

Volume 2

YACHTLINE 360 / 400

611 133 A



VOLUME 2 DESCRIPTION - BUOYANCY TUBE PROPULSION SYSTEM INSTALLATION AND CIRCUITS

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DESCRIPTION - TECHNICAL CHARACTERISTICS

I-1-TECHNICAL CHARACTERISTICS

Dimensions			
		YL 360	YL 400
	(m)	3.60	4.00
	(ft)	11' 8"	13' 1"
	(m)	2	2.40
	(ft)	6' 7"	7' 10"
	(m)	1.77	1.77
	(ft)	5' 10"	5' 10"
	(m)	0.86	0.86
	(ft)	2' 10"	2' 10"
V 0	(m)	0.455	0.455
	(ft)	1' 6"	1' 6"

C	ertification
(Directive 94/25/EU)	С

Capacity				
YL 360 YL 400				
III (ISO)		4	5	
Maximum	kg (1)	605	735	
	lb (1)	1,334	1,621	
	kg (2)	200	218	
	lb (2)	441	481	
Compartment		3	3	

Engine				
	Long		YL 360	YL 400
	Minimum	HP (3)	15	20
	recommended power	kW (3)	12	15
	Maximum	HP	40	50
	recommended power	kW	30	23
	Maximum allowed	HP (3)	40	50
	power	kW (3)	30	37
	Maximum engine	kg	119	119
Maximum	weight	lb	262	262

Dimensions				
YL 360 YL 400				
		3.18 m	3.58 m	
a	a ⁽⁴⁾	10' 5"	11' 9"	
Ç.	b ⁽⁴⁾	1.40 m	1.40 m	
	0 ()	4'6"	4'6"	
	c (4)	0.98 m	0.98 m	
b	C ()	3' 2"	3' 2"	

DESCRIPTION - TECHNICAL CHARACTERISTICS

NOTE	Dimension tolerance: +/- 4%		
NOTE	(1) The maximum payload has been calculated according to ISO 6185 standards. We recommend that you exercise caution when the boat is at maximum capacity. (2) The weights indicated do not include any accessories (3) The recommended power corresponds to optimal use of the boat's capacities for an average load (4 people). (4) Hull dimensions without buoyancy tube. Use the maximum authorized power with extreme caution (see "Recommended operating procedure" chapter of Volume 1 of the manual.)		



The maximum load on the manufacturer's plate should not be exceeded. The maximum load includes the weight of the engine, fuel, accessories, passengers and their equipment and any other type of load.



Do not store flammable products in the rear compartment. It is strictly forbidden to store a spare fuel tank.

ONLY ON 400DL:

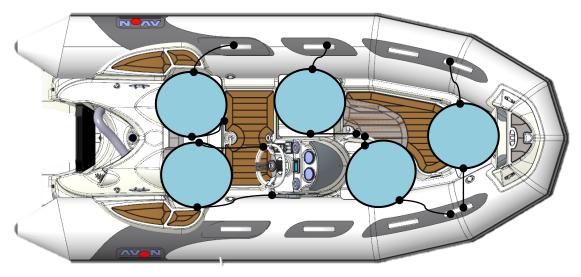


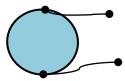
Limited manoeuvrability at speeds above 25 knots.

Risk of loss of control in tight turns.

Reduce speed* before turning in any direction.

* you can also vary the power trim and move the engine closer to the transom.





Seat with handles for the Yachtline 400

DESCRIPTION - INVENTORY

I-2-INVENTORY

HULL Polyester hull Counter-moulded, anti-slip deck Added transom and "flap" hull shape Console with storage I bow ring I anchor locker + locker forwards of the console (only on the 400 YL) I Aft locker I apholstered seats on YL 360 (5 seats on 400 YL) I aft anchoring cleats I front polyester step with cleat, navigation lights and LEDs I Folding and removable mast for white light I Deck light I Deck light I miged lifting chain plates I Towing chain plates I Towing chain plates I Self-bailers + 1 Hull drain hole

BUOYANCY TUBE		
•	Removable buoyancy tube	
•	Hypalon-Neoprene 1100 decitex fabric	
•	Easy-Push valves	
•	Broad rubbing strip	
•	6 Handles	
•	Cone reinforcements	

	CONSOLE
•	Steering wheel and remote steering control
•	3 Switches
•	Glove compartment

DESCRIPTION - Inventory

STANDARD EQUIPMENT

- 1 Fixed tank (35 litres + fuel gauge transmitter + water/fuel separator) with vent and antioverflow device
- Navigation lights and deck lights
- 1 battery tray
- 1 battery isolation switch
- Pre-fitted electric equipment to add extra accessories
- 1 Bilge pump
- 2 Paddles
- 1 Foot inflator
- 1 Repair kit

• Lifting kit

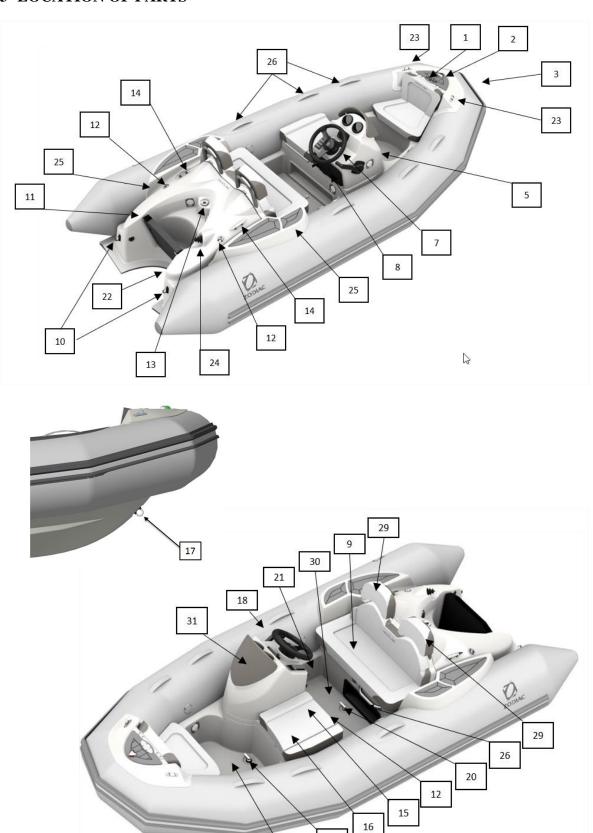
- 1 Owner's manual (2 volumes)
- 1 Pressure gauge cap

Boarding ladder
Rear seatback
Synthetic teak deck
Wind deflector

OPTIONAL ACCESSORIES

DESCRIPTION – LOCATION OF ITEMS

I -3- LOCATION OF PARTS



30

20

DESCRIPTION – LOCATION OF ITEMS

REF.	DESCRIPTION		
1	Forward mooring cleat		
2	Navigation lights		
3	Front polyester step		
4	Anchor locker		
5	Console		
6	Switches		
7	Steering wheel		
8	Glove compartment		
9	Tilting aft seat		
10	Towing / mooring rings		
11	Transom		
12	Lifting rings		
13	Base of white light mast		
14	Aft anchoring cleats		
15	Tank filling system		
16	Tank maintenance access hatch		
17	Bow ring		
18	Buoyancy tube		
19	Fire extinguisher bracket		
20	Self-bailer		
21	Deck light		
22	Scupper		
23	Fairlead		
24	Cable pull		
25	Polyester step		
26	Handle		
27	Easy-Push valve		
28	12V - cigarette lighter		
29	Rear seatback		
30	Synthetic teak deck		
31	Wind deflector		

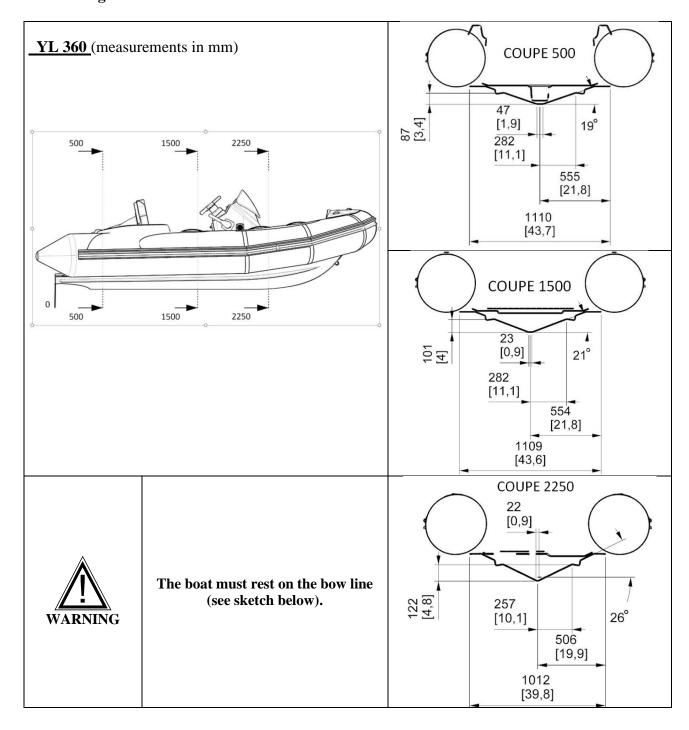
DESCRIPTION - HANDLING

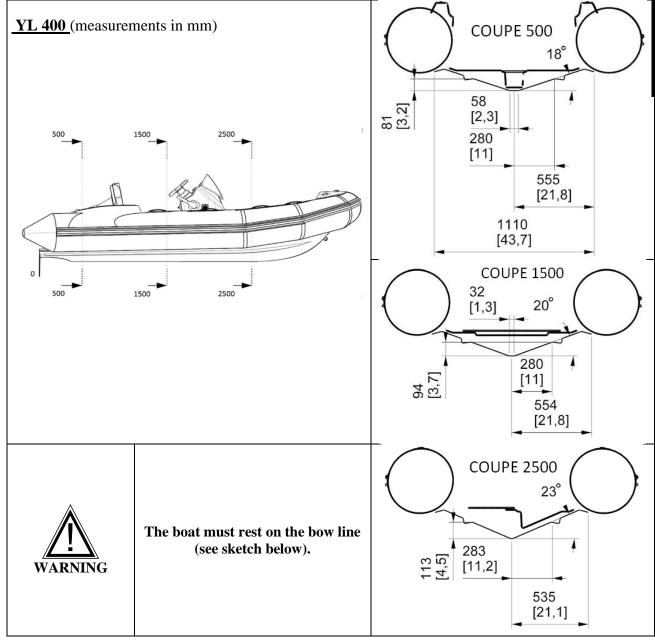
I-4-HANDLING

I-4-1 Transport:

• The trailer installation recommendations are specified in VOLUME I of the owner's manual.

I-4-2 Storage:



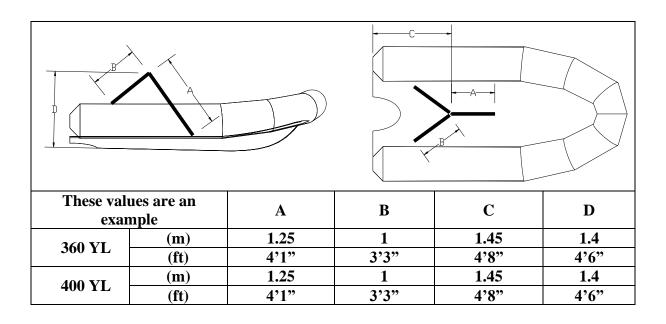


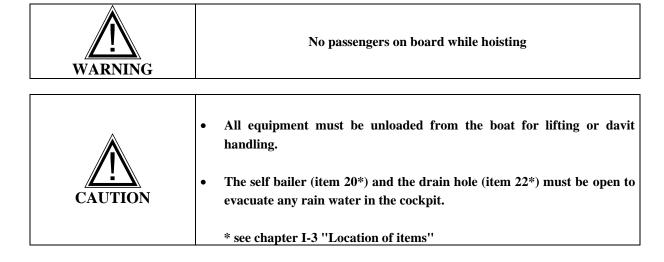
DESCRIPTION - HANDLING

I -4-3-Lifting:



The lifting sling is available as an option; you must only use an AVON sling for lifting.





BUOYANCY TUBE – COMMISSIONING

II-1-FITTING THE BUOYANCY TUBE – MAIN STEPS

When assembling the boat, it is important that you follow the procedure in the correct order. Proceed step by step, checking the reference pages for procedure explanations.

PROCEDURE	PAGE	SECTION
1. inventory the parts of your boat	4-5	Inventory upon opening
and learn to recognize them	6-7	Location of items
2. fit the buoyancy tube on the hull	11	Installing the buoyancy tube
3. fit the internal protective flap4. position the external protective flap	12	Fitting the protective flap
5. place the valves in the inflation position	14	Inflation system
6. inflate the boat to the operating	15	Inflating the boat
pressures	16-17	Pressure
7. fit the external protective flap	12	Fitting the protective flap

BUOYANCY TUBE – COMMISSIONING

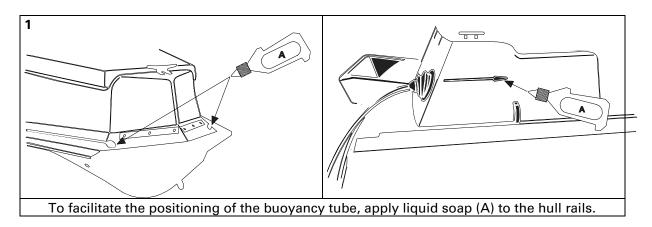
II-2 INSTALLING THE BUOYANCY TUBE ON THE HULL

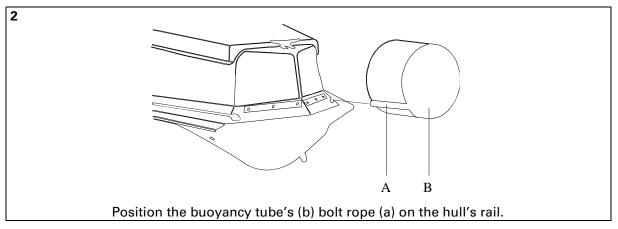


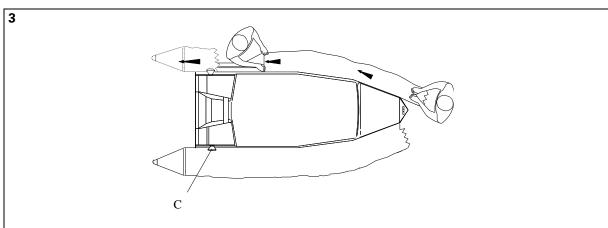
IF THE BUOYANCY TUBE WAS STORED AT A TEMPERATURE BELOW 0°C / 32°F, LEAVE IT AT 20°C / 68°F FOR 12 HOURS BEFORE UNFOLDING.

NOTE

The buoyancy tube is fitted to the hull with the buoyancy tube **deflated**.

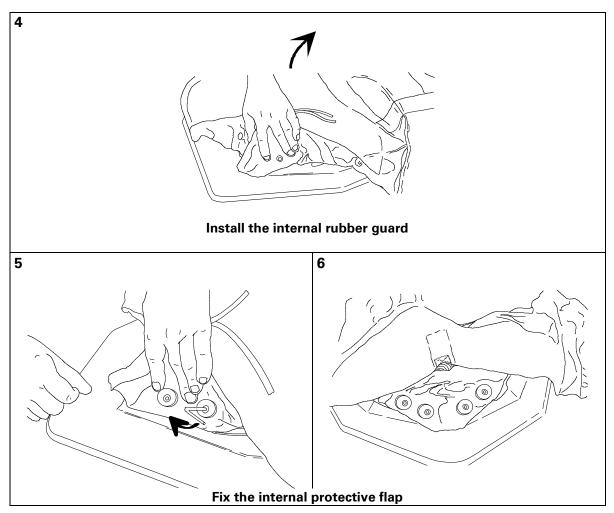


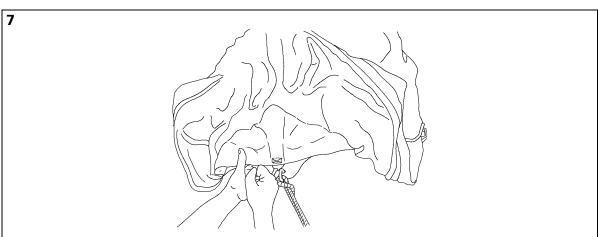




- Pull the buoyancy tube towards the boats stern (Do not forget to guide the upper bolt rope C).
- Repeat for the other side of the buoyancy tube

BUOYANCY TUBE – COMMISSIONING





After fixing the internal protective flap on the hull, pull the buoyancy tube gently towards the forward section in order to send the external protective flap over the forward nose (do not attach it at this point). Then pull the buoyancy tube towards the aft end.

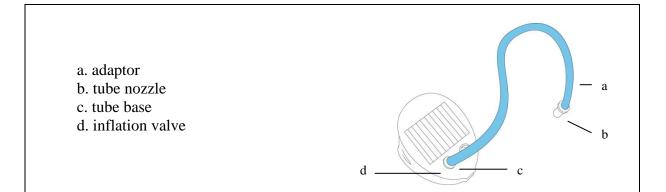
The external protective flap should be fixed after the buoyancy tube has been inflated

THEN BEGIN INFLATION

BUOYANCY TUBE – INFLATION SYSTEM

II -3-INFLATION SYSTEM

INFLATOR



"EASY - PUSH" VALVES

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

BUOYANCY TUBE – PRESSURE

INFLATING THE ENGINE

Place all the valves in the inflation position.

Attach the hose connector to the inflation pump inflation port.

To inflate your boat properly, the inflation pump should be correctly placed on the ground. The boat inflates rapidly if the inflation pump is used smoothly and without haste.



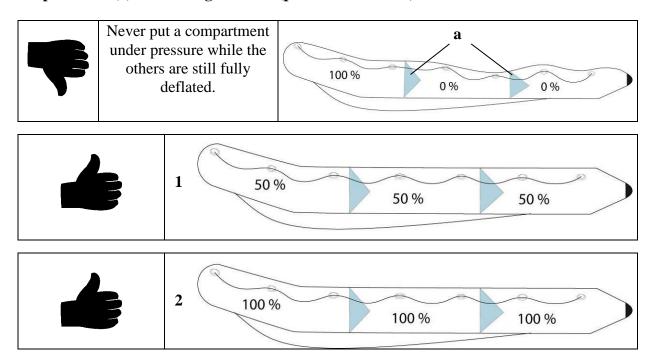
Do not use a compressor or compressed air cylinder.

BUOYANCY TUBE - PRESSURE

INFLATING THE BUOYANCY TUBE

• Place the adapter corresponding to the diameter of the semi-built in valve at the inflation pump hose nozzle.

Inflate the buoyancy tube, balancing the pressure between the different compartments until the partitions (a) are no longer visible (pressure = 240 mb)



Inflation is completed: Screw on the inflation valve plugs.

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

BUOYANCY TUBE - PRESSURE

CORRECT PRESSURE

The correct pressure for the buoyancy tube is 240 mb/ 3.4 PSI.

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

Thus it is 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 hot regions) and check that the pressure does not leave the recommended pressure zone (from 220 to 270 mb / green zone).

LOW PRESSURE RISK:

Example: Your boat is exposed to direct sunlight on the beach (temperature=50°C) at the recommended pressure (240 mb/3.4 PSI). When you launch the boat (temperature = 20°C), the temperature and pressure in the inflatable compartments will jointly drop (up to 120 mb) and **you must then re-inflate** them until the millibars lost due to the difference between air and water temperature are regained. It is normal to observe a drop in pressure at the end of the day when the outdoor temperature drops.

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 = 50°C). The temperature inside the inflatable compartments may rise to 70°C (particularly for dark buoyancy tubes), doubling the initial pressure (480 mb). **You must then deflate** the boat to return to the recommended pressure.



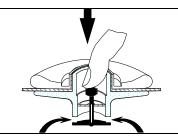
If your boat is overinflated, the pressure will abnormally wear the inflatable structure which may lead to a breach of the assembly.

BUOYANCY TUBE - PRESSURE

IN THE EVENT OF OVERPRESSURE

EASY-PUSH VALVE: Release air by pressing the

valve plunger



PROPULSION SYSTEM

III - Propulsion system

Comply with Zodiac's recommendations and with the engine manufacturer's recommendations.

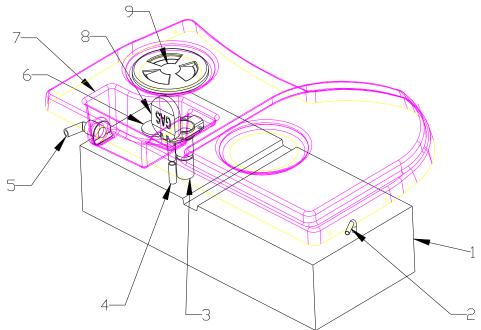
For optimal use of your boat, please consult your dealer.

INSTALLATION AND CIRCUIT - FUEL

IV-1-Fuel installation

IV-1-1-Fuel tank

The tank is located under the steering console:



REF.	DESCRIPTION
1	Tank
2	Outlet for fuel supply to the engine
3	Filling hole
4	Vent
5	Overflow compartment drain hole
6	Gauge transmitter
7	"Overflow" compartment
8	Filler cap with integrated vent
9	Tank maintenance hatch



It is vital to have a gauge dial. It is supplied with the engine. If your boat does not have one, contact your dealer.

The probe supplied is to American standard:

Impedance (tank empty position) 30 Ohms Impedance (tank full position) 240 Ohms

All the dials on the market are compatible, with a few very rare exceptions To connect it, refer to the electrical diagram page 22.

INSTALLATION AND CIRCUIT – TANK AND ACCESSORIES

IV-1-2-Fuel/water separator filter

NOTE	In order to protect the engine, a water / fuel separating filter is	
	placed on the engine's fuel supply system.	

The water/fuel separator filter is located in the aft locker, on the starboard partition:



REF.	DESCRIPTION
1	Filter head, secured to boat
2	Replaceable filter cartridge
3	Metal bowl
4	Purge screw

Doing so could damage the seal and compromise the tightness of the bowl
Make sure that there is no water in the metal bowl each time you use your boat:
Slightly unscrew the drain plug (do not remove it completely); drain the water; screw the plug back in if only fuel remains in the
bowl. Do this more often if your engine is not functioning correctly.

INSTALLATION AND CIRCUIT – TANK AND ACCESSORIES

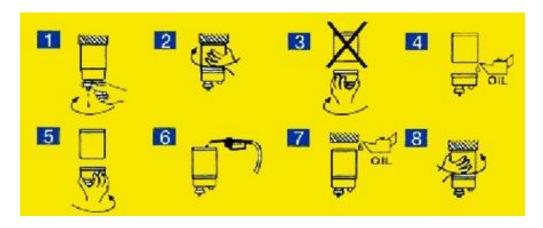


It is vital to drain and clean the filter regularly and to change the cartridge at least once a year.

The metal bowl can be reused.

Changing the filter cartridge:

Follow ZODIAC's recommendations and those of the filter manufacturer.



IV-1-3-Recommendations:

☑ ENSURING THAT THE FUEL TANK IS FULL BEFORE EACH OUTING PREVENTS CONDENSATION FROM FORMING.
 ☑ HAVE THE TANK CLEANED EVERY 5 YEARS.
 ☑ Check that all hose clamps are tight.
 ☑ When you drain the filter, do not empty the water into the boat. Place a recovery tray under the filter.
 ☑ SHUT OFF THE POWER SUPPLY BEFORE REMOVING THE FILTER CARTRIDGE.
 ☑ Carefully read the information provided in the filter's instruction manual.

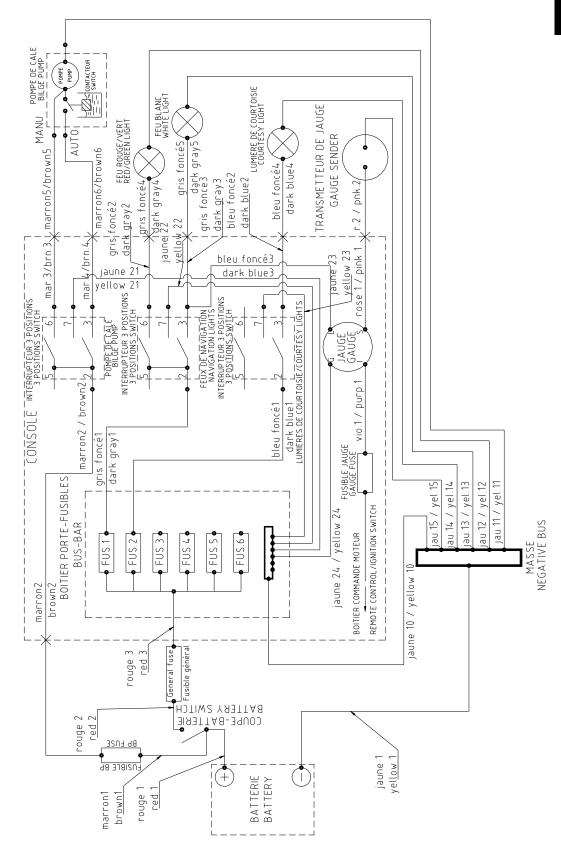


☑ Petrol is extremely flammable. Make sure that the engines are turned off before working on the fuel system.

Do not smoke; keep all flames or incandescent material well away from the work area.

INSTALLATION AND CIRCUIT - ELECTRICITY

IV -2-ELECTRICAL DIAGRAM



IV -3-BATTERY (not supplied)

Comply with Zodiac's recommendations and with the recommendations of the battery manufacturer for standard maintenance.



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.



The water from the water supply system contains mineral which damages batteries. You should thus always top up with distilled water.

- 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, open flames, 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 ZODIAC® 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 BEING STORED FOR A LONGER PERIOD, CHECK ELECTROLYTE DENSITY AT LEAST ONCE A MONTH AND RECHARGE THE BATTERY AS SOON AS THE DENSITY IS TOO LOW.

Electrolyte density: 1.28 at 20°C

NOTE:

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

IV-4-STORAGE OF NAVIGATION LIGHT MAST



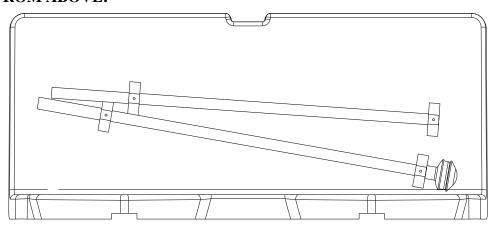


To not damage the navigation light mast when closing the seat, always stow it as shown on the photo above.

NOTE

To facilitate fitting the mast in the fittings, you may use soapy water.

VIEW FROM ABOVE:



IV -5-CONNECTION OF OPTIONS

IV-5-1-Precautions:

The boat is provided as standard with a bilge pump, navigation lights and a deck light. However, 4 locations remain available on the fuse box (under the console) for the connecting of additional accessories under certain conditions:

- ① The accessories you want to add must be connected to the console.
- ② Accessories are divided into two categories:
 - $A \rightarrow$ Accessories that are used or which may be used continuously during normal use of the boat,
 - $\mathbf{B} \rightarrow$ Accessories that are used intermittently.

A	
Bilge fan	
Radio	
Depth sounder	
GPS	
Searchlight	
Alarm system	
Refrigerator	
VHF	
Σ	180 W max.

and

В	
Cigarette lighter	
connector	
Miscellaneous	
lighting	
Horn	
Miscellaneous	
electronic	
equipment	
Shower pump	
Max. power	72 W max.



You must make sure that the total power of the accessories you add in column A is $180~\mathrm{W}~(15~\mathrm{A})$ or less AND that the max power of an accessory in column B is $72~\mathrm{W}~(6~\mathrm{A})$ or less.

The cross-sections of the different cables in the wiring circuit were calculated using these figures; not following this rule may lead to electrical faults and cause short circuits.

NOTE:

If you are getting several pieces of electrical equipment installed. The total immediate consumption could potentially exceed your outboard motor's capacity. For example, the electrical wiring harness can accept instant consumption of 285W (including navigation lights and bilge pump), which is a little less than a 24 A output current. The alternators in the current engines generally provide 15 A when at full throttle (Check your engine's technical documentation). You should therefore avoid using this equipment over a long period of time, as you run the risk of draining the battery and not being able to restart the engine.

and

Example 1

You want to add:

A 72 W VHF,

A 36 W GPS,

A 60 W radio,

A 72 W cigar lighter,

A 20 W clock.

A	
Bilge fan	
Radio	60 W
Depth sounder	
GPS	36 W
Searchlight	
Alarm system	
Refrigerator	
VHF	72 W
Σ	168 W (<180 W) ♂

В	
Miscellaneous	
lighting	
Miscellaneous	20 W (alasts)
electronic equipment	20 W (clock)
Shower pump	

Max. power

20 W (< 72 W) ♂

CONCLUSION	S
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Example 2

You want to add:

A 60 W VHF,

A 36 W GPS,

A 48 W radio,

A 120 W searchlight.

A	
Bilge fan	
Radio	48 W
Depth sounder	
GPS	36 W
Searchlight	120 W
Alarm system	
Refrigerator	
VHF	60 W
Σ	264 W (> 180 W) ?

and	В	
	Miscellaneous	
	lighting	
	Miscellaneous	
	electronic equipment	
	Shower pump	
	Max power	0 (< 72 W) ♦

CONCLUSION	\$
------------	----

and

Example 3

You want to add:

A 60 W GPS.

A 60 W radio,

A 120 W horn.

A	
Bilge fan	
Radio	60 W
Depth sounder	
GPS	60 W
Searchlight	
Alarm system	
Refrigerator	
VHF	
Σ	120 W (< 180 W) ♂

В	
Miscellaneous	
lighting	
Miscellaneous	120 W
electronic equipment	120 W
Shower pump	
Max. power	120 W (> 72 W) ♀

CONCLUSION

NOTE

Some manufacturers will indicate the amperage rather than the absorbed power. With direct current from a 12 V battery, as is the case here, simply multiply by 12 to obtain the power.

IV -5-2-Wiring:

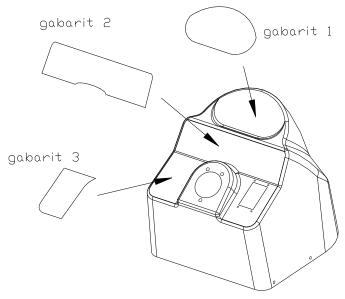
- ① Choose a free fuse location.
- ② Connect the power supply of your accessory to the terminal corresponding to this slot using a 6mm female tab type terminal lug.
- ③ If you have to add cable for the connection, use cable with a cross-section of at least 1.5mm² that complies with "marine" standards (UL1426 or SAE J378 or SAE J1127 or SAE J1128 or more generally meeting ABYC and/or EC standards),
- ① Connect the earth cable of your accessory to the ground terminal strip using a Ø5 "ring terminal" (same comment as for the cable above),
- ⑤ Insert an ATO type fuse with a max current of 15A and greater than the load current of your device.

IV -5-3-Connecting the petrol gauge:

Connect as shown in the diagram (page 19).

IV -5-4-Connecting accessories on the console:

Depending on the level of equipment of your tender, Zodiac recommends placing it in the following manner (see templates supplied with the boats) which optimises the space available.



IV -6-BILGE PUMP OPERATION

The bilge pump is not wired to the battery switch and operates independently; the control switch is always ON.

- ① Automatic operation (set position): in this position, the bilge pump operates automatically. The indicator light is on.
- ② Off: in this position (set position), the bilge pump is off. The indicator light is off.
- ③ Forced operation: the switch has to be held depressed to operate it. As soon as you release the switch, it returns to the Stop position (2).







At anchor, set the bilge pump switch to the automatic position.

NOTE

Zodiac recommends the use of a tarpaulin or mooring cover in order to prevent water ingress in the event of rain.



WARNING

Your attention is drawn to the finishing process in which structural components such as steering consoles, seats and superstructure elements are installed by parties other than the manufacturer. These elements should be installed in compliance with the relevant requirements of ISO 6185-3 to ensure that all such installations do not invalidate the initial assessment.

Also ensure that the subsequent installation of consoles and other structural elements not initially supplied with the boat is performed in accordance with the installation recommendations provided by the manufacturer and ZODIAC's recommendations.



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