Horizon
Yacht Charters
British Virgin Islands

Information & operations manual for Sun Odyssey 410 2020 'Tola Sunrise'

Welcome

Welcome to Horizon Yacht Charters and your Sun Odyssey 410 "Tola Sunrise". We hope you had a pleasant journey and are looking forward to a fantastic holiday and some of the finest sailing in the world here.

This manual is here to guide you through the in's and out's of your yacht. Please take the time to read this manual and don't hesitate to ask any of our professional, friendly staff if you have any questions.

All the yachts in the Horizon fleet are maintained to the highest standards so that you may enjoy a trouble-free vacation, on a beautiful yacht. Please remember that these yachts are all privately owned, and we ask that you care for it like it was your own.

Best wishes for a great vacation,

Sylvia and Andrew
Directors

Office Hours:
Monday – Sunday 08:30 – 17:30
Telephone: *(284) 494 8787*
Duty Manager: *(284) 542 8788 (Technical questions, damage reports and emergencies)*

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1. Yacht specifications

Length 40’ 6”
Beam 13’ 1”
Draft 5’ 3”
Fuel 53 Gallons
Water 140 gallons (starboard aft 87 gal + Starboard mid 53 gal)
Engine 45 hp Yanmar
Generator Fischer Panda 8000i

Location of:

- Fresh water refills **(1 Stbd aft and 1 Stbd mid)**
- Diesel refill **(Port aft quarters)**
- Manual bilge pump **(Port helm)**
- Propane tank **(Stbd transom locker)**
- Windlass Breaker **(Port aft cabin bunk)**
- Diesel cut off valve **(under port aft bunk)**
- Water tanks change over valve **(Under floorboard by companion way step)**
- Generator **(Between Port and Stbd aft cabins)**

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2. 12v & 110v Panel

Top Row:
Electronics
Navigation Lights
Steaming Light
Deck Floodlight
Anchor Light

Lower Row:
Cabin Lights
Primary Bilge Pump (hit once for auto and twice for manual)
Aux
Fresh Water Pump
Refrigerator

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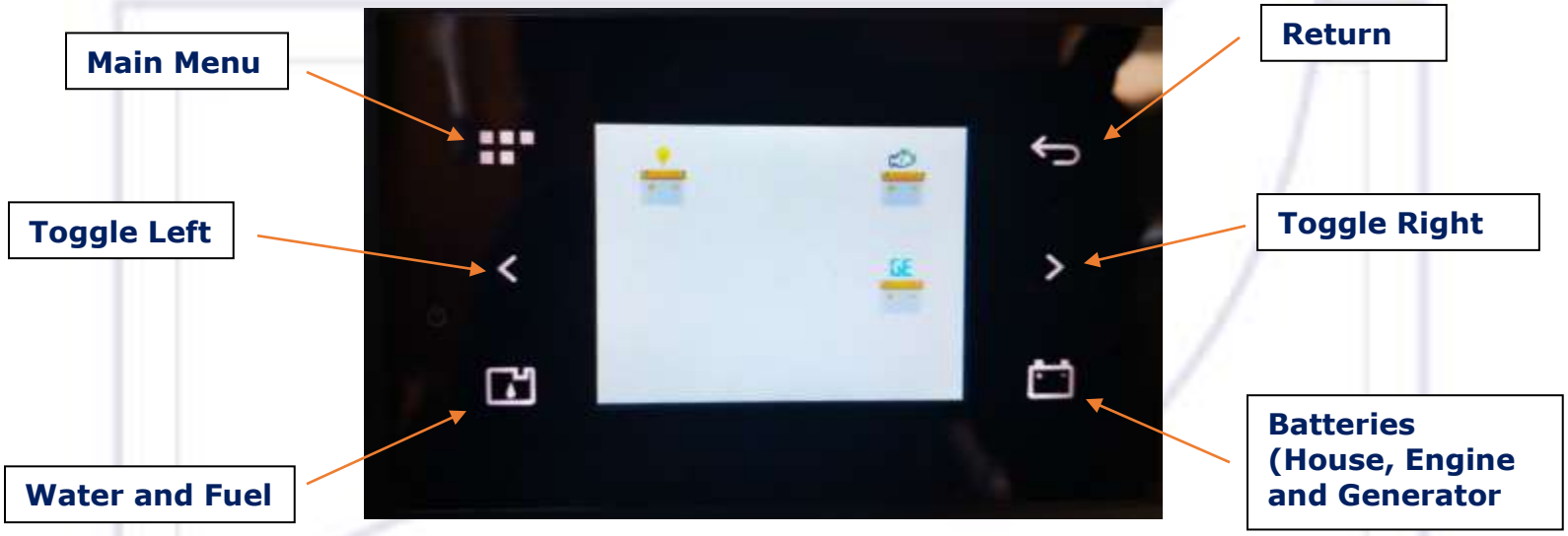
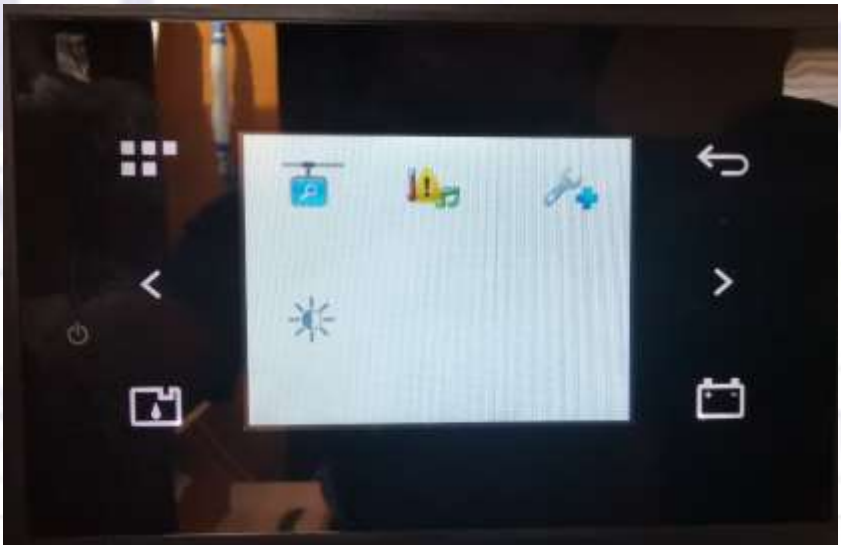
3. Voltmeter and Gauges



Main Menu: Display and owner settings (Do not adjust owner settings)



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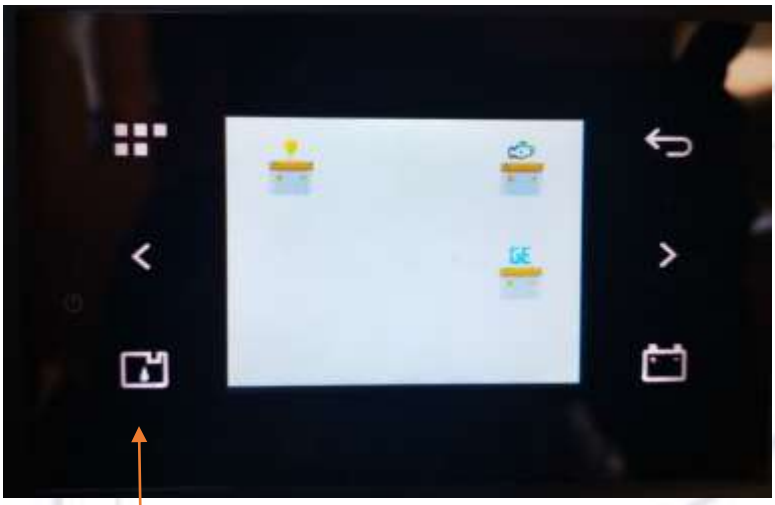
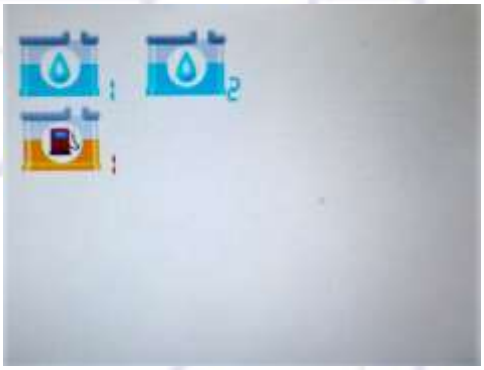
Water and Fuel Gauge



Water and Fuel

Options



Water Tank 1

Water Tank 2

Fuel Tank

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Batteries

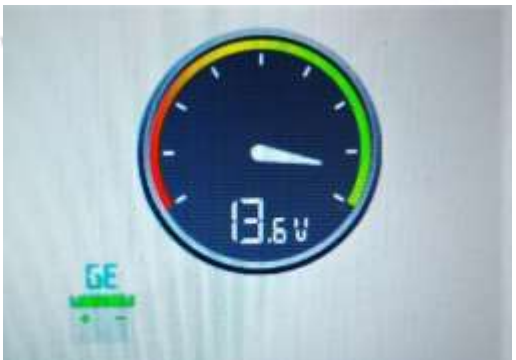
Batteries

Options

Domestic/Main Battery

Engine Start Battery

Generator Start Battery



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4. Charging

There are three ways to recharge your batteries:

Engine:
The batteries will need to be recharged as often as you deplete them. Conserving power will result in less time needed for charging, so turn off systems that you are not using. Your batteries will charge when the engine is running at 1400rpms or more, whether sitting at a mooring or motoring to a destination.

- Check the battery levels and make note of them before charging. You should consider charging if the Domestic/Main Battery is at 12.2V or lower.
- Run the engine at 1400rpms or more for **1-1 1/2hrs twice daily.**
- Shut the motor off.
- Wait 15 minutes before checking the battery levels, (directly after turning off the motor they will remain in an excited state for about 10 minutes).
- Domestic/Main battery should rest at 12.8V after charging.

Hold button and move shifter to disengage transmission.

Shore power:

There are two selector switches behind the generator which should stay in the auto position (Will select shore or generator automatically). In case of system failure, the switch can be operated manually. **Call the manager on duty if there is a system failure.** On shore power you have air conditioning, 110v power to your outlets and you are charging your batteries.

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Generator:

There are two selector switches behind the generator which should stay in the auto position (Will select shore or generator automatically). In case of system failure, the switch can be operated

manually. **Call the manager on duty if there is a system failure.** On Generator you have air conditioning, 110v power to your outlets and you are charging your batteries.

In all instances, ensure the battery charger switch on the 110v panel is on.

Battery Switches:

Domestic (Main), Generator and Engine battery switches are in front of the port aft cabin bunk. The battery switches must remain in these positions unless instructed to do otherwise.

Engine Battery Switch

Domestic (Main) Battery Switch

Generator Battery Switch

5. Inverter

Warning: Leaving the Inverter turned on will severely deplete the house batteries. For that reason, it is better to run the engines at the same time. **If you have the Generator running there is no need to use the Inverter.**

Tola Sunrise is equipped with a built-in Marinco 2000-Watt power inverter that allows you to have access to all outlets when the boat is underway. There is a remote switch located below the 12V panel that enables you to turn the inverter on.

To avoid additional drain on your batteries while operating electrical appliances, the engine should be turned on and revved up to 1400 rpm **IN NEUTRAL**

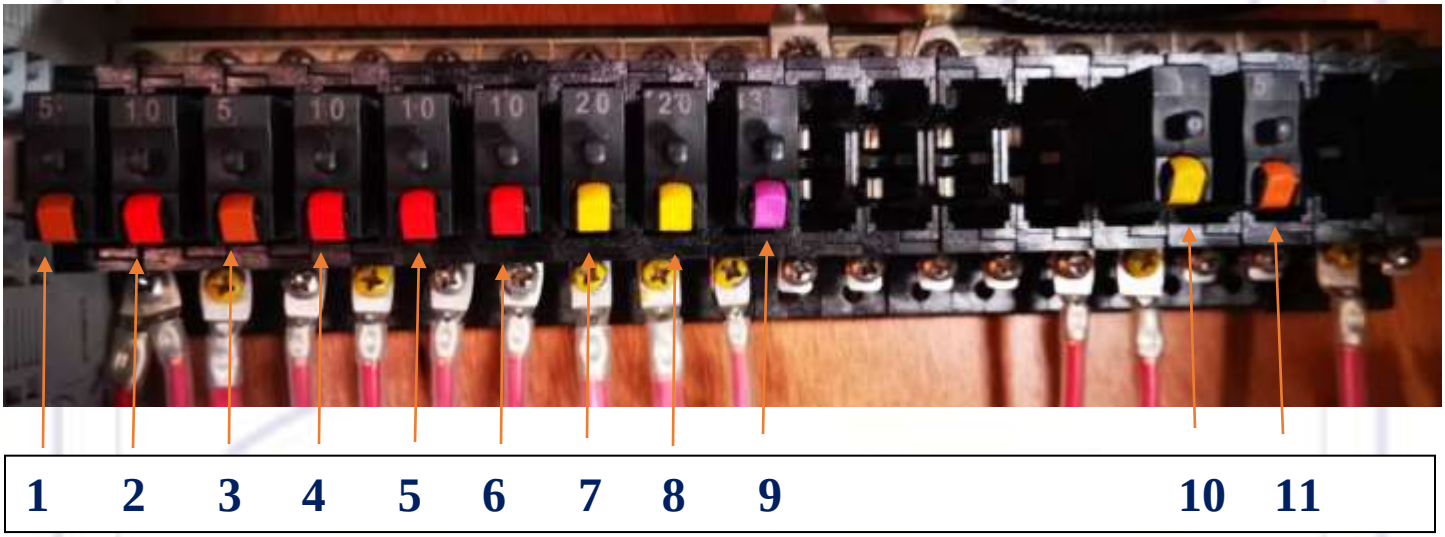
Switch the inverter off when you are not using it to help preserve battery power.

NB: The inverter will not operate the air conditioning unit; this is only available under generator power or shore power.

Inverter breaker is in the port aft cabin bedside locker.

6. Breakers and fuses

All 12V system fuses are behind the 12V panel at the nav desk.



1	2	3	4	5	6	7	8	9	10	11

1. 12 V Socket
2. Hifi
3. Touch screen (Supply) Voltmeter
4. VHF/AIS
5. Forward shower drain pump
6. Aft shower drain pump
7. Forward electric toilet pump
8. Aft electric toilet pump
9. Gas solenoid
10. Electric Windlass
11. Cabin fans

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110V Breakers (In port aft cabin bedside locker)

GFCI Breaker

7. Engine start

Start

Stop

Ignition

- Make sure the throttle is in neutral.
- Turn on the engine ignition by pressing the lower button on the panel (an audible alarm should come on).
- Press the start button at the top of the panel.
- Once the engine is running, check that you have cooling water coming out of the exhaust.
- To stop the engine, press the stop button until the engine stops and then turn off the ignition panel using the lower button (press and hold until you see all five red lights lit, then release).

Should you hear an engine alarm during normal operation, check the LCD display for an identifying symbol and immediately shut down the engine - CALL HORIZON

All our yacht engines run with diesel fuel. There is a diesel filler cap on each transom which is clearly marked "DIESEL" DO NOT PUT WATER IN HERE.

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8. Daily engine checks

- Check the oil level using dip stick located to the left side of the engine. Access the dip stick from the starboard cabin engine hatch. The level should be at least halfway between the empty and full marks. To add oil, open the oil filler cap on the top of the engine.
- Behind the engine is the seawater filter.
- To the front right of the engine is the engine coolant reservoir. The coolant level should be between the maximum and minimum lines.
- Check for any engine leaks or bilge water below engine.
- Check the fan belt, located at the front of the engine, for any damage and correct tension.

KEEP HANDS CLEAR OF ALL MOVING PARTS.

ANY PROBLEMS CALL HORIZON

Engine access panel behind starboard cabin door.

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9. Generator

DO NOT RUN THE GENERATOR WHEN UNDERWAY

Tola Sunrise is fitted with a Fischer Panda 8000i PMS generator.

- Make sure all the 110v systems (especially the air conditioning) have been switched off prior to starting the generator.
- Press the 'Power' button at the top left of the panel (Panel is just forward of generator, access in port aft cabin).
- After a slight delay the panel will illuminate, display the Fischer Panda logo and then you will see the panel information as shown in the photo above.
- Press the start / stop button once and you will notice that the display changes from **Preheat** to **Override** and then to **Running.**
- **Allow the generator to warm up for 5 minutes.**
- Gradually load up the system, adding one load (air conditioner) every 5 minutes.
- If you encounter problems with the 110V sockets when running the generator, make sure that the breakers are turned ON.
- The water heater will work when the generator is running but this is not usually needed. Hot water is primarily generated by running the main engine.

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Stopping the generator

- **Allow the Generator to cool down for 5 mins <u>without load</u> before shutting it down**
- Press the 'Stop' button once. The generator will close down
- Turn off the panel by pressing the top left button.

AC selector switches behind generator

Generator raw water strainer:

Please do not run the generator when sargassum seaweed is present. The generator raw water strainer is in the engine compartment and can pick up seaweed and other debris in the water. This can cause your generator to malfunction because of the lack of water flow.

Cleaning the raw water strainer:

1. Before you clean the strainer ensure the raw water intake valve is closed.
2. Remove the housing cover, this can be done with a filter wrench.
3. Remove and clean the strainer.
4. Refit strainer.
5. Prime the strainer by pouring water into it until it overflows.
6. Refit housing cover.
7. Open the raw water intake valve.
8. Start the generator
9. Make sure water is coming out the exhaust.

If you still have a problem running the generator after cleaning the strainer, check for water in the strainer. If there is no water in the strainer it means the raw water intake is blocked.

Clearing a blockage from the generator raw water intake:

1. Get the dinghy air pump.
2. Close the intake valve.
3. Remove cover and strainer from the housing.
4. Place the nozzle of the dinghy pump into the opening that is connected to the intake hose.
5. Open the intake valve.
6. Use the pressure of the dinghy pump to force the blockage out.
7. Once you have cleared the blockage, prime the strainer by pouring water into it until it overflows.
8. Refit housing cover and start generator.
9. Make sure water is coming from the generator exhaust.

If you are unable to open the strainer, remove the intake hose where it is connected to the strainer by undoing the hose clamps and use the dinghy pump to force out the blockage.

Please contact the manager on duty for further instructions.

Generator raw water strainer

Fit dinghy pump nozzle and force the blockage out

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10. Air conditioning

The air conditioning units should be turned on **after** the generator has been running for 5 minutes (or once the boat is plugged into shore power) and the breakers should be shut **off** before stopping the generator or unplugging from shore power.
Ensure the companionway and all hatches are closed; otherwise the compressors will freeze up.

Starting the air conditioning:

- Switch on the required units 5 minutes apart.
- Each of these units also has an individual control which allows users to alter the settings for the individual units.

Using the unit control panels:

- Switch the remote units on using the 'power' button.
- Set the temperature using the 'temp' arrow controls.
- The units will work best if the minimum temperature is set no lower than 70 degrees. Set it below this and you risk frosting up the unit and causing it to shut down.
- Only select the 'cool' mode. Press the mode button until the cool option is displayed on the unit.
- The remote panel will automatically display the ambient temperature.
- Control the fan strength using the 'fan' button.
- Switch the units off by pressing the 'power' button.

AC Breakers:

AC Breakers are in the starboard aft cabin beside locker.

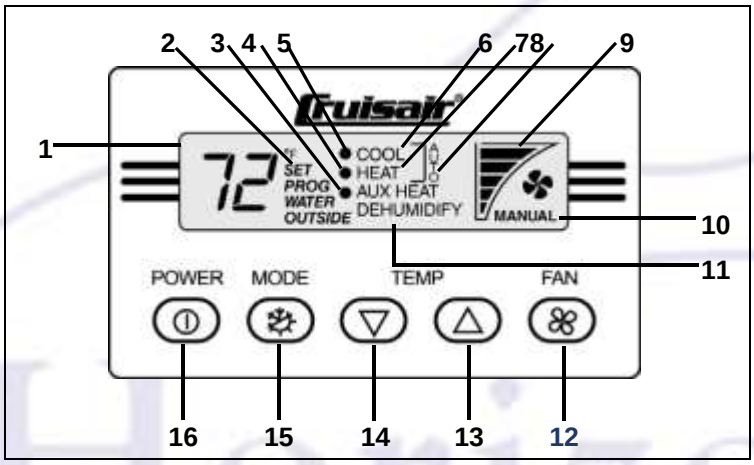

Diagram Description of Control Display Panel and Indicators

1	**Data Display** - Large LCD readout displays current temperature, set point, programmed values and error messages.	9	**Fan Speed Indicator** - A row of five bars indicate the current fan speed, with more bars indicating a higher fan speed and fewer bars indicating a lower fan speed.
2	**Set Point Indicator** - Display shows SET when set point is being adjusted. Normally display defaults to inside temperature.	10	**Fan Mode Indicator** - The word MANUAL displays when the fan is running in Manual Fan Mode. The word MANUAL does not display when the fan is running in Automatic Fan Mode.
3	**Aux Heating Indicator and Aux Heat Mode Indicator (optional)** - A solid dot displays next to the words AUX HEAT when the electric heater is on and running in Aux Heat mode. The words AUX HEAT display when you are in Aux Heat mode. (Press the MODE button to select the optional Aux Heat Mode.) See Programmable Function "23: Aux Heat Enabled/Disabled" on page 12.	11	**Dehumidify Mode Indicator** - The word DEHUMIDIFY displays when you are in Dehumidification Mode. It flashes if optional humidity sensor is connected and operating in the Cooling Mode. (Press the MODE button to select Dehumidification Mode.)
4	**Heating Indicator** - A solid dot displays next to the word HEAT when the compressor is on and running in Heat mode.	12	**FAN Button** - Press to select Manual or Automatic Fan Mode, indicated by the word MANUAL displaying or not displaying. In Manual Fan Mode, additional presses of the FAN button will adjust fan speed higher, then lower, then back to Automatic. In Automatic Fan Mode, fan speed is controlled by the microprocessor as a function of the difference between set point and inside temperature. See Programmable Function "4: Fan Response Differential" on page 9.

5	**Cooling Indicator** - A solid dot displays next to the word COOL when the compressor is on and running in Cool mode.	**13**	**UP Button** - Press to adjust set point up. In programming mode press to scroll through program modes and adjust values.
6	**Cool Mode Indicator** - The word COOL displays when you are in Cool mode. (Press the MODE button to select Cool Mode.)	**14**	**DOWN Button** - Press to adjust set point down. In programming mode press to scroll through program modes and adjust values.
7	**Heat Mode Indicator** - The word HEAT displays when you are in Heat mode. (Press the MODE button to select Heat Mode.)	**15**	**MODE Button** - Press to cycle through the modes of operation (refer to indicators). Mode sequence selections are COOL, HEAT, AUTO, AUX HEAT (optional), and DEHUMIDIFY.
8	**AUTO Mode Indicator** - A bracket and the word AUTO display to the right of the words COOL and HEAT when you are in Auto Mode. If optional Aux Heat is enabled (see Programmable Function "23: Aux Heat Enabled/Disabled" on page 12), a bracket and the word AUTO display to the right of the words COOL and AUX HEAT. (Press the MODE button to select Auto Mode.)	**16**	**POWER Button** - Press to turn the system on and off. Note that the Data Display remains on in the Off mode. You can continue to adjust set point, display temperature readings and activate the manual fan to circulate air while the system is in the Off Mode.

Bleeding the system

If the air condition unit shuts down with a 'HI PF' error code, that means there is an air lock in the cooling system. This problem can be resolved by bleeding the air out of the line, but it is important that you **call the Horizon Duty Manager before attempting to do this**.

Ac pump under saloon floorboard

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11. Cockpit electronics

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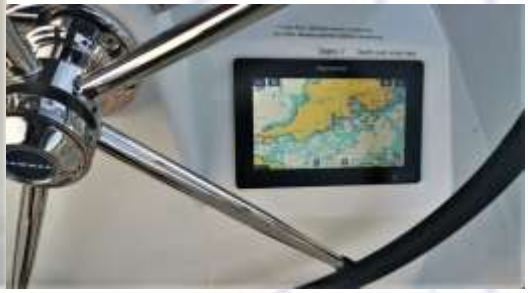

Located at the port and starboard helm are the following Raymarine instruments:

Raymarine Axiom 7-7" Multifunction Display (Stbd Helm)

Raymarine P70s Autopilot control head unit

Raymarine I70s multifunction instrument display

12. VHF procedures

Raymarine Ray73 VHF Radio

Using the VHF radio:
Familiarize yourself with the method for switching channels, and with the squelch and volume controls on your radio. Most radios have a button to instantly select Channel 16 – ensure you understand how this operates or you could end up speaking on Ch. 16 when you think you are on some other channel.

1. Make sure the radio is switched on, volume quite high, power to high unless the station you are calling is very close.
2. Squelch up until loud hissing, and then back a little until the noise *just* stops.
3. Select the channel for calling (Channel 16, unless specified otherwise).
4. Press switch on microphone when speaking. Release immediately.

If no response, then wait two minutes and repeat the call. If still no response, wait a further two minutes before trying again. If calling on Channel 16, it is very important to switch to a working channel after the contact is established. Do no use Channel 16 for your conversations – this channel is for hailing and distress only.

Channels to use:
16 Hailing and Distress
74 Contact Horizon Yacht Charters (when in range)
12 Yacht Charter Companies working channel – assigned for yacht breakdown servicing and emergency only
68 Marinas and Yacht Clubs – for lunch/dinner reservations etc
06 Ship to Ship – along with Channel 68 and 77 can be used for contact between boats

If your vessel is involved in a non-life-threatening incident with an object or with another vessel, it is important that you contact the Horizon Office immediately at 494 8787 or 542 8788. Please remember to get as much information as possible about your location, the other vessel's description and what damage has been done to your vessel so that we can best assist you.

Failure to report any accidents or incidents in a timely manner may result in nullification of your hull damage insurance.

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Types of emergency:
In the unlikely event that you are involved in an emergency stay calm and follow these steps. You will also have an Emergency Procedure card next to your VHF.

Distress: "MAYDAY, MAYDAY, MAYDAY." This is an International Distress signal and an imperative call for assistance. It is used only when a life or vessel is in grave and imminent danger.

Mayday Relay: used to summon help for a vessel which is either too far offshore to contact the coastguard directly, without radio capabilities or whose radio has been damaged or destroyed.

Urgency: "PAN-PAN, PAN-PAN, PAN-PAN" This is the International Urgency Signal and is used when a vessel or person is in some jeopardy but is not considered to be in grave and imminent danger.

Medical emergency: "PAN-PAN MEDICO, PAN-PAN MEDICO, PAN-PAN MEDICO" (Pronounced med-ick-oh). This is an International Urgency Signal that should be used when medical advice is needed.

Safety: "SECURITE, SECURITE, SECURITE" (Pronounced Say-cure-it-tay). This is an International Safety Signal and is a message about some aspect of navigational safety or a weather warning.

How to issue an emergency message:
Select Channel 16 and press transmit button on handset

Say slowly and clearly 'MAYDAY, MAYDAY, MAYDAY, CALLING ALL STATIONS

This is…. (vessel name) ….' and repeat vessel name 3 times

Give position – vessel's position in degrees of latitude and longitude or nautical miles from, and bearing to, a navigational landmark

Describe emergency – list the problem, the type of assistance needed; number of passengers aboard (boat length, hull colour and type is also useful)

Wait 1 minute for a response, repeat message

ALTERNATIVELY: Dial either 767 or 999 from any BVI cell phone or call 494- HELP (4357)

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13. Stereo

Fusion Entertainment MS-RA70N Marine Entertainment System with Bluetooth

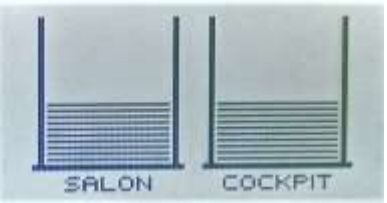
Connecting your device via Bluetooth:

Hit the source button and select BT (Bluetooth).

Hit the Menu button and select discoverable.

Open Bluetooth settings on your device and scan for Bluetooth devices. The stereo should show up in your list of devices as 'Tola Sunrise'. An option should show up on your display asking to pair with device and confirm pairing code, select 'OK'. Once paired our song selection and device name will show up on the stereos digital display.

Push to Volume rocker to adjust the volume in individual zones (Salon and Cockpit)



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14. Anchoring & the windlass

Setting your anchor:

Preparation:

- Establish a nonverbal communication system between helmsperson and windlass operator, as with the noise of the engine and wind, verbal communication proves difficult.
- Shorten the painter so that it cannot go under the yacht and wrap around the prop.

Location:

- Choose a clear area to anchor in and you can see the bottom. A white bottom is sand and perfect for anchoring. A brown or green bottom will be grass, rock or coral. Only anchor in sand. Maximum depth would be 1/5th of your anchor rode. Remember the depth is set from the bottom of your keel so keel draft should be added to the reading of your depth gauge.
- Anchoring on a lee shore is not recommended and would recommend using both your primary and secondary anchor if you choose to anchor off a lee shore. (see below)

Action:

- Always have your engine revs increased to @ 1400 rpms before windlass operator touches the windlass remote. The windlass needs optimum energy to operate correctly.
- Minimum scope is 5:1. In heavy weather you may want to increase that, always ensuring your swing area is clear of any obstacles.
- Use the elements; approach from downwind or current, whichever prevails.
- Have the anchor ready to deploy. This may require you to slack the chain and manually push the anchor slightly overboard so that it will go deploy when you press down on the remote.
- Once the yacht is stationary use the electric windlass to drop the anchor to the sea floor. The elements will push you back and away from the anchor. Keep deploying chain until you have acquired the correct scope. Attach the snubbing line.
- Always attach the snubbing line before setting the anchor with the engine and whilst you are anchored. The snubbing line protects the windlass and it is important that you attach the snubber every time you set the anchor. Attach the hook around the chain link (the hook is

too big to go through the link) and cleat off the bitter end of the line to a bow cleat. Pay out enough chain so that the snubbing line becomes taut.

- If the hook falls of the chain, it means that there is not enough tension on the line. You may need to hold slight tension on the snubbing line as you deploy more chain until the snubber takes the load of the anchorage. Engage reverse, slowly building up to 1500 rpm to really drive your anchor into the sand. Take transits as you set the anchor so that you know that the anchor is not dragging.
- It is always advisable to snorkel the anchor and ensure it is bedded in correctly and not just lying on its side or hooked on a rock.

Retrieving Primary Anchor:

- Never use the windlass to pull the yacht to the anchor. The windlass operator should point in the direction of the anchor chain so that the helmsman can move slowly in that direction. As soon as there is some slack on the anchor chain the bowman tells the helmsman to put the engine in neutral and then increase RPMs. Bowman then retrieves all the slack chain. When the chain becomes taut then you repeat the process from the beginning. Ensure the anchor does not swing into the bow of the yacht.

Setting a secondary anchor:

- Your secondary anchor is a quick set type of anchor and is usually stored in the cockpit locker. It has 30 feet of chain and about 170 feet of line. For this reason, we have always found it easiest to put this chain in the dinghy with two people and deploy it from there. Take note where your primary is and drive away from the yacht at a 45-degree angle of the primary. Drop the anchor with the shank pointed at the yacht and deploy the rode as you drive back to the bow of the yacht. Tie off at the bow. Once back on the yacht and dinghy secured, manually take the slack out of the 2nd rode and tie off. Now engage reverse to 1500 RPMs as before.

Manual operation of the windlass

If you lose power to your windlass, start the engine and rev to 1500 rpms to make sure you have not got low battery voltage. Check that the breaker shown below has not tripped behind the panel at the nav desk. If you still have no power, you can operate the windlass manually.

To drop the anchor, insert the windlass handle into the central hole on the top of the windlass.

Turn the handle anti-clockwise so that the gypsy loosens its grip on the chain. Your anchor is now ready to drop.

Remove the safety line or safety pin, and push the anchor over the bow, keeping hands and feet clear. Control the rate the chain pays out by tightening or loosening the wing nut with the stainless handle.

When you have paid out enough chain, between 5 to 8 times the water depth, push the handle forward to tighten the wing nut. Next, fit the bridle and release more chain on the gypsy so that the load is taken up on the snubbing line.

To raise the anchor, put the handle in the outer hole and turn the whole drum clockwise, this will wind in the chain. However, it is quicker if you pull the anchor up by hand as the helmsperson

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motors forward a little at a time, to give you slack on the chain. If you are reasonably fit and strong, it is possible to heave an anchor aboard.

Windlass Breaker

The windlass breaker is the 100A breaker in front of the port aft cabin bunk.

Windlass breaker

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15. In-Mast furling mainsail

Unfurling the mainsail:

1. Ensure the lever on the reefing winch at the mast is in the free position.
2. Open the line clutches "Main In" and "Main Out". This is the endless line that goes around the winch at the mast. Take the "Main out" side of the line and put one wrap around the winch. This will enable you to control the speed of pulling out the sail in breeze.
3. Check the outhaul clutch is closed.
4. Ensure the yacht is pointed into the wind and the vang is eased a little so the boom is horizontal/perpendicular to the mast.
5. Open your mainsheet clutches and ease mainsheet a foot or two. *Most of the vessels at Horizon Yacht Charters will have X2 mainsheets and no travelers.*
6. Pull on the "Outhaul" whilst you ease the "Main Out" line, always keeping an eye on the mainsail coming out of the slot in the mast and keeping tension on the "Main Out" line *(the line can hop off the winch if this is not done)*. It is recommended you unfurl the sail by hand and not with an electric winch to reduce damage to the sail if something were to go wrong.
7. When unfurling the main all the way, do not tension the outhaul so that the clew goes beyond the black marker near the end of the boom.

Do not open any clutch labeled "Do not touch" as it is the halyard. Releasing the halyard will make it difficult to furl and unfurl the sail.

"Main in" and "Main out" line clutches. *This is an endless line that runs through both clutches.*

Reefing winch lever. ***In the rachet position the sail can only go in the mast not out. This can be used to reef the main in heavy wind conditions. Release both clutches beforehand.***

Reefing winch. ***If the continuous line were to break this can be used to furl the sail back in. Just move the lever to rachet and use a winch handle to furl the sail.***

Furling or reefing line ***(endless line)***

Unfurling- Open the "Main in" and "Main out" clutches. Keep tension via X2 turns on the winch with the "Main out" line.

Pull on the outhaul to unfurl mainsail always keeping an eye on the sail as it unfurls.

Black marker on boom, do not furl beyond this maker.

Reefing the mainsail:

Pull the main sail out as above. You can stop unfurling by pulling on both the "Main In" and "Main Out" simultaneously. This stops the winch which stops the sail.

1. Move the Lever to "Ratchet" position. This will keep the sail from coming out any further, but you can furl in, making it perfect for reefing and sailing in strong breeze.
2. To flatten the main in reefed position put the outhaul around the self-tailing winch tension slightly then open the "Outhaul" clutch. You will then need to ease this as you reduce sail.
3. With both the "Main In" and Main Out" line clutches open start winching the furl in line while keeping tension on the "Main Out" to keep the line in solid contact on the mast winch.
4. Once the desired sail area is achieved and achieved a good tension on the foot of the main, close the "Out Haul", "Main In" and "Main Out" clutches. Clear the winches needed for main sheets etc. and go have fun.

   If reefing in very strong winds, ensure the lever on the reefing winch is in the ratchet position. This way you have more control over the sail area.

Furling in the mainsail:

Turn the vessel slightly up wind and ease your vang and mainsheet slightly so the boom is above mast ensure your boom is horizontal/perpendicular to the mast. Open the "Main out" clutch for the endless looped line, pull on the "Main In" line while keeping slight tension on the "Main Out" so the line is securely turning the furling mast winch. Ease the "outhaul" as you furl in the main. In higher breezes you may find it easier to put the winch in the "Ratchet" position so that it cannot mistakenly unfurl. Take note of the different color of the triangle of sail at the clew. Do Not furl this into the mast.

Troubleshooting:

Trouble unfurling the main:

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1. Ensure that the lever on the reefing winch is on free and not rachet.
2. Pull on the furl out and outhaul at the same time. The outhaul is pulling on the clew of the sail as the furl out is turning the foil to let the sail out. If the sail is

jamming as you pull it out, you will most likely see furled sail being pulled through the slot in the mast. If so, furl back in until the sail is no longer bulging out the slot. Pull on the "main out" first and the "out haul" second. Repeat this several times until you have 1/3 of the sail out and from there the sail should come out easier.

Furl in and out line breaks while the sail is out:

1. Move the lever on the reefing winch to rachet.
2. Using a winch handle in mast winch. Note this is a one speed winch. In the ratchet position it will only turn one way. That is furling the sail away, ease the outhaul as you furl in.

Never leave winch handle in reefing winch.

Furl in and out line hops off the reefing winch:

1. Ensure lever on reefing winch is in the free position.
2. This is just like putting a chain back on a bicycle.
3. Turn the winch with a winch handle to determine which way is better for you.
4. Using your thumb press part of the in between the winch drum and the body of the winch on either side of the winch. Turn the winch so that it is taking the line into that slot. You will need to continue to assist the line until it is completely back around the winch.

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16. Picking up a mooring buoy

- Ensure the dinghy painter is tied off short on the bow or amidships and is clear of the prop.
- Approach the mooring buoy, keeping the bow into the wind or current, whichever prevails.
- Have a crew member on the bow to pick up the mooring pennant with the boat hook.
- The bowman will direct the helmsman to the mooring, using the already established non-verbal communication system. Once at the mooring, inspect the buoy and pennant for any signs of wear and tear; if you are unsure about a mooring buoy's integrity, choose another location to moor up.
- The bowman should ready a line to a bow cleat to slip through the eye of the mooring pennant. This line is then shortened and brought back to the same cleat.
- Once set your mooring buoy will be attached either on the port or starboard cleat and the yacht will be head to wind. Remember to centralize the wheel and lock in place to avoid the yacht sailing around the buoy.
- Next attach a second back up line to the mooring. Attach a line from the opposite bow cleat and if possible, attach it directly to the mooring buoy. It is always easier to do this from the dinghy. Do not try to make the lines of equal length, the first line should be taking all the weight of the boat.
- To depart, release the back up line first. Slowly motor the boat forward to create slack, release the line from the cleat and allow the pennant to slip from the line into the water. Fall back with the wind or current and be careful not to foul your prop on the pennant.
- **Remember to tie your dinghy away from the stern whenever you are maneuvering in close quarters**.

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17. Bilge pumps

Your yacht is equipped with an automatic and a manual bilge pump. The primary electric pump is operated by a switch on the 12v panel which should be left in the **'AUTO'** position as the pump is operated by a float switch which will automatically operate the pump when there is water in the bilge. The manual bilge pump is operated from the cockpit and is located at the stbd helm.

Manual bilge pump located at starboard helm. The handle is mounted in holders under the cockpit floor lid.

Manual bilge pump handle

Fully automatic bilge pump under saloon floorboard

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18. Freshwater system

Tola Sunrise is equipped with two water tanks with a capacity of 140 gallons split between them. The aft tank is 87 US gallons and the mid tank is 53 US gallons. To fill the tanks, let the water run from the hose for awhile before placing the end into the fillers that are located port fwd and starboard amidships. Please ensure that the correct fillers are used, NOT the refills labeled waste or diesel.

To use the freshwater system, turn on the freshwater breaker on the 12v panel and open a faucet. When the tank runs out of water the pump will run at high speed, the faucet will start to cough air. As soon as you hear the pump running continuously, check to see if anyone is using water. If not, switch off the pump immediately to prevent the pump from drawing more air into the system or the pump overheating, and proceed as follows:

- Switch off pump.
- Locate the changeover valves below the saloon floorboard just in front of the companionway step. Close the tank currently in use and open the other.
- Switch on the freshwater pump.
- Open cold-water faucet at galley and purge system of air, approx 45 second.
- Turn off faucet, pump will continue to run until adequate pressure has built up to operate pressure switch to cut the pump out.
- If pump does not cut out, it may be necessary to repeat the purging process and open other faucets.
- If you have any problems, call Horizon.
- The engine heats the water.

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19. Heads

- **Nothing is to be put down the head unless it has been digested first.**
- Prior to use, add some water to the bowl by pressing the left side of the bottom switch.
- To rinse out the bowl and rinse through the lines press the top button. This draws water into the bowl and through the lines. Make sure that the bowl **and** the lines are rinsed clean.
- To empty the bowl, press the right side of the bottom switch until all the water has disappeared from the bowl and lines.
- Always leave the bowl empty of water in between uses.
- Wherever possible please use the heads ashore as this keeps our waters nice and clean.
- **Blocked heads due to any other blockage other than mechanical failure of parts is at the charterers expense as per your charter contract. This includes the chase boat and technicians fee.**

Holding Tanks

Each head on Tola Sunrise has a fully operational holding tank which can be used by closing a valve on the waste seacock. The holding tank valves are behind the white access panel in each head/shower. These are located as shown below. Check that the holding tanks are empty before returning the vessel and please flush each one through to minimize residual odors.

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20. Showers

Your yacht has a hot & cold, fresh-water shower in each head and on the transom. If the engine has been running, the hot water can be very hot – be careful!

In order to use the shower, the fresh-water pump must be activated on the 12v panel.

The transom shower is located behind the port helm. There is a toggle switch located next to the shower head which controls the flow and temperature of the water. To switch the water on or off move the switch up and down, to change the water temperature, move it clockwise or anti-clockwise.

Finally, press down on the small button located on top of the shower head to release the water from the hose.

Transom Shower

A toggle switch in each shower drains the shower floor.

21. Refrigeration

The refrigeration system on this boat is an upgraded 12v refrigerator. This system is designed to run 24hrs a day if you wish. To ensure that it does not fail keep your batteries charged. If the level goes below 12.2v the fridge will automatically go in standby mode. If you get excessive ice on your cooler plate **do not** chip away at the ice. If something is frozen to the cooler plate do not force it away. Use warm water if you need to melt the ice.

The thermostats are on the front of the units. If necessary, you can turn the system down or off if you wish. If it is not cold enough augment the system with ice. We are in the tropics so please note that fruit, vegetables and other fresh produce might not last if you expect.

Ask one of our staff for a deck cooler if you would like one for storing your drinks. It will keep the drinks cold and help maintain the temperature in the fridge, as people will not be going in it every 5 minutes for a drink.

Galley 12V refrigerator

22. Propane and stove

Tola Sunrise is fitted with a three-burner stove and oven.

Propane tank is below port helm seat.

To use:

- The solenoid control switch is just in front of the galley sink. Hold the red safety switch down and press in on the top of the button. A green led will indicate that the solenoid is now open.
- To light, push and turn the knob you wish to use through 90 degrees anticlockwise and light the burner using the automatic igniter.
- Hold the knob in for 10-15 seconds, then release. Make sure that the flame goes all the way around. Reduce any wind that may hinder this.
- If you cannot get it to light, check the valve on top of the connected tank is open.
- When you have finished using the burners, or the stove, switch off the solenoid **before** you turn off the knob on the stove. This will burn the gas out of the lines, and you can test whether the solenoid is working. If the burner remains lit after switching the solenoid off, **you must** manually close off the tank in the cockpit.

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Propane safety

Tola Sunrise is fitted with a Xintex S-1 Propane detector. This device will detect propane and any other noxious gas or fume. The propane 'sniffer' has been placed in the bilge (propane is heavier than oxygen and will sink into the bilge). The detectors are sensitive to several types of gas and will trigger the alarm. The alarm can also be triggered if there is moisture in the bilge. If the alarm sounds it does not necessarily mean that the propane system is leaking, so don't panic!!

Xintex S-1 Propane detector

Propane Locker

Different elements can set off the propane alarm, if there is a propane leak you should smell propane. In the event of a propane leak, follow these steps:

- Close the valve on the propane tank.
- Switch off everything electrical especially the electric bilge pump. Propane will settle in the bilge.
- Check the stove and surrounding area for propane smell.
- If detected, open the bilges and hatches. Point the boat downwind and use the manual bilge pump to pump out the bilges.
- Call Horizon immediately

Under no circumstances should you use the electrical bilge pump or any other electrical system if you suspect a gas leak.

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23. Fire Safety

Fire extinguishers are installed in each cabin, in the galley, at the Nav desk and in the cockpit locker.

Prevention is the best answer to fire safety.

- Always switch off the safety solenoid when stove is not in use
- Never leave the stove or oven burning unattended.
- Never change propane tanks whilst barbequing.
- Never smoke below decks.
- Never smoke when changing propane tanks.
- Safely store any flammable liquids (for example charcoal lighter fuel).
- Keep matches away from children.

Engine compartment fire:

In the event of a fire in the engine compartment use the fire extinguisher positioned closest and discharge it through the access hole located centrally on each aft cabin headboard.

- Pull the yellow key out.
- Press down on the red button until all the contents of the extinguisher have been discharged.
- Do not open the engine compartment even if you think the fire has been extinguished, dying embers can easily be re-ignited by a fresh supply of oxygen (air).

Open fire:

- Pull out the yellow safety tab.
- Point the extinguisher at the base of the fire and press down on the red button to discharge contents.
- Generously cover the base of the fire and surrounding area to ensure the fire is under control and cannot spread. Continue discharging extinguisher until the fire is out.

Galley fire:

- Take the fire blanket out of its container.
- Carefully lay the blanket over the fire, laying the blanket away from you and keeping yourself always protected from the flames.
- Ensure hands and limbs are protected from the fire by the blanket.
- Once in place leave the blanket until all heat has gone from the scene of the fire, this way you can be sure that the fire has gone out and will not re-ignite.

Smoke alarm:

- There is a battery-operated smoke alarm mounted in the salon. This alarm will be triggered by smoke caused by cooking or burnt toast. Opening a hatch to allow ventilation will minimize triggering the alarm. For safety purposes, the 9v battery should not be removed from the smoke alarm.

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24. BBQ

- When using the BBQ, tie your dinghy off at the side of the yacht, not off the stern.
- Never use the BBQ while sailing.
- Never use the BBQ on a dock.
- Never change propane tanks when using the BBQ.
- Make sure someone is always tending the BBQ when hot.
- Call us if you have too much food.

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25. Swim Platform

Swim platform on Tola Sunrise must be manually lifted or lowered. The hinges are counterbalanced so it is very light lifting and should not fall when lowering the platform.

- The swim platform is either all the way up or all the way down.
- Stay clear of the swim platform when it is motion.
- No sailing or motoring of the yacht with the swim platform down.
- Swim platform should be down when on a mooring ball or anchored, the transom is very high when the swim platform is up.

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26. Dinghy & Outboard

The driver of the dinghy must be over 18 and must always be wearing the kill cord. Never operate the dinghy under the influence of alcohol or drugs.

- Always tow your dinghy on a short line while motoring and a long line while sailing, always tow with the engine leg up as it gives you an extra half knot.
- If conditions are very rough, the outboard needs to be mounted on the push-pit.
- When going ashore for an evening's entertainment allocate a dinghy captain, someone who will bring the whole crew back to the boat safely, allowing the rest of the crew to enjoy various local cocktails and concoctions.
- To start the engine, lower the motor into the water using the lever on the starboard side of the engine. The lever position corresponds to the motor position, up and fwd for towing and back and down for driving. Check you are in neutral and **the safety cord is in place**. For starting an engine that has been at rest for 3 or more hrs use the choke. Pull the choke out and set a few revs with the throttle. Do not twist the throttle trying to prime the engine. You will only flood it. Face the engine and pull the start cord and push the choke back in as soon as it runs. If it runs for a second but cuts out, try again without the choke.
- To stop the engine, press the button on top of the kill cord, or pull the kill cord out.
- Keep the kill cord with you to prevent anyone from borrowing it. You have been provided a dinghy lock and cable. Use them.
- Do not drag the dinghy onto a beach; anchor it off or put it on a dock with a stern anchor to prevent damage from going under or hitting the dock.
- Do not speed in and around other yachts, speeding fines have been introduced.
- At night, an all-round white light must be displayed along with red & green side lights, and it is always a good idea to have a flashlight with you, to show the way, and warn other vessels of your presence.
- Wear the life preservers provided in the cockpit lockers when in the dinghy.
- **GAS to OIL ratio, 1 gallon: 3 ounces.**

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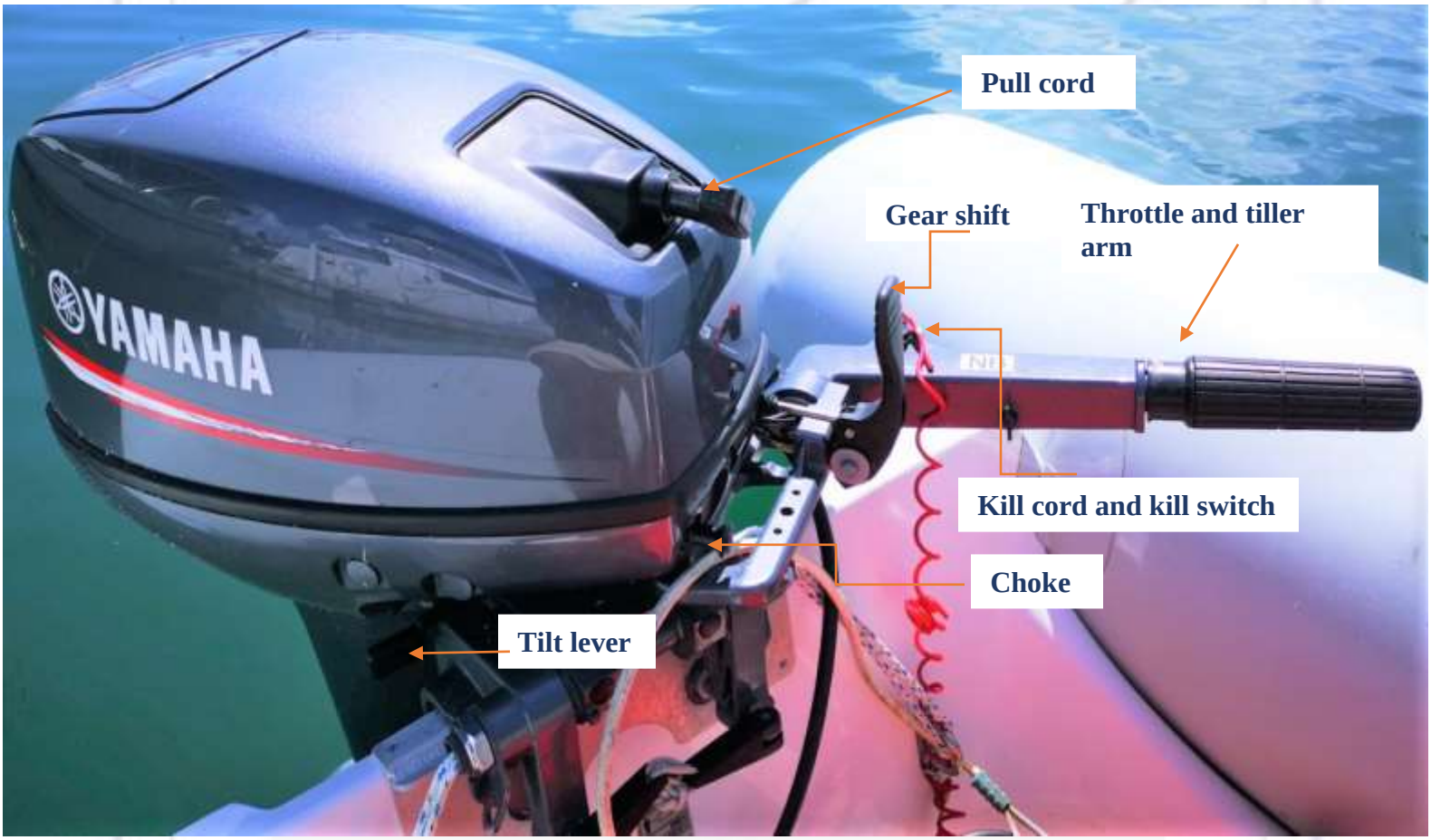
Outboard start procedure:

1. Place Kill cord under kill switch (Dinghy driver must always wear the kill cord).
2. Open vent on fuel tank cap (this vent can stay open, it allows air out but will not allow water to go in). **The fuel in the tank expands in this climate and if vent is left closed it can damage the tank and cause a fuel leak.**
3. Few pumps on fuel line bulb.
4. Make sure outboard is in neutral.
5. Add some revs using throttle on tiller handle.
6. Pull on start pull cord.
7. If the outboard does not start then pull choke and try again, as soon as the outboard start push choke back in.

Outboard



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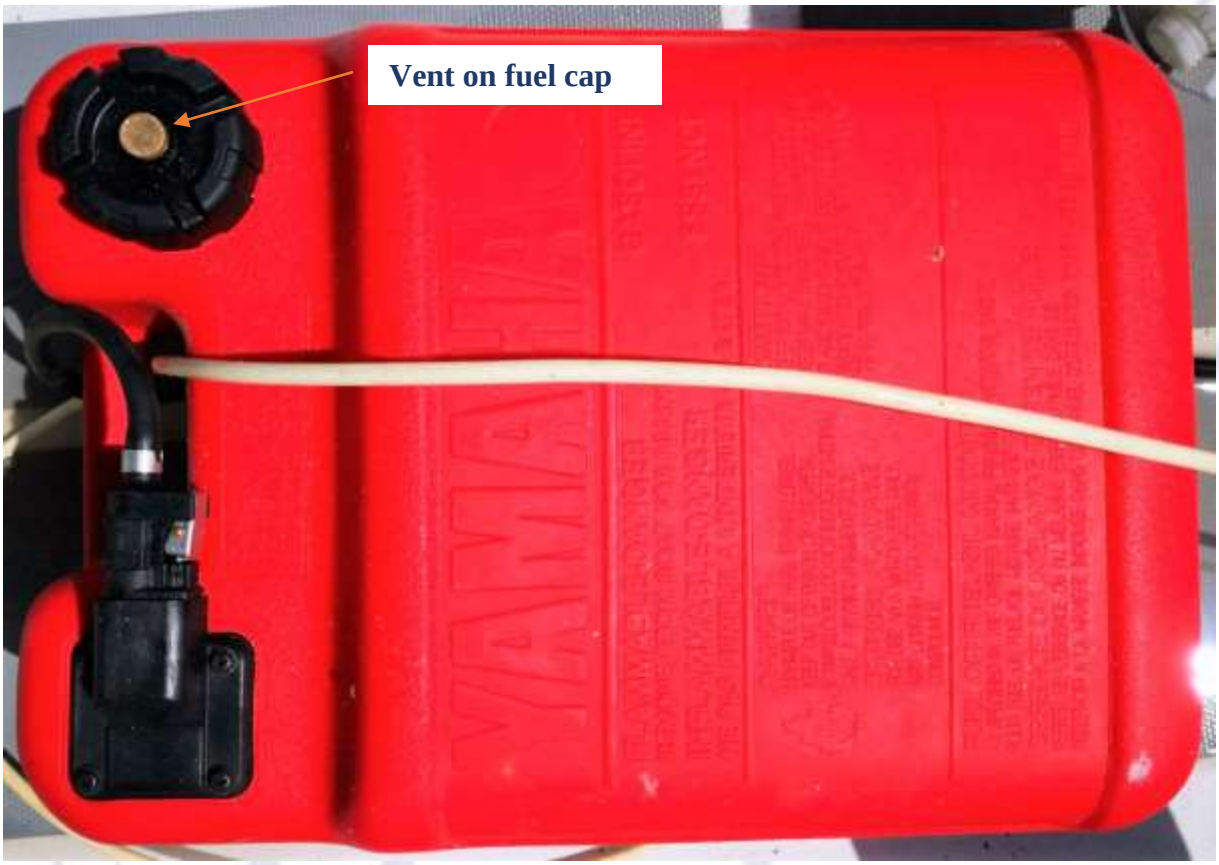
Fuel tank



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