V3MS DASH7

for VEMS ECUs

Digital dashboard for standalone ECUs VEMS

MENU QUICK GUIDE

1. DISPLAY
    a. Date/Time settings, Screen brightness setings, Default data page and Startup page duration settings
2. LEDS
    a. Shift-Light LEDs settings
    b. Warning LEDs settings
3. GAUGES
    a. Main gauges settings (RPM&MAP range, Gauge Units,...)
        i. Fuel level sensor calibration
        ii. Pressure sensors calibration
            1. Oil pressure sensor calibration
            2. Fuel pressure sensor calibration
        iii. Temperature sensor calibration
            1. Oil temperature sensor calibration
4. ALARMS
    a. Alarm thresholds, OSW and Sound activation/deactivation
5. DATA LOG
    a. ALARM Logs page

MAIN MENU

The main menu is divided into 5 main submenus:

1. Menu DISPLAY

2. Menu LEDS

3. Menu GAUGES

4. Menu ALARMS

5. Menu DATA LOGS

6. EXIT ICON (for exit main menu and return to the last visualised data page)
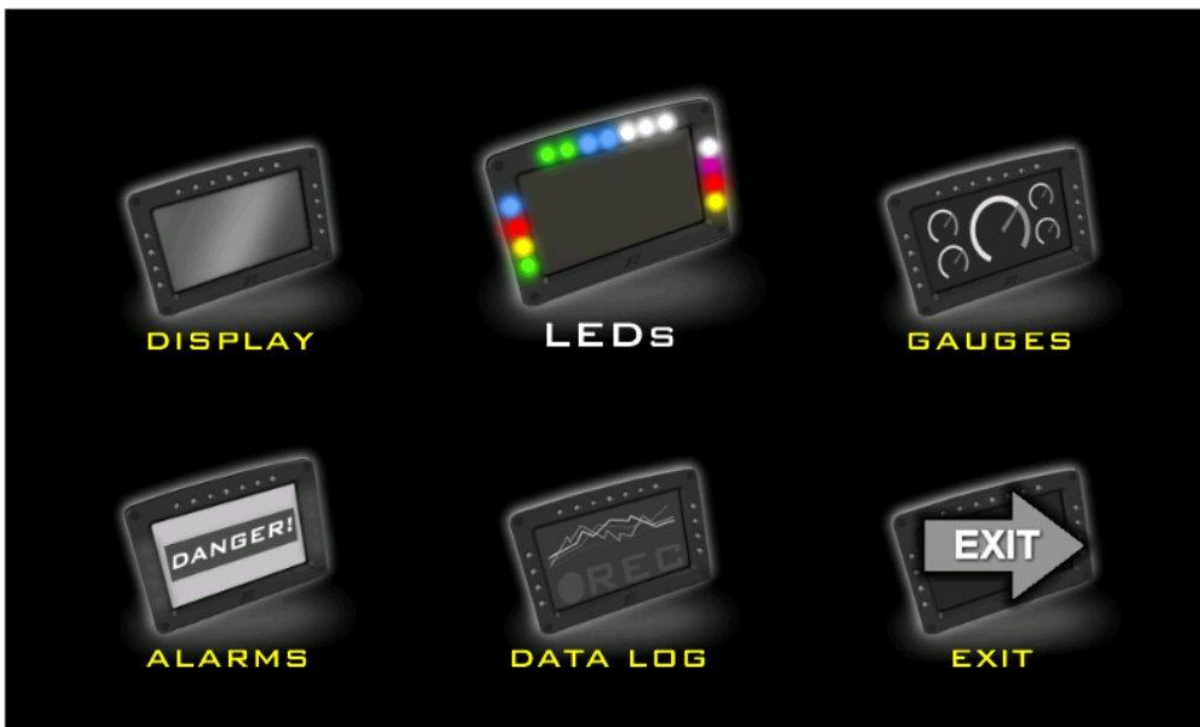
AVAILABLE BUTTONS:

Arrows: move cursor through the icons

OK: Enter selected menu page (or exit menu)

Menu DISPLAY

SET HOURS & MINUTES OF RTC

SET DAY, MONTH & YEAR OF REAL TIME CLOCK

AFTER DASH7 IS
TURNED ON, SCREEN
BRIGHTNESS WILL BE
SET TO THIS VALUE

SET DATA PAGE NUMBER
THAT APPEARS AFTER
DASH7 IS TURNED ON

DURATION OF THE
STARTUP SCREEN

SAVE & EXIT

HELP

DISPLAY SETTINGS

TIME SET
21 : 04
HOUR   MIN

DATE SET
03   03   2022
DAY MONTH YEAR

SCREEN BRIGHTNESS
POWER UP DEFAULT
SCREEN BRIGHTNESS: 100 %
TIP: ACTUAL BRIGHTNESS CAN BE ADJUSTED ON
ANY DATA PAGE BY USING UP/DOWN BUTTONS

MAIN START PAGE
START DASH
ALWAYS ON PAGE NR: 3

STARTUP LOGO DURATION
0.4   SEC.

LEFT/RIGHT = CHOOSE VALUE
UP/DOWN = CHANGE VALUE
ENTER = SAVE AND EXIT PAGE

OK

AVAILABLE BUTTONS:

LEFT/RIGHT: select item

UP/DOWN: change value

OK: works only on OK button, to save values and exit page

Menu LEDS

OPEN SHIFT-LIGHTS SETTING PAGE

THESE BUTTONS
REPRESENT INDIVIDUAL
WARNING LEDS & THEIR
COLORS

OPEN WARNING LEDS
SETTING PAGE

SHIFT LIGHTS

HIGH MAP

WATER TEMP

HIGH EGT

REV.GEAR

FUEL PRESS

OIL PRESS

LOW BATT.

LOW FUEL

LED BRIGHTNESS: 100 %

LEFT/RIGHT = CHOOSE LED,
UP/DOWN = CHANGE BRIGHTNESS
ENTER = ENTER SETUP OR EXIT PAGE

OK

HELP

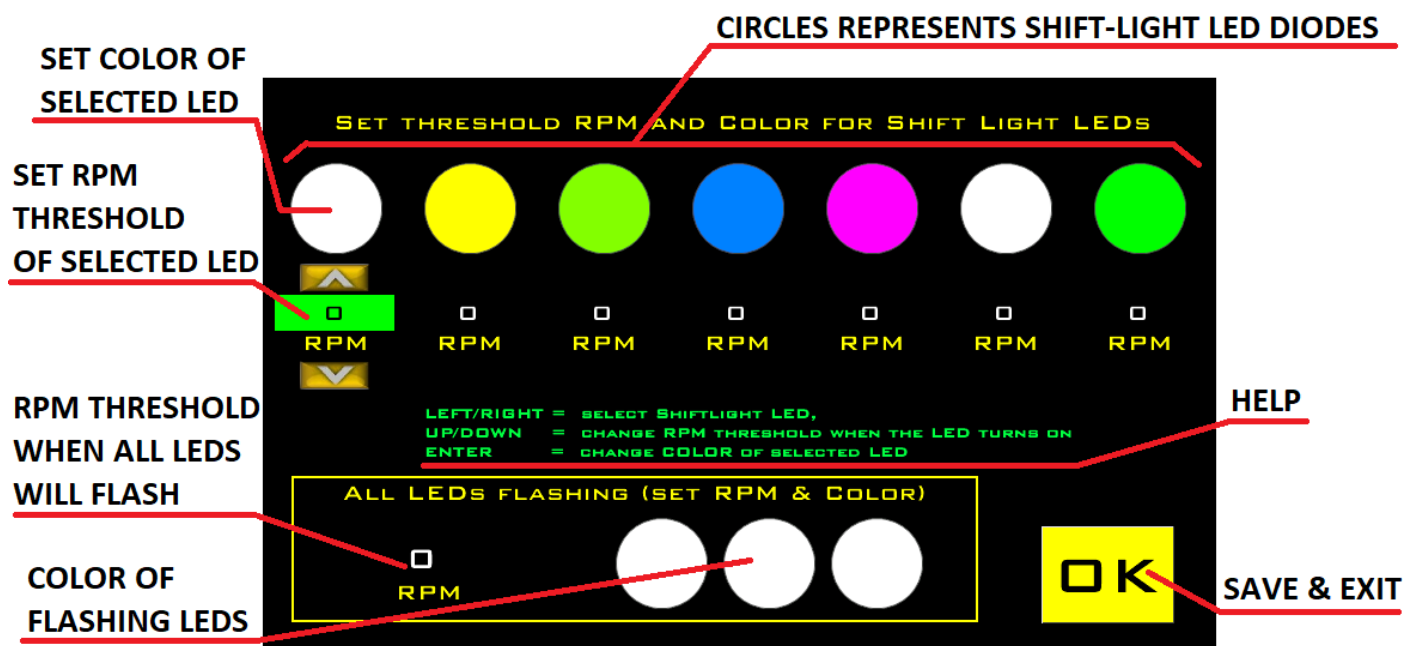ADJUST DEFAULT LED BRIGHTNESS

SAVE & EXIT

AVAILABLE BUTTONS:

LEFT/RIGHT: move cursor through the items

UP/DOWN: works only on LED brigtness, increase or decrease default LED brightness

OK: save values and exit page

Menu SHIFT-LIGHTS

Submenu of LEDs menu

SET COLOR OF SELECTED LED

SET RPM THRESHOLD OF SELECTED LED

RPM THRESHOLD WHEN ALL LEDS WILL FLASH

COLOR OF FLASHING LEDS

CIRCLES REPRESENTS SHIFT-LIGHT LED DIODES

HELP

SAVE & EXIT

Set threshold RPM and Color for Shift Light LEDs

RPM RPM RPM RPM RPM RPM RPM

LEFT/RIGHT = SELECT SHIFTLIGHT LED,
UP/DOWN = CHANGE RPM THRESHOLD WHEN THE LED TURNS ON
ENTER = CHANGE COLOR OF SELECTED LED

All LEDs flashing (set RPM & Color)

RPM

OK

AVAILABLE BUTTONS:

LEFT/RIGHT: select LED (move cursor)

UP/DOWN: set RPM threshold

OK: change color of selected LED or save and exit menu page

Menu Warning LEDs

Submenu of LEDs menu

SET PURPOSE OF SELECTED WARNING LED

SET COLOR OF SELECTED LED

HELP

SAVE & EXIT

SET COLOR AND PURPOSE OF CURRENT LED

LED Purpose:

LOW FUEL	LOW BATT.	OIL PRESS	FUEL PRESS
HIGH MAP	WATER TEMP	HIGH EGT	REV.GEAR
LOW BEAM	HIGH BEAM	HAND BRAKE	HAZARD L.
TURN IND.	AIR TEMP	NEUTRAL	NOTHING (LED OFF)

LEFT/RIGHT = CHOOSE VALUE OR COLOR   ENTER = CONFIRM VALUE OR COLOR

LED COLOR:

OK
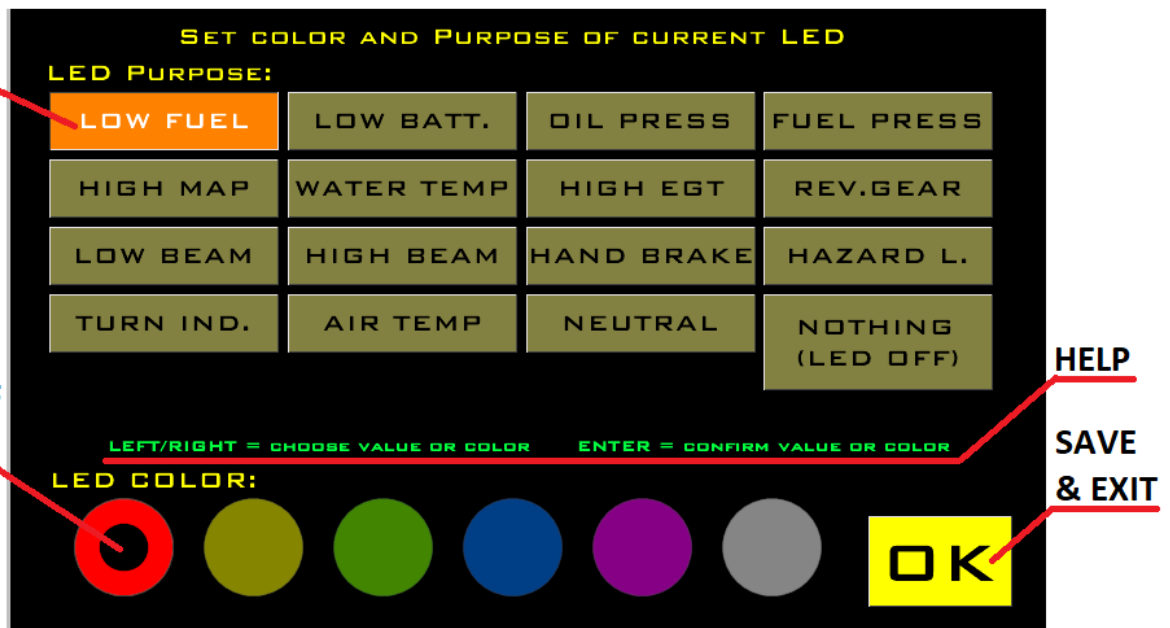
These setting affects only LED diodes next to the screen. Warning icons (indicators) displayed on the screen are not affected by these settings.

So that the driver does not have to remember which side LED has what meaning, on every data page can be placed side bars with small icons representing the purpose of side warning LEDs. These side bars are not mandatory and depends on the page graphic design.

AVAILABLE BUTTONS:

LEFT/RIGHT: select item (purpose)

OK: set purpose for LED, change color of selected LED and exit menu page

Menu GAUGES

ADJUST RANGE OF RPM GAUGE

ADJUST RANGE OF MAP GAUGE

OPEN FUEL LEVEL SENSOR
CALIBRATION PAGE

OPEN PRESURE SENSORS
CALIBRATION PAGE

OPEN TEMPERATURE
SENSORS CALIBRATION
PAGE

CHOOSE UNITS FOR
SELECTED GAUGES

SAVE & EXIT

HELP

GAUGES SETTING PAGE

MAX RPM ON GAUGE
9000 RPM

MAX MAP ON GAUGE
400 KPA

FUEL LEVEL GAUGE
CALIBRATION

PRESSURE CHANNELS
CALIBRATION

TEMPERATURE CHANNELS
CALIBRATION

GAUGE UNITS :

PRESS.	TEMP.	SPEED	EGO
KPA	DEG C	MPH	AFR

OK

LEFT/RIGHT = CHOOSE VALUE,   UP/DOWN = CHANGE VALUE.   ENTER = ENTER OR EXIT

AVAILABLE BUTTONS:

LEFT/RIGHT: select item (move cursor)

UP/DOWN: set RPM or MAP range value

OK: change units, enter calibration and exit menu page

Menu FUEL LEVEL GAUGE CALIBRATION

Submenu of GAUGES menu
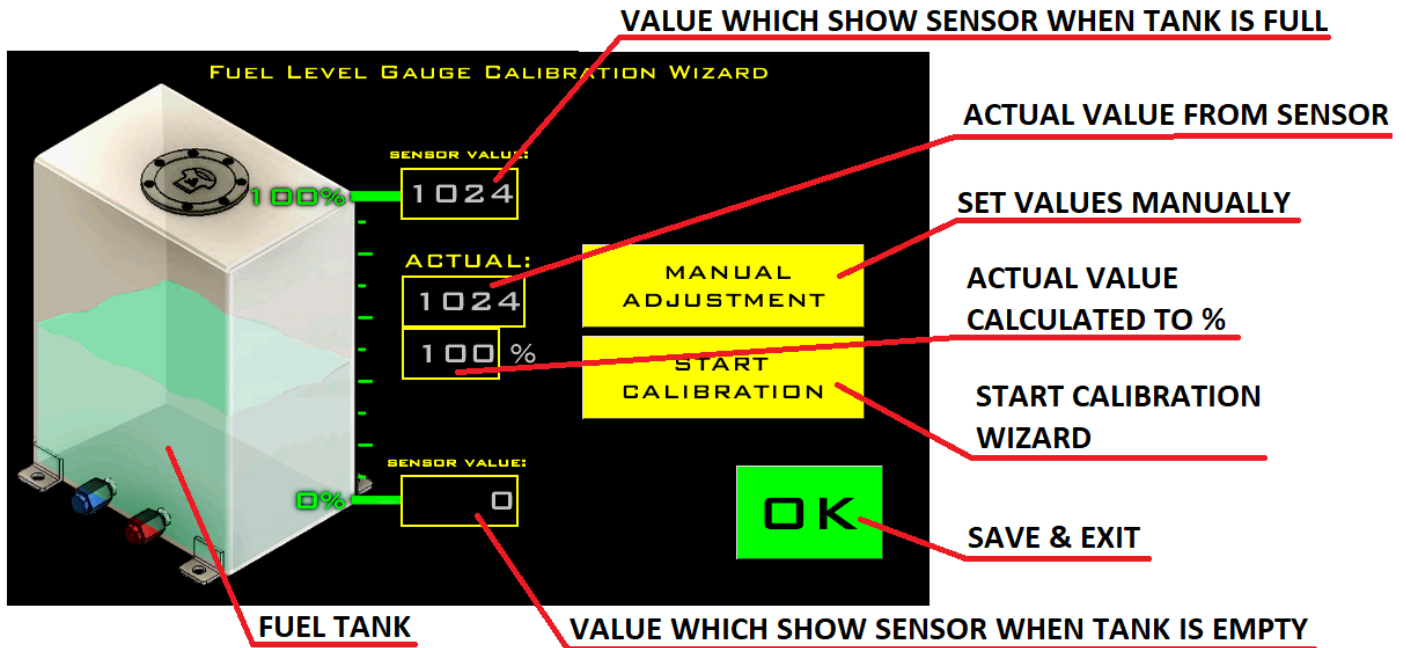
AVAILABLE BUTTONS:

LEFT/RIGHT: select item (move cursor)

UP/DOWN: adjust value

OK: enter calibration/manual adjustment or save and exit menu page

If you select „Start Calibration" button, it will start calibration wizard. In the wizard you can set the max and min sensor values just by move fuel level sensor to its max and min positions and save that values.

If you want to set min and max positions manually or fine adjust just calibrated sensor, click on „manual adjustment" button. Then select min or max value number and adjust it (UP/DOWN BUTTON)

Menu PRESSURE CHANNELS CALIBRATION

Submenu of GAUGES menu

In the menu PRESSURE CHANNELS CALIBRATION you can set which channel will be used like a source for oil or fuel pressure gauge. You can select any of 7 ECU analog channels or any of 2 Dash analog input channels.

After you have choose some channel, you must set calibration data for that channel. If you select one of the ECU channels, set the same calibration data in Dash7 as they are set in the ECU. If you select one of the Dash7 analog channels, set the calibration data according to the data from the sensor manufacturer.
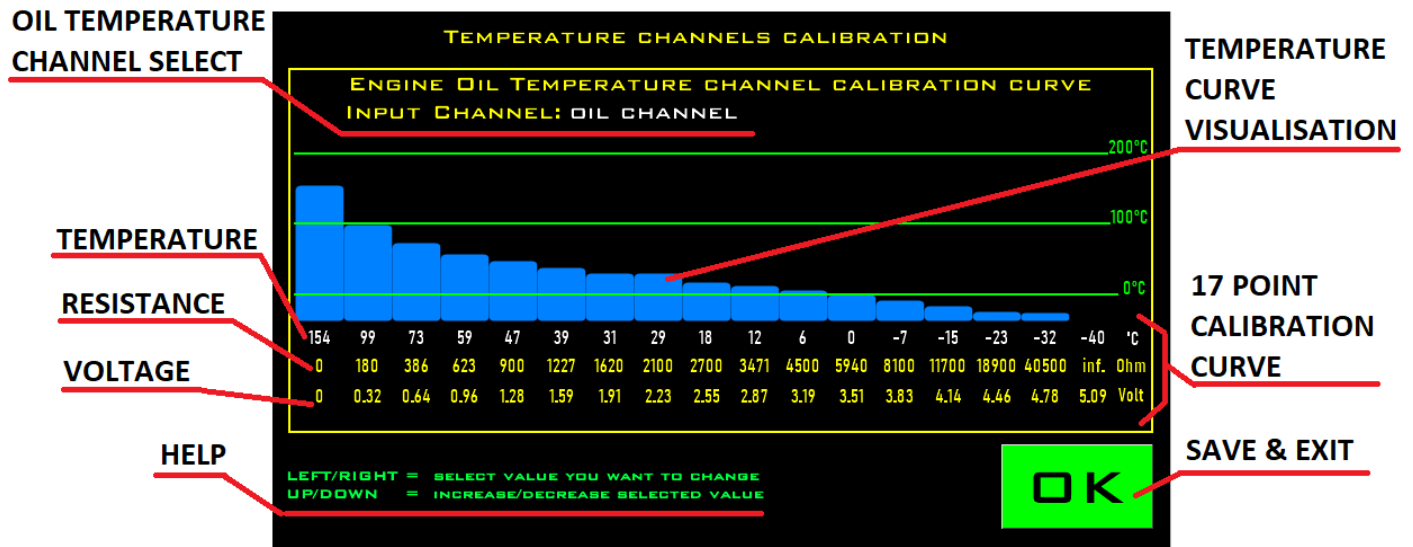
AVAILABLE BUTTONS:

LEFT/RIGHT: select item

UP/DOWN: change value

OK: save data and exit menu page

Menu TEMPERATURE CHANNELS CALIBRATION

Submenu of GAUGES menu

In the menu TEMPERATURE CHANNELS CALIBRATION you can set which channel will be used like a source for oil temperature gauge. You can select any of 7 ECU analog channels or 1 Dash temperature input channel.

After you have choose some channel, you must set calibration data for that channel. Calibration data for temperature sensor is 17 point calibration curve. If you select one of the ECU channels, set the same calibration data in Dash7 as they are set in the ECU. If you select Dash7 temperature channel, set the calibration data according to the data from the sensor manufacturer.

AVAILABLE BUTTONS:

LEFT/RIGHT: select item or position in calibration curve

UP/DOWN: change value

OK: save data and exit menu page

Menu ALARMS

ALARM THRESHOLDS

UNITS

CONDITIONS FOR ALARMS ACTIVATION

TURN ON / TURN OFF ON-SCREEN WARNING MESSAGES

TURN ON / TURN OFF ALARM SOUNDS

SAVE & EXIT

On the menu page ALARMS you can set thresholds which will turns ON alarm for selected values. On the left side you can find values and their math conditions. In the middle there are thresholds and their units. On the right side, there are buttons for activate or deactivate OSW or Sound alarms.

Logic of alarms:

Setting „Coolant temp >= 105°C" means that if the coolant temperature will be more or equal to 105°C alarm occurs (warning icon will turns ON, and/or warning LED will turns ON, and/or OSW will show, and/or alarm sound will be heard). If the coolant temperature will be still higher than the alarm threshold, neither OSW nor the sound will appear anymore (but the icon or LED will stay ON). If coolant temperature will be under the alarm threshold, all coolant warnings (OSW, Sound, Icon, LED) will turns OFF. If the coolant temperature rises above the threshold again, the whole process will be repeated (OSW, Sound, Icon, LED).

NOTE: If the value is bouncing around the threshold or from min to max value (eg. faulty sensor or bad contact) frequently beeping or displaying warning messages can be disturbing to the driver. In this case, driver can TURNS OFF OSW and Sound alarms during driving by pushing the LEFT BUTTON on any data page. This shutdown is not permanent, but only lasts until the next device restart! If you want to turn off OSW and/or Sound alarms permanently, you must to do it on this menu page.

OSW (On Screen Warnings) are warning messages in red rectangle, shown over all other components on the page, which will be shown on the screen if some of controled values will be out of its limits. These limits are sets by thresholds on this menu page. If the driver does not want OSW to be displayed, he can turn them OFF by this button.

ALARM BUZZER is an additional, audible alarm for visual alarms (warning icons, LEDs and OSW). If alarm occurs and Buzzer function is active, the driver can hear 2 beeps for every warning message. If the driver does not want to hear sound alarms, he can turn them OFF by this button.
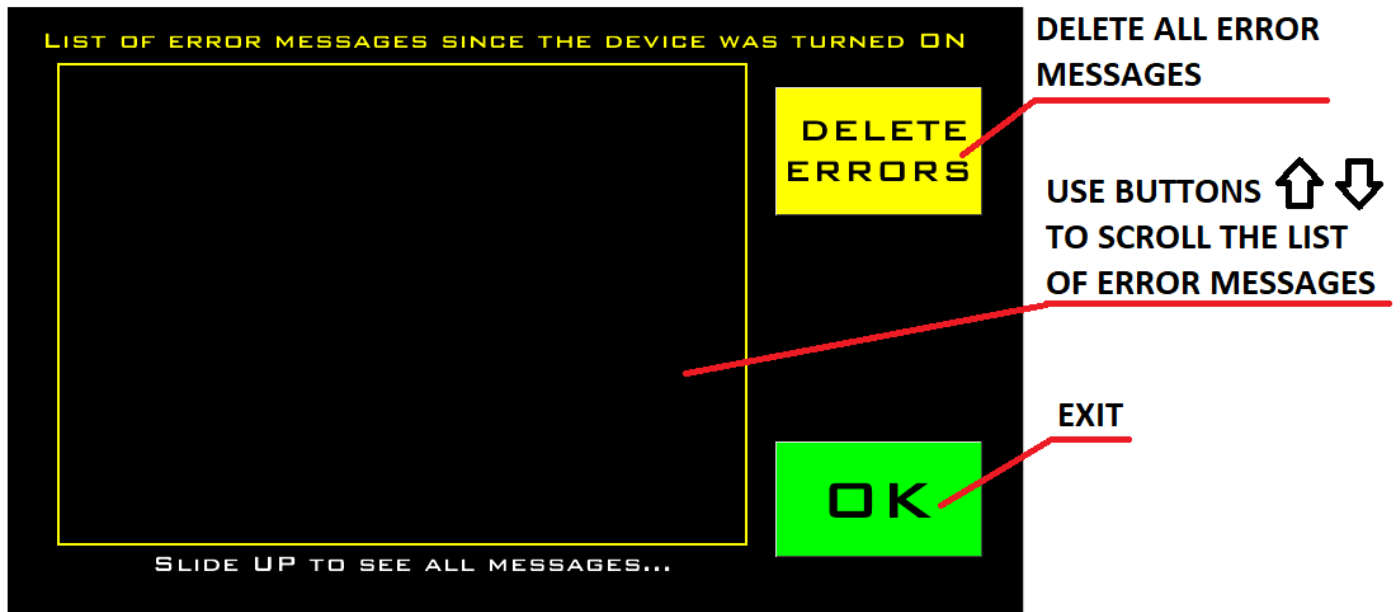

AVAILABLE BUTTONS:

LEFT/RIGHT: adjust value

UP/DOWN: select item

OK: turn ON/OFF OSW and Sound alarms, or Save data and exit menu page

Menu DATA LOG

Error log

Error logger is logger which record all alarms (and their time) which occurs during the period when Dash7 is powered ON. There alarm messages are stored only to RAM memory and are there only during the time when Dash7 is powered ON. After restart the device, all error messages recorded in error logger will be lost.

AVAILABLE BUTTONS:

LEFT/RIGHT: move cursor

UP/DOWN: scroll the list of errors

OK: Delete list of errors or Exit menu page

All information in this manual is for informational purposes only, may not be considered immutable and the manufacturer reserves the right to change it at any time without prior notice.

This manual is valide for 2021 Spec devices only.