

NANNI DASHBOARD

USER MANUAL

DGBXXT09054

DIGITAL

SI-4.3

The Nanni logo is rendered in a dark blue, lowercase, sans-serif font. The letters 'n', 'a', and 'n' are stylized with a white vertical line on their left side. The letter 'i' has a solid dark blue dot above it.

Q00 TRACKED CHANGES

TRACKED CHANGES

CODE	INDEX	DATE	INITIALS	NATURE OF MODIFICATIONS	PAGES
DGBXXT09054	-	11/2023	KB	Create	-

*Please note all changes and pages associated.
For further clarity, please add a line in front of each change.*

NOTES

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NOTES

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INTRODUCTION

Thank you for choosing the SI-4.3 Nanni interactive control display! This unit is easy to use and will allow you to customize engine informations displayed through the use of alternate screen selections.

The SI-4.3 will give you the power to track all sensitive informations from your Nanni engine.

For a safe and enjoyable experience with your new SI-4.3, please read your operator's manual. If you should need additional assistance with the SI-4.3 operation, please see your Nanni authorized dealer or visit our web site:

www.nannienergy.com

ABOUT THIS MANUAL



This manual contains important information, tips, suggestions and warnings.

Please read it carefully and familiarize yourself with the equipment before starting.

For your own safety and the longest life of the equipment, follow the instructions and warnings contained in this manual and in any literature supplied with the boat. Ignoring them could damage the equipment or cause injury to you or others.

Please make sure this manual is always in the boat. It must always be accessible to anyone using the equipment, i.e., anyone renting, borrowing or buying the boat from you.

Any unauthorized modifications to this equipment, or use of this equipment outside its specified mechanical, electrical, or other operating limits may cause personal injury and/ or property damage, including damage to the equipment. Any such unauthorized modifications: constitute «misuse» and/or «negligence» within the meaning of the product warranty there by excluding warranty coverage for any resulting damage and invalidate certifications or listings.

This unit is not qualified for use in residential or road applications.

BEFORE USING YOUR SI-4.3

Read this entire manual.

Familiarize yourself with the features and operation of the SI-4.3 while the boat is stationary.

CONTENTS & UPDATES

All information and specifications contained in this manual are based on technical data applicable at the time of publication. Changes and updates may be made by Nanni without notice.

The illustrations are intended as a general guide, and may vary from the equipment mounted in the engine in some details.

If any details of the equipment are not shown or described in this manual, or if you have any questions about the operation of any equipment, your authorized NANNI dealer will be happy to inform you of the correct maintenance and operating procedures.

NOTES

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WARNING & NOTICES

IMPORTANT DEFINITION



DANGER !

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



WARNING !

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION !

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury, or could cause property damage.



IMPORTANT !

Designates an operating tip or a service suggestion.



NOTE !

Indicates important information in order to facilitate handling or to avoid damage.

ELECTROSTATIC DISCHARGE AWARENESS



NOTE !

In general, electronic equipment should be considered as static-sensitive, some internal components more than others. In view to protect these components from static discharge, some special precautions must be taken to minimize or eliminate electrostatic discharge (risks).

Follow these precautions when working with or near to electronic equipment.

1. As a preventive measure, do not wear synthetic clothing (prefer cotton).
2. Before doing any maintenance or service on the control unit, discharge the static electricity on your body to ground by touching and handling a grounded metal part in the vessel.
3. As a general rule, it is a good practice to keep all plastic materials (cups, ashtrays, bottles...) away before connecting or disconnecting electronic equipment.

ELECTRICAL WIRING



NOTE !

To avoid the possibility of data disturbances, some wiring requirements must be followed.

Follow wiring instructions explained in the Installation chapter.

CONNECTIONS TO ENGINE



NOTE !

Always make sure that the engine and electrical power supply are turned off prior to connect or disconnect the SI-4.3 display.

S02 SAFETY

SERVICEABLE PARTS



NOTE !

There are no serviceable parts inside the unit. Therefore, never remove the protective casing from the unit and never touch the printed circuit board with bare fingers.

During warranty period, removing factory seal would void any warranty claim.

BATTERY CHARGING DEVICE



NOTE !

To prevent damage to a control system that uses an alternator or battery-charging device, make sure the charging device is turned off before disconnecting the battery from the system.

WATERPROOF CONNECTORS KNOBS



NOTE !

Although the unit will operate without them, these blank connectors must not be removed from the back cover, as intended as a moisture protection.

S03 PRESENTATION

PRESENTATION

SI-4.3 PRESENTATION

SI-4.3 is a multifunction display that lets you monitor engines and related sensor parameters. Up to four engines can be connected to the display.

The integrated NMEA 2000 gateway lets you acquire engine data also via analog sensors or SAE J1939, to then convert and distribute them on the NMEA 2000 network.

The display manages up to two resistive sensors, two capacitive sensors (4-20mA) and one frequency input for the tachometer.

NMEA 2000 connectivity lets you view navigation data from other devices on the network, such as wind, compass, GPS, speed, and depth data.



BUTTON FUNCTION

Button	Name	Function
	MENU	Briefly press: <ul style="list-style-type: none"> • Open the menu • Return to the previous menu Hold down: <ul style="list-style-type: none"> • From any point to return to the data pages
 	UP DOWN	Briefly press: <ul style="list-style-type: none"> • Scroll pages/options Pressed simultaneously: <ul style="list-style-type: none"> • Set the display and connected 52 mm gauges brightness
	ENTER	Briefly press: <ul style="list-style-type: none"> • Open a sub-menu • Confirm the selection Hold down: <ul style="list-style-type: none"> • In the MediaBox page to save the selected station radio frequency

STARTING AND STOPPING

Turn the ignition key to ON position, the screen power on. At power up, NANNI logo and software version followed by a security message appear when turned on followed by the last data page viewed before turned off.

Turn the ignition key to OFF position, the screen power OFF.

NOTES

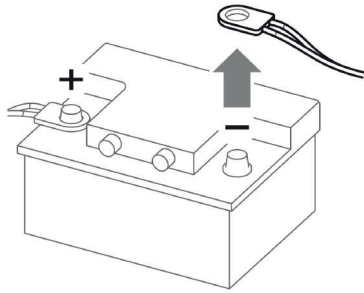
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S04 INSTALLATION

BEFORE THE ASSEMBLY

DISCONNECT THE NEGATIVE TERMINALS BATTERY

If your engine is connected to the battery, please disconnect the negative terminal to be safe.

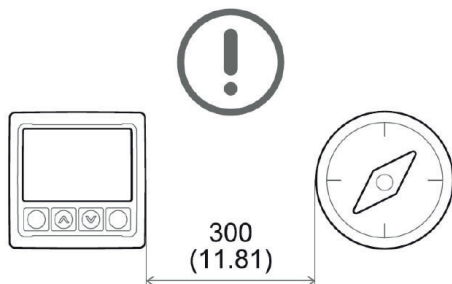


CAUTION !

Before starting work, disconnect the negative terminal of the battery to avoid the risk of a short circuit. If the vehicle is equipped with additional batteries, the negative terminal of all batteries must also be disconnected if necessary. Short circuits can burn cables, explode batteries and cause damage to other electronic systems. Remember that by disconnecting the battery, all data entered in the temporary electronic memory will be lost and will have to be reprogrammed.

MINIMUM DISTANCE WITH MAGNETIC COMPASS

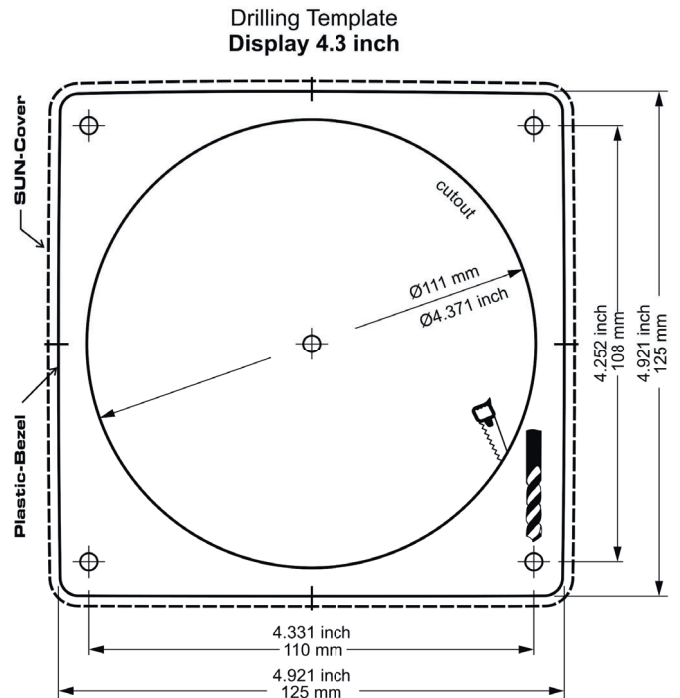
Respect a minimum distance of 300 mm (11.81 in) with the magnetic compass to avoid risk of interference.



INSTALLATION

INSTALLATION TEMPLATE

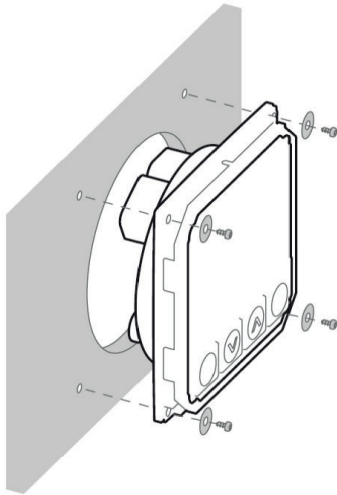
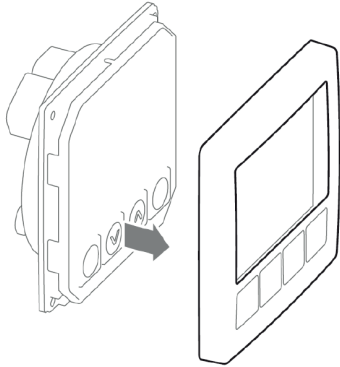
Use the template given in the box:



1. Position the template at the defined location, use double sided tape or other means.
2. Drill the 4 small holes to permit the 4 screws installation.
3. Cut or drill the center hole of 111 mm (4.371 in) diameter.
4. Remove the template.
5. Thread the cables through the hole and connect the connectors to the panel.

S04 INSTALLATION

6. If installed remove the bezel, to insert the 4 screws with washers and tighten them.



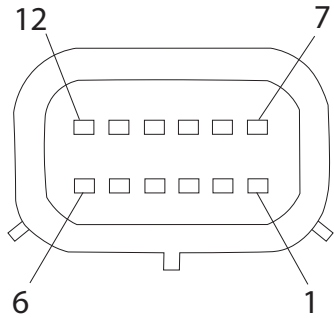
7. Re install the bezel.

S04 INSTALLATION

ELECTRICAL CONNECTIONS

ENGINE CONNECTOR/PLUG (A)

Table plug A view:

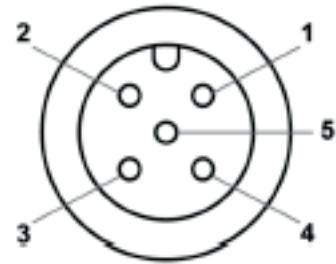


Pin No.	Description
1	KL 30 - Battery power 12/24V
2	KL 31 - Ground
3	Alarm output
4	Frequency sensor signal - RPM
5	SAEJ1939 - CAN L
6	SAEJ1939 - CAN H
7	KL 15 - Ignition positive
8	Resistive sensor input
9	Resistive sensor input
10	KL 58 - Illumination Day/Night
11	4-20 mA sensor input
12	4-20 mA sensor input

NMEA 2000 PLUG (B)

This plug is dedicated to NMEA 2000 connectivity, all devices connected on the network can be view on the screen panel.

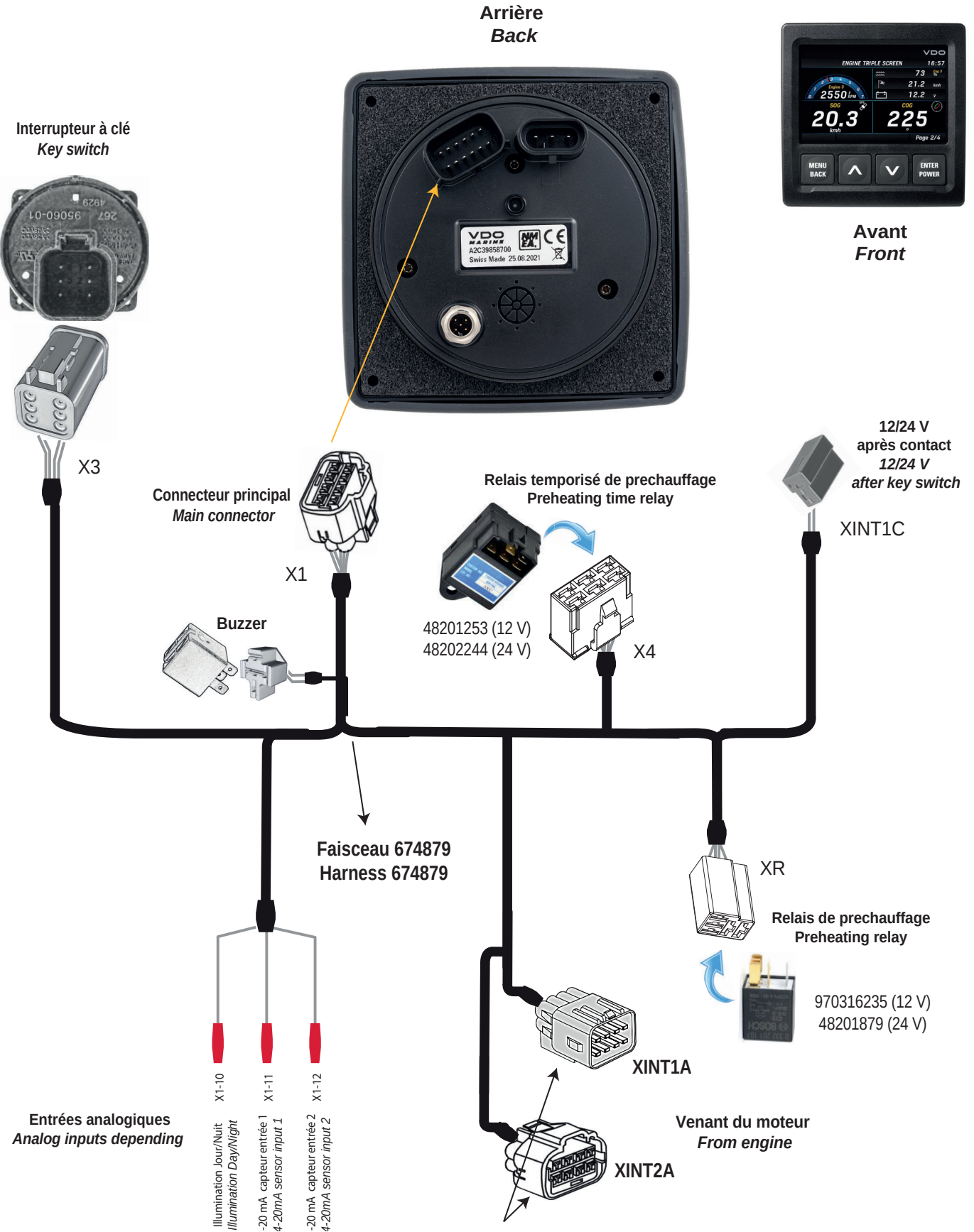
Plug B view:



Pin No.	Description
1	Shield
2	NET-S(V+)
3	NET-C(V-)
4	NET-H (CAN H)
5	NET-L (CAN L)

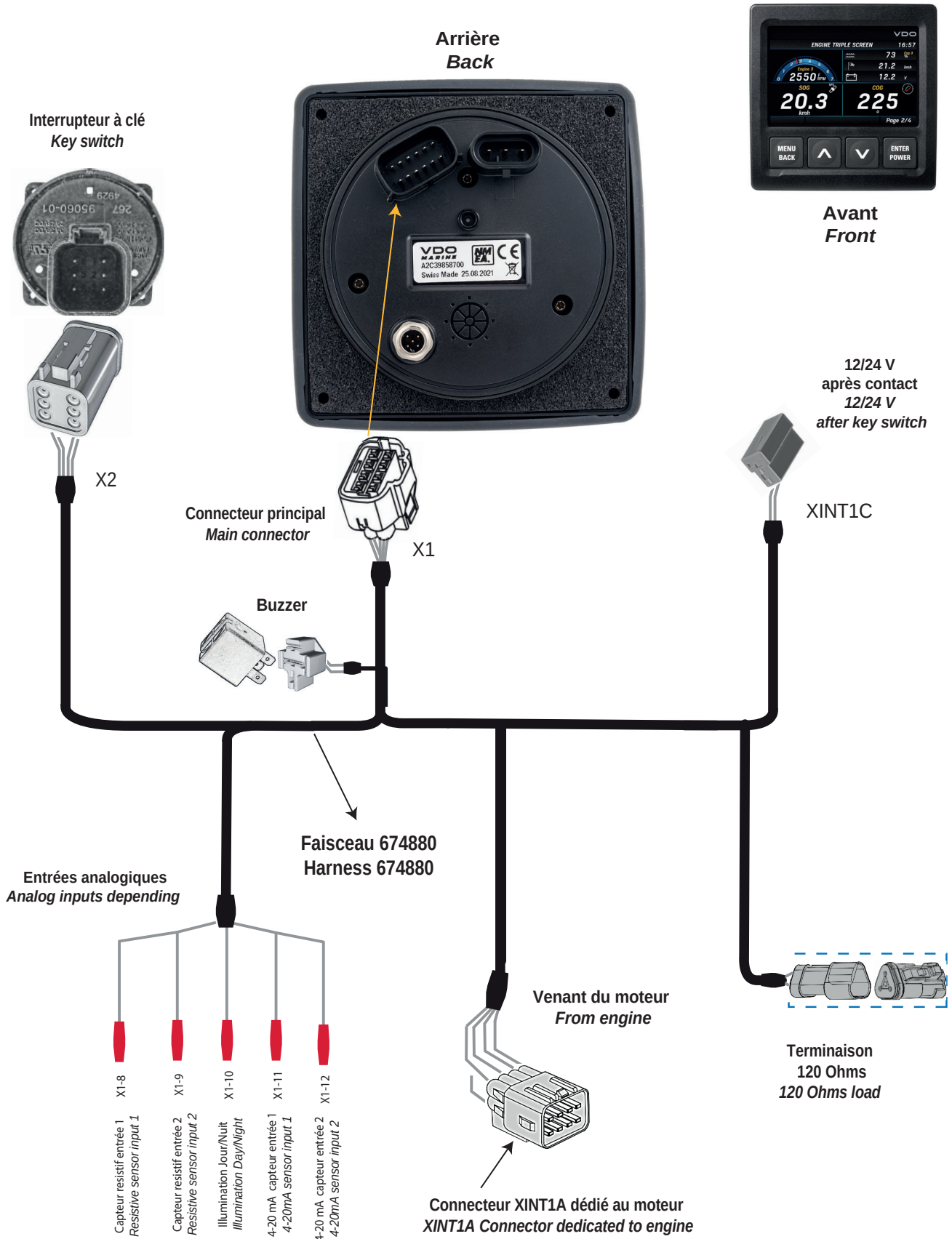
S04 INSTALLATION

TYPICAL WHEELHOUSE WIRING (FOR ENGINES N2-N3-N4)



S04 INSTALLATION

TYPICAL WHEELHOUSE WIRING (ENGINES N2-N3-N4 NOT CONCERNED)



S04 INSTALLATION

TYPICAL FLYBRIDGE WIRING (FOR 12V ENGINES N2-N3-N4)

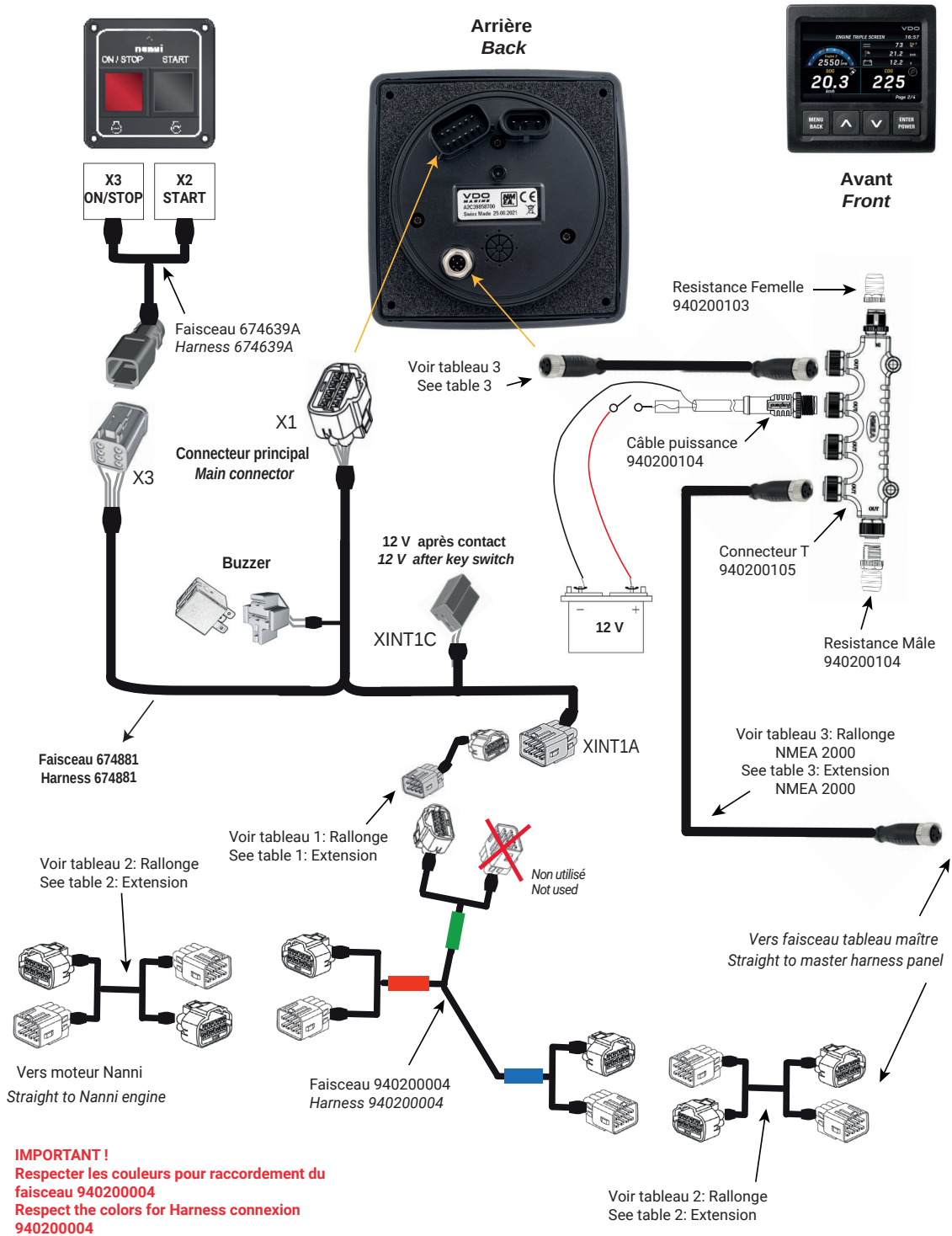


Table1 : Extension

4m	674616A
6m	674617A
8m	674618A
10m	674687A

Table 2 : Extension

2m	940200003
4m	940200001
6m	940200002
10m	940200071
15m	940200089

Table 3 : NMEA 2000 extension

0,5m	940200106
2m	940200107
6m	940200108

S04 INSTALLATION

TYPICAL FLYBRIDGE WIRING (FOR 24V ENGINES N2-N3-N4)

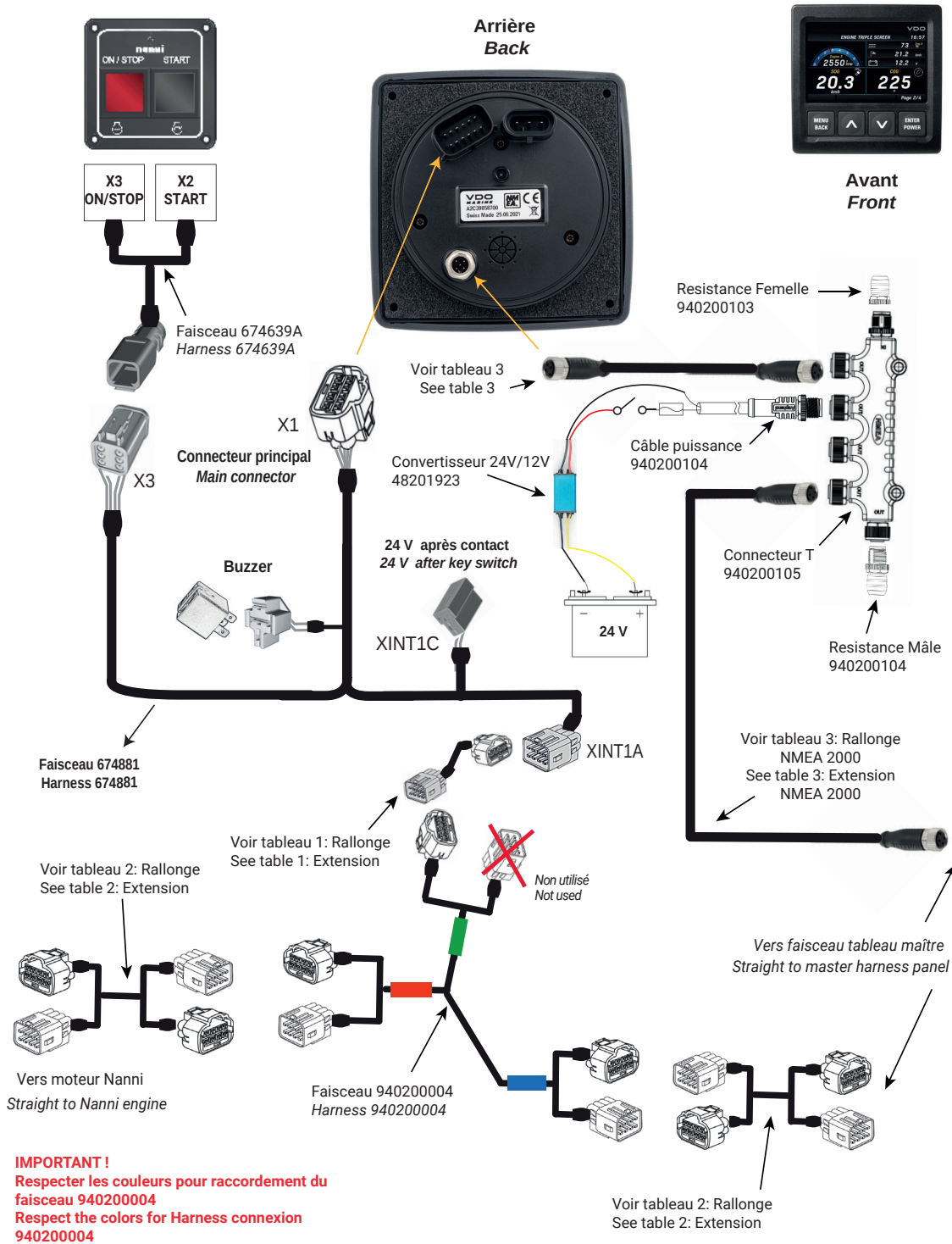


Table 1 : Extension

4m	674616A
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10m	674687A

Table 2 : Extension

2m	940200003
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Table 3 : NMEA 2000 extension

0,5m	940200106
2m	940200107
6m	940200108

S04 INSTALLATION

TYPICAL FLYBRIDGE WIRING 12V ENGINES (ENGINES N2-N3-N4 NOT CONCERNED)

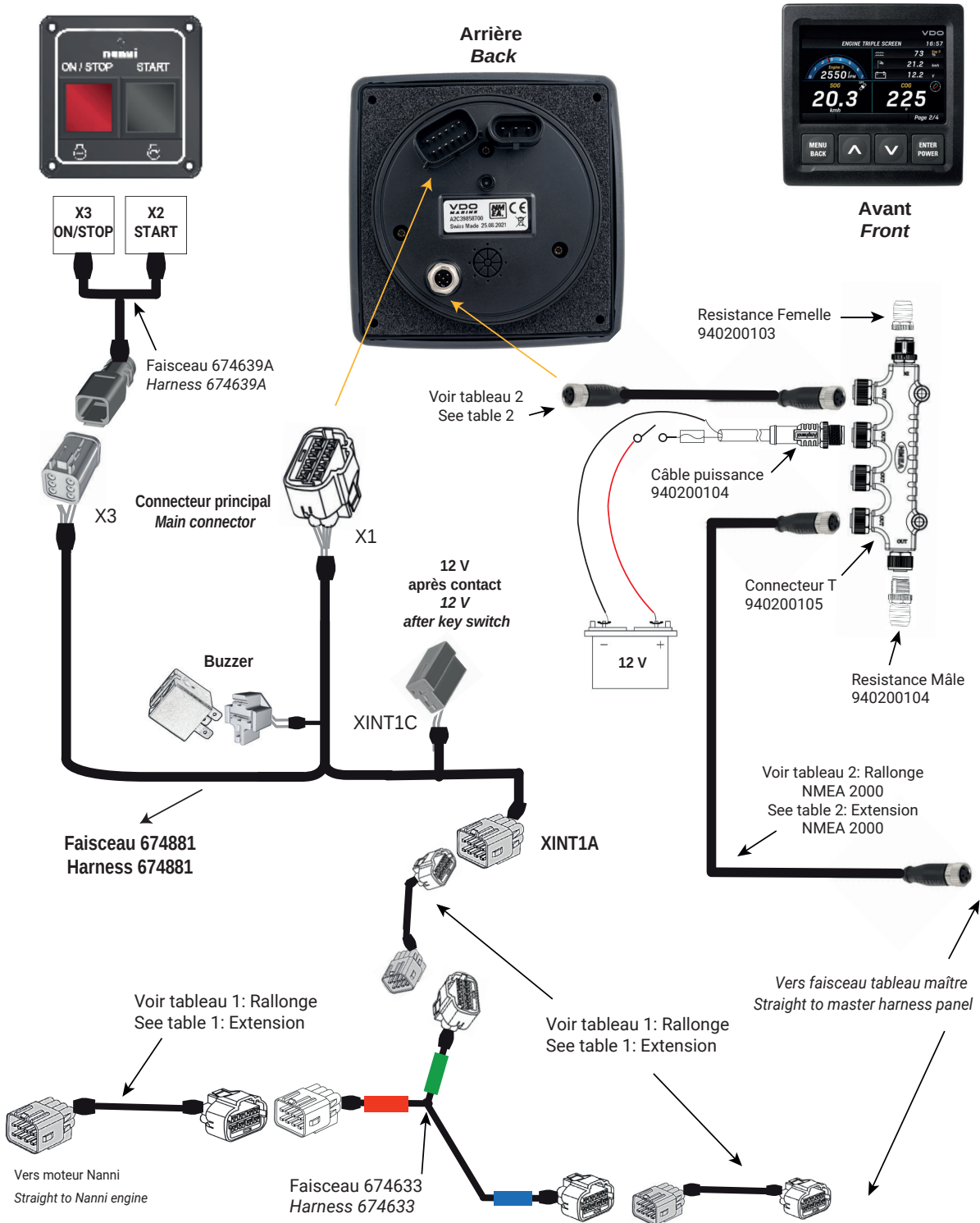


Table 1 : Extension

4m	674616A
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8m	674618A
10m	674687A

Table 2 : NMEA 2000 extension

0,5m	940200106
2m	940200107
6m	940200108

S04 INSTALLATION

TYPICAL FLYBRIDGE WIRING 24V ENGINES (ENGINES N2-N3-N4-T4-T6-T8 NOT CONCERNED)

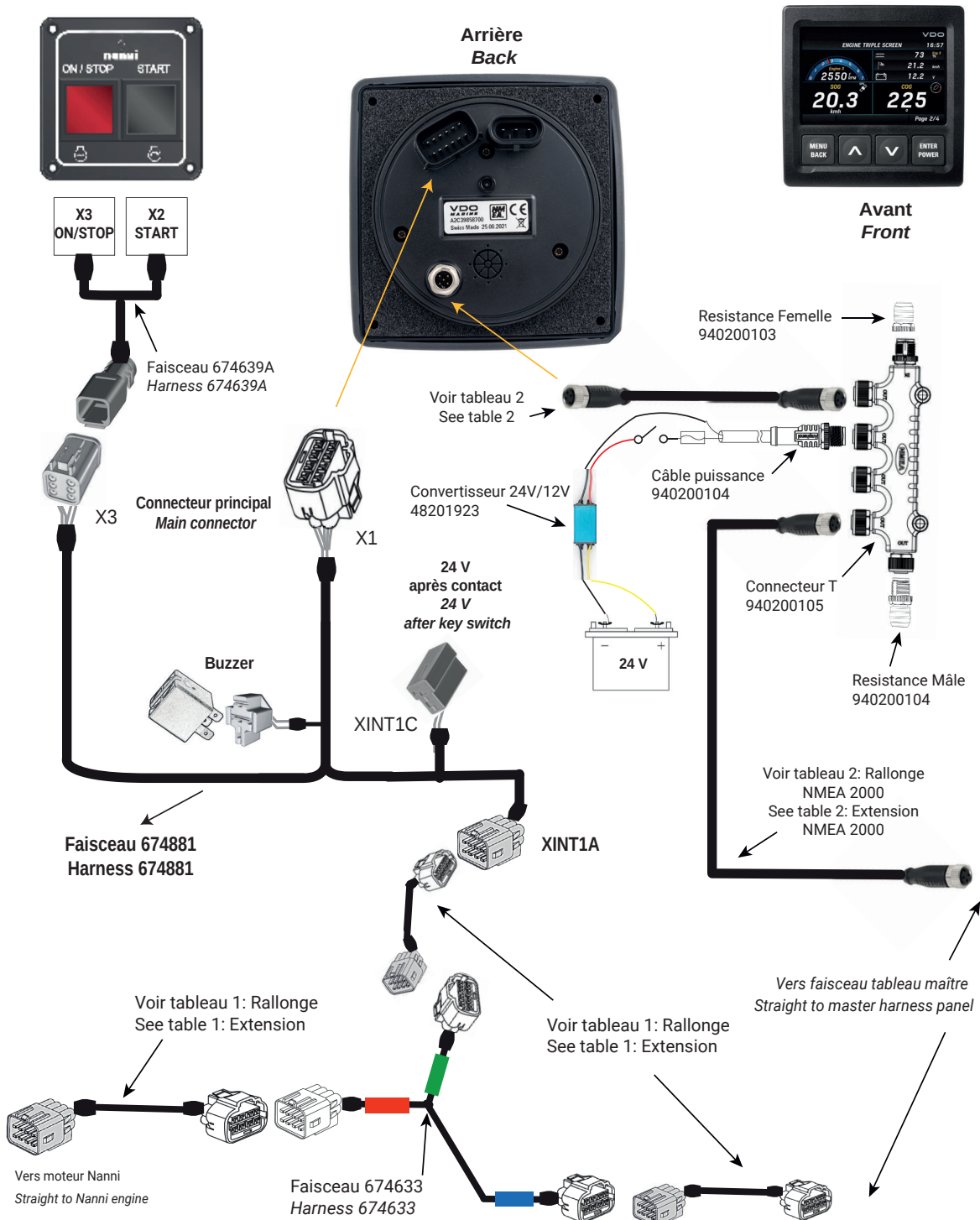


Table 1 : Extension

4m	674616A
6m	674617A
8m	674618A
10m	674687A

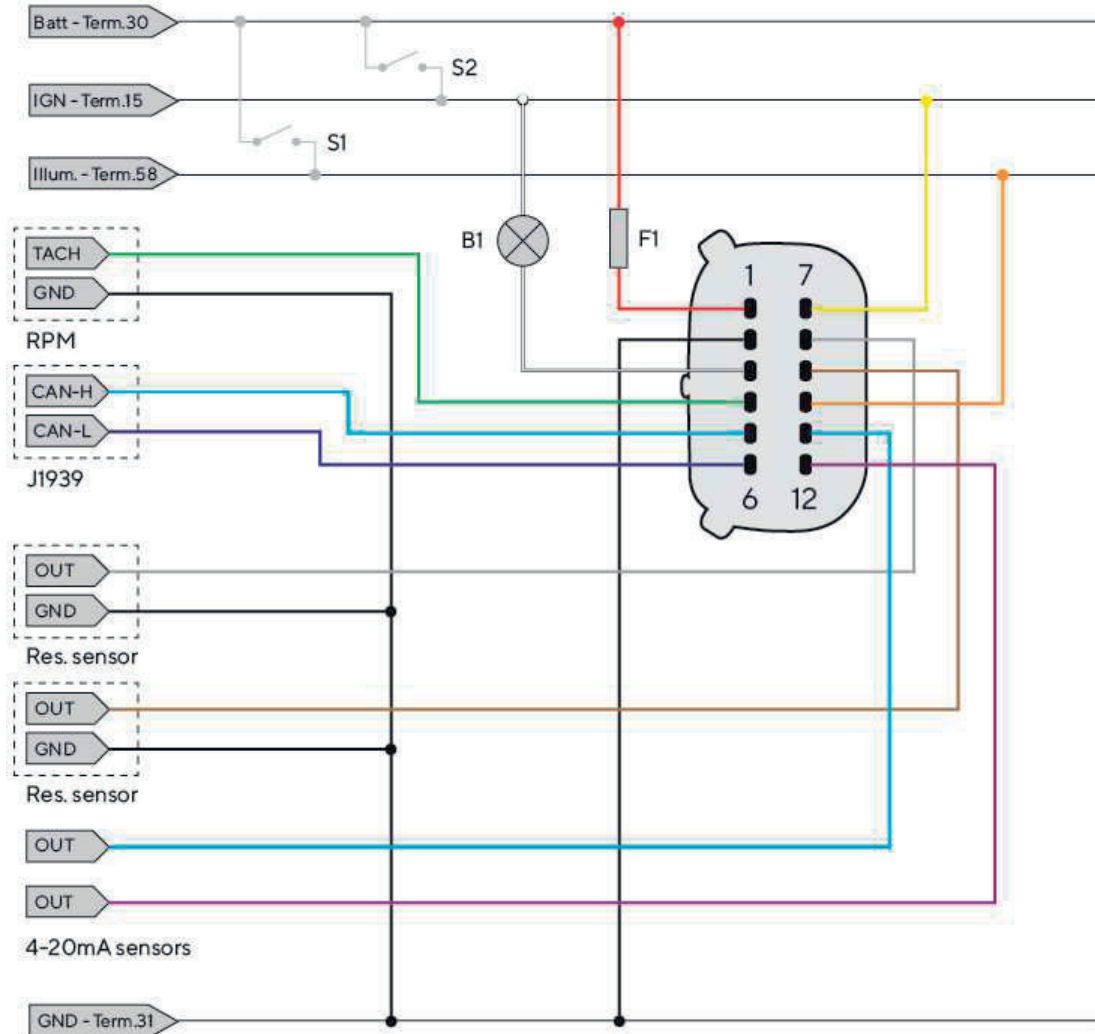
Table 2 : NMEA 2000 extension

0,5m	940200106
2m	940200107
6m	940200108

S04 INSTALLATION

ELECTRICAL DIAGRAM

This diagram is a help to connect the harness with wires colors to your harness engine installation:



B1	External acoustic alarm (Not included)
S1	Day/Night mode switch (Not included)
S2	Ignition key

S04 INSTALLATION

RPM SENSOR CONNECTION

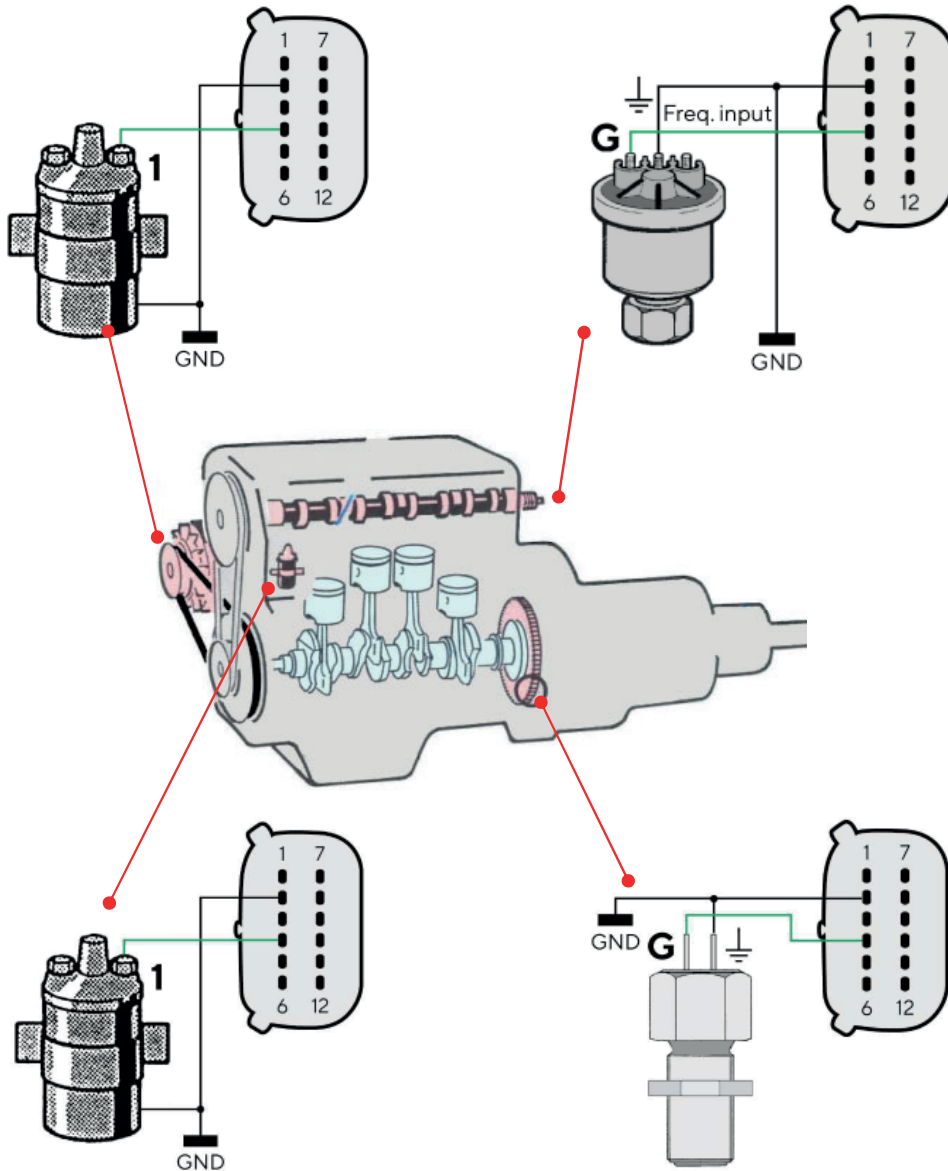
Depending on your engine RPM sensor, the signal can be obtained from different sources:

1. Alternator terminal "W".
2. Ignition coil terminal "1".
3. Camshaft RPM sensor.
4. Crankshaft RPM sensor.



IMPORTANT !

It is advisable to use sensors with isolated ground, and it is necessary to ensure that the sensor ground is connected to the display ground to avoid incorrect readings.



S04 INSTALLATION

RESISTIVE SENSOR CONNECTION

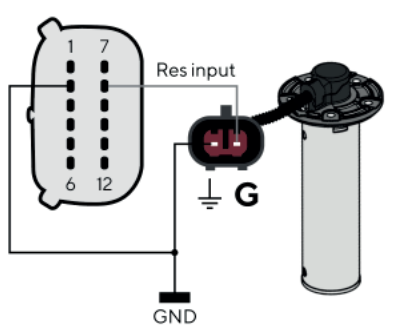
Any sensor connected to a resistive input of the display must be connected as shown in the figure.



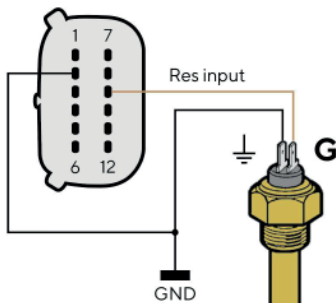
IMPORTANT !

It is advisable to use sensors with isolated ground, and it is necessary to ensure that the sensor ground is connected to the display ground to avoid incorrect readings.

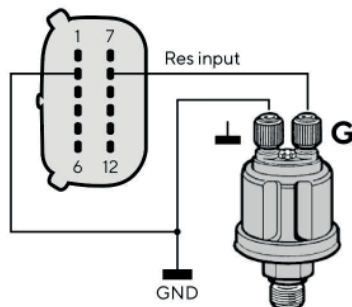
Possible connection with resistive sensor:



Tank level sensor connected to resistive input 8



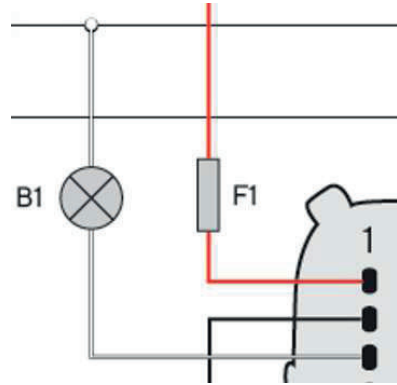
Temperature sensor with isolated ground connected to resistive input 9



Pressure sensor with isolated ground connected to resistive input 8

EXTERNAL BUZZER CONNECTION

The display supports the connection of two external alarms (B1/B2) via the dedicated alarm outputs. This buzzer/lamp can be powered at different voltages (consult the buzzer manufacturer's manual), as the alarm output is connected to ground inside the display. It is important to note that the maximum current supported is 500mA.



NMEA 2000 NETWORK

Once the installation is complete, you can interface the device to the NMEA 2000 network through the dedicated socket on the wiring harness.

Be sure to tighten the M12 connector by screwing it onto its counterpart in order to preserve its water tightness.

A drop cable is not required unless the total length of the supplied wiring is not sufficient to reach the NMEA 2000® backbone. In this case, the total length can be extended using one of the accessory drop cables.



NOTE !

NMEA 2000 does not allow drop cables longer than 6 meters.

Refer to the NMEA 2000 standard for proper network design

S05 DATA SCREENS

DATA SCREENS

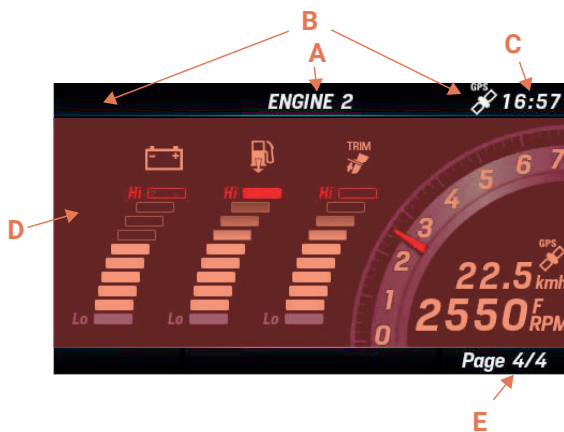
Data screens show the data received from the various sources. The display can store up to 10 data screens. By default, four screens are displayed, configured to display the previously selected engine, and one page for remote management of a MediaBox multimedia device. The ALARMS page appears at the end of the data pages if there are active alarms.

SCREENS SCROLLING

To scroll pages, press the UP or DOWN buttons.

SCREEN COMPOSITION

Every screen contains some common elements, which are always displayed independently of the screen layout which is chosen.



Zone	Description
A	Screen title
B	GPS signal
C	Time
D	Screen content
E	Screen number

The screen content depends on the screen configuration and selection.

ENGINE HOURS





















In the absence of data received from the NMEA 2000 network, the indicator considers the internally counted value. The time is counted as engine hours when the engine speed is more than 300 RPM. In the presence of data from the NMEA 2000 network, the indicator considers the data received from the network only if higher than the internal data.

DISTANCE TRAVELED

The SI-4.3 internally calculates the distance traveled based on the speed value set in Sensors > Speed.

S05 DATA SCREENS

SUPPORT DATA

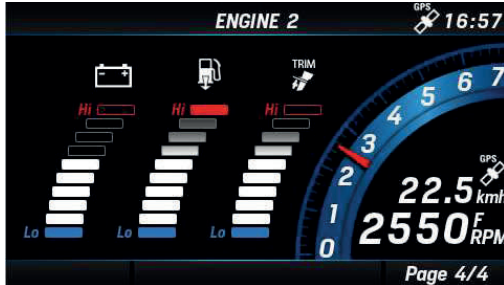
Icon	Information	Input signal			Output signal		Unit of measure
		NMEA 2000	SAE J1939	Analog sensor	NMEA 2000	EasyLink	
	Engine RPM	x	x	x	x	-	rpm
	Trim	x	-	x	x	x	%
	Boost pressure	x	x	-	x	x	bar / psi / kPa
	Engine coolant temperature	x	x	-	x	x	°C / °F
	Battery voltage	x	x	x	x	x	V
	Fuel consumption	x	-	-	-	-	gal/h or l/h
	Engine oil temperature	x	x	-	x	x	°C / °F
	Engine oil pressure	x	x	-			bar / psi / kPa
	Total engine operating hours	x	x	x	x	-	h
	Rudder angle	x	-	x	x	x	°S (starboard) / °P (port)
	Depth below transducer	x	-	-	-	-	m / ft
	Fuel level	x	x	x	x	x	%
	Fresh water level	x	-	x	x	x	%
	Waste water temperature	x	-	-	x	x	%
	Sea water temperature	x	-	-	-	-	°C / °F
	Course over ground (COG)	x	-	-	-	-	°T (true North)
	Real course	x	-	-	x	-	°
AWA	Apparant wind angle (AWA)	x	-	-	x	-	°
	Apparent wind speed (AWS)	x	-	-	x	-	km/h
	Speed through water (STW)	x	-	-	-	-	mph / kn or km/h
	Speed over ground (SOG)	x	-	-	-	-	mph / kn or km/h

S05 DATA SCREENS

AVAILABLE LAYOUT EDITABLE

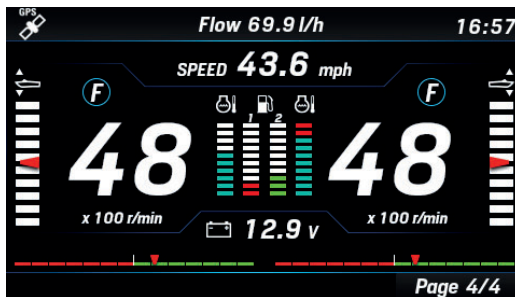
Each screens can be customize to display your preferences informations. They are 5 available generic screens.

Single engine layout:



Only one screen for one engine, displaying engine revolution gauge with RPM and speed and three bar graphs editable with boost pressure, Trim, Engine coolant temperature, Battery voltage, Fuel consumption.

Dual engine layout:



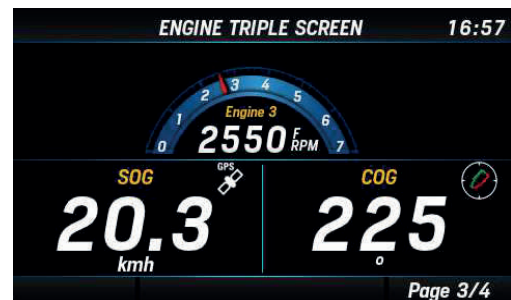
Two engines displayed on one screen with RPM of each engines and speed boat. Bar graphs or digital value editable with boost pressure, Trim, Engine coolant temperature, Battery voltage, Fuel consumption.

Single data layout:



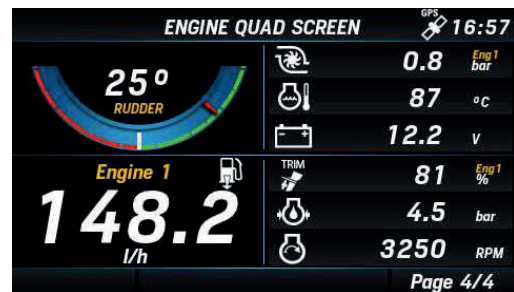
Single data display. The data value is numeric or displayed by a gauge. Data editable with RPM, speed, battery voltage...

Triple data layout:



Three boxes, from a minimum of three data to nine data.

Quad data layout:



Four boxes, from four to 12 data.

S05 DATA SCREENS

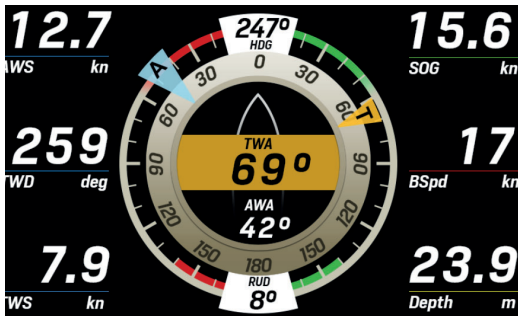
SUPPLEMENTARY SCREENS

Mediabox screen:



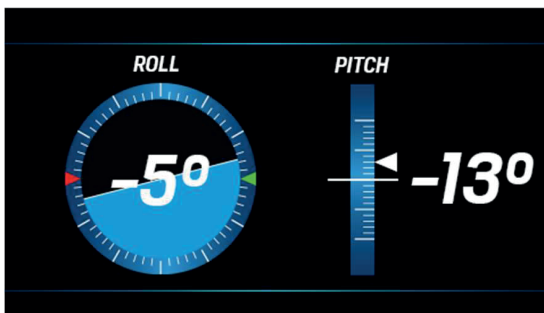
Screen used to operate the MediaBox multimedia unit.

Wind screen:



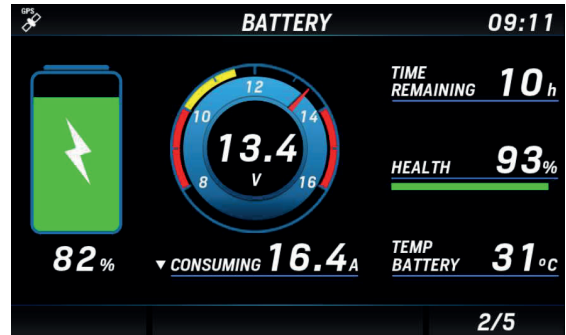
Dedicated screen layout for navigation with graphical representation of both apparent and true wind data. Six customizable data fields are designed aside.

Pitch and roll screen:



Monitors your boat inclination, with the information retrieved from a connected NavSensor, for example.

Battery monitor screen:



Dedicated screen for battery monitoring including extensive battery information coming from the Intelligent Battery Sensor (IBS).

S05 DATA SCREENS

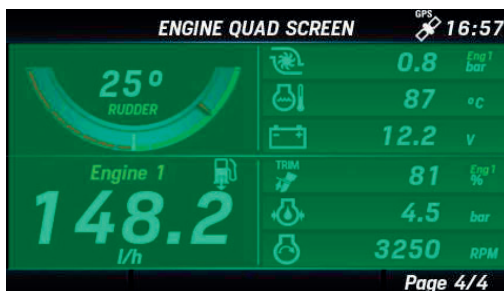
SCREENS CONFIGURATION

1. Access the **HOME** screen by pressing the **MENU** button and select **SCREEN CONFIG** to enter the screens' configuration.



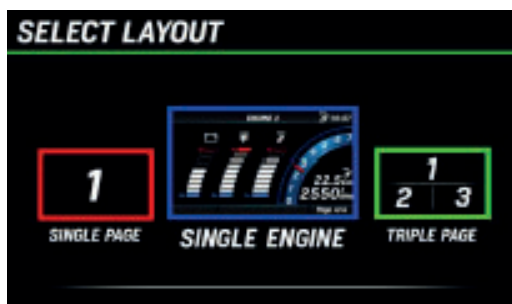
2. Scroll the favorite screens until the one to be customized (or deleted) is displayed and press **ENTER** to confirm.

To add a new screen at the end of the favorites, just scroll until an empty screen slot is selected.



3. Choose the screen layout for the new screen among the ones described in "Screens layouts".

To delete the selected screen, select **REMOVE PAGE**.

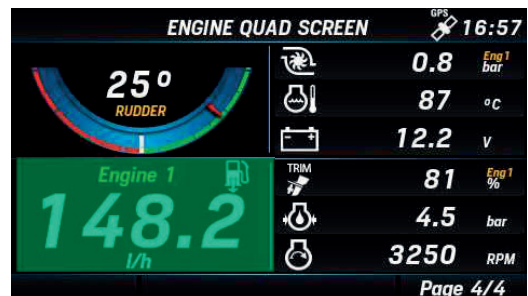
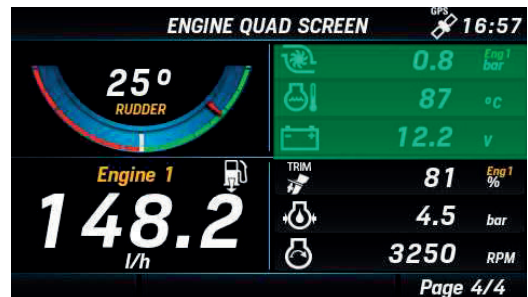


4. Depending on the chosen layout it is possible to customize some parts of the screen like data fields or bar graphs.

The currently selected item is highlighted in green color.

Scroll through the customizable items by pressing the **UP** and **DOWN** buttons.

Press **ENTER** to select the item to be customize.



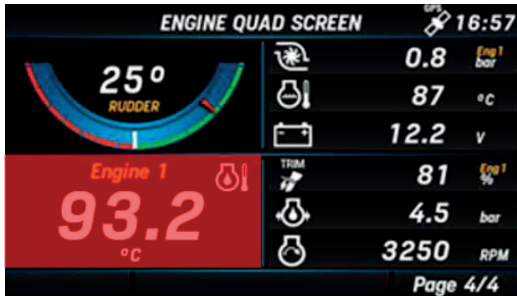
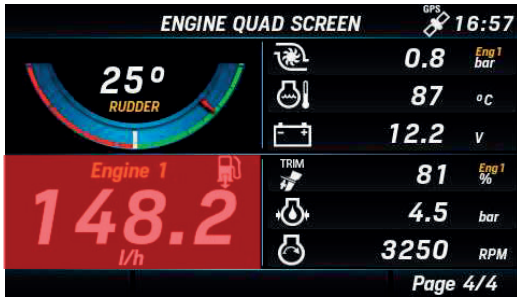
S05 DATA SCREENS

- Once an item is selected it will be highlighted in red color.

Press the **UP/DOWN** buttons to modify the data displayed on that item.

See "Supported Data" for the complete list of available data.

Once the displayed data is found, press **ENTER** to confirm the selection and the item is highlighted in green color again.



- To customize another screen, press **BACK** shortly.
To quite the settings and return to normal operation, long press the **BACK** button.

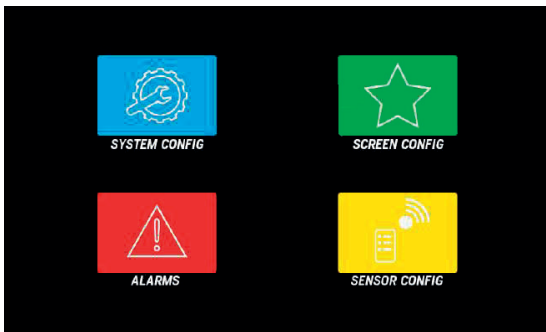
S06 SYSTEM SETTINGS

SYSTEM SETTING

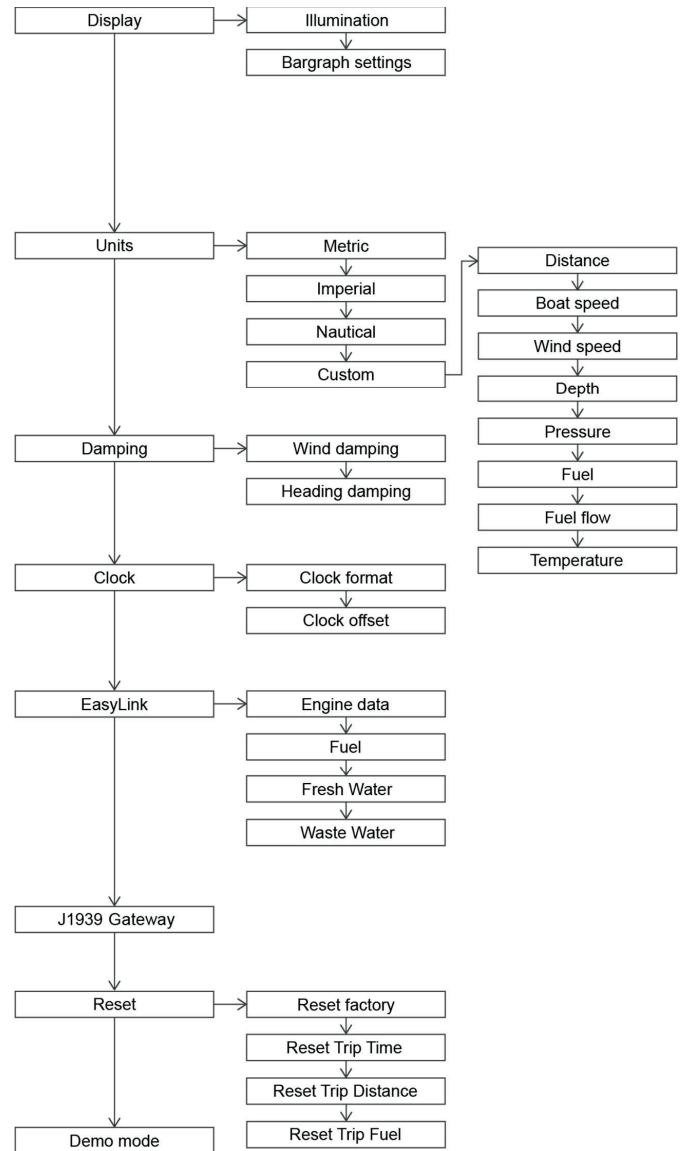


GENERAL ACCESS

Configure you SI-4.3 depending on your use. To access the system settings, enter the hone screen by pressing the **MENU** button and select **SYSTEM CONFIG**.



SYSTEM CONFIGURATION STRUCTURE



S06 SYSTEM SETTINGS

SYSTEM CONFIGURATION DESCRIPTION



NOTE !

The underlined value/command is the factory default one.

Setting	Description	Possible values / commands*
Display > Illumination	Brightness of the display.	<u>0</u> - 7
Display > Bargraph settings	Bargraph interval (values Hi and Lo).	<ul style="list-style-type: none"> • Boost press: 0-13 bar (default = 0-1) • Engine temp: 0-300°C (default = 0-200) • Battery voltage: 8-32 V (default 10-16) • Fuel flow: 0-800 l/h (default = 0-150)
Units >	Unit of measure for the displayed data.	<ul style="list-style-type: none"> • <u>Metric</u> • Imperial • Nautical • Custom: Each date is customizable one by one.
Damping >	Damping for wind and heading displayed data.	<ul style="list-style-type: none"> • No • <u>Low</u> • Medium • High
Clock > Clock format	Clock format.	<u>12h</u> / 24h
Clock > Clock offset	Time zone setup.	From -12h to +12h (default =0)
EasyLink >	Which data are to be displayed on the EasyLink gauges.	Show engine data from: Engine 1-4 Show fuel from: Tank 1-4 Show fresh water from: Tank 1-4 Show waste water from: Tank 1-4
J1939 Gateway >	Configuration for the SAE J1939 to NMEA 2000 gateway. All the data received from the J1939 bus will be sent on NMEA 2000 with the instance specified here.	Send to NMEA 2000 as: <ul style="list-style-type: none"> • <u>Auto</u>: the display keeps the J1939 engine identifier also for the NMEA 2000 network. • Instance: 0-3 for corresponding Engine: 1-4.
Reset > Reset factory	Reset the display to factory default.	Yes <u>No</u>

S06 SYSTEM SETTINGS

Reset > Reset Trip Time	Reset the Trip Time to 0.	Yes No
Reset > Trip Distance	Reset the Trip Distance to 0.	Yes No
Reset > Reset Trip Fuel	Reset the Trip Fuel to 0.	Yes No
Demo mode >	Demo mode, simulated data are not sent on NMEA 2000. Note: simulation mode remains on even after the device is turned off.	ON: display data are simulated. OFF: demo mode is off.



NOTE !

There's a shortcut to change the brightness of display, Press simultaneously the buttons UP and DOWN, the setting bargraph illumination appears. Press ENTER to save setting or BACK to quit the menu without save modification.

UNITS DETAILS

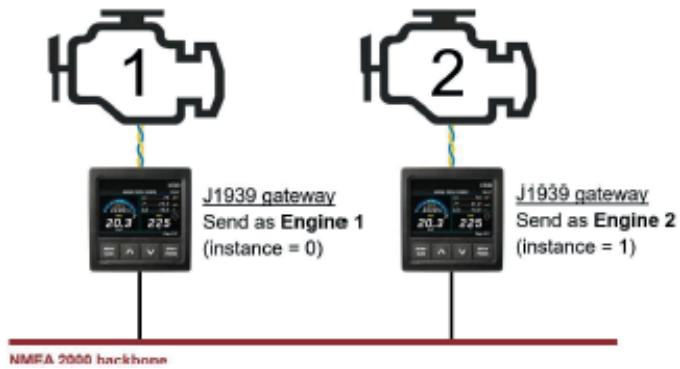
Setting	Metric	Imperial	Nautical	Custom
Distance	km	mi	nm	km, mi, nm
Boat speed	km/h	mph	kn	km/h, mph, kn
Wind speed	km/h	kn	kn	km/h, kn, m/s, bft
Depth	m	ft	ft	m, ft
Pressure	bar	psi	psi	bar, psi, kPa
Fuel	L	gal	gal	L, gal
Fuel flow	L/h	gph	gph	L/h, gph
Temperature	°C	°F	°F	°C, °F

S06 SYSTEM SETTINGS

SAE J1939 GATEWAY

The Si-4.3 is equipped with one SAE J1939 port to connect your CAN engine to the display and read the digital data coming from it.

Make sure to properly setup the J1939 gateway so that all the engine data are transmitted on NMEA 2000 with the correct instance.



Example for 2 engines on board

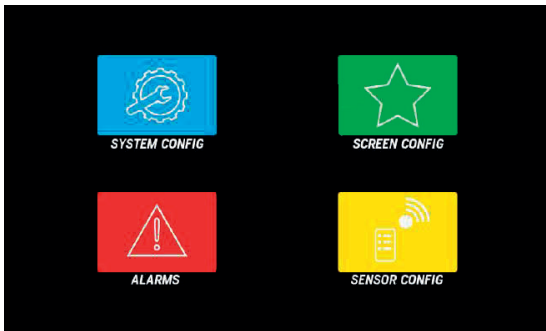
S07 SENSOR CONFIGURATION

SENSOR CONFIGURATION



GENERAL ACCESS

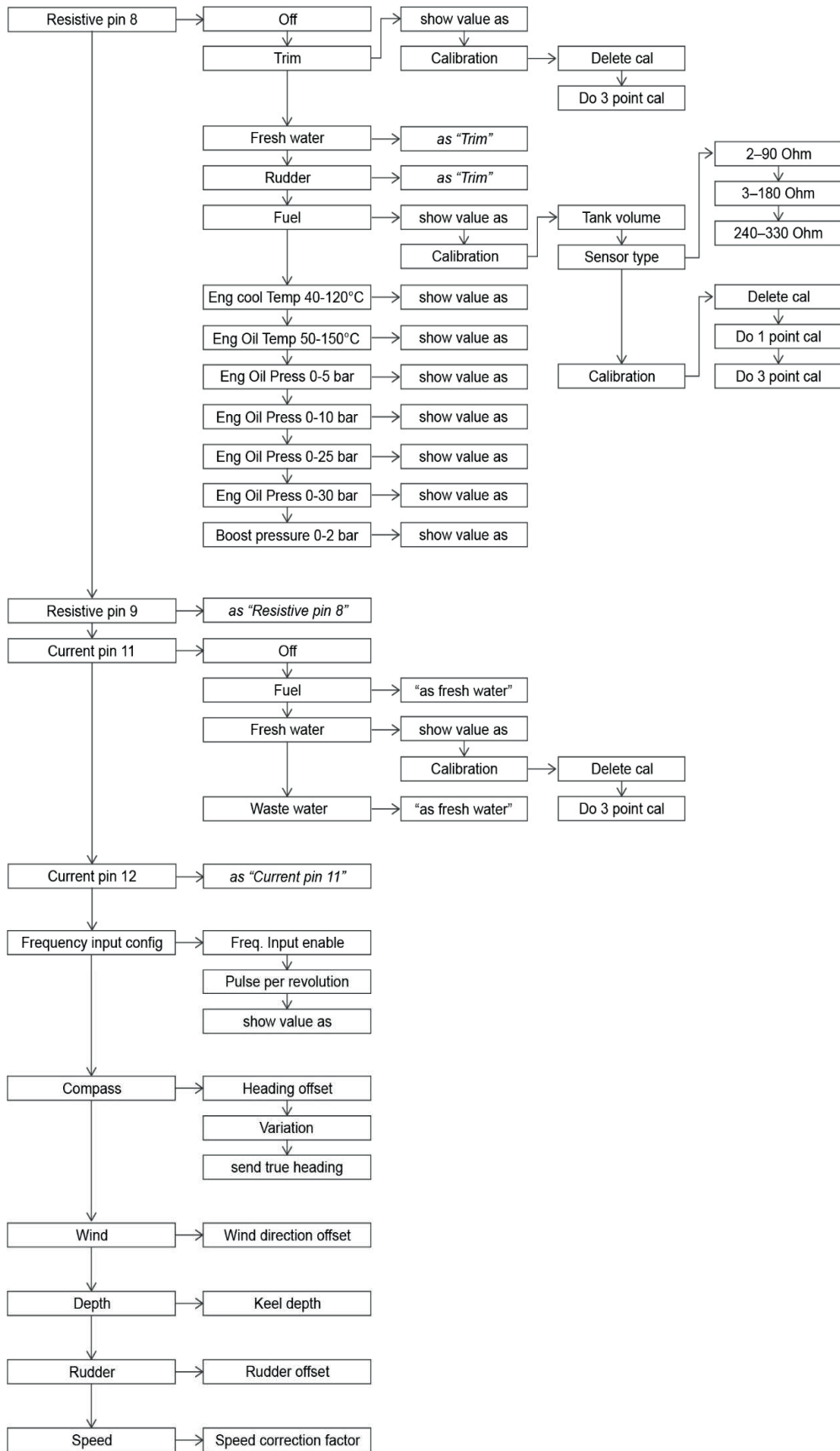
To access the sensor's setting, enter the home screen by pressing the **MENU** button and select **SENSOR CONFIG**.



All values read by the sensors concerning engines are linked to the monitored engine before being converted and sent on the NMEA 2000 network. Only sensors connected to display analog inputs can be set and/or calibrated.

S07 SENSOR CONFIGURATION

SENSOR CONFIGURATION STRUCTURE



S07 SENSOR CONFIGURATION

SENSOR STRUCTURE DESCRIPTION

Setting	Description	Possible values
Resistive / Current / Frequency input config	Configure the sensors connected to the display through the analogue inputs of the display (see "Connections").	-
Compass > Heading offset	Angular offset between True North and the bow of the boat.	+/- 0-180° (0°)
Compass > Variation	Magnetic variation offset (polar difference between Magnetic North and True North).	+/- 0-180° (0°)
Compass > Send True Heading	Activate to let the display transmit the calculated True Heading over NMEA 2000.	Yes / No (No)
Wind > Wind direction offset	Angular offset between the wind sensor 0° position and the longitudinal boat axis.	+/- 0-180° (0°)
Wind > Send True Wind	Activate to let the display transmit the calculated True Wind data (TWA and TWS) over NMEA 2000.	Yes / No (No)
Depth > Keel depth	Depth offset setup. Positive for depth below waterline, negative for depth below keel.	+/- 0-9.9m (2m)
Rudder > Rudder offset	Rudder offset setup	+/- 0-120° (0°)
Speed > Speed correction factor	Correction for the boat speed data received via NMEA 2000. See	0-199.99 (1.00)



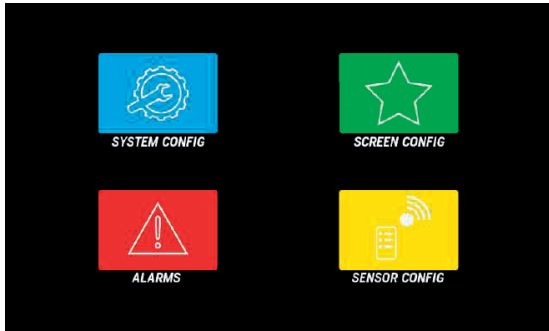
NOTE !

The underlined value/command is the factory default one.

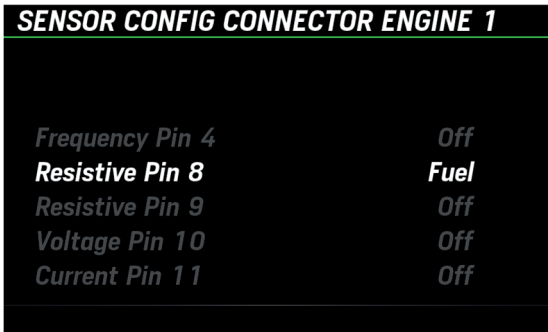
S07 SENSOR CONFIGURATION

SENSOR CONFIGURATION

1. Select **SENSOR CONFIG** once the HOME screen open.



2. Select the analog input where the sensor is wired.

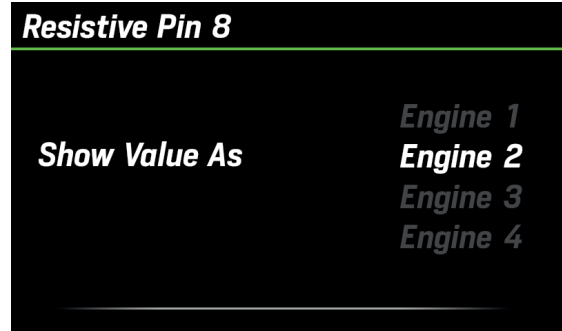


3. Select the concerned sensor in the list, trim, rudder, fuel...



4. Select the engine where the sensor is installed (very important when more than 1 engine is installed).

Note: If a configuration conflict is detected in the setup (like when two sensors with same instance are configured on different analog ports), the display will show a warning.



5. Calibrate the sensor, it's possible, for some sensors, to calibrate the sensor through a calibration wizard (see corresponding chapter, depending on the sensor: [sensor's calibration procedure](#) or [fuel level sensor calibration procedure](#))

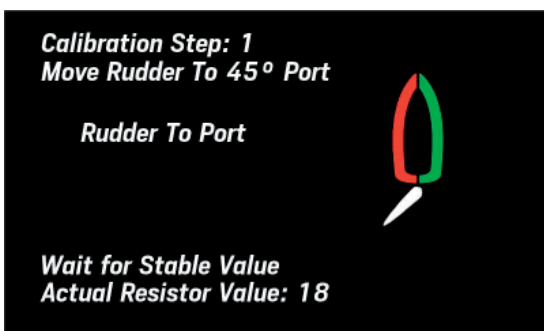
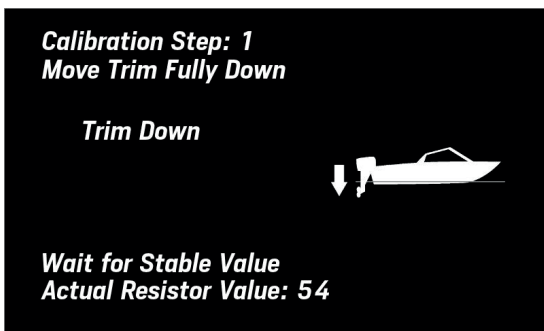
S07 SENSOR CONFIGURATION

SENSOR'S CALIBRATION PROCEDURE

1. In the input configuration menu described before, select **Calibration, to open the sensor's calibration options.**
2. Select **Do 3 point cal**, calibration step instructions and ohmic value read in real-time from the sensor appear.

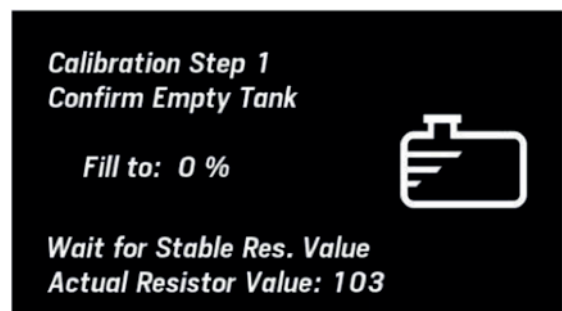
Note: for fresh and waste water sensors, the tanks must be drained.

3. Execute the requested operations, then wait for the value to stabilize and confirm the reading by pressing **ENTER.**
4. Proceed with all calibration points following the wizard.
5. Hold down the **MENU** button to return to the data pages.



FUEL LEVEL SENSOR CALIBRATION PROCEDURE

1. In the input configuration menu described before, select **Calibration, to open the sensor's calibration options.**
2. Select Tank volume to set the tank's capacity.
3. Select **Sensor type**, then select sensor type among the proposed standard ones.
4. Select **Calibration**, then select the one or three-point calibration procedure. Calibration instructions and the ohmic value read in real-time from the sensor appear.
5. Empty the tank and wait for read value to stabilize. Then confirm by pressing **ENTER.**
6. For three-point calibration, follow the on-screen instructions.
7. Hold down the **MENU** button to return to the data pages.



S07 SENSOR CONFIGURATION

CUSTOM SENSORS CONFIGURATION

It is possible to fully customize the configuration of every analog port of your panel.

On the panel:

1. Select **SENSOR CONFIG** on the **HOME** page.
2. Select the **PIN** to be configured.
3. Select **INPUT > CUSTOM**.

On the tool configuration:

1. Select the **PANEL** to be programmed.
2. Select the **INPUT** to be configure.
3. Select the **SENSOR TYPE**.
4. Set the **CALIBRATION POINTS** in the table.
5. Upload the configuration by confirm with **SET** button and read back from the display the configuration for the pin defined with **READ** button.

SPEED CORRECTION FACTOR

The speed offset factor lets you align the speed through water (STW) to the actual speed. If the measured speed differs from the real boat speed for more than 0.5 kn, this factor can be adjusted.

Increasing the offset factor reduces the displayed speed through water (STW).

SENSORS DEFAULT CALIBRATION VALUES

Sensor Type	Calibration
Fuel	240-33 ohm
	3-180 ohm
	2-90 ohm
Fresh Water	3-180 (resistive inputs)
	4.20mA (capacitive inputs)
Waste Water	3-180 (resistive inputs)
	4.20mA (capacitive inputs)
Trim	10-167 ohm
Rudder	10-180 ohm
Coolant Temperature	291-22 ohm
Engine Oil Temperature	197-11 ohm
Engine Oil pressure	10-184 ohm
Boost Press	10-184 ohm

S08 ALARMS

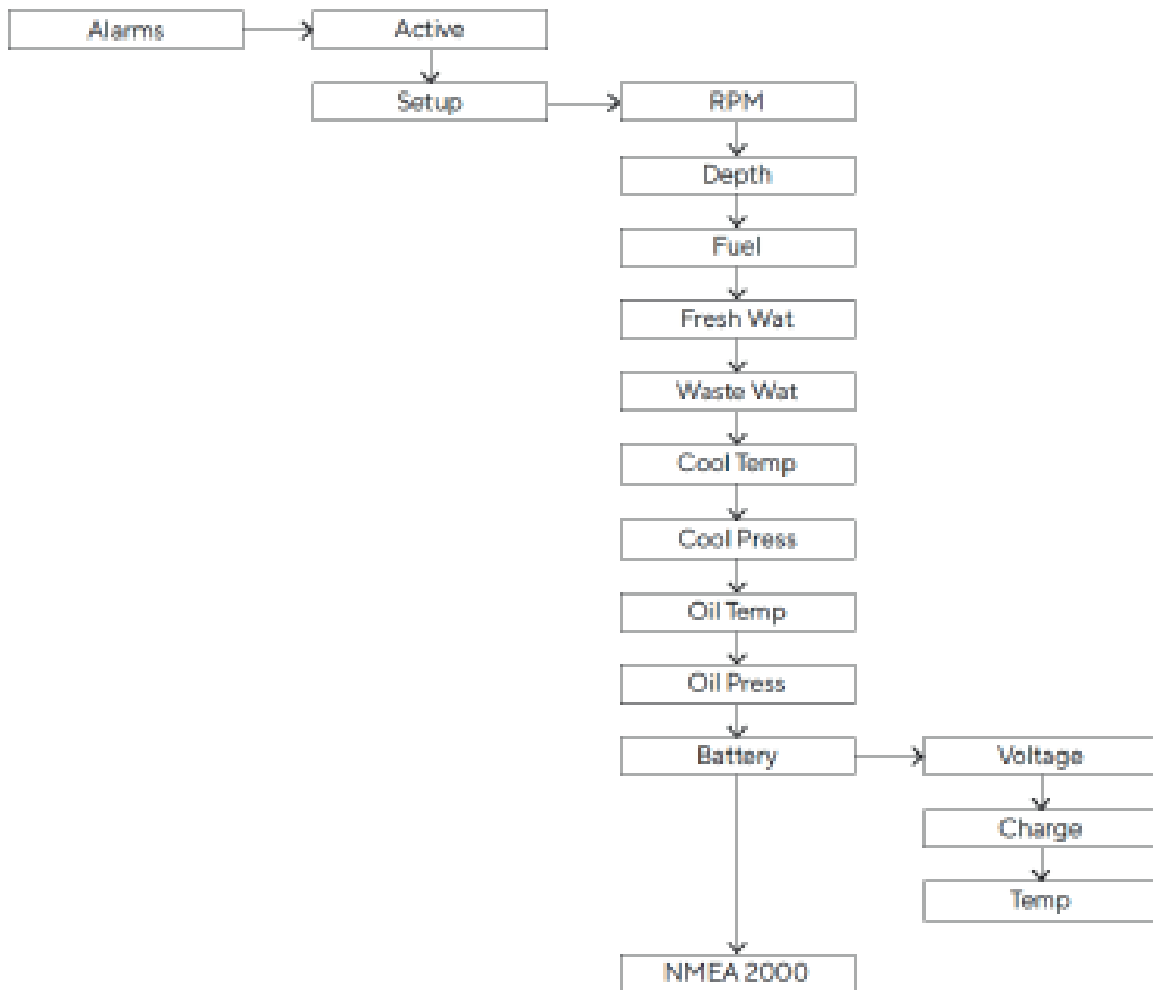
ALARMS



ALARMS MENU STRUCTURE

The SI-4.3 panel can show active alarms coming from either NMEA 2000, SAE J1939, or from the analogue sensors directly connected to it.

Engine alarms concern all engines on the network.

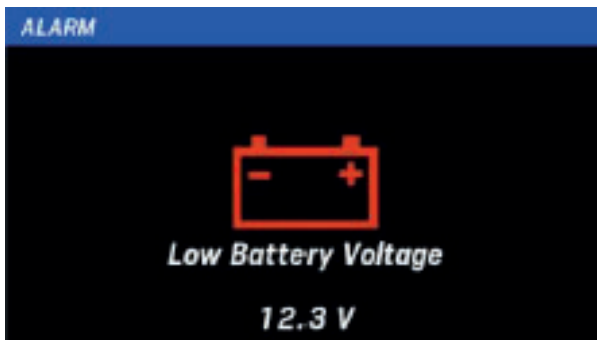


S08 ALARMS

ALARMS NOTIFICATION

In the event of an alarm, the following appears on the display:

- The alarm popup appears.
- The buzzer is activated, if connected and set.
- The active alarm, including additional information, is visible in the Active alarms screen.
- If supported, the local alarm is transmitted to the NMEA 2000 network.



ACKNOWLEDGE AN ALARM

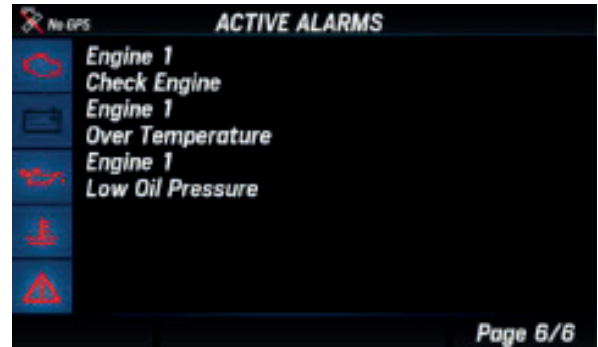
When an alarm is triggered, the Alarm notification popup appears and the buzzer sounds (if connected and configured).






To acknowledge the alarm and mute the buzzer, press any button on the keyboard: the popup notification is closed, and the alarm is saved in the **Active alarms** screen.

The alarm remains displayed in the Active alarms screen as long as it remains active, and a warning icon is displayed in the bottom side of every screen to remind you that an alarm is currently active.

ACTIVE ALARM

If at least one alarm is active, an “Active alarms” screen will appear after the last screen. The same screen can be accessed via **ALARMS > Active alarms**. All the currently active alarms are listed here, together with some warning symbols.



Symbol	Description
	Engine alarms
	Battery alarms
	Oil Alarms
	Engine temp alarm
	Generic alarm

S08 ALARMS

ALARMS CONFIGURATION DESCRIPTION

To configure alarms:

- Press the MENU button and select **ALARMS > CONFIGURE ALARMS**.
- Select one of the supported alarms.
- Activate it by selecting **Active > Yes**, the alarm parameters will appear.
- Then select and edit the threshold(s) and enable/disable the buzzer.

Setting	Description	Possible values	NMEA 2000 output
Depth Shallow	Shallow water alarm	0 - 9.9m (2m)	No
Depth Navigation	Alarm above active	0 - 99,9 m (50m)	No
	Alarm below active	0 - 99,9 m (5m)	No
Wind	High wind speed	0 - 99,9 km/h (39,9 km/h)	No
Battery Voltage	Low battery voltage	0 - 32,9 V (10,8 V)	Yes
Battery Temperature	High battery temperature	0 - 99°C (50°C)	No
Battery Charge	Low battery state of charge	0 - 99% (50%)	No
Engine Water Temp	High engine coolant temperature	0 - 139°C (110°C)	Yes
Engine Oil Temp	High engine oil temperature	0 - 149°C (120°C)	Yes
Engine Oil Pressure	Low engine oil pressure	0 - 9,9 bar (0,5 bar)	Yes
Exhaust Gas Temp	High Exhaust Gas Temperature	0 - 899°C (500°C)	Yes
Fuel	Low fuel level	0 - 99% (20%)	No
Fresh Water	Low fresh water level	0 - 99% (20%)	No
Waste Water	High waste water level	0 - 99% (80%)	No
Min RPM	RPM minimum threshold to trigger engine related alarms	0 - 990 RPM (300 RPM)	No



NOTE !

The underlined value/command is the factory default one.

S08 ALARMS

CAN ALARM CONFIGURATION

Press the **MENU** button and select **ALARMS > CONFIGURE ALARMS**

- Select CAN and then the NMEA 2000 or SAE J1939 input
- Choose the alarm to activate and select Active > Yes, the alarm parameters will appear
- If necessary, enable/disable the buzzer.

S09 SPECIFICATIONS

SPECIFICATIONS

GENERAL FEATURES	
Dimensions	125 x 125 x 54.2 mm 4.92 x 4.92 x 2.13 in
Weight	700 g / 1.54 lbs
Screen	4.3" transmissive colour TFT, 480 x 272 pixel Full 24 bit / 16 mio. colors
Connectors	1x Molex MX150 12 pin 1x NMEA 2000 Micro-C M12 5 pin 1x AMP SuperSeal 1.2 Series (EasyLink)
Input data	CAN (NMEA 2000 and SAE J1939) 2x resistive inputs (0-400 Ohms) 2x capacitive inputs (4-20mA) 1x frequency inputs (0-4 KHz)
Output data	NMEA 2000 EasyLink Alarm outputs (500mA max)
Protection	IPX7
ENVIRONMENTAL FEATURES	
Operating temperature	-20°C / +70°C
Storage temperature	-30°C / +85°C
ELECTRICAL FEATURES	
Rated voltage	12V / 24V
Operating voltage	9V / 32V
Current consumption	< 900 mA to 12V (display only) 100mA for each EasyLink satellite gauge
Absorption (LEN)	2

NOTES

A series of horizontal dotted lines for writing notes.

S10 CARE

CARE

Do not clean the unit with any type of aggressive cleaner such as acetone or other solvent. Use only a soft non flint cloth with some liquid soap and wipe off the glass surface.

In the same manner, never attempt to dip the whole unit in any form of cleaner. In doing so, the cleaning solution would enter in the unit via the connectors orifices.

NOTES

A series of horizontal dotted lines for writing notes.

nanni



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