</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

The figure illustrates the alarm limit (13000 rpm) for change (RPM) configured on the **Alarm_01** group

NOTES:

- The values may be changed independently in any page
- The groups of alerts may vary according to the configuration of the dashboard
11.3 Changing the alarm thresholds

The procedure for changing the alarm thresholds is identical to the one seen for the changing flash. You should therefore insert the new values of the ATHR0_ALARM and ATHR1_ALARM scalars of the desired Alarm group.

The figure illustrates the alarm threshold (55°C) of the engine temperature channel (TH2O) configured on the Alarm_05 group.

NOTES:

- The values may be changed independently in any page.
- The groups of alerts may vary according to the configuration of the dashboard.
11.4 Setting a CAN channel in reception

The example implies you want to configure a CAN channel (e.g. RPM) with the following features:

- **CAN Bus Speed:** 1 Mb/s
- **CAN Byte Order:** Little Endian (Intel)
- **CAN ID:** 0x100
- **Start bit:** 0
- **Bit Length:** 16
- **Channel Type:** Unsigned
- **Calibration Type:** Linear (Gain+Offset)
- **Gain:** 1
- **Offset:** 0

You may also associate the channel to a group of the Dash Channel Map (e.g. Usr_Ch00)

Set the scalars according to the following table:

<table>
<thead>
<tr>
<th>D30EVO – Dash Channels Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP</td>
</tr>
<tr>
<td>Misc</td>
</tr>
<tr>
<td>Register</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

![Image of settings interface]
The following tables summarize the components of the **D30EVO Maya** device, divided into groups:

### D30EVO – Dash Channels Map

<table>
<thead>
<tr>
<th>GROUP</th>
<th>Name</th>
<th>Type</th>
<th>Description</th>
<th>EVO lic.</th>
<th>ADV lic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc</td>
<td>MCFG</td>
<td>Bitmask</td>
<td>Allows to setup the number of active pages (NPG parameter), the start page (PA parameter), the backlight ascent (BK parameter)</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>CAN</td>
<td>Bitmask</td>
<td>Allows to setup the speed of the CAN bus (BAUD parameter) and the byte transmission order (BO parameter)</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>SER</td>
<td>Bitmask</td>
<td>Allows to setup the speed of the serial bus (BAUD parameter) and the byte transmission order (BO parameter)</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>From</td>
<td>Usr_Ch..</td>
<td>String</td>
<td>Name of the configured channel (not changeable by EVO license)</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Usr_Ch00 to</td>
<td>UCALX,...</td>
<td>Vector</td>
<td>Channel calibration vector</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>UCALY,...</td>
<td>Vector</td>
<td>Channel calibration vector</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>UCGFG1,...</td>
<td>Bitmask</td>
<td>Allows to setup the channel calibration type (Calib parameter), the channel source (RXTYP parameter) and allows to send it to the desired bus (TXTYP parameter).</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>UCGFG2,...</td>
<td>Bitmask</td>
<td>Includes the required settings for the channel transmission, such as frequency (TXRATE parameter) and sign parameter (SIGN parameter)</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>DBID</td>
<td>Value</td>
<td>Indicates the ID of receipt/transmission of the channel (in hexadecimals) – valid for channels on the CAN bus</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>DBSTG</td>
<td>Bitmask</td>
<td>Allows to setup the source byte of the channel (SB parameter) and the length (DL parameter)</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>USID</td>
<td>Bitmask</td>
<td>Allows to setup the source channel (valid only if the channel is setup in transmission) and whether calibration is applied</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>GROUP</td>
<td>Name</td>
<td>Type</td>
<td>Description</td>
<td>EVO lic.</td>
<td>ADV lic.</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>BCFG</td>
<td>Bitmask</td>
<td>Allows to setup the multiplying factor of the engine route scale (standard values, multiple of 3)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>Bar</td>
<td>BLBL0...BLBL6</td>
<td>Value</td>
<td>Allows to setup the 7 values of the engine route scale, from the minimum value (BLBL0) to the maximum value (BLBL6)</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>BSID</td>
<td>Bitmask</td>
<td>Allows to setup the number of the source channel of the route bar (ID parameter), view the normalised or raw value (VAL parameter) and the inclusion group (TYP parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>Field_00</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_00 field. Only changeable with ADVANCE license</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>Field_01</td>
<td>string</td>
<td>String</td>
<td>Label of the channel viewed in the Field_01 field. Only changeable with ADVANCE license</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>CCFG</td>
<td>Bitmask</td>
<td>Allows to setup the channel type to view (number or string – TYP parameter), transfer the value (OFS parameter), the name of decimal points (OFS parameter) and whether to activate the view (FS parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>CSID</td>
<td>Bitmask</td>
<td>Allows to setup the number of the channel to view (ID parameter), whether to view the calibrated channel or as raw data (VAL parameter) and to select origin (TYP parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>Field_02</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_02 field. Only changeable with ADVANCE license</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>Field_03</td>
<td>string</td>
<td>String</td>
<td>Label of the channel viewed in the Field_01 field. Only changeable with ADVANCE license</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>CCFG</td>
<td>Bitmask</td>
<td>Allows to setup the channel type to view (number or string – TYP parameter), transfer the value (OFS parameter), the name of decimal points (OFS parameter) and whether to activate the view (FS parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>CSID</td>
<td>Bitmask</td>
<td>Allows to setup the number of the channel to view (ID parameter), whether to view the calibrated channel or as raw data (VAL parameter) and to select origin (TYP parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>Field_04</td>
<td>string</td>
<td>String</td>
<td>Label of the channel viewed in the Field_01 field. Only changeable with ADVANCE license</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>CCFG</td>
<td>Bitmask</td>
<td>Allows to setup the channel type to view (number or string – TYP parameter), transfer the value (OFS parameter), the name of decimal points (OFS parameter) and whether to activate the view (FS parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>CSID</td>
<td>Bitmask</td>
<td>Allows to setup the number of the channel to view (ID parameter), whether to view the calibrated channel or as raw data (VAL parameter) and to select origin (TYP parameter)</td>
<td></td>
<td>☑</td>
</tr>
<tr>
<td>GROUP</td>
<td>Name</td>
<td>Type</td>
<td>Description</td>
<td></td>
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<tr>
<td>------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>string</td>
<td>String</td>
<td>Label of the channel viewed in the Field_01 field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_05</td>
<td>CCFG</td>
<td>Bitmask</td>
<td>Allows to setup the channel type to view (number or string – TYP parameter), transfer the value (OFS parameter), the name of decimal points (OFS parameter) and whether to activate the view (FS parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSID</td>
<td>Bitmask</td>
<td>Allows to setup the number of the channel to view (ID parameter), whether to view the calibrated channel or as raw data (VAL parameter) and to select origin (TYP parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_06</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_06 field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_08</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_08 field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_09</td>
<td>CCFG</td>
<td>Bitmask</td>
<td>Allows to setup the channel type to view (number or string – TYP parameter), transfer the value (OFS parameter), the name of decimal points (OFS parameter) and whether to activate the view (FS parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_10</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_10 field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_12</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_12 field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_13</td>
<td>CCFG</td>
<td>Bitmask</td>
<td>Allows to setup the channel type to view (number or string – TYP parameter), transfer the value (OFS parameter), the name of decimal points (OFS parameter) and whether to activate the view (FS parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSID</td>
<td>Bitmask</td>
<td>Allows to setup the number of the channel to view (ID parameter), whether to view the calibrated channel or as raw data (VAL parameter) and to select origin (TYP parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field_14</td>
<td>string</td>
<td>String</td>
<td>Label viewed in the Field_14 field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>da Alarm_00</td>
<td>string</td>
<td>String</td>
<td>Channel label – viewed in the alarm signalling field. Only changeable with ADVANCE license</td>
<td></td>
<td></td>
</tr>
<tr>
<td>da Alarm_15</td>
<td>ACFG_ALARM</td>
<td>Bitmask</td>
<td>Allows to define the condition of alarms (T0COND, T1COND, LOP parameters), the view field (OUPT parameter) and how to view alarms (OUT parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AOSEL_ALARM</td>
<td>Bitmask</td>
<td>Allows to select the alarm led</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ASID</td>
<td>Value</td>
<td>Allows to define the source channel of alarms</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATHR0_ALARM</td>
<td>Value</td>
<td>Allows to define the two alarm thresholds</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATHR1_ALARM</td>
<td>Value</td>
<td>Allows to define the two alarm thresholds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROUP</td>
<td>Name</td>
<td>Type</td>
<td>Description</td>
<td>EVO lic.</td>
<td>ADV lic.</td>
</tr>
<tr>
<td>-------------------</td>
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<td>-----------------------------------------------------------------------------</td>
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<td>----------</td>
</tr>
<tr>
<td>LEDs</td>
<td>OCFG_BACK_LIGHT</td>
<td>Bitmask</td>
<td>Allows to select the behaviour (MD parameter) and brightness (BRG parameter) of the backlight</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td></td>
<td>OCFG_LED1 ...</td>
<td>Bitmask</td>
<td>Allows to select the behaviour (MD parameter) and brightness (BRG parameter) of the associated led</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>Digital_OUT</td>
<td>OCFG_DOUT0</td>
<td>Bitmask</td>
<td>Allows to select the behaviour (MD and BRG parameters) of the DOUT0 digital output</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>