Manuel du Propriétaire - Owner's Manual

Tome 2 - Volume 2

eJET 450

Edition 4

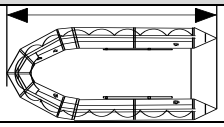
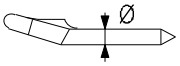
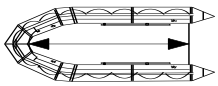
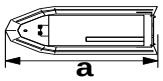
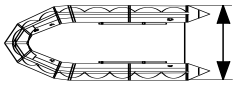
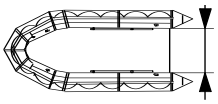
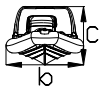
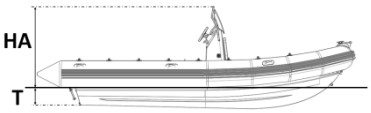
VOLUME 2

DESCRIPTION - INFLATABLE TUBE
PROPULSION SYSTEM
FITTING AND CIRCUITS

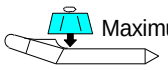
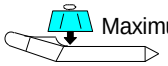
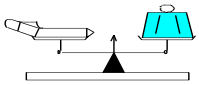
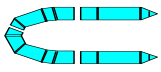
ENGLISH

CONTENTS

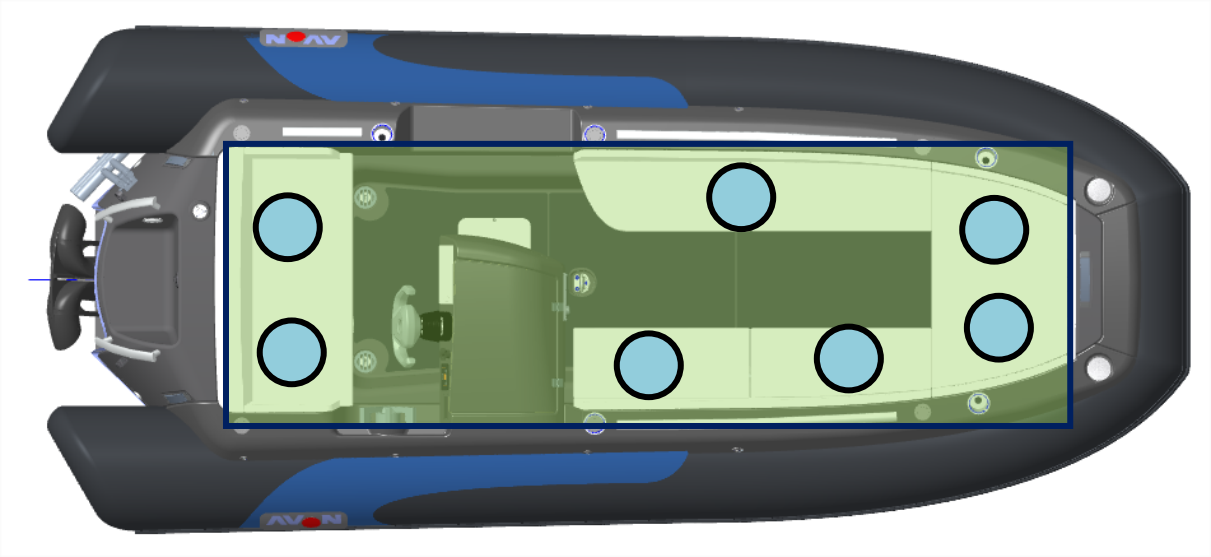
I-1 TECHNICAL CHARACTERISTICS OF THE eJET 450

Dimensions *Dimension tolerance +/- 3%*						
	m	4.53	 Inflatable tube diameter		m	0.50
	ft	14‘ 10“			ft	1‘8“
	m	4.00	Without the inflatable tube 	a	m	4.32
	ft	13‘ 1“			ft	14‘2“
	m	2.04		b	m	1.45
	ft	6‘ 8“			ft	4‘ 9’’
	m	1.00		c	m	1,08
	ft	3‘ 3“			ft	3‘ 7’’
	HA (mm)	657	Max. air draught			
	T (mm)	423	Max. draught			

Design category	
CE (Directive 2013/53/EU)	C

Capacity *Weight tolerance +/- 5%*				
(ISO)			C **6+1**	
 Maximum	**ISO 14946**	**Kg**	510	Maximum load i.a.w. ISO 14946 (1+2+3+4) data figuring on the EU declaration of conformity of recreational craft with the design. Maximum load i.a.w. ISO 14945 (1+2+3+5) data figuring on the manufacturer’s plate. 1- Weight of people 2- Personal property 3- List of all options proposed 4- Content of consumable liquid tanks (fuel, drinking water...) 5- Weight of the engine or engines
		lb.	1124	
 Maximum	**ISO 14945**	**Kg**	510	
		lb.	1124	
		**Kg**	870	The indicated weights do not include any accessories
		lb.	1279	
Number of compartments 			5	

eJET 450 : Seating area for category C



Seating area for category C

Seat with handholds

WARNING!!!

DO NOT EXCEED THE MAXIMUM NUMBER OF PEOPLE RECOMMENDED.
NO MATTER HOW MANY PEOPLE ARE ON BOARD, THE TOTAL WEIGHT OF PASSENGERS AND EQUIPMENT MUST NEVER EXCEED THE MAXIMUM RECOMMENDED LOAD.
ALWAYS USE THE DESIGNATED SEATS OR SEATING AREAS.

eJET 450 : Engine, battery and charger characteristics

Engine configuration		
TORQEEDO Deep blue DB 80i-1600 rpm		
Continuous shaft Power	KW	50
Equivalent motor power	HP	67
Operating temperature range	°C	-30 / +120

Battery configuration		
BMW i3 high-voltage battery		
Technology	/	Lithium-ion
Battery capacity	Ah	94
Usable energy	kWH	40
Operating temperature range	°C	-20 / +40
Recommended storage temperature to not affect the battery	°C	-10 / +30

Charger configuration		
TORQEEDO charger		
Shore power		16A / 230V
Charging time from 0 to 100%	h	Maximum of 12
Charge temperature	°C	0 / +40

NOTE: Please refer to Torqeedo's user Manual for more information about the engine and the battery.

WARNING!!!

WHEN LOADING THE BOAT, NEVER EXCEED THE MAXIMUM RECOMMENDED LOAD. ALWAYS LOAD THE BOAT CAREFULLY AND SPREAD OUT THE LOAD APPROPRIATELY, TO MAINTAIN THE THEORETICAL TRIM (APPROXIMATELY HORIZONTAL). AVOID PLACING HEAVY LOADS HIGH UP.

WARNING!!!

THE MAXIMUM LOAD ON THE MANUFACTURER'S PLATE SHOULD NOT BE EXCEEDED.

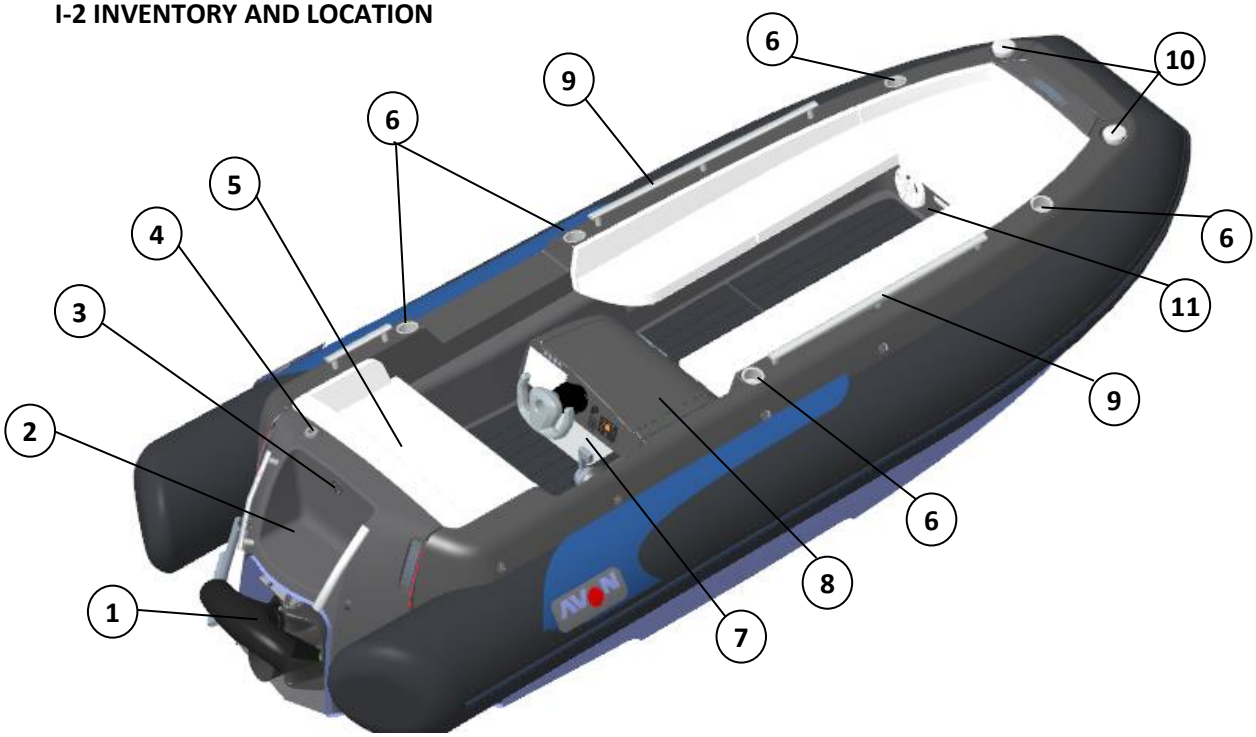
WE RECOMMEND, WHEN THE BOAT IS AT MAXIMUM CAPACITY:

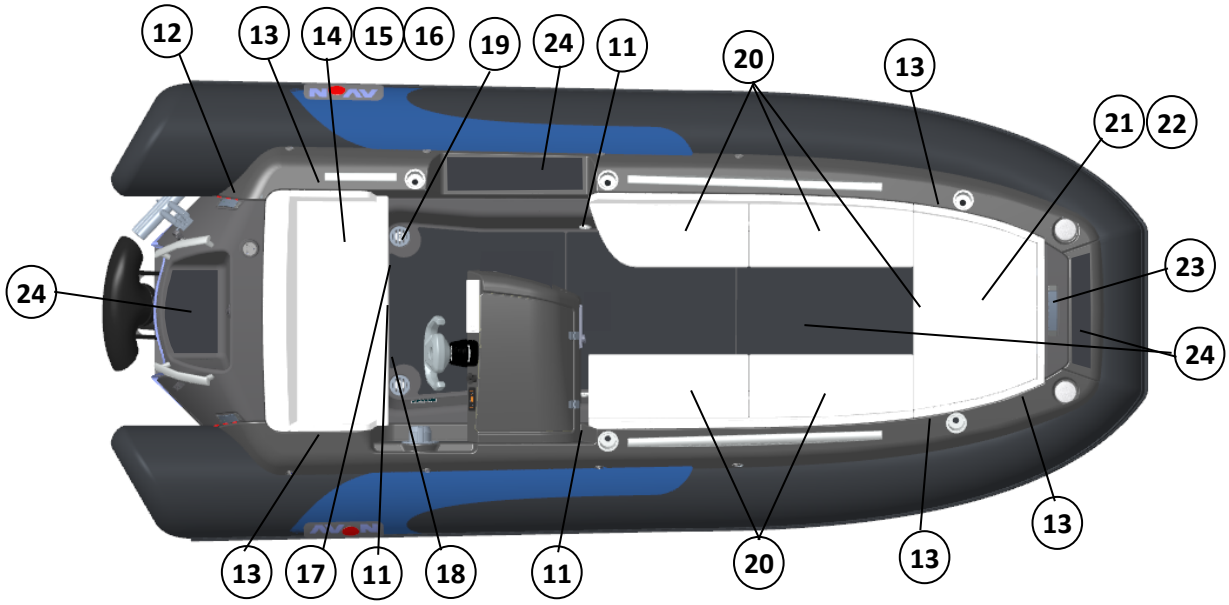
- **TO SAIL CAREFULLY**
- **TO SPREAD THE LOAD**
- **MAINTAIN APPROPRIATE TRIM.**

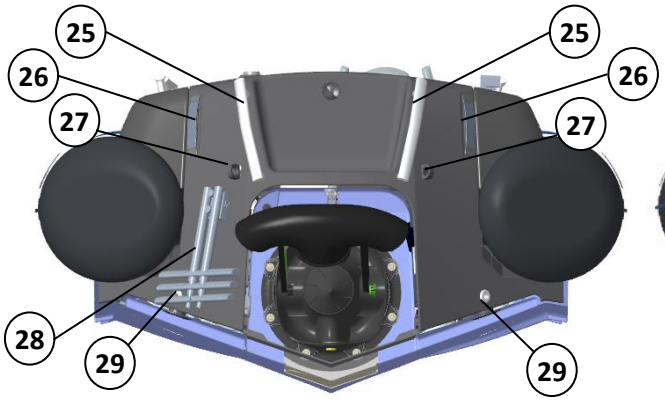
WARNING!!!

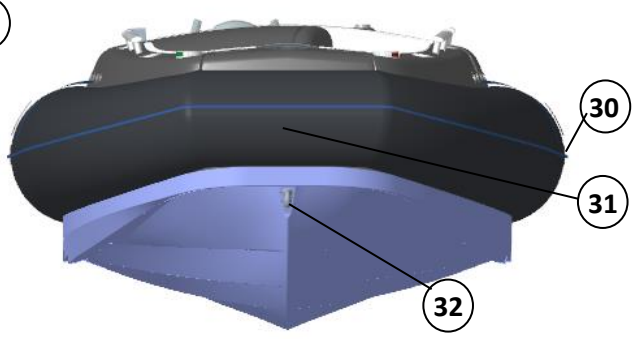
DO NOT STORE FLAMMABLE PRODUCTS IN THE REAR COMPARTMENT.

I-2 INVENTORY AND LOCATION





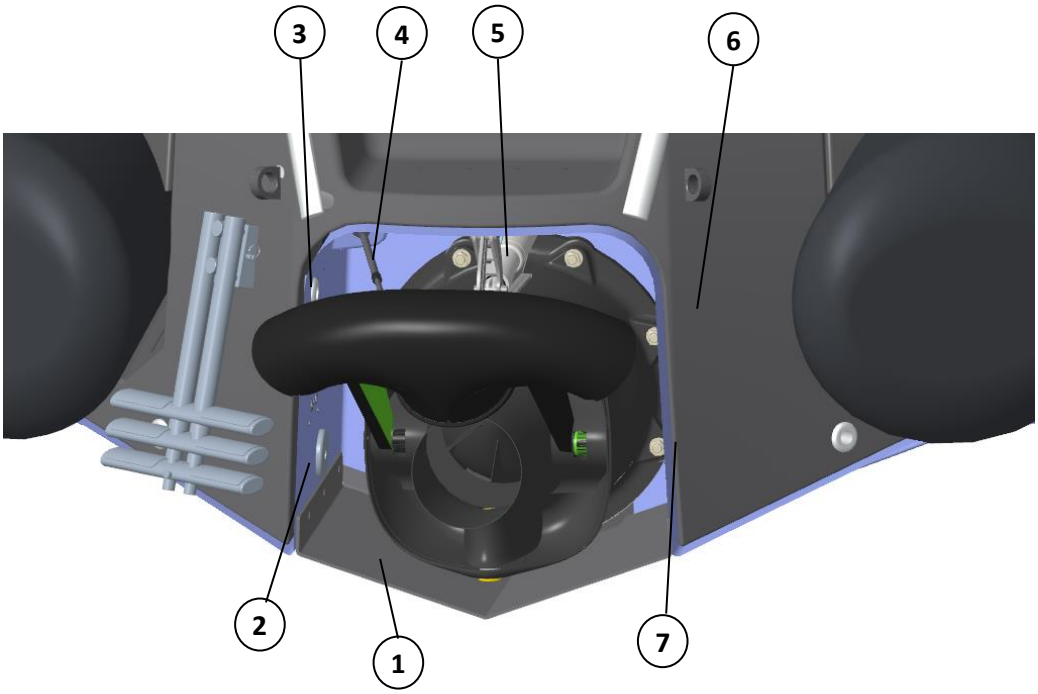




DESCRIPTION - Inventory and location

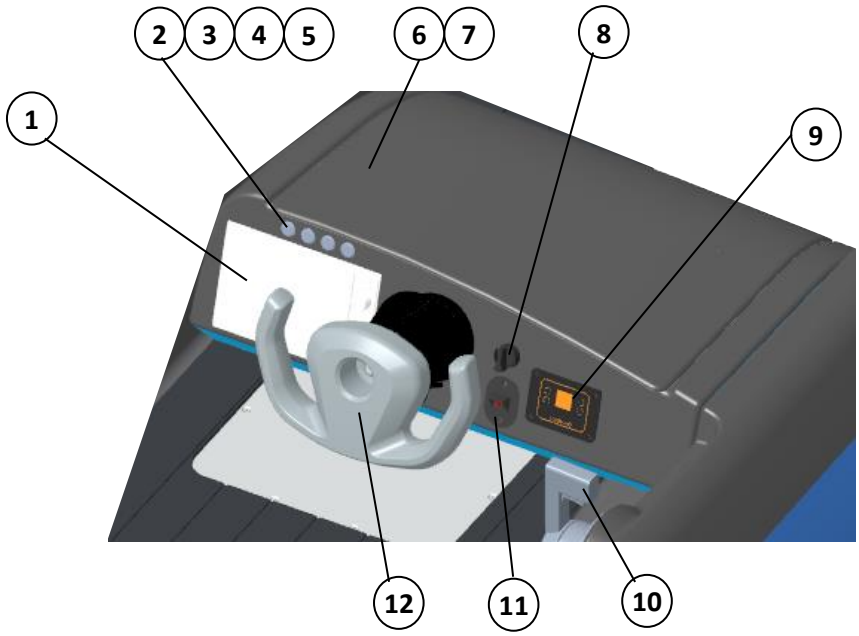
Ref.	DESCRIPTION
1	Hydrojet
2	Polyester hull with counter-moulded deck
3	Ski mast
4	Rear navigation light
5	Rear chest
6	Cup holders
7	Maintenance hatch : access for authorized personnel only
8	Console
9	Side handles
10	Navigation lights
11	4 lifting points (1 rear, 2 side, 1 front)
12	Bilge fan *Inside the deck*
13	Inflation/deflation valves (2 rear, 3 front)
14	12V battery
15	12V fuses *Inside the rear locker*
16	Shore circuit breaker
17	Battery switch
18	Shore power inlet
19	Deck drains
20	Courtesy lights
21	Forward chest
22	Anchor locker
23	Bow pop up cleat
24	EVA deck pad
25	Boarding handles
26	Rear pop up cleats
27	Towing rings
28	Boarding ladder
29	Deck drain holes
30	Rubbing strake
31	Inflatable tube fastening
32	Bow ring
	Removable inflatable tube with rubbing strake
STANDARD EQUIPMENT	
	2 telescopic paddles, 1 foot inflator, 1 repair kit, 1 owner's manual (2 volumes), 1 pressure gauge, 1 Torqeedo user manual.
OPTIONAL EQUIPMENT	
	Electric inflator
	Underwater lights
	Elastic embroidered boat cover
	4 EVA Avon Fenders with attached system
	Fusion sound system with 2 speakers
	Other options available. See your AVON dealer

HYDROJET TUNNEL DETAILS



Ref.	DESCRIPTION
1	Rear plate
2	Anode
3	Bilge pump outlet
4	Steering cable
5	Reverser actuator
6	Battery exhaust outlet
7	Cooling water outlet

CONTROLS AND INSTRUMENTS

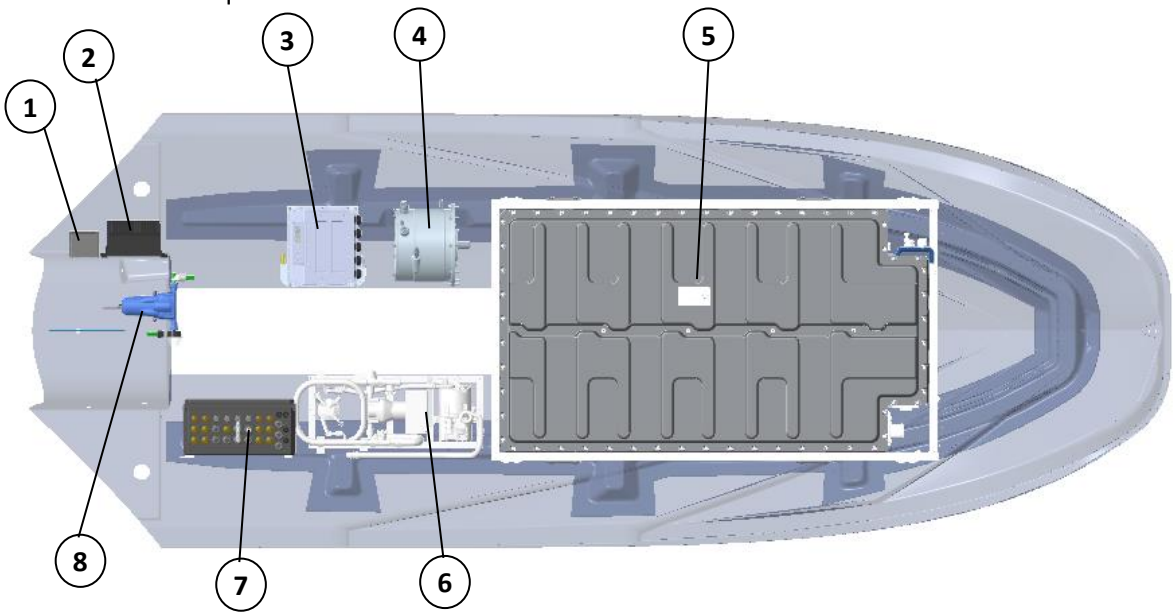


REF.	DESCRIPTION
1	Torqeedo display, touchscreen
2	Bilge fan switch
3	Bilge pump switch
4	Navigation lights switch
5	Courtesy lights switch
6	Glove compartment } *inside the compartment*
7	12V plug and USB plug }
8	Key switch
9	Remote throttle display
10	Remote throttle
11	Emergency stop switch
12	Carbon steering wheel, steering cable

DESCRIPTION - INVENTORY and location

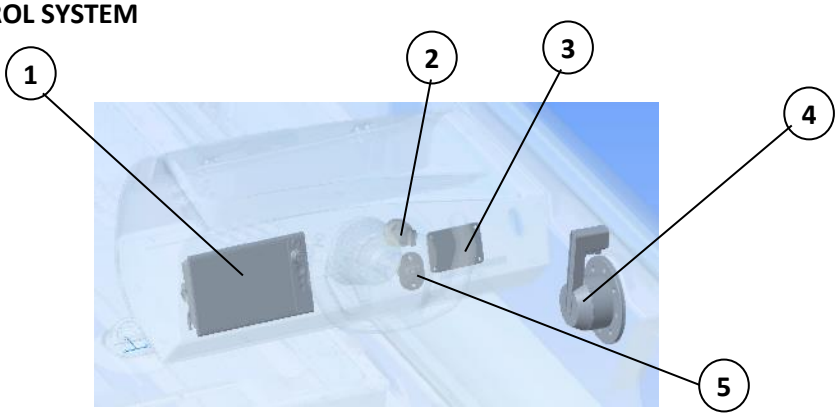
TORQEEDO ELECTRICAL SYSTEM

NOTE: Refer to Torqeedo's user Manual for more information



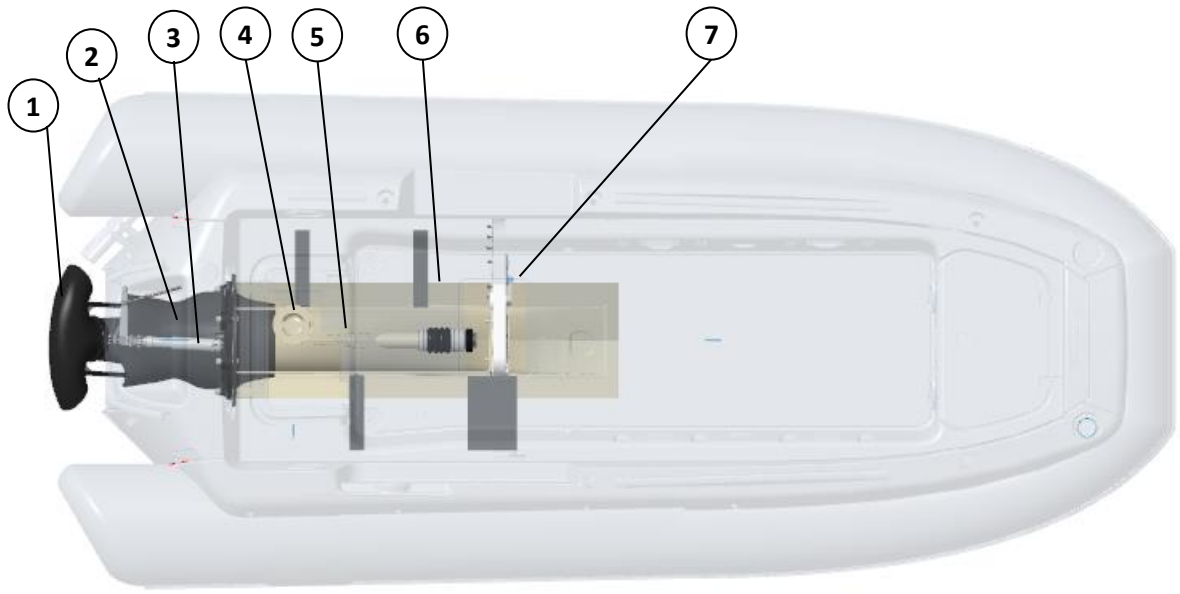
Ref.	DESCRIPTION
1	Shore power distribution S
2	AC Charger
3	Motor power electronics
4	Deep Blue motor DB 80i
5	BMW i3 high-voltage battery
6	Battery cooling
7	System management unit
8	Motor cooling

TORQEEDO CONTROL SYSTEM



Ref.	DESCRIPTION
1	Torqeedo display, touchscreen
2	Key switch
3	Remote throttle display
4	Remote throttle
5	Emergency stop switch

PROPULSION SYSTEM



Ref.	DESCRIPTION
1	Thrust reverser flap and actuator
2	Stator
3	Reverser actuator
4	Maintenance hydrojet hatch
5	Hydrojet shaft
6	Water intake
7	Transmission belt

I-3 HANDLING

I-3-1 Transport

Trailer installation recommendations are specified in VOLUME I of the owner's manual.
Use a trailer adapted to your boat.
The boat is compatible with standard road gauge. It is designed to be transported inflated.

The weight in transport conditions for a trailer includes:

Unladen weight of the boat:	870 kg	*Tolerance +/- 5 %*
Options:	20 kg	*Model including all options*
Safety equipment:	11 kg	*Fittings*
Σ :	**901 kg**	

STOWING ON A TRAILER OR CRADLE:
USE THE BOW RING AND THE TOWING RINGS ON THE OUTSIDE OF THE TRANSOM.

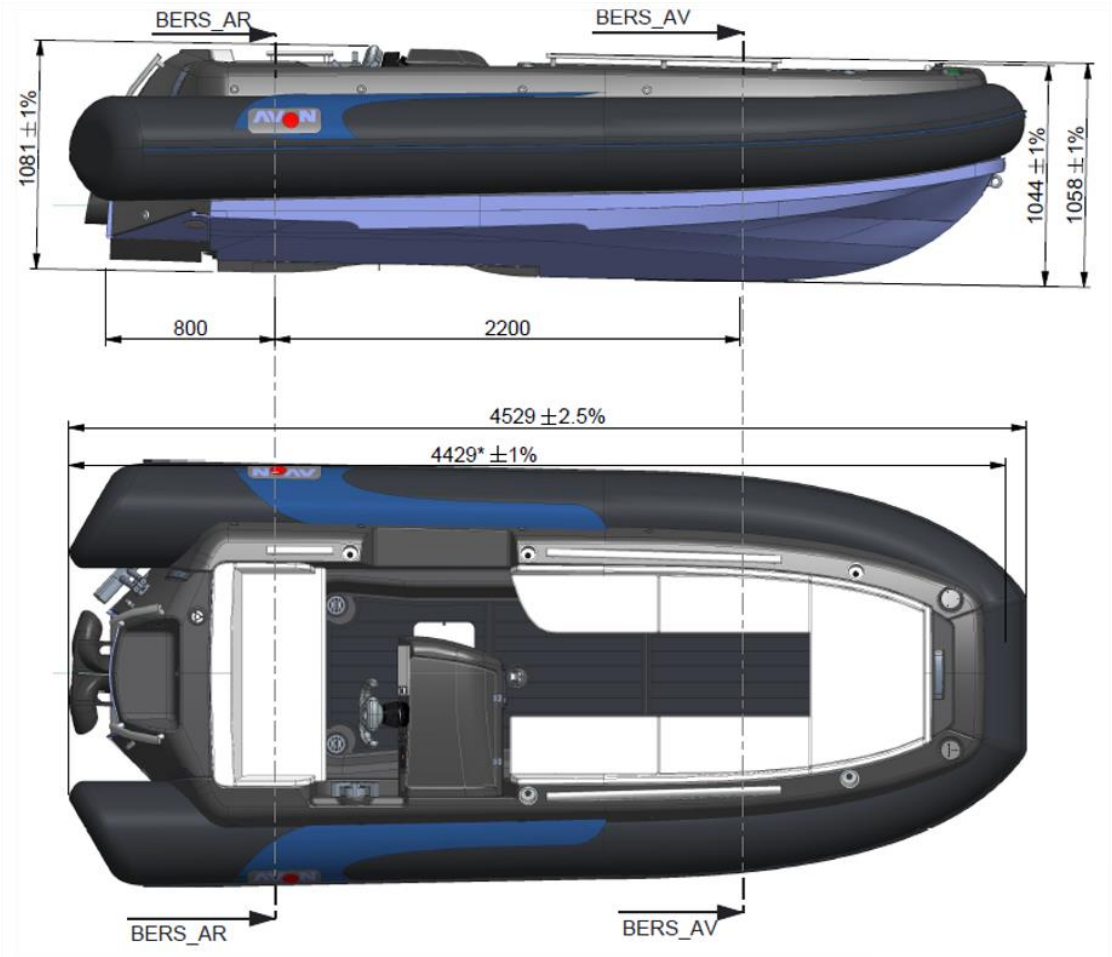
I-3-2 Storage

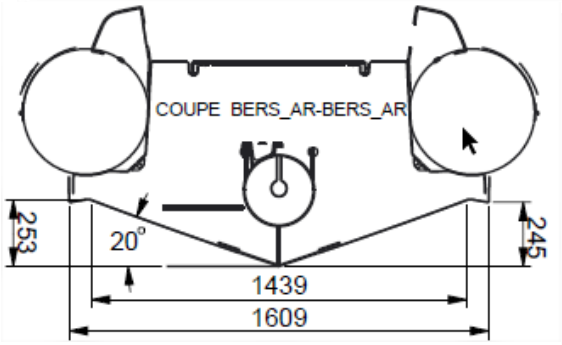
The steering wheel can be tilt down to optimise the height of the boat for storage.

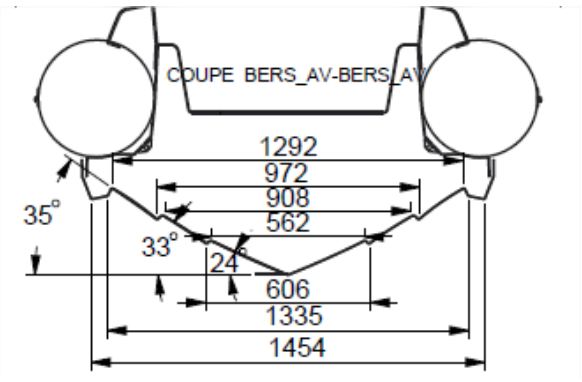
WARNING!!!

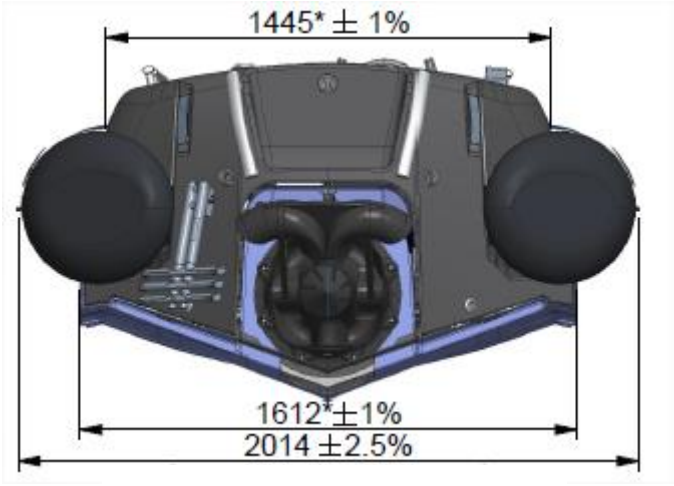
THE BOAT MUST REST ON THE BOW LINE.

SEE DIAGRAM BELOW.





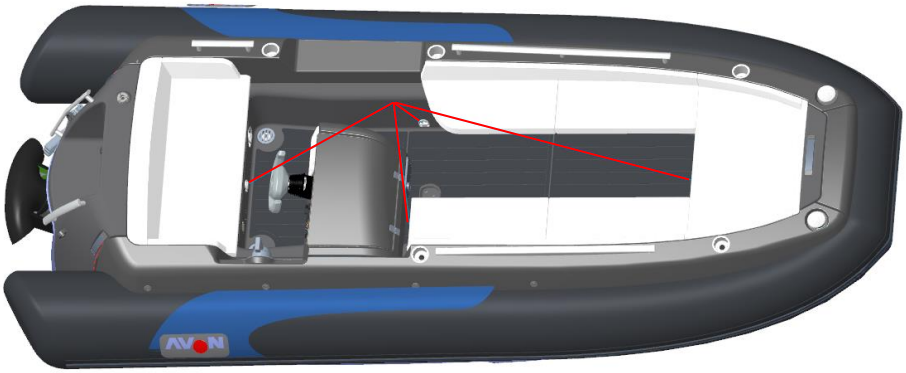



1445* ± 1%
1612*±1%
2014 ±2.5%

I-3-3 Lifting

The boat has 4 lifting points.

Contact an AVON dealer to obtain the approved AVON lifting sling.



WARNING
USE ONLY THE AVON APPROVED LIFTING RINGS AND SLING TO LIFT THE BOAT.

WARNING
LIFTING MUST BE CARRIED OUT BY PROFESSIONALS.

DANGER!!!
NO PASSENGERS ON BOARD WHILE LIFTING.

WARNING!!!
ALL EQUIPMENT MUST BE UNLOADED FROM THE BOAT FOR LIFTING OR DAVIT HANDLING.
BEFORE LAUNCHING THE BOAT, SWITCH ON THE BILGE PUMP TO DRAIN ANY RAINWATER FROM THE BOTTOM OF THE BILGE (SWITCH OFF THE PUMP THEN THE BATTERY SWITCH BEFORE LAUNCHING).

INFLATABLE TUBE – Installing the inflatable tube on the hull

II-1 MAINTENANCE OF THE INFLATABLE TUBE

Your boat's inflatable tube can be made from 2 different fabrics :

- Carbon fabric : NEOPRENE CSM-CR **1670** Decitex fabric

Or/and

- Other : NEOPRENE CSM-CR **1100** Decitex fabric

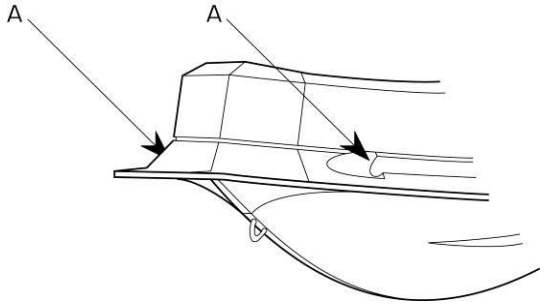
II-2 INSTALLING THE INFLATABLE TUBE ON THE HULL

IF THE INFLATABLE TUBE WAS STORED AT A TEMPERATURE BELOW 0°C / 32°F, LEAVE IT AT 20°C / 68°F FOR 12 HOURS BEFORE UNFOLDING.

YOU CAN INFLATE THE NON-FITTED INFLATABLE TUBE (pressure 240mb) AND LET IT STABILIZE FOR AROUND ONE HOUR. THEN DEFLATE IT.

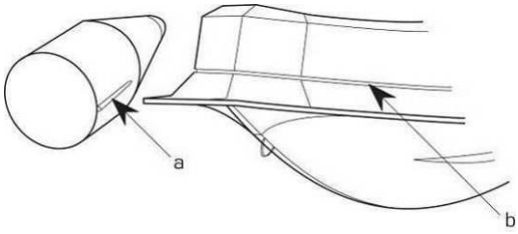
NOTE: the inflatable tube is fitted to the hull being deflated

1



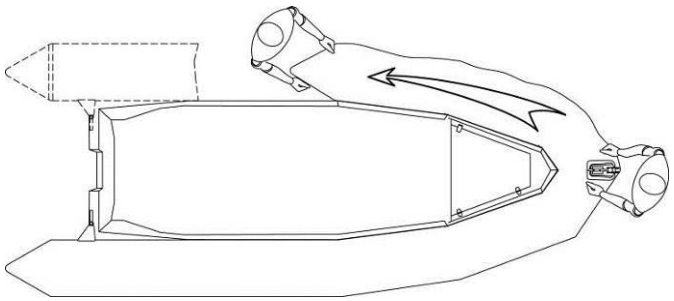
In order to facilitate the fitting of the inflatable tube, apply liquid soap to the hull's rails (A).

2



Place the inflatable tube bolt rope (a) in the hull rail (b) starting with the front of the hull. Pull the inflatable tube to bring it to the water guard near the transom.

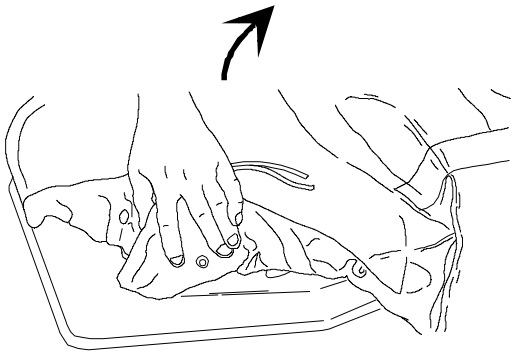
3



Repeat for the other side of the inflatable tube.
The two protective flaps (sealing and exterior) should pass over the hull's nose.

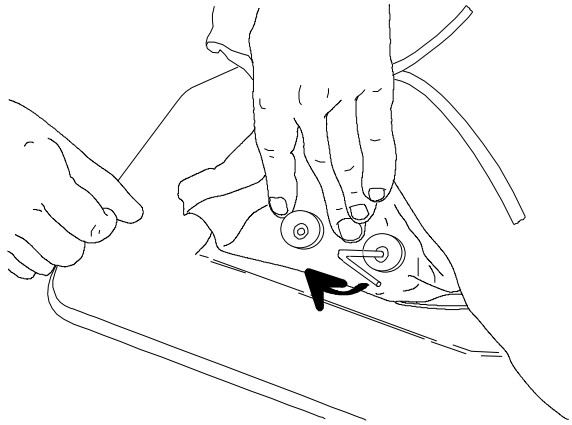
II-3 SECURING THE INTERNAL PROTECTIVE FLAP

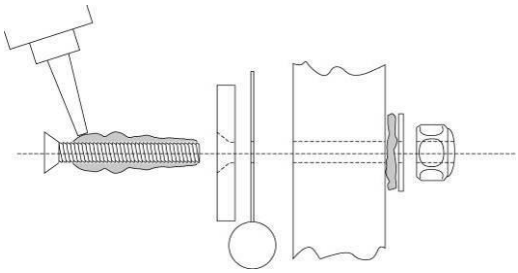
4



Put the internal protective flap in place

5



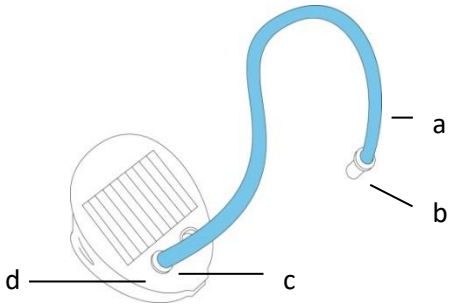


Set up the tube and fix the internal protective flap (tube deflated) by using the screws and nuts supplied with the tube kit. Apply sealing compound on all the screws and in the hull holes to achieve watertightness.

II-4 INFLATING THE INFLATABLE TUBE

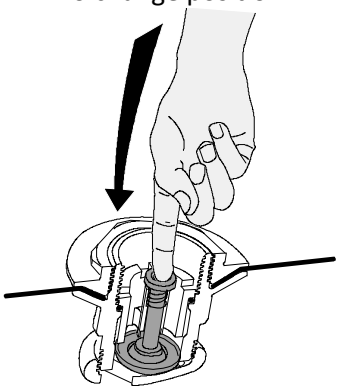
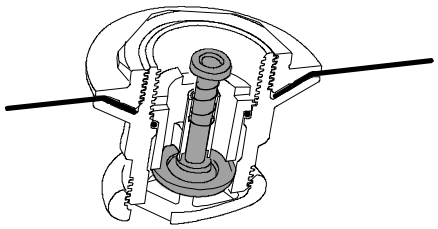
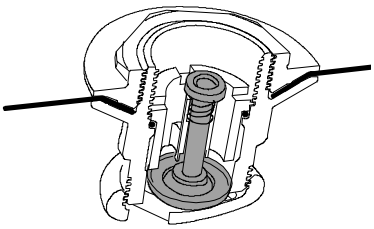
INFLATOR

a. tube end
b. adaptor
c. tube base
d. inflation port



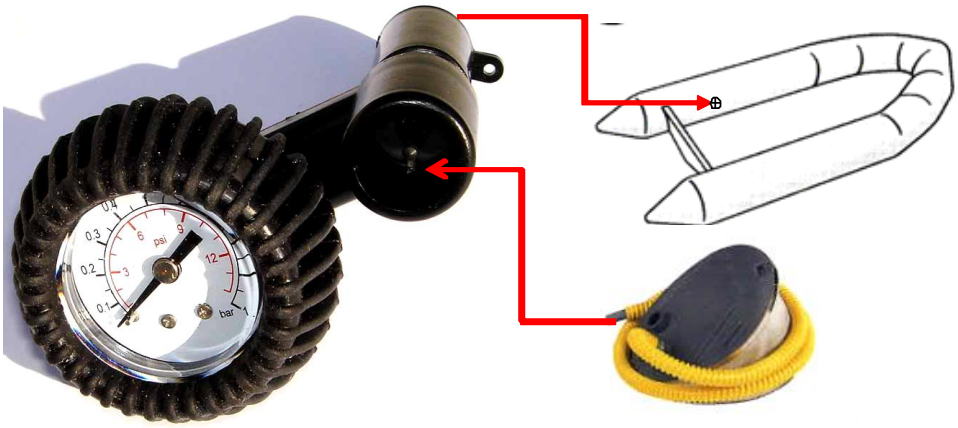
NOTE: An electrical (12 V) high output inflation pump is available as an option (contact your dealer).

"EASY - PUSH" VALVES

To change position	In inflating position	In deflating position
		
Push	The membrane is closed, the plunger is up	The membrane is open, the plunger is down

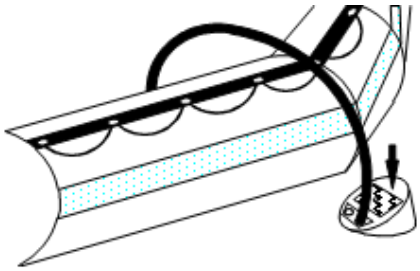
INFLATABLE TUBE - Inflating the inflatable tube

THE PRESSURE GAUGE



WARNING!!!
DO NOT USE A COMPRESSOR OR COMPRESSED AIR CYLINDER.

INFLATION



1º/Place all valves in inflation position.

2º/ Fit the adaptor that matches the diameter of the "easy-push" valve to the inflation tube tip.

3º/ Attach the hose connector to the inflation pump.
To inflate your inflatable tube properly, the inflation pump should be correctly placed on the ground.
The chamber inflates rapidly if the inflation pump is used smoothly and without haste.

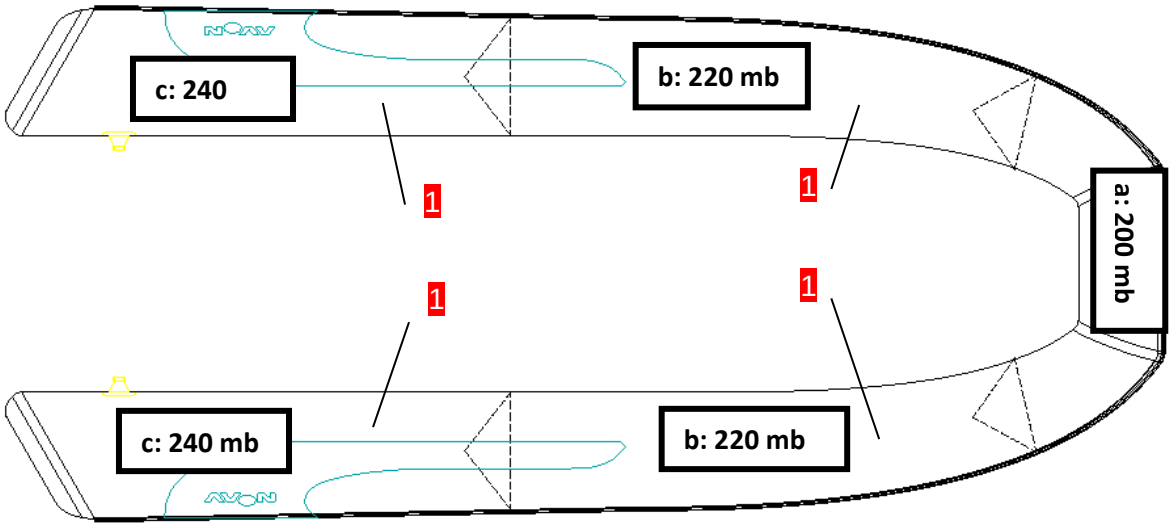
4º/ Inflate the inflatable tube, starting with the first compartment (a) at the bow, to 200 mb pressure.

5º/ Then inflate the midship chambers (b), to 220 mb pressure, read on the pressure gauge on the first compartment.

6º/ Then inflate the stern compartments (c) to 240 mb, with the pressure gauge still on the first compartment. The partitions (1) enable the pressure between each chamber to balance out.

7º/ Inflation is completed: screw on the inflation valve plugs.

INFLATABLE TUBE - Pressure



NOTE: A slight loss of air is normal before the cap is screwed on.
Only the plugs provide final airtightness.

II-5 PRESSURE

The inflatable tube has **5** compartments. Each must be inflated to a pressure of **240 mb / 3.4 PSI**.
It is the inflatable tube's correct pressure.

The ambient temperature of the air or the water proportionally influences the internal pressure of the Inflatable tube.	Ambient temperature	Pressure inside the Inflatable tube
	+1°C	+4 mb / 0.06 PSI
	-1°C	-4 mb / 0.06 PSI

It is therefore important to anticipate.
Check and adjust the pressure of inflatable compartments (by inflating or deflating) depending on the temperature (particularly when temperature variations are high between the morning and evening in particularly hot regions) and check that the pressure does not exceed the recommended pressure zone (from 220 to 270 mb).

RISK OF PRESSURE LOSS

Example:
Your boat is exposed to direct sunlight on the beach (temperature=30°C) at the recommended pressure (240 mb/3.4 PSI). When you launch it (temperature=20°C), the temperature and internal pressure of the inflatable compartments will drop simultaneously (up to 120 mb) and **YOU WILL THEN NEED TO REINFLATE** until you regain the millibars lost due to the difference between the ambient air and water temperatures.
It is normal to observe a drop in pressure at the end of the day when the outdoor temperature drops.

III- SPECIAL CARE FOR HULL

The eJET450 is a GRP hull with a polyurethane coating finish.
To prevent hull from gel coat blistering and to increase hull life, it is recommended you take the boat out of the water after each outing and you clean the bottom of the hull with fresh water.
Once a month, it is recommended to clean the boat with neutral soap.

WARNING
TAKE THE BOAT OUT OF THE WATER AFTER EACH OUTING.

INFLATABLE TUBE - Pressure

RISK OF OVERPRESSURE

Example:

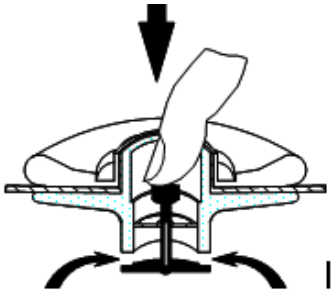
Your boat is inflated to its recommended pressure (240 mb/3.4 PSI) at the beginning or end of the day (low outside temperature = 10°C). Later in the day, your boat is left in the sun on the beach or on the deck of a boat. Temperature inside the inflatable compartments will increase especially with a dark colour Inflatable tube, causing the pressure to double (480 mb). **YOU MUST THEN DEFLATE** the boat to return to the recommended pressure.

WARNING!!!

IF YOUR BOAT IS OVERINFLATED, THE PRESSURE WILL ABNORMALLY WEAR THE INFLATABLE STRUCTURE WHICH MAY LEAD TO A BREACH OF THE ASSEMBLY.

IN THE EVENT OF OVERPRESSURE

Release air by pressing the valve plunger



IV- INSPECTION BEFORE USE

Check with your distributor /agent that your boat has been pre-inspected and examined in accordance with the manufacturer's conditions.

ITEM	CHECK
INFLATABLE TUBE (1)	Pressure (240 mb) + valve plug cover in place
BILGE (1)	Absence of water
12V BATTERY (2)	Charge state normal
BMW i3 HIGH-VOLTAGE BATTERY (1)	Charge state 100%
THRUST REVERSER FLAP (1)	Mechanism operating properly
STEERING WHEEL (1)	Mechanism operating properly
COOLING SYSTEM(1)	Pumps operating properly and filter cleaned Cooling Policy set to Normal if the water temperature is above 28°C (82°F) other than set it to Early
ELECTRICITY (1)	Circuit breaker + Navigation light + fan + bilge pump tested
PROPULSION (2)	No foreign matter in the maintenance hatch
EXTINGUISHER (2)	State + compliance

(1) Before each outing
(2) Regular servicing

IV-1 INFLATABLE TUBE

Check that the inflatable tube is correctly inflated. See in the "INFLATING THE INFLATABLE TUBE" section of this manual.

IV-2 BILGE

If any dampness or water in the bilge, drain by operating the bilge pump. Remove any traces of dampness with dry, clean cloths.
Although the Boat is provided with automatic hull draining system which drains water from the engine compartment during boat use. Some water always remains.

IV-3 12V BATTERY

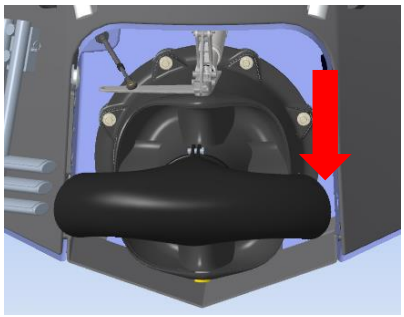
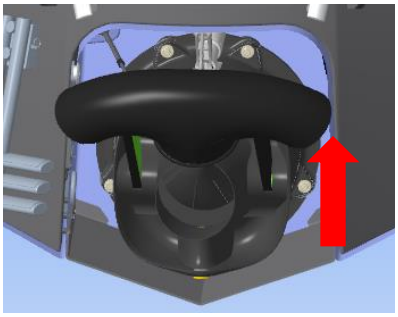
Check that the charge state of the 12V battery. It has to be at least 11V.

IV-4 BMW i3 HIGH-VOLTAGE BATTERY

Check that the charge state of the high-voltage battery is 100%.
NOTE : see Torqeedo's user Manual, chapter **Charging the high-voltage batteries**.

IV-5 THRUST REVERSER FLAP

Check the thrust reverser flap is operating properly by using the tilt buttons on the remote throttle.
NOTE : see Torqeedo's user Manual, chapter **System Start**.

 Press the tilt down button	 The thrust reverser flap moves down
 Press the tilt up button	 The thrust reverser flap moves up

IV-6 STEERING WHEEL

Make sure that the steering wheel is properly tightened. Turn it fully to the left and to the right to check that it operates freely and without hindrance.
Also make sure that the propulsion outlet changes direction at the same time as the steering wheel and that there is no dead time between the steering wheel movement and the propulsion outlet.

IV-7 COOLING SYSTEM

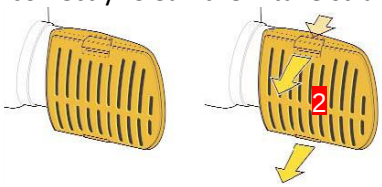
Check that the pump filter is cleaned.
For testing the pump, set the Cooling Policy to immediate and check that the pumps are running.

During a trip, the Cooling Policy has to be set on Normal mode if the water temperature is above 28°C. If not, the Cooling settings have to be changed on Early mode.

NOTE : see Torqeedo's user Manual, chapter **Settings**.

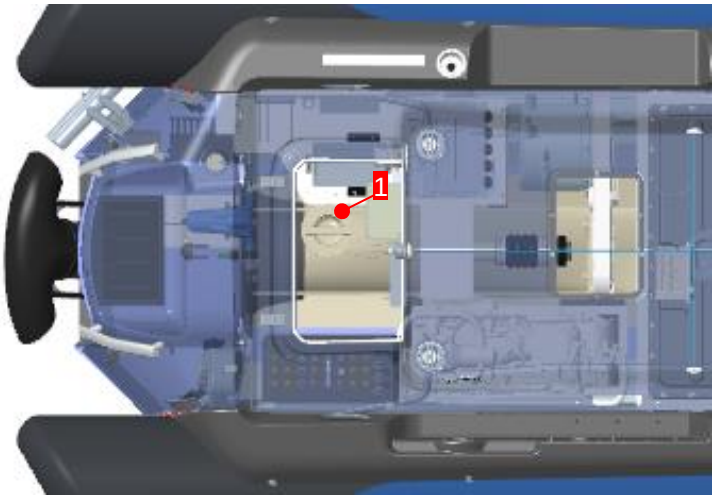
IV-8 ELECTRICITY

Check that the navigation lights and fan operate.
For the bilge pump, set the switch to automatic position, place your finger over the sensor (1) for several seconds to check the pump is activated correctly. Clean the intake strainer if necessary (2).



IV-9 PROPULSION

Carefully check the maintenance hydrojet hatch to make sure that there is no seaweed, debris or other foreign objects that could slow down the hydrojet shaft rotation and then the boat speed.



DANGER!!!
BEFORE TRYING TO REMOVE SEAWEED OR OTHER DEBRIS FROM THE HYDROJET HATCH OR PROPULSION, STOP THE ENGINE, SWITCH THE SYSTEM OFF AND TURN OFF THE BATTERY SWITCH.

IV-10 EXTINGUISHER

A portable fire extinguisher must be effectively on board and filled up.
Refer to the fire extinguisher manufacturer's instructions to check its condition correctly.

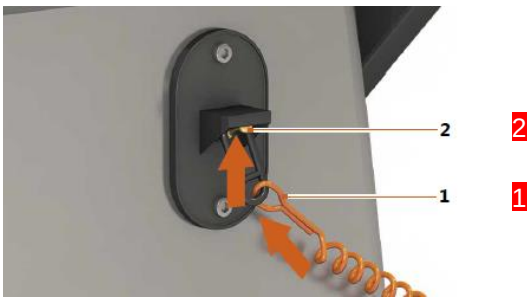
V-1 STARTING A TRIP

Before starting, refer to the Owner's Manual Volume I and to the Torqeedo's user Manual.
Check the thrust reverser flap is tilt up.

1

Battery switch set to ON

2



Put the lanyard (1) on the switch (2) and then place the Emergency stop switch (2) on the RUN position

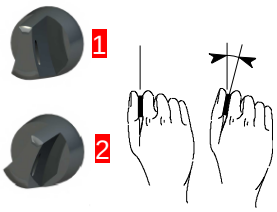
4

Ventilate for 4 minutes

5

Throttle lever in the neutral position

6



Turn the key switch to position (2)

7

On the screen display set the Cooling Policy on Normal mode if the water temperature <28°C otherwise set it on Early mode

***** *If the pilot falls overboard, immediately stopping the engine considerably reduces the risks of serious or fatal injury caused by being run over by the boat. Always couple the two ends of the emergency stop switch correctly.*

DANGER!!!

- TURN OFF THE ENGINE AS SOON AS A SWIMMER COMES CLOSE TO THE BOAT. THEY RISK BEING SERIOUSLY INJURED BY A ROTATING PROPELLER.

WARNING!!!

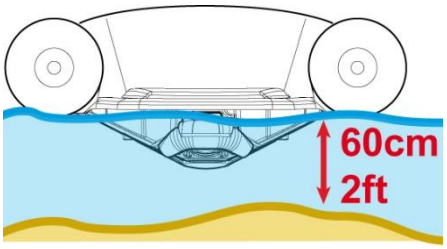
- WHEN UNDERWAY, KEEP ALL LOCKERS CLOSED.
BREAKING WAVES CAN BE A SIGNIFICANT DANGER FOR STABILITY AND CAUSE FLOODING.

- IF A DECK HATCH SEAL IS DAMAGED, PLEASE CONTACT YOUR DEALER TO REPLACE IT AS SOON AS POSSIBLE.

- AVOID ABRUPT MANOEUVRES AT FULL SPEED. REDUCE SPEED IN WAVES FOR THE COMFORT AND SAFETY OF PASSENGERS.

WARNING!!!

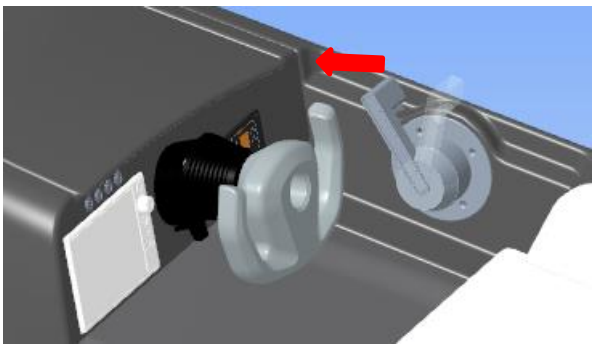
BEFORE STARTING THE ENGINE, MAKE SURE THAT THE WATER DEPTH IS AT LEAST 60 CM. IF YOU RUN THE ENGINE AT A SHALLOWER DEPTH, YOU RUN THE RISK OF DRAWING STONES OR SAND INTO THE INLET AND DAMAGE THE TURBINE.



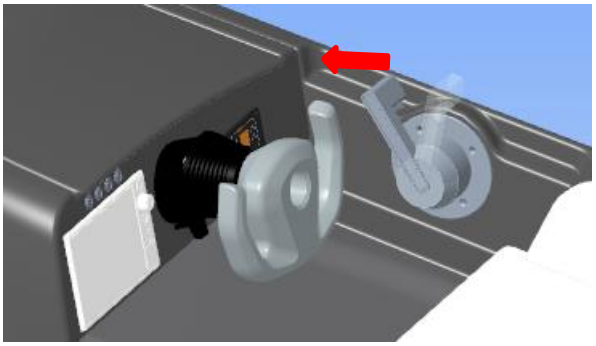
V-2 MOTION FORWARD AND REVERSE

NOTE : see Torqeedo's user Manual, chapter **Motion forward/reverse**.

FORWARD

1  Make sure the thrust reverser flap is up. Use the tilt up button on the throttle if necessary	**2**  **Gradually** operate the remote throttle forward

REVERSE

1  Make sure the thrust reverser flap is down. Use the tilt down button on the throttle if necessary	**2**  **Gradually** operate the remote throttle **forward.** If you push the remote throttle backward, there is no reaction.

WARNING!!!

NEVER OPERATE THE REMOTE THROTTLE WHEN THE BOAT IS NOT IN THE WATER. YOU MAY SERIOUSLY DAMAGE THE HYDROJET.

V-3 BRAKING

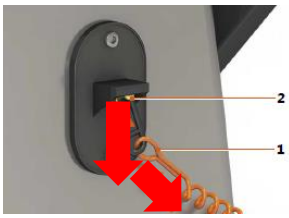
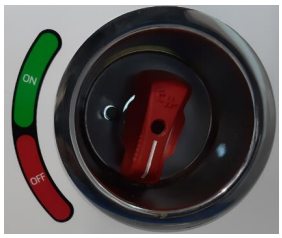
The boat is not provided with a separate braking system. It stops under the resistance of the water when the lever is moving back to the neutral position.

LEARN TO DETERMINE THE BRAKING DISTANCE NEEDED TO BRING THE BOAT TO A COMPLETE STOP.

WARNING!!!

REVERSE GEAR IS NOT BRAKE.

V-4 END TRIP

1	2	3	4
			
Set the lever in the neutral position	Turn the key switch to position (1)	Disconnect the lanyard (1) from the Emergency stop switch (2)	Turn the battery switch to position OFF

WARNING!!!

DANGER OF FIRE AND BURNS FROM OVERHEATING OR FROM HOT SURFACES ON THE COMPONENTS.

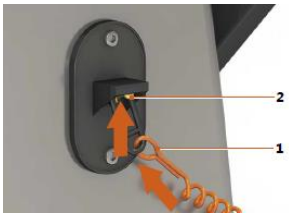
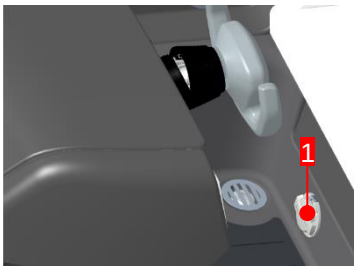
FIRE AND HOT SURFACES CAN RESULT IN DEATH OR SEVERE PHYSICAL INJURIES.

- DURING OR IMMEDIATELY AFTER A TRIP, DO NOT TOUCH ANY OF THE MOTOR OR BATTERY COMPONENTS.

VI- CHARGING THE HIGH-VOLTAGE BATTERY

An adapter cord 16A/250V Schuko/CEE and a shore power cable 16A/250V are supplied with the boat.

NOTE : see Torqeedo's user Manual, chapter **Charging the high-voltage battery**.

1	2	3
		
Place the Emergency stop switch (2) in the RUN position	Connect the shore power cable into the shore socket.	Set the shore circuit breaker to position ON

The charging process starts automatically.

TOP-UP THE CHARGE OF THE HIGH-VOLTAGE BATTERY AFTER EVERY TRIP.

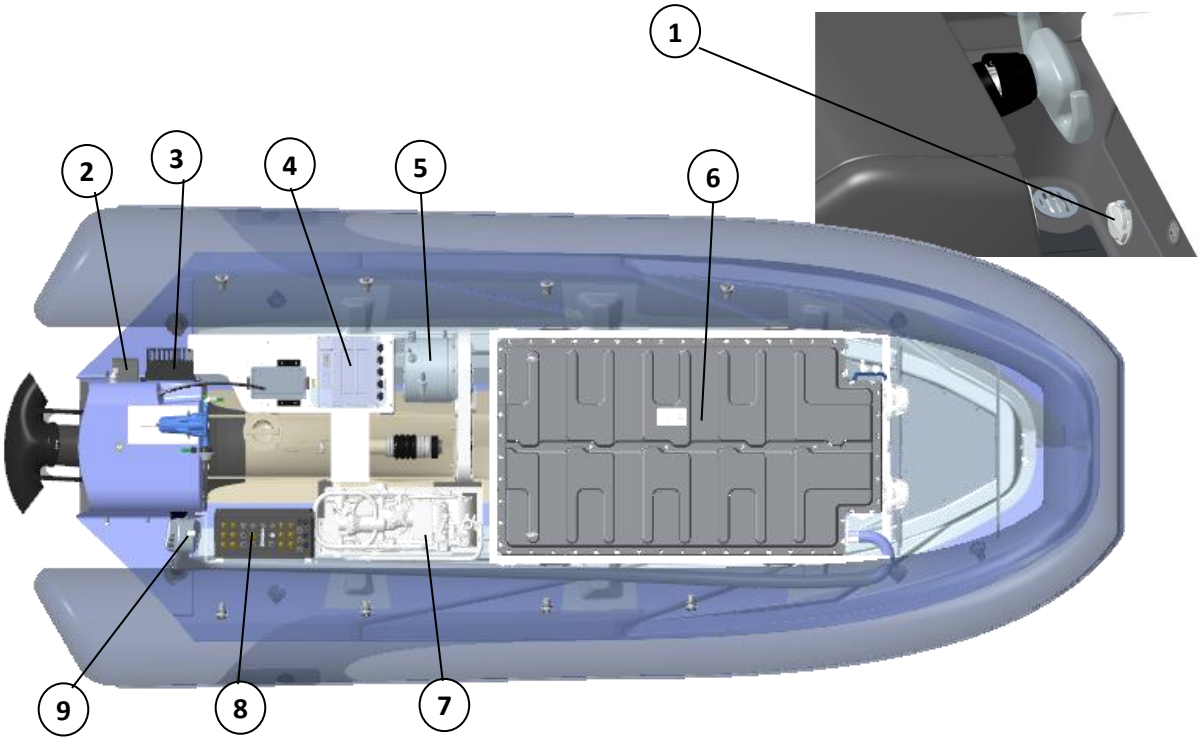
WARNING!!!

DANGER OF FIRE AND BURNS FROM OVERHEATING OR FROM HOT SURFACES ON THE COMPONENTS.
FIRE AND HOT SURFACES CAN RESULT IN DEATH OR SEVERE PHYSICAL INJURIES.
- DO NOT STORE FLAMMABLE OBJECTS IN THE AREA OF THE HIGH-VOLTAGE EQUIPMENT.
- IF THE SYSTEM BECOMES VERY HOT OR YOU SEE STEAM OR SMOKE, SWITCH THE SYSTEM OFF IMMEDIATELY.
- DURING OR IMMEDIATELY AFTER A TRIP, DO NOT TOUCH ANY OF THE MOTOR OR BATTERY COMPONENTS.
- PREVENT STRONG MECHANICAL FORCES FROM WORKING ON THE BATTERIES AND CABLES OF THE SYSTEM.

WARNING!!!

USE ONLY CHARGING CABLES SUPPLY BY AVON.
ALWAYS UNROLL THE CABLES COMPLETELY.

VII-1 HIGH-VOLTAGE SYSTEM



Ref.	DESCRIPTION
1	Shore power inlet *(on the deck)*
2	Shore power distribution S
3	AC Charger
4	Motor power electronics
5	Deep Blue motor DB 80i
6	BMW i3 high-voltage battery
7	Battery cooling
8	System management unit
9	Outlet venting

DANGER!!!

DANGER TO LIFE FROM ELECTRIC SHOCK.

CONTACT WITH UNINSULATED OR DAMAGED PARTS CAN RESULT IN DEATH OR SEVERE PHYSICAL INJURIES.

- DO NOT UNDERTAKE ANY REPAIR WORK WHATSOEVER ON THE DEEP BLUE SYSTEM.

- NEVER TOUCH SCUFFED OR SEVERED WIRING OR OBVIOUSLY DEFECTIVE COMPONENTS.

- IF YOU SUSPECT A PROBLEM, SWITCH OFF THE SYSTEM IMMEDIATELY AND DO NOT TOUCH ANY METAL COMPONENTS.

- PREVENT THE ELECTRONIC COMPONENTS FROM COMING INTO CONTACT WITH WATER.

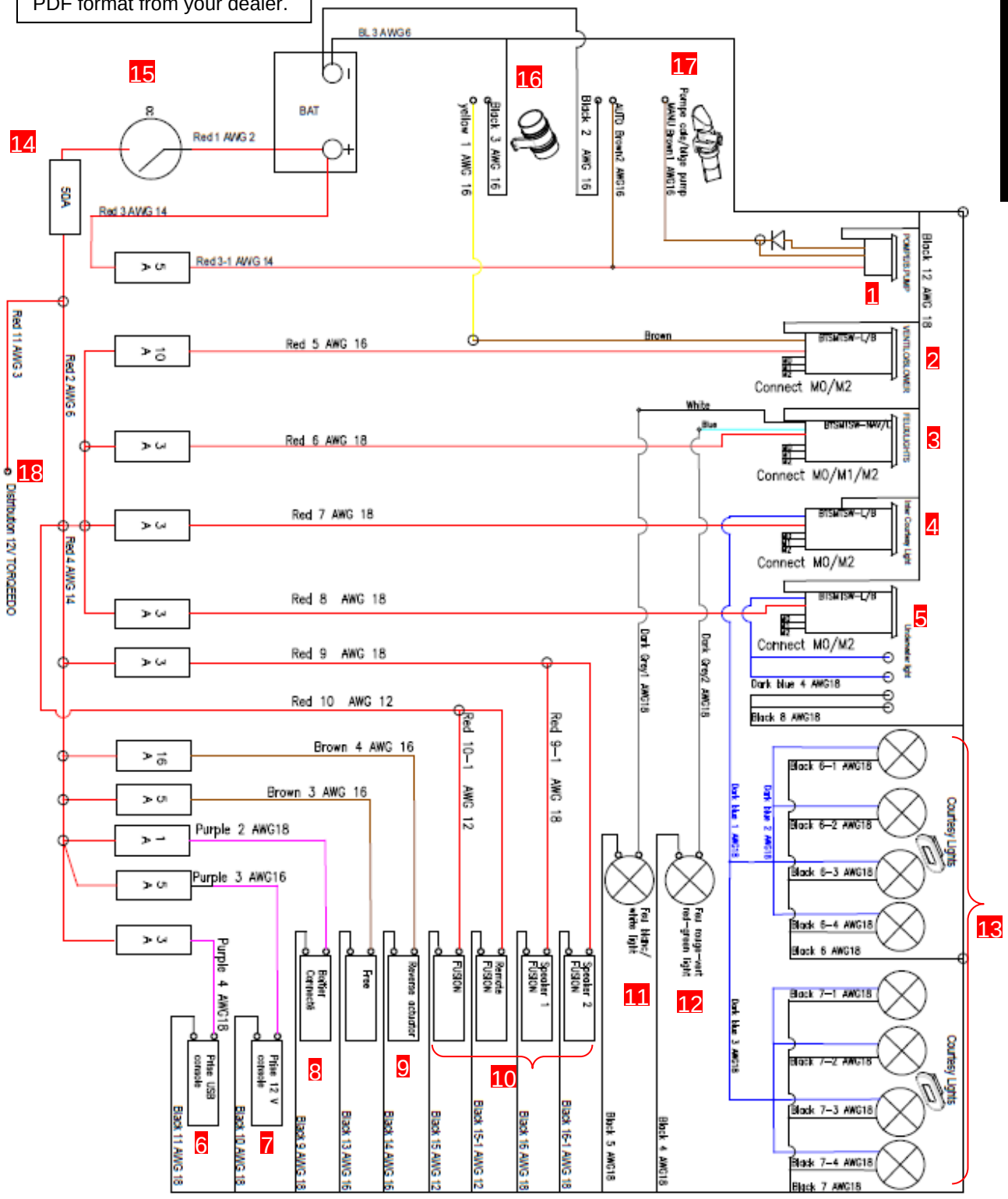
- PREVENT STRONG MECHANICAL FORCES FROM WORKING ON THE BATTERIES AND CABLES OF THE SYSTEM.

ENGLISH

VII-2 ELECTRICITY

VII -2-1 General wiring diagram

The document is available in PDF format from your dealer.

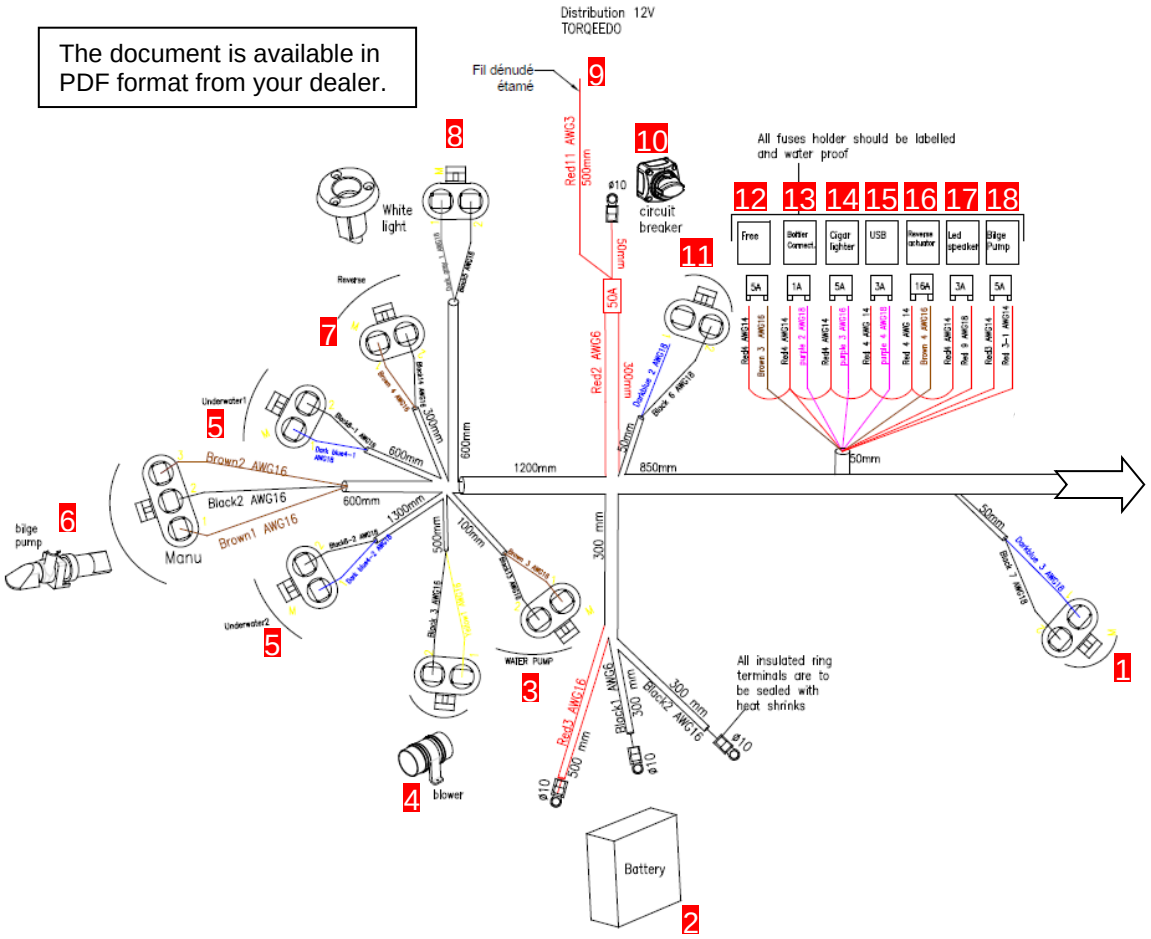


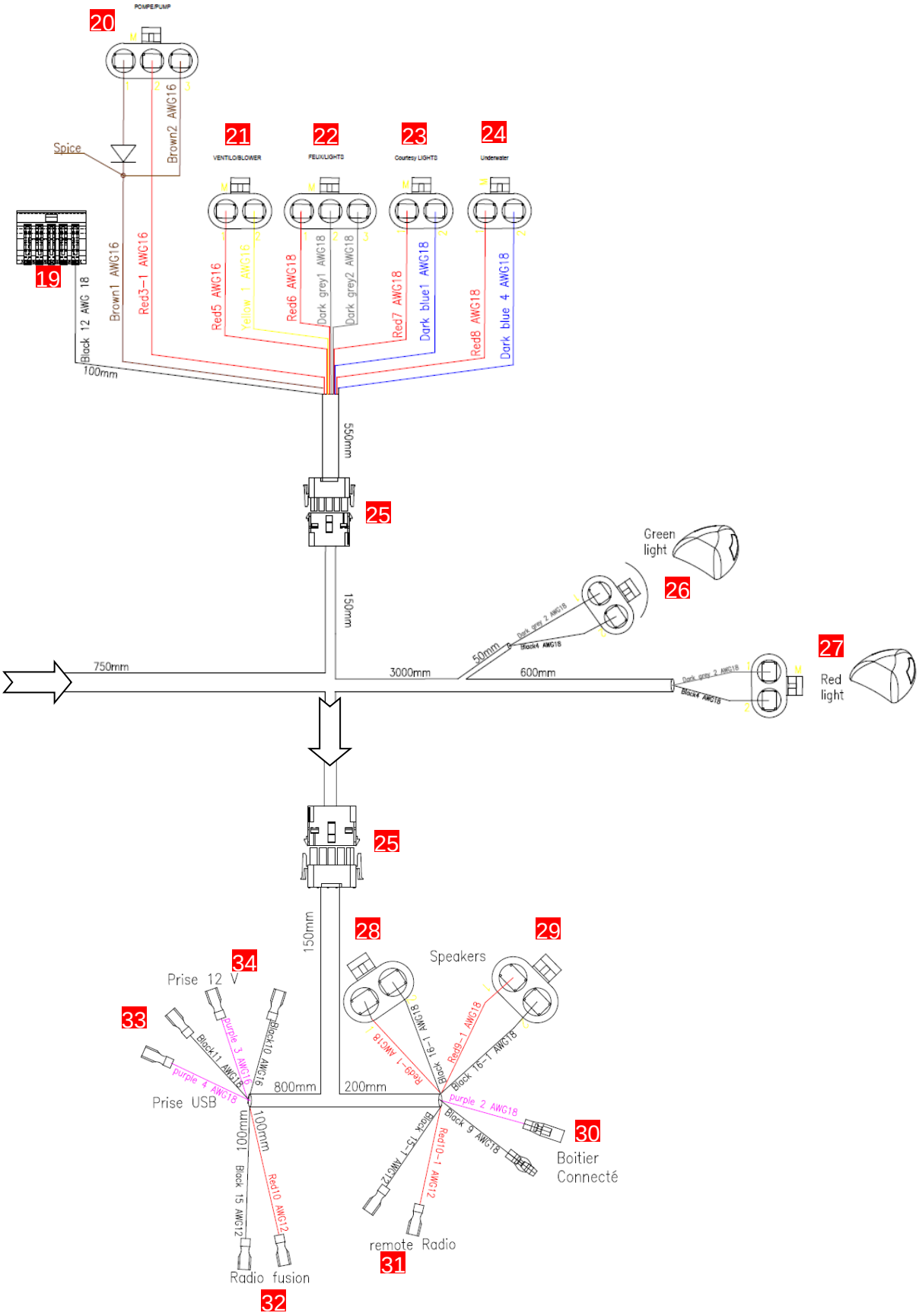
INSTALLATION AND CIRCUIT - Electricity

Ref.	DESCRIPTION
1	Bilge fan switch
2	Bilge pump switch
3	Navigation light switch
4	Courtesy light switch
5	Underwater lights switch (option)
6	12V plug (console)
7	USB plug (console)
8	Connected box (console)
9	Reverser actuator
10	Sound system with 2 speakers (option)
11	White light
12	Red / green lights
13	Courtesy lights (deck)
14	General 50 A general fuse
15	Circuit-breaker
16	Bilge fan
17	Bilge pump
18	12V Torqeedo system

VII -2-2 General wiring plan

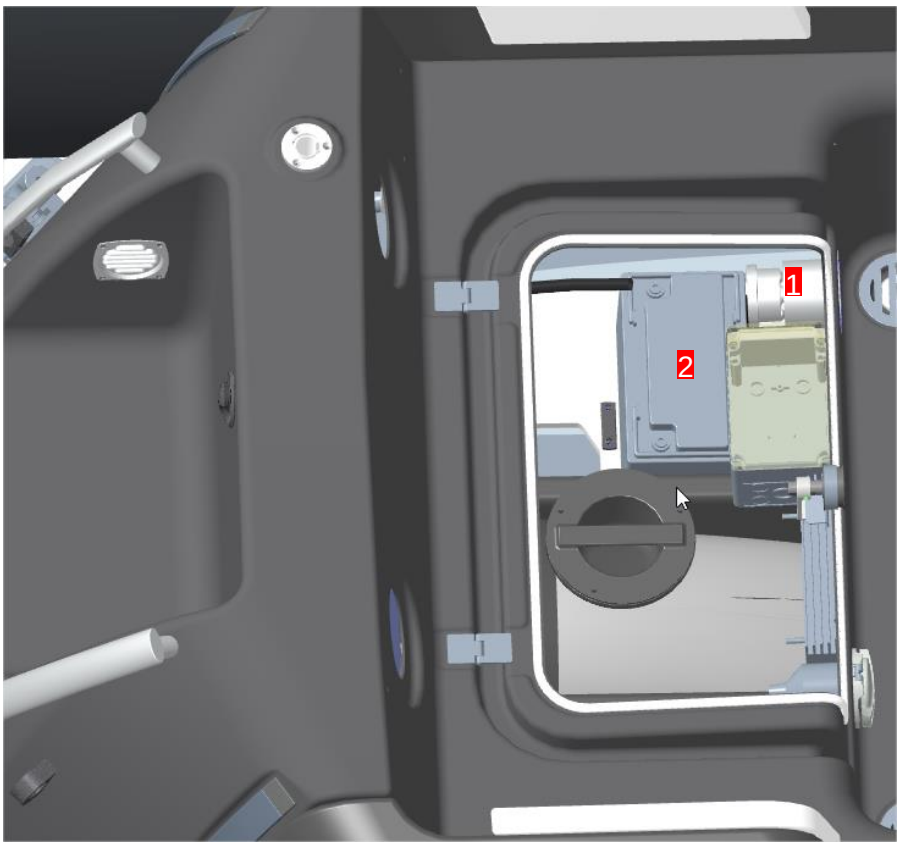
The document is available in PDF format from your dealer.




20
POMPE/PUMP
Spice
Brown2 AWG16
21
VENTILO/BLOWER
22
FEUX/LIGHTS
23
Courtesy LIGHTS
24
Underwater
19
Brown1 AWG16
Red3-1 AWG16
Black 12 AWG 18
100mm
Red5 AWG16
Yellow 1 AWG16
Red6 AWG18
Dark grey1 AWG18
Dark grey2 AWG18
Red7 AWG18
Dark blue1 AWG18
Red8 AWG18
Dark blue 4 AWG18
550mm
25
150mm
Green light
26
50mm
Dark grey 2 AWG18
Black4 AWG18
27
Red light
750mm
3000mm
600mm
25
150mm
28
29
Speakers
34
Prise 12 V
33
Black11 AWG18
purple 3 AWG18
Black10 AWG16
purple 4 AWG18
Prise USB
800mm
200mm
Red9-1 AWG18
Black 16-1 AWG18
Black 16-1 AWG18
purple 2 AWG18
30
Boitier Connecté
100mm
100mm
Black 15 AWG12
Red10 AWG12
Black 15-1 AWG12
Red10-1 AWG12
Black 9 AWG18
remote Radio
31
Radio fusion
32

Ref.	DESCRIPTION
1	Port courtesy lights connection
2	12V battery connection
3	Water pump connection (option)
4	Bilge fan connection
5	Underwater lights connection (option)
6	Bilge pump connection
7	Reverser actuator connection
8	White light connection
9	12V Torqeedo's system connection
10	Circuit breaker connection
11	Starboard courtesy lights connection
12	5A fuse (free for option)
13	1A fuse connected box
14	5A fuse 12V power socket
15	3A fuse USB
16	16A fuse reverser actuator
17	3A fuse led speaker
18	5A fuse bilge pump
19	Ground bus bar connection
20	Bilge pump switch connection (console)
21	Bilge fan switch connection (console)
22	Navigation lights switch connection (console)
23	Courtesy lights switch connection (console)
24	Underwater lights switch connection (option)
25	Harness connection (console)
26	Green light connection
27	Red light connection
28	Speaker connection (option)
29	Speaker connection (option)
30	Connected box connection
31	Remote fusion radio connection (console option)
32	Fusion radio connection (console option)
33	USB socket connection
34	12V poser socket connection

VII -2-3 Location of items



Ref.	DESCRIPTION
1	Circuit-breaker
2	12V battery

VII -2-4 Circuit breaker

When you stop using the boat, set the circuit-breaker to OFF.

WARNING

SWITCH OFF THE SYSTEM BEFORE SETTING THE CIRCUIT-BREAKER TO "OFF"

VII -2-5 12V battery

The charge state of the 12V battery must be higher than 11V.

MAINTAIN YOUR BATTERY:

- **KEEP THE BATTERY CLEAN AND DRY IN ORDER TO AVOID PREMATURE WEAR.**
- **TIGHTEN AND MAINTAIN THE TERMINAL LUGS BY GREASING THEM REGULARLY WITH VASELINE.**

WARNING!!!

THE WATER FROM THE WATER SUPPLY SYSTEM CONTAINS MINERAL WHICH DAMAGE BATTERIES.
YOU SHOULD THEREFORE ALWAYS TOP UP WITH DISTILLED WATER.

WARNING

- **KEEP THE BATTERIES AND THE ELECTROLYTE OUT OF THE REACH OF CHILDREN.**
- **ALWAYS KEEP THE BATTERY UPRIGHT, NEVER ON ITS SIDE.**
- **WHEN ADDING ELECTROLYTE OR WHEN RECHARGING THE BATTERY, ALWAYS REMOVE IT FROM THE ENGINE COMPARTMENT.**
- **BATTERY ELECTROLYTE IS A TOXIC AND DANGEROUS LIQUID. IT CONTAINS SULPHURIC ACID WHICH CAN CAUSE SERIOUS BURNS. AVOID CONTACT WITH SKIN, EYES AND CLOTHES.**
- **BATTERIES CAN EMIT EXPLOSIVE GASES. KEEP THEM AWAY FROM SPARKS, NAKED FLAMES, AND CIGARETTES ETC.**
- **WHEN CHARGING OR USING A BATTERY, WORK IN A WELL-VENTILATED ENVIRONMENT. ALWAYS PROTECT YOUR EYES WHEN WORKING CLOSE TO A BATTERY.**

NOTE:

- If you do not plan to use your boat for a month or more, remove the battery and store it in a cool, dark and dry place. Fully recharge the battery before reusing it.
- If the battery is stored for a longer period, check electrolyte density at least once a month and recharge the battery as soon as density is too low.
- Electrolyte density: 1.28 to 20°C.

VII -2-6 Bilge fan

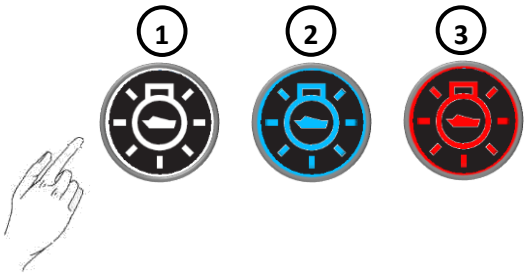
Use this button to ventilate the battery compartment before starting.

To do this, turn the circuit breaker to ON and **ventilate 4 minutes**. The LED ring turns blue when the switch is ON.

VII -2-7 Navigation lights

Press this button to switch on the navigation lights. There are 3 positions.

① Off (LED ring off)
② Anchor light and navigation lights (LED ring turns blue)
③ Anchor light (LED ring turns red)



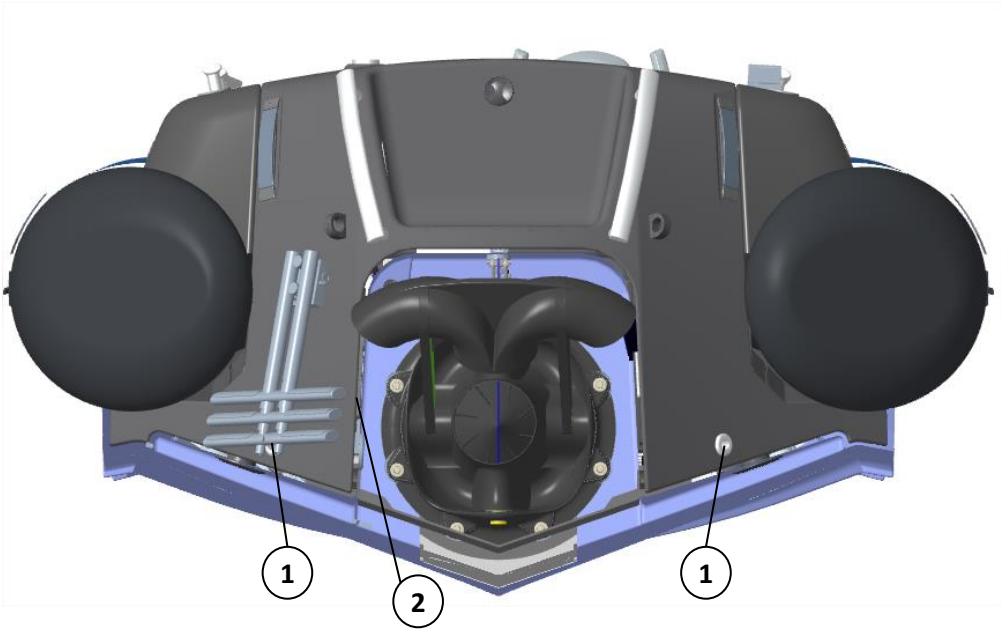
VII -2-8 Wiring options

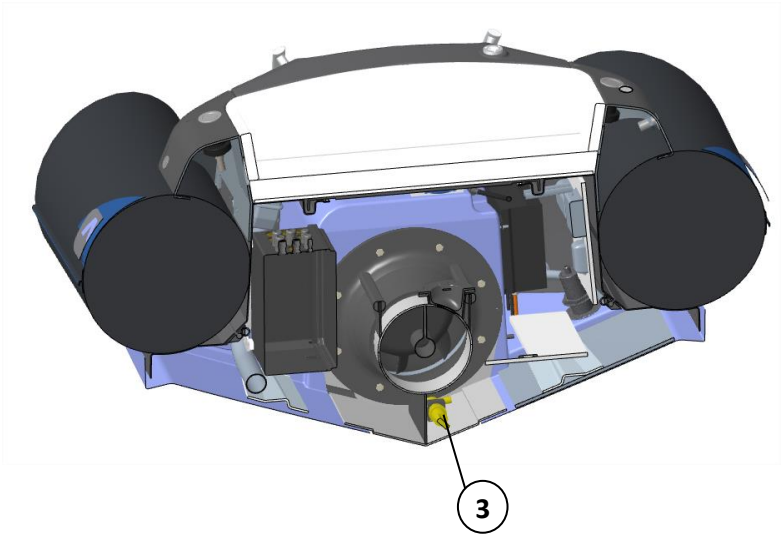
The electrical harness is designed for optional accessories.

Contact your AVON dealer to get more information about the available options.

VII-3 INSTALLATION OF THE DRAINING SYSTEMS

VII-3-1 Description of essential functional items

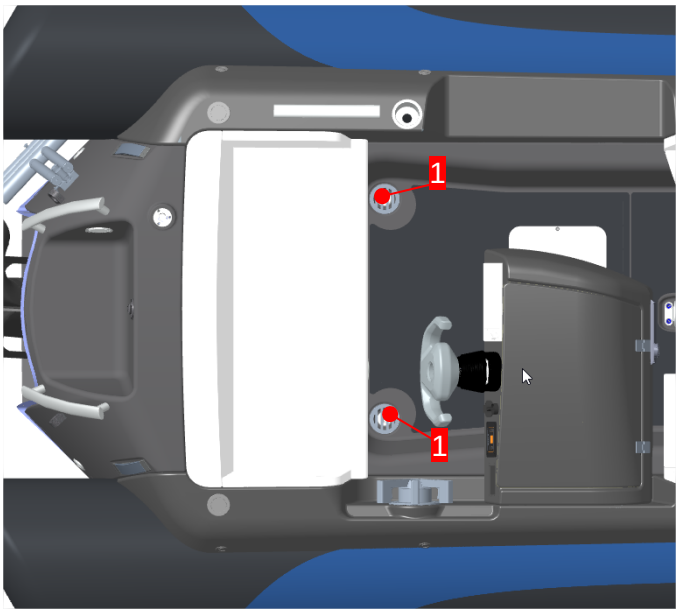




Ref.	DESCRIPTION
1	Through-hull
2	Bilge pump outlet
3	Bilge pump

VII-3-2 Through-hull draining deck

The through-hull fittings mounted on the deck are equipped with a strainer (1) to protect draining deck from seaweeds and debris.



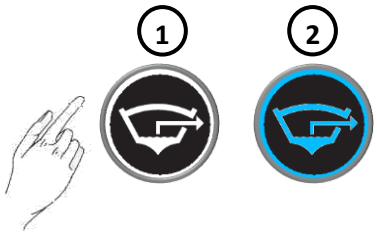
REGULARLY CLEAN THE STRAINER FROM SEAWEEDS AND DEBRIS.

VII-3-3 Bilge pump

The bilge pump is not wired to the battery switch and operates independently; the switch  is always connected.
The switch controls the automatic and manual modes of the bilge pump.

① Auto mode : when the LED ring is not lit up, the bilge pump works automatically.

② Forced operation: when you press the switch one time, the LED ring turns blue and the bilge pump operates. Press the switch one more time to come back to auto mode.



WE RECOMMEND THE USE OF A MOORING COVER IN ORDER TO PREVENT WATER INGRESS IN THE EVENT OF RAIN.
ENSURE THAT THE SYSTEM IS IN WORKING ORDER (UNBLOCKED PIPES, BILGE PUMP SWITCH ON AUTOMATIC MODE, BATTERY CHARGED).

WARNING
AT ANCHOR, SET THE BILGE PUMP SWITCH TO THE AUTOMATIC STARTING POSITION.

WARNING!!!
THE BILGE PUMP SYSTEM IS NOT DESIGNED TO CHECK WATER COMING FROM A BREACH IN THE HULL, IT IS THE OWNER'S RESPONSIBILITY TO HAVE AT LEAST ONE BAILER ON BOARD WITH A SYSTEM TO PREVENT ITS ACCIDENTAL LOSS.
REGULARLY CHECK THAT THE BILGE PUMP WORKS (SEE INSTRUCTIONS) AND CLEAN THE INTAKE STRAINERS OF ANY DEBRIS LIKELY TO CAUSE A BLOCKAGE.

The flow rate of your pump is about 45 litres per minute. It may be accessed via the rear locker.

VII-4 STEERING

Comply with the steering manufacturer's recommendations (installation, use and maintenance).

To get the best out of your boat, please consult your dealer.

VII-5 FIRE

WARNING
WE RECOMMEND YOU KEEP AN EXTINGUISHER ON BOARD AND COMPLY WITH THE LAWS APPLICABLE IN YOUR COUNTRY.

The boat is supplied without a fire extinguisher. Complying with the national regulations of the country in which your boat is registered is your responsibility.

When in use, the boat must be fitted with portable extinguishers.
A dry powder or CO2 extinguisher must be used.

The recommended position for the extinguisher is on the deck under the console.

VII-6 ANCHORING/MOORING

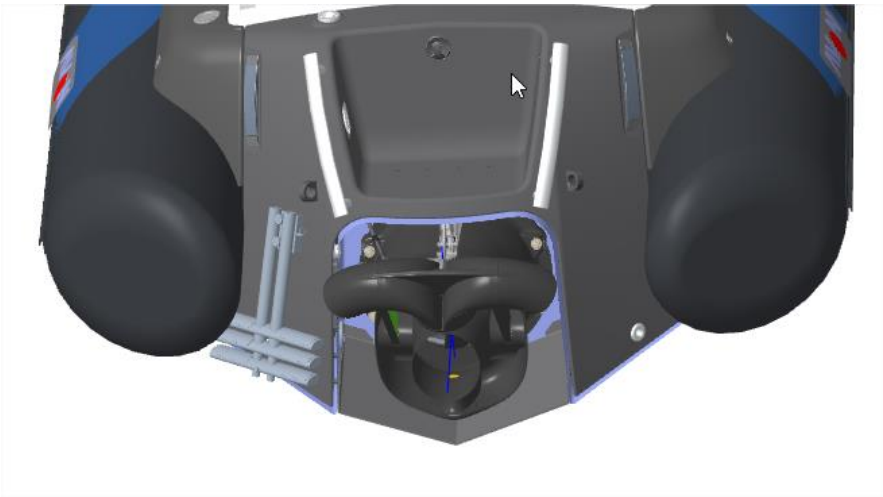
Ref.	DESCRIPTION
1	Pop up cleats
2	Bow ring
3	Anchor locker

An anchor is supplied with the boat.

WARNING

FOR PERMANENT MOORING, USE THE BOW RING OR CLEAT.

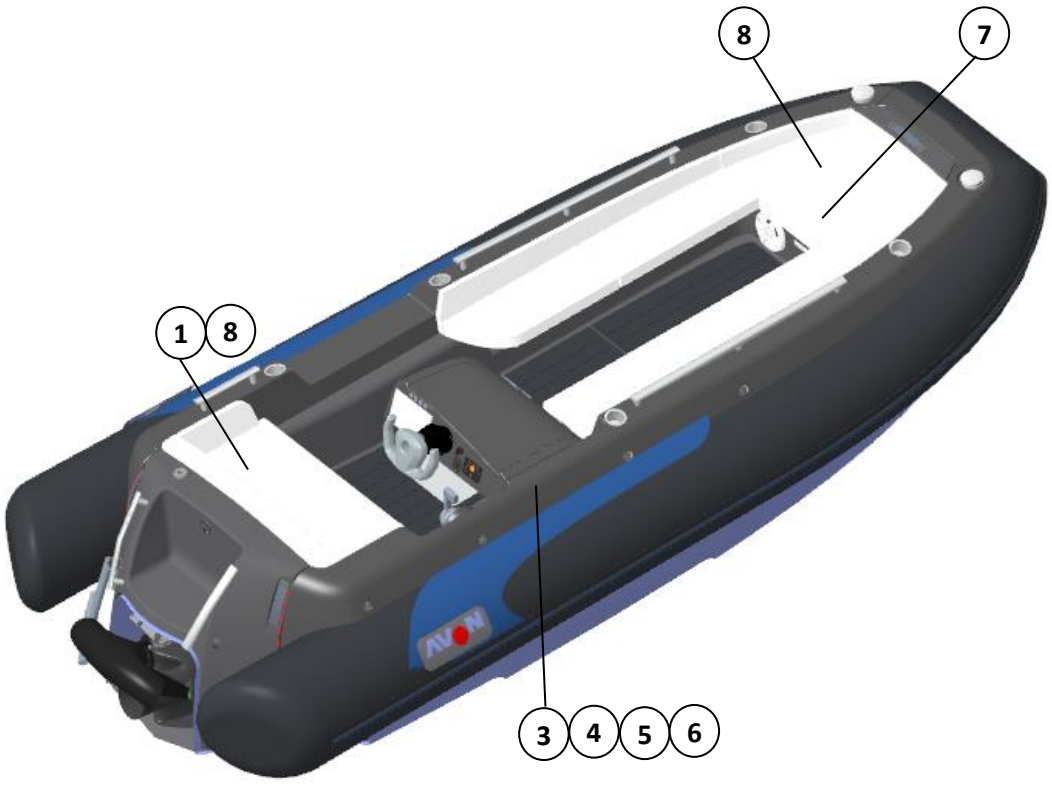
VII-7 BOARDING



DANGER!!!

CHECK THAT THE SYSTEM IS SWITCHED OFF BEFORE ANYONE CLIMBS BACK ON BOARD USING THE REAR LADDER.

VIII-1 POSITION OF STICKERS



VIII-2 DESCRIPTION OF LABELS

⚠ WARNING	⚠ AVERTISSEMENTS
• DO NOT TOUCH BATTERY TERMINALS (SHOCK AND ACID HAZARDS) • DISCONNECT BOTH LEADS BEFORE REMOVING BATTERY • CONNECT RED LEAD TO POSITIVE (+) TERMINAL • CONNECT BLACK LEAD TO NEGATIVE (-) TERMINAL	• NE PAS TOUCHER LES TERMINAUX DE LA BATTERIE (RISQUE DE CHOC ELECTRIQUE ET DE CONTACT AVEC L' ACIDE DE LA BATTERIE) • DEBRANCHER LES 2 FILS DE SORTIE AVANT DE RETIRER LA BATTERIE • RELIER LE CABLE ROUGE A LA BORNE (+) • RELIER LE CABLE NOIR A LA BORNE (-)

1

⚠ CAUTION	⚠ ATTENTION
IMPROPERLY TOWING YOUR BOAT CAN CAUSE SEVERE DAMAGE TO YOUR BOAT. • NEVER TOW IN OPEN SEAS • NEVER TOW ABOVE 6 KNOTS	UN REMORQUAGE INAPROPRIE PEUT ENDOMMAGER VOTRE BATEAU • NE PAS REMORQUER EN PLEINE MER • NE PAS REMORQUER A PLUS DE 6 NOEUDS

3

⚠ WARNING	⚠ AVERTISSEMENT
DO NOT LIFT THE BOAT WITH PASSENGERS ON BOARD	NE PAS SOULEVER LE BATEAU AVEC DES PASSAGERS A BORD

4

⚠ DANGER	⚠ DANGER
TO AVOID INJURY OR DEATH, SHUTT OFF ENGINE WHEN NEAR SWIMMERS OR PRIOR TO USING SWIN PLATFORM AND BOARDING LADDER	POUR EVITER DES BLESSURES OU LA MORT, COUPER LE MOTEUR EN APPROCHANT DE NAGEURS, ET AVANT TOUTE UTILISATION DE LA PLATEFORME ARRIERE OU DE L' ECHELLE DE BAIN

5

⚠ DANGER	⚠ DANGER
A FIRE EXTINGUISHER MUST BE CARRIED AT ALL TIMES	UN EXTINCTEUR DOIT ETRE DISPONIBLE EN PERMANENCE A BORD

6

7

8

IX- TROUBLESHOOTING

NOTE : see Torqeedo's user Manual, chapter **Troubleshooting**.

ERROR	CAUSE	CHECKING/CORRECTION
System display does not switch on after turning the key switch	Circuit breaker is off	Check the boat circuit breaker and switch it on if necessary.
	Battery charge is too low	Check the charge state of the 12V battery. If the charge is lower than 11V, charge using an external charger unit if necessary.
		Check the 50A fuse on the harness and replace it if defective.
Bilge fan does not operate after pressing the bilge fan switch	Circuit breaker is off	Check the boat circuit breaker and switch it on if necessary.
		Check the 50A fuse on the harness and replace it if defective.
Bilge pump does not operate after pressing the bilge pump switch on Manual Mode	Battery charge is too low	Check the charge state of the 12V battery and charge it if necessary.
		Check the 5A bilge pump fuse and replace it if defective
No water flow when the bilge pump is running with water in the bilge		Check the bilge pump strainer and clean it out if necessary.
Reverser actuator does not operate after pressing the tilt button	Circuit breaker is off	Check the boat circuit breaker and switch it on if necessary.
	Battery charge is too low	Check the charge state of the 12V battery. If the charge is lower than 11V, charge using an external charger unit if necessary.
		1- Check the 50A fuse on the harness and replace it if defective. 2- Check the 16A actuator reverser fuse and replace it if defective.
Boat slows down		Check the maintenance hydrojet hatch and remove seaweeds or debris if necessary. See chapter "Propulsion".

Bat 2B – 2480 L'Occitane
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Edition 4