



**Information & operations manual for
Astrea 42 2021
'Pegasus'**



Welcome



Welcome to Horizon Yacht Charters and your Fountaine Pajot Astrea 42 'Pegasus'.

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 in the British Virgin Islands.

This manual is here to guide you through the ins and outs 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,

Andrew Thompson
Director

Office Hours:

Monday – Sunday 08:30 – 17:30

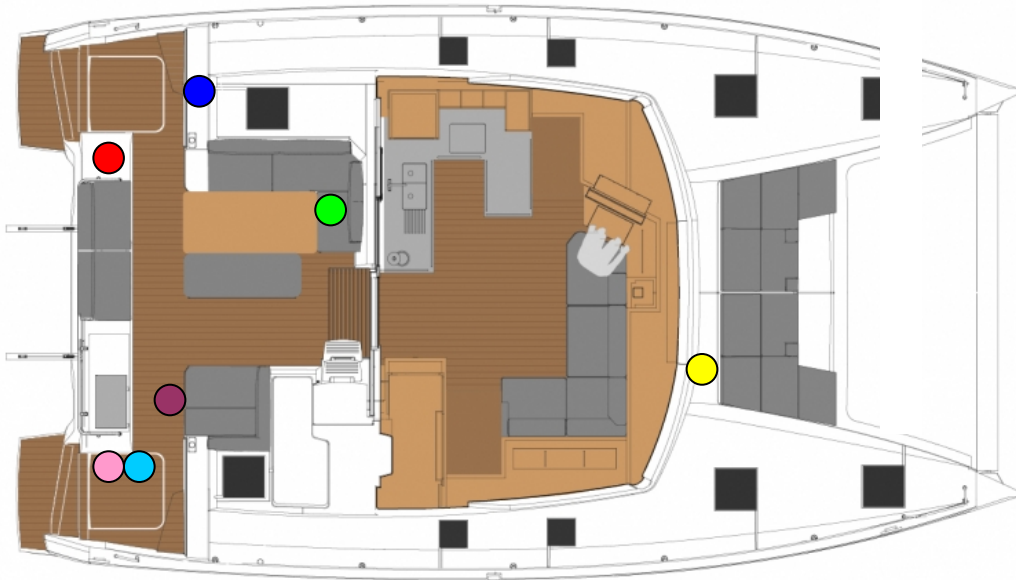
Telephone: (284) 494 8787

Duty Manager: (284) 542 8788 *(Technical questions, damage reports and emergencies)*

Contents

- 1. Yacht specifications**
- 2. 12-volt panel and 110-volt breakers**
- 3. Inverter / Charger**
- 4. Engine start procedures**
- 5. Engine checks**
- 6. Generator**
- 7. Air conditioning**
- 8. Instruments**
- 9. VHF procedures**
- 10. Batteries**
- 11. Anchoring, using the windlass and Electric winch**
- 12. Picking up a mooring buoy**
- 13. Bilge pumps**
- 14. Fresh water systems**
- 15. Heads**
- 16. Showers**
- 17. Refrigeration**
- 18. Stove and propane**
- 19. BBQ**
- 20. Fire safety**
- 21. Dinghy and outboard**
 - Troubleshooting guide**

1. Yacht specifications



Length	41' 3"
Beam	23' 7"
Draft	4' 1"
Fuel	124 gallons
Water	184 gallons
Engine	2 x 50 hp Volvo Penta D2-50F
Generator	11.5KW Onan MDKBM

Location of:

- **Fresh water refill** (foredeck)
- **Diesel refill** (port aft cockpit)
- **Manual bilge pump** (aft of stbd cockpit seat)
- **Propane tank** (under fwd cockpit seat)
- **Windlass breaker** (stbd eng compartment)
- **Emergency start switch** (stbd eng compartment)
- **Diesel cut off valves** (under port aft berth)

2. 12-volt panel

The following list corresponds with the photo below and tells you what each switch does from top to bottom, left column first.



Navigation Lights
Power Nav Lights
Mooring Light
Searchlight
Navigation Instruments
Hull Lights (cabin lights)
Fridge & Oven
Fresh Water Pump
Sea Water Pump

Bilge Pump Port (leave on)
Bilge Pump Stbd (leave on)
Bilge Pump Port Eng (leave on)
Bilge Pump Stbd Eng (leave on)
Freezer
Courtesy Light
Wi-Fi
Propane
Propane Detector

110v Breakers

The 110v breakers are in the port engine compartment. **Note: There is no Generator / Shore power selector switch. The process is fully automated.**

The 110-volt outlets will operate whilst you are plugged in to shore power or running the generator. Ensure that the 110v breakers are on when using the 110v outlets. The only breaker that is left off is the water heater.



3. Inverter / Charger

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. You do not need the inverter if the generator is running.



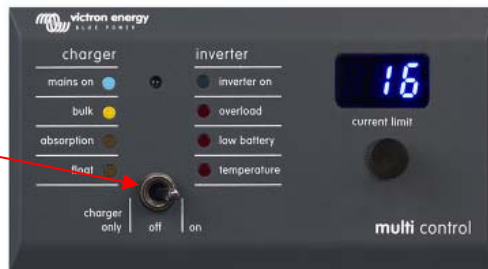
Toggle switch

When on shore power, ensure that the toggle switch on the battery charger is set to 'On' **and** the Digital Multi Control is set to 'Charger only'.

TO USE THE INVERTER:

1. Start the yacht's engines and bring the rpm up to 1400 **IN NEUTRAL**.
2. Move the switch on the battery charger / inverter to 'On'
3. Move the toggle switch on the Digital Multi Control to 'On'. The 'Inverter On' light above the switch will then illuminate.
4. All the 110v outlets are now live.
5. **Switch off the inverter when you are finished with it to prevent your house batteries from depleting.**
6. Run the engine for ten minutes after the inverter is switched off and check the battery levels 15 minutes after the engine is turned off.

Toggle switch



4. Engine start procedure.

- Make sure the engine is in neutral.
- Press the On/Off switch to turn the ignition panel on.
- Press the start button until the engine is running.
- When the engine is running, check you have water coming out of the exhaust.
- To stop the engine, push the **STOP** button and hold until the engine has stopped and then push the **OFF** button.



Pull handle out to disengage transmission.

There is an emergency parallel switch in the starboard engine compartment. It enables the engine battery to be combined with the house bank if the engine start battery is too low. **Switch off the parallel switch once you have started the engine.**

Should you hear an engine alarm during operation, check which symbol appears on the tachometer and immediately shut down the engine-**CALL HORIZON.**

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



Emergency parallel switch

Service battery isolator switch

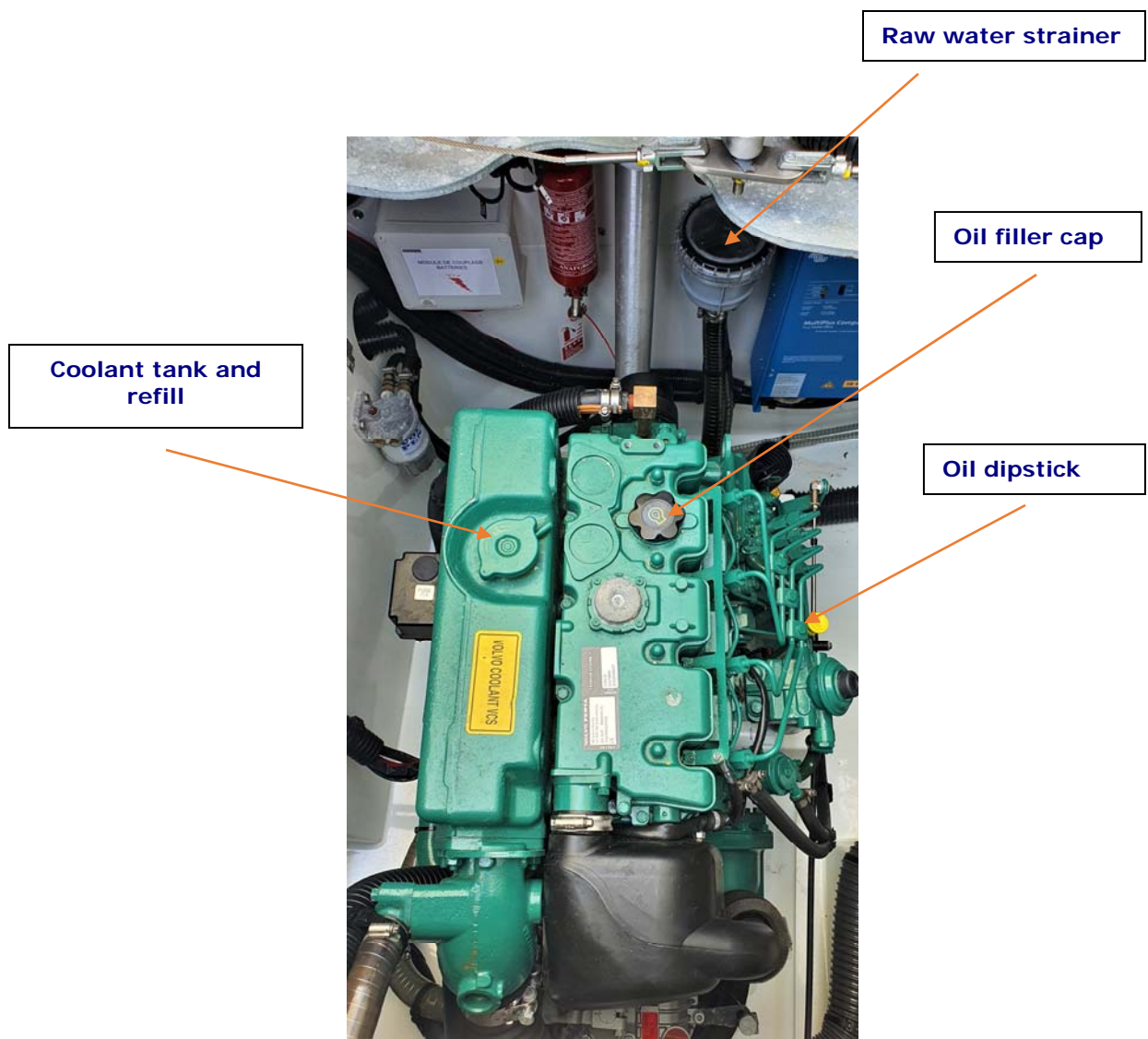
Starboard engine battery isolator switch

5. Daily Engine Checks

- Check the oil level using the yellow dip stick located to the right-hand side of the engine. 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.
- To the rear of the engine is the seawater filter, **do not** remove the cap.
- To the rear 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 belt for any damage and correct tension.

KEEP HANDS CLEAR OF ALL MOVING PARTS.

ANY PROBLEMS CALL HORIZON



6. Generator

Do not run the generator when underway. Note: There is no Generator / Shore power selector switch. The process is fully automated.

Pegasus is fitted with its own generator which will run the 110v outlets, the air conditioning and will also charge the batteries in place of the engine. The generator is in the port forward deck locker and the start panel is inside the saloon below the 12V panel.

The reset breaker for the generator is located on the left side of the generator, towards the back.



Main breakers for the generator



- To use the 110v sockets you must switch on the 110v outlet switches in the starboard engine compartment.
- 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 engines.

To start the generator:

- Make sure all the 110v systems have been switched off prior to starting the generator.
- Press the Start button once. The panel will light up and establish communications with the generator control.
- The Genset Status should be 'Stopped'. Press **and hold** the Start button again until the Genset Status moves from stopped to starting and then to running. The generator starts and a solid green LED lights up next to 'Generator' on the panel. This will take a few seconds. The status on the display will now be 'running'.
- Allow the generator to warm up for 5 minutes and then gradually load up the system, adding one load every 5 minutes.

Stopping the generator

- **Allow the Generator to cool down for 5 mins under no load before shutting it down.**
- Press and hold the 'Stop' switch. The generator will shut down.



Generator raw water strainer:

Please do not run the generator when sargassum seaweed is present. The generator raw water strainer is in the port bilge amidships, under the companionway steps 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 by undoing the bolts.
3. 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 of 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

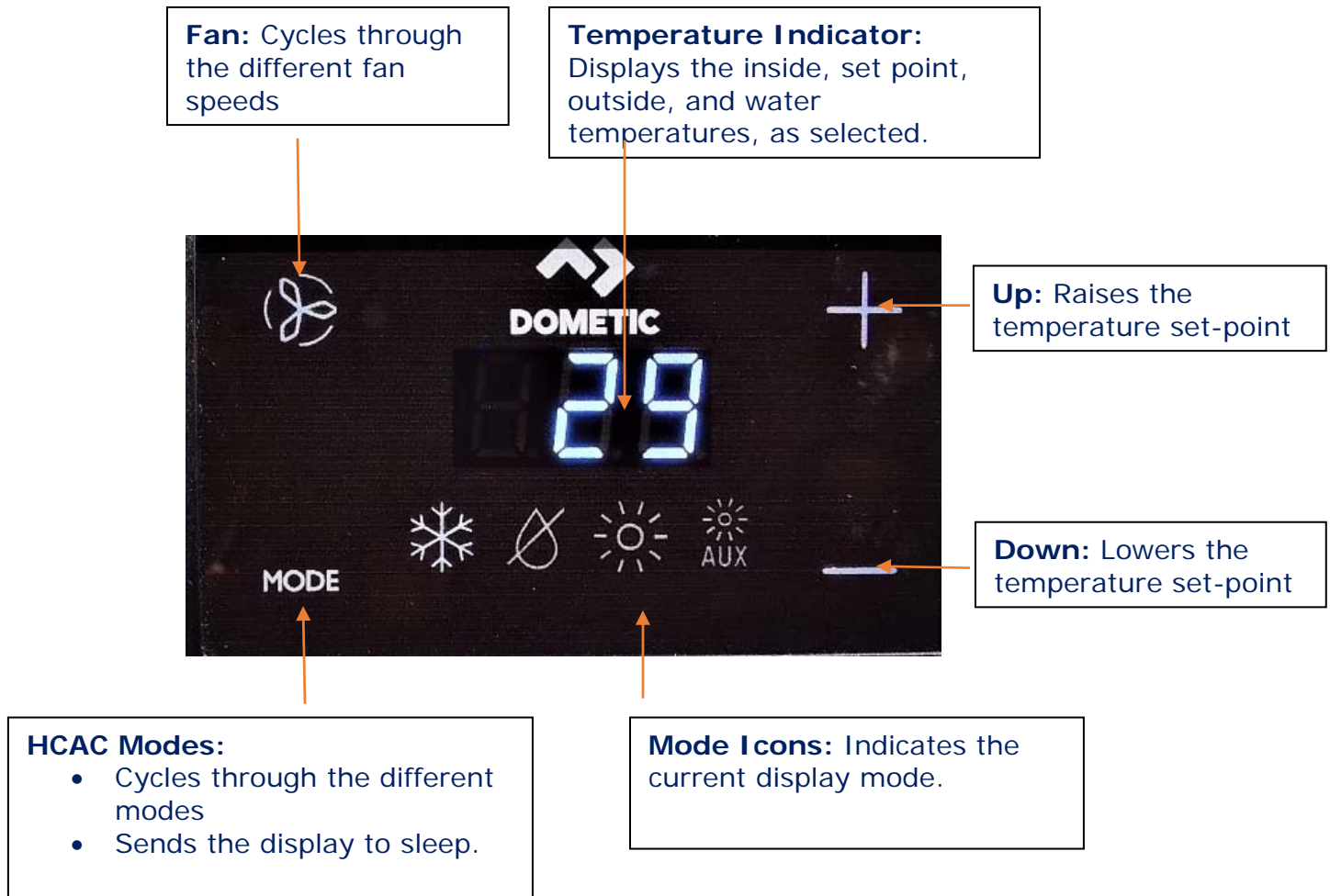
7. Air conditioning

The 6 x air conditioning units will operate when the vessel is plugged in to shore power or when the generator is running. Each cabin has its own individual air con unit and there are 2 units located in the saloon. The owner cabin has an additional unit in the shower room. 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 AC Cabin Controls:



Control operation:



The four mode icons indicate the different modes of control: Cool, Moisture, Heat and Aux Heat.

Press the Mode icon to select a mode:

- Display icons illuminate to indicate the selected mode.
- The display locks into the last mode selected after five seconds of activity, they display the room temperature. The selected mode LED remains lit.
- After 10 seconds of inactivity, the display shows the room temperature and enters the IDLE state.
- OFF displays on the screen to indicate the off state.
- When the display is making a call for heating, cooling, aux heat, or humidity, the appropriate mode icon blinks for two seconds On and two seconds OFF.

Press any icon to wake up the control from the OFF or Idle state.

Press the mode icon for three seconds to initiate a SLEEP state:

- The display goes dark.
- Normal operation continues.

Press the mode icon for an additional three seconds to wake up the control.



Cool: The cool icon illuminates when the COOL mode is selected or when the unit is in an AUTOMATIC mode cooling cycle. Only the cooling system operates. If the ambient temperature drops below the set point, the system will not automatically switch to the HEAT mode.



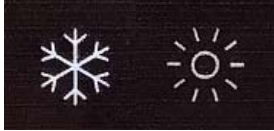
Moisture: This mode controls humidity during periods when the vessel is unoccupied and prevents the cabin temperature from dropping below the minimum default temperature setting.



Heat: Only the heating system operates. If the ambient temperature rises above the set point, the system will not automatically switch to COOL mode.



Aux Heat: The electric heating system is in operation. If the ambient temperature rises above the set point, the system will not automatically switch to COOL mode.



Automatic modes: Switches to cooling or heating as required to satisfy the temperature set-point. When Automatic mode is selected the system provides both heating and cooling, as required.



Air Conditioning Fault Codes:

ASF: Air Sensor Failure

FIL: Filter, indicates the filter needs to be cleaned or replaced.

HPF: High Pressure Fault, indicates high refrigerant pressure. The fault is not applicable in HEAT mode. Can also mean there is air in the lines and reducing your raw water flow, you will have to bleed the system if this is the case.

LAC: Low AC Voltage

LPF: Low Pressure Fault indicates low refrigerant pressure. The fault has a 10 min shut down delay.

PLF: Pump Sentry Fault, indicates high-water temperature in the condensing coil.

AC troubleshooting:

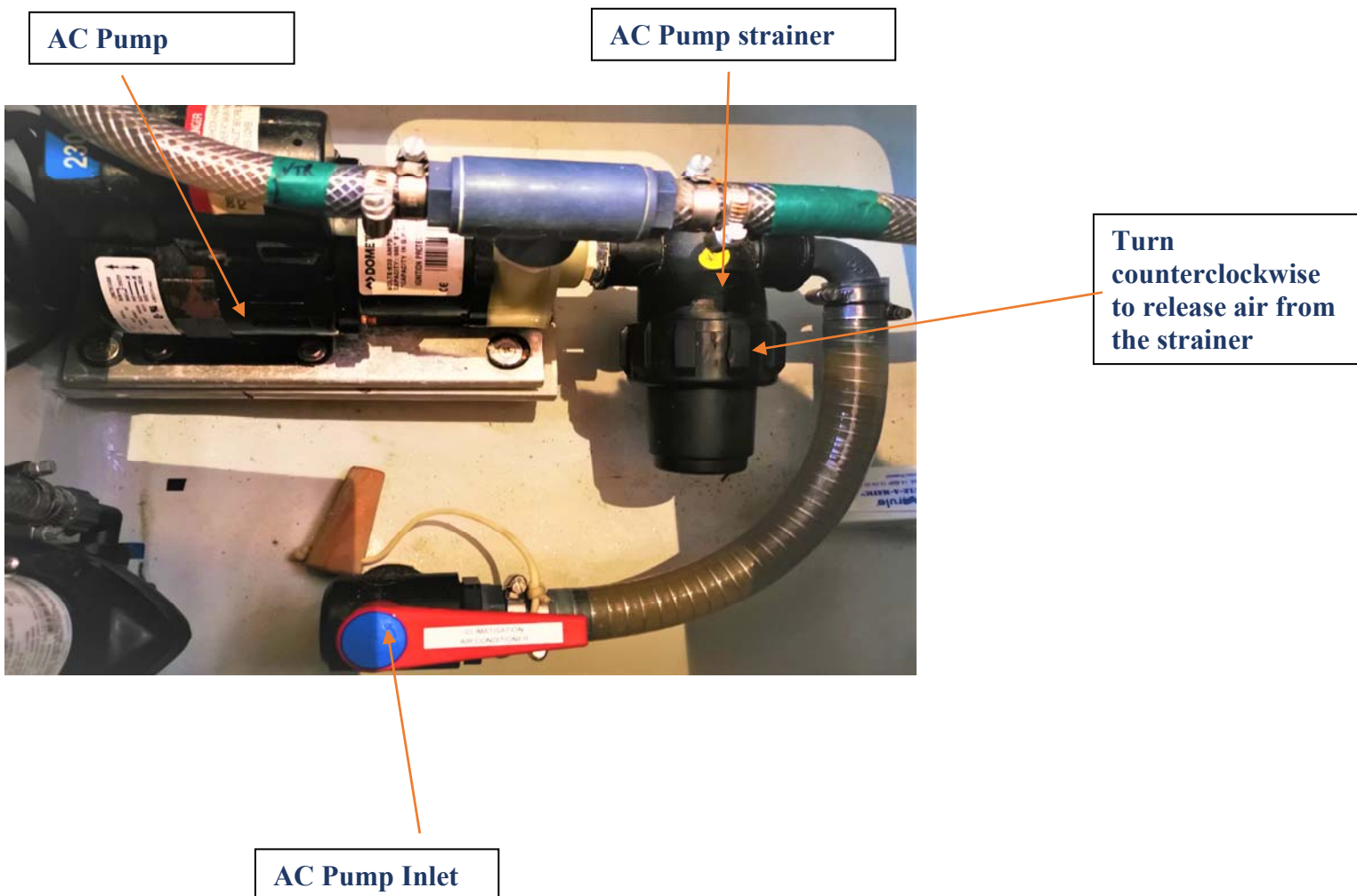
Iced up unit: You can tell a unit is iced up when it is running but there is no air coming out of the AC vent. You can also look at the actual unit, it will be covered in ice. Turn off the unit and let it defrost. You can also move the mode from cooling to heat for about 5 to 10 mins until you feel air coming out the vent again.

Unit not cooling: Check temperature settings. Ensure mode is set to cool.

HPF (High pressure fault): The AC units are water cooled. A high-pressure fault means that there is air in the system (lack of water flow). Check the sides of the vessel and make sure water is coming out of the AC outlets on the hull. If there is no raw water flow the unit will need bleeding.

Bleeding AC unit: Bleeding the unit means letting the air out of the system until there is a steady flow of water to cool unit. On Browned Eyed Girl the unit is bled from the AC pump strainer. First turn the unit on to restart the Air conditioning pump. Give the cap on the strainer a few turns counterclockwise until you start hearing air and water coming out the top (*do not take the strainer all the way off*). Once there is a steady flow of water tighten the cap on the strainer and check that water is coming out the side of the vessel. The Ac strainer can also pick up seaweed and debris and might require cleaning at times.

Speak to the manager on duty before attempting to bleed AC-Unit.



8. Instruments

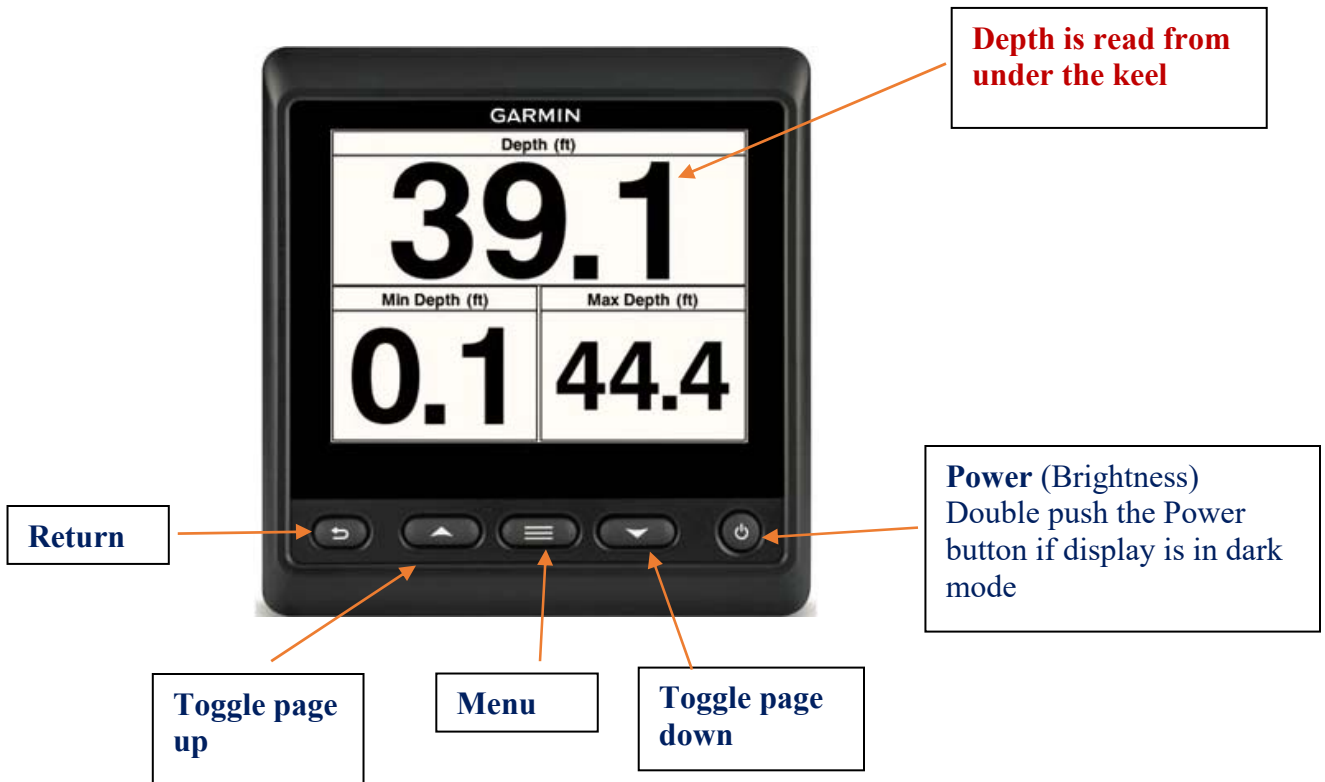
Located at the helm position are 2 **Garmin GMI 20 multi units**, a **Garmin GHC 20 Autopilot** and a **Garmin GHS 11i VHF handset**.



Located at the nav station is a **Garmin GPSmap 8412 Touchscreen chartplotter**. The helm station has a **Garmin GPSmap 8410 Touchscreen chartplotter**.



Garmin GMI 20 multi units



Wind Speed and Direction

Apparent wind direction



Reef 1: 18 Knots true wind
Reef 2: 23 Knots true wind

Auto Pilot

Heading hold (Auto Pilot is engaged) maintains your current heading without steering the helm.



Actual heading (in standby mode)
Intended heading (with autopilot engaged)

Rudder position indicator

Power (Brightness)

Stand By (Disengages autopilot)

Engage Autopilot
Adjust heading (without disengaging autopilot)

Chart Plotter

To open charts select charts and then Nav. Chart



Nav. Chart

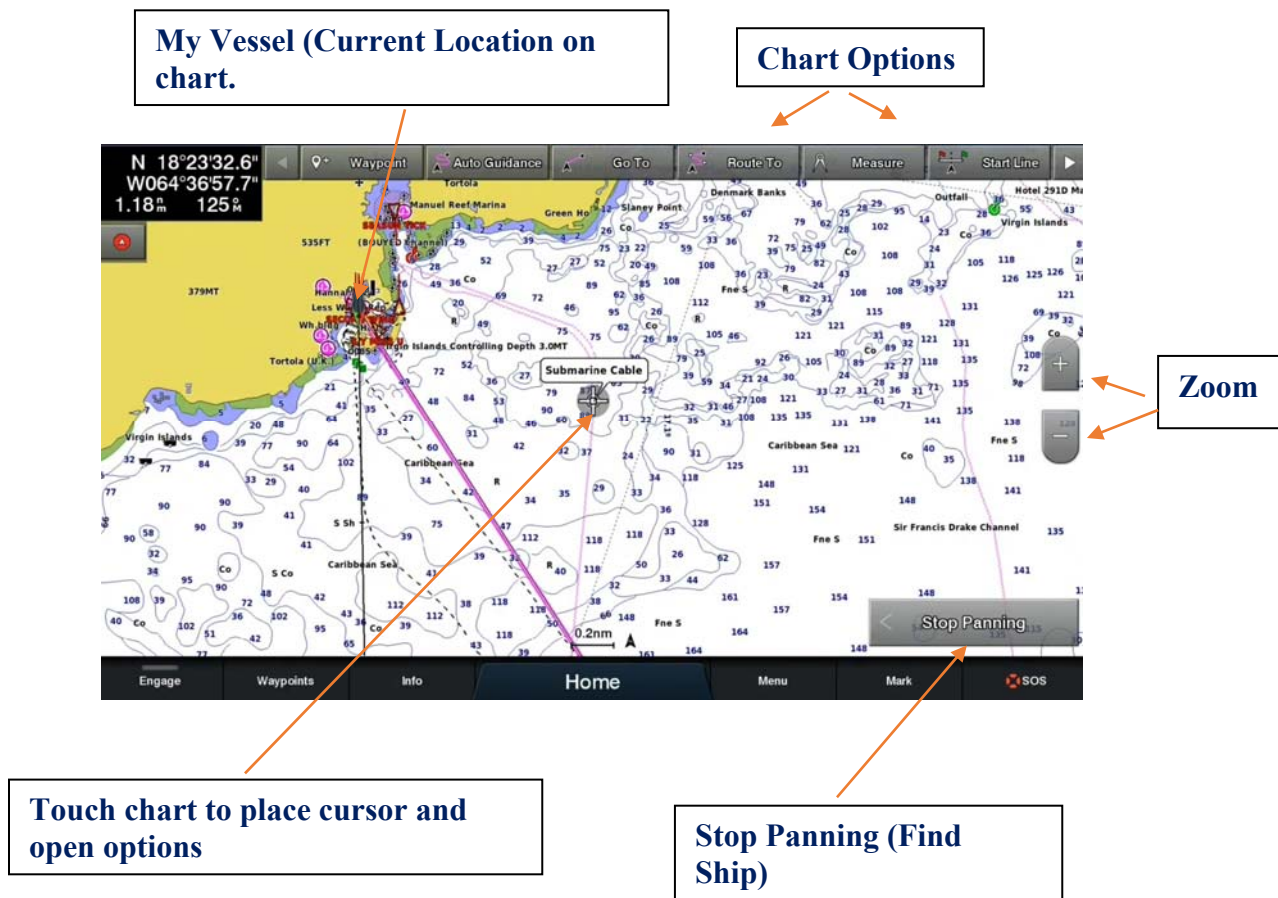
Touch the chart to place your cursor and open your options which will display at the top of the chart.

You can zoom the same way you would on a tablet or phone with a touch display or use the + and – keys on the right side of the screen.

Stop Panning will take you back to your current location on the chart like find ship on other chart plotters.

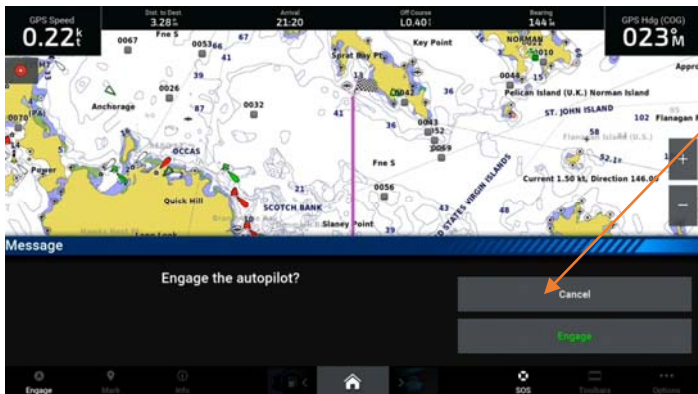
Selecting Go To will plot a straight line from the vessel to the cursor but will plot over land. After selecting Go To the chart plotter will ask if you would like to engage the Auto Pilot. Selecting engage will activate auto pilot (You lose the helm) Auto Pilot will stare the boat the cursor. We recommend selecting cancel and do a heading hold from the actual Auto Pilot unit.

Auto Guidance will plot a course around land. Please take note that Auto Guidance may plot a course through one of our many No-Go areas. We recommend reviewing and memorizing all the Horizon Yacht Charters No go areas when using the chart plotter.

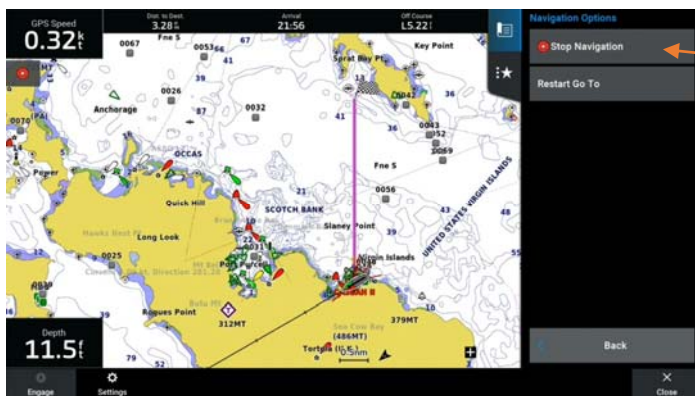


Touch chart to place cursor and open options

Stop Panning (Find Ship)



Be careful engaging Auto Pilot when doing a Go-To or Auto Guidance.



- To stop Go-To hit options.
- Navigation options.
- Stop Navigation.



Auto Guidance may plot a course through many of the Horizon Yacht Charters No-Go areas. Please review our No-Go areas.

- To Stop Auto Guidance hit options.
- Navigation options.
- Cancel Auto Guidance.

10. VHF Procedure



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, 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 not 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.

In the event 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 was 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.

Types of emergencies:

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 the 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 (SOS) or 999 from any BVI cell phone or call 494- HELP (4357).

Pegasus is fitted with two Garmin GHS 11i VHF handsets, one at the helm and one at the nav desk. The speaker with volume control is located below the nav desk.

GHS 11i



GHS 11 speaker, below nav desk



Fusion MS-RA70 stereo with Bluetooth, USB and Aux inputs located at the nav desk.



Fusion Entertainment MS-RA70N Marine Entertainment System with Bluetooth



Connecting your device via Bluetooth:

Hit the source button and select BT (Bluetooth).



The screen should display the select device option. Hit the menu button and select discoverable.



Open Bluetooth devices on the device you want to pair (Cell phone, Tablet, or laptop). Select Pegasus to complete the pairing process.

10. Batteries

The systems on your yacht are all 12 volts except for the Air conditioning, battery charger and hot water heater. 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.

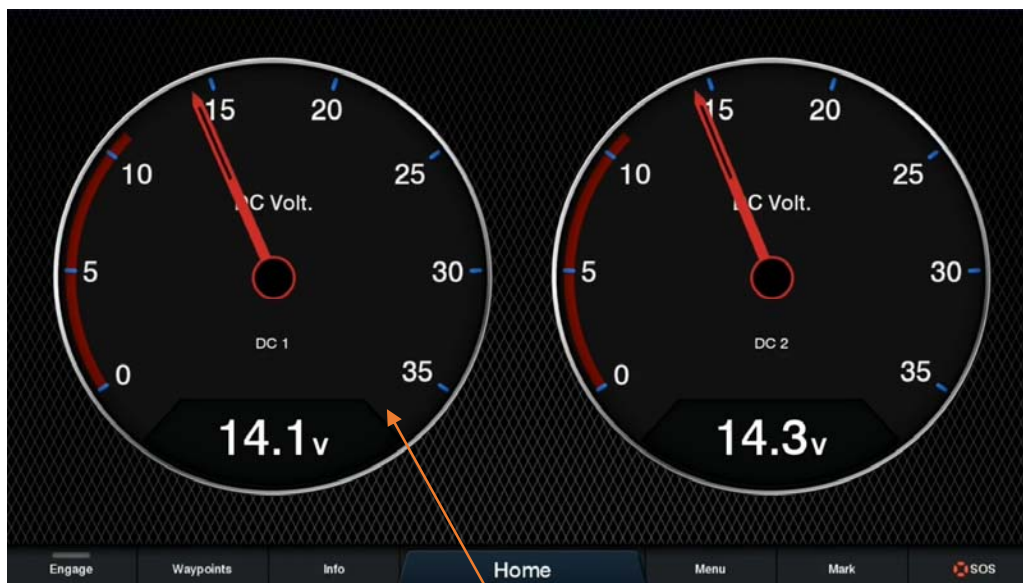
Your batteries will charge when the engine is running at 1400rpms or more whether sitting at a mooring or motoring to a destination, or when the generator is running.

- Check the battery levels and make note of them before charging. You should check your batteries at least three times daily. You should consider charging if the Domestic/Main Battery is at 12.2 volts, do not allow your batteries to go below 12.2 volts. Most of the systems onboard are 12-volt systems including your fridge and freezer which will stop working if the batteries were to go below 12 volts.
- It is recommended to run the engine at 1400rpms or more for a minimum of **1.5 to 2 Hours twice daily**.
- Shut the motor off when charging is complete. **(Do not leave on the ignition)**
- 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 12.8 volts after charging.
- Please repeat this process if the batteries are not fully charged.

Pegasus's house battery bank is isolated from the engine start battery and the house battery's have a capacity of 430Ahrs

The batteries are in the starboard engine compartment. They do not require any checks whilst on charter.

Hitting power on the G.P.S menu with take you to this screen.



Main/house battery voltage

Charging with Generator and Shore Power:

Batteries are also charging when on shore power and when the generator is running. Always ensure your battery levels are elevated when running the generator or using shore power. Do not assume the batteries are being charged because the air conditioning is running.

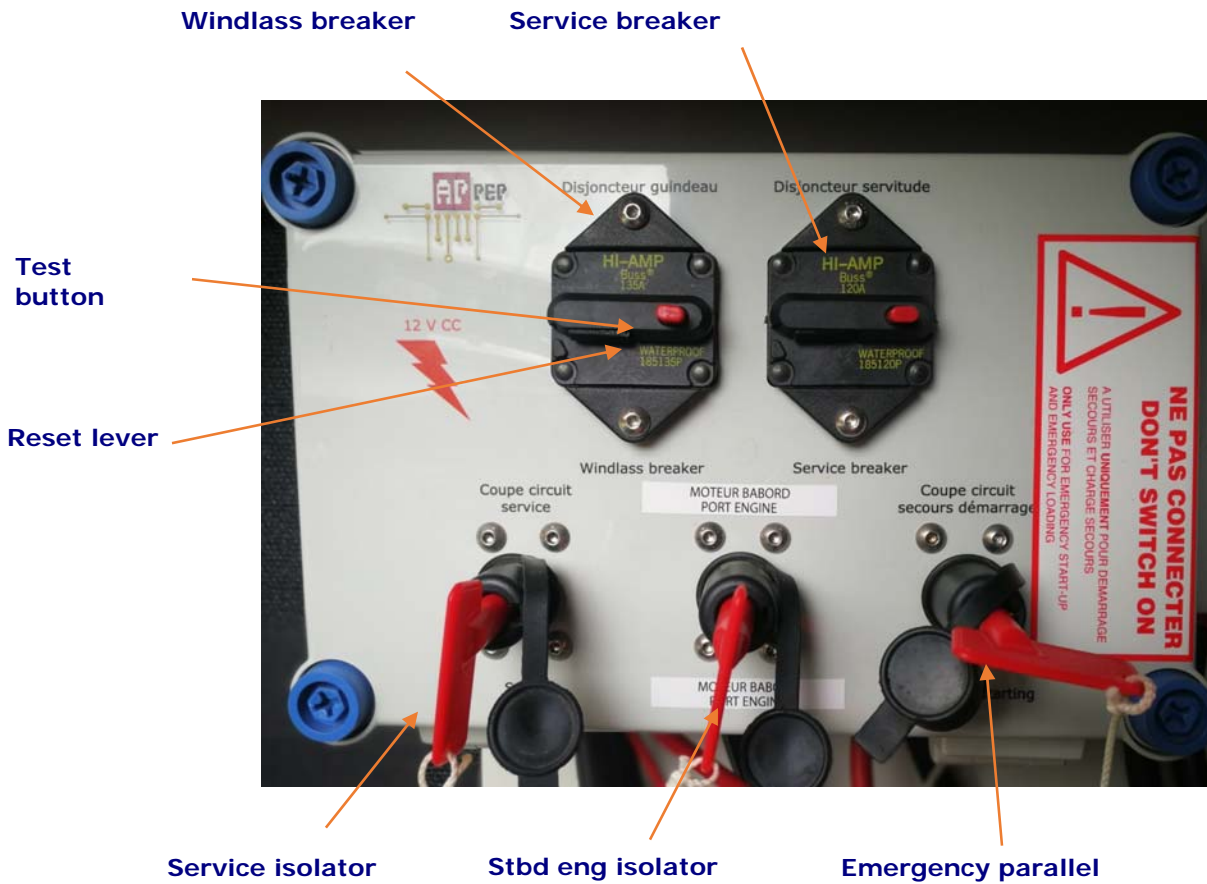
If the battery levels are not elevated when running the generator or when on shore power, check your battery charger breakers are on (All 110V breakers in the engine compartment are in the on position). Check reset breaker on the right side of the generator.



Not Receiving Power from Shore:

1. Check the cable is plugged in all the way, you should be able to twist the cable clockwise on both ends.
2. If you are still not receiving power from shore move the shore cable to another pedestal and ensure the breakers on the pedestal are in the on position.

Breakers:

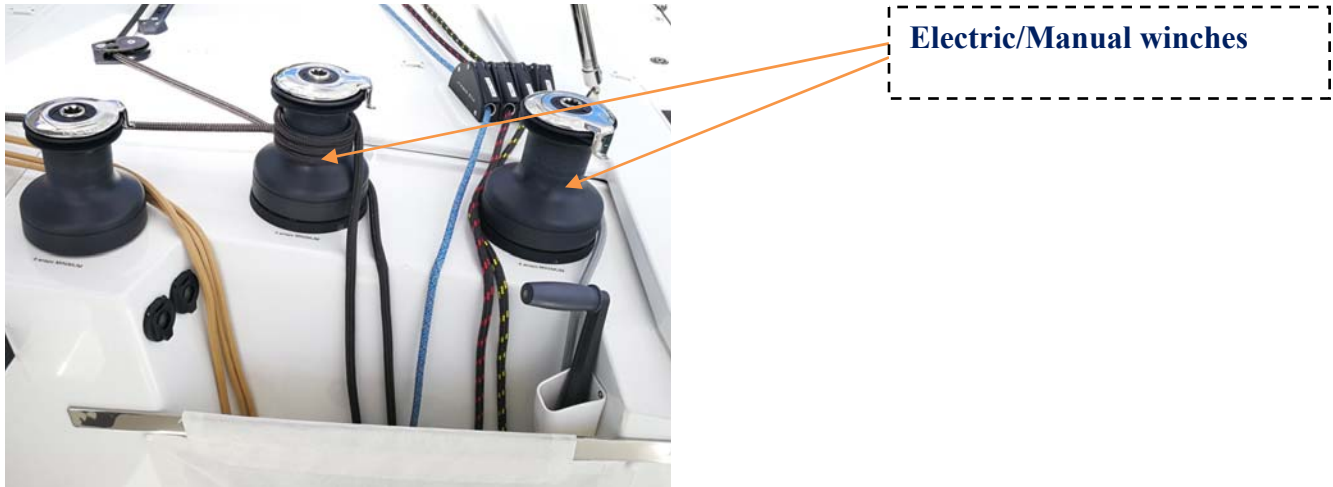


Electric winch breakers are located to the right of the battery switches and windlass breaker.



11. Rig and electric winches

Two of the three winches at the helm can be operated manually or electrically. **Extreme care should be taken if using the winch electrically as accidental damage or injury can easily occur.**



The main halyard on Pegasus is fitted with a halyard hook (top car), see **(Pic 1)**. The looped line **(Pic 2)** needs to go onto the hook **(Pic 3)**. As the halyard is tensioned the loop on the head of the sail will go to the hook **(Pic 4)**. If it does not engage the hook, then simply grab the luff of the sail and tug down. This will hop the loop over the edge and into position. The earlier you do this the easier it is going to be.



Pic 1. Halyard Hook



Pic 2. Looped line



Pic 3. Looped line sitting on Halyard hook



Pic 4. Loop not engaging hook.

11. Anchoring & the windlass



Chain: 195ft
Marked: Every 30ft
Minimum scope: 5:1
Set in reverse: 1500 Rpms
Always use bridle

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.** The 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.
- Pegasus has **195 ft** of chain, and it is marked every **30 ft**.
- 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 (bridle) 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.

There is a breaker that will trip if the windlass gets overloaded. **The breaker is in the starboard engine compartment.**

If you have any doubts or concerns, please call Horizon first. Before resetting the breaker, however, ensure that the windlass switch on the 12v panel is switched on and run the engines @1500 rpm for 15 min and try again. After resetting the breaker, if the windlass still refuses to operate, please call horizon.



Windlass Breaker

Manual operation of the windlass

If you lose power to your windlass, start the engine and fast idle the engine at 1400rpms **in neutral**, to make sure you have not just got a low battery voltage. Then make sure the windlass breaker is not tripped in the starboard engine compartment. If you still have no power, you can operate the windlass manually.

To drop the anchor, secure the windlass handle onto the top hole on the windlass (shown in the picture above).

Turn it counterclockwise to loosen the wing nut. Your anchor is now ready to drop.

Remove the safety line or safety pin to release the anchor, keeping hands and feet clear. Control the rate the chain pays out by tightening or loosening the gypsy with the handle. When you have put out enough chain – 5 to 8 times the water depth, turn the handle clockwise to tighten the gypsy. Increase revs to 1500 rpm, to set the anchor in reverse. If you drag, pay out more chain, and re-try 1500 rpm in reverse. When the anchor is set, fit the anchor bridle then release the more chain on the gypsy as above, so that the load is taken up on the bridle.

13. 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 it 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.**

14. Bilge Pumps

Your yacht is equipped with one manual and four electric bilge pumps. There is an electric pump in each hull and one in each engine compartment. The electric pumps are operated by float switches and are automatic. In the event of failure of the float switches they can be overridden by using the switches on the 12v panel. The manual pump is in the cockpit and is shown in the photo below.



Main bilge pump



Eng compartment bilge pump



Manual bilge pump (hose inside cockpit locker)

15. Freshwater system



Pegasus is equipped with two interconnected water tanks with a total capacity of 184 gallons.

Before filling the tanks let the water run from the hose for a while before placing the end into the filler that is located on the foredeck. Please ensure that the correct fillers are used, NOT the holding tanks or the diesel fill.

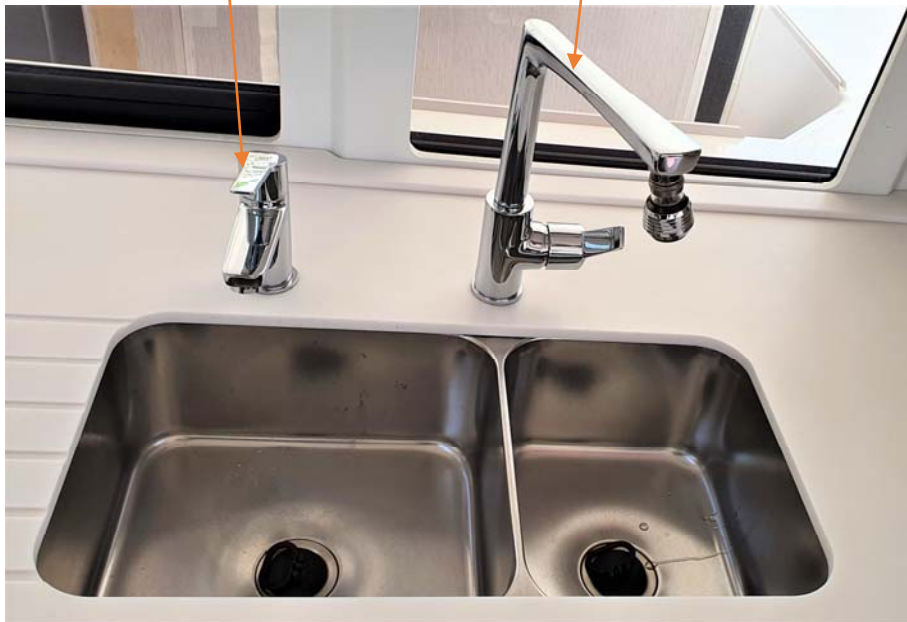
To use the freshwater system, turn on the freshwater breaker on the 12v panel and open a faucet. When the tank runs out of water the pump will run at high speed and the faucet will start to cough air. As soon as you hear the pump running continuously, check to see if anyone is using water. If not, switch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

A reserve freshwater pump is installed in the port bow locker in case of pump failure. Please do not switch pumps without informing the Manager on Duty.

There are no traditional analogue gauges on Pegasus. Digital water and fuel gauges can be accessed through either of the two Garmin chart plotters. Simply go to the home screen, select 'AV Gauges, Controls' on the right-hand list then select 'Fuel'

Galley sea water

Galley fresh water



The Fresh water pump is located opposite the generator, there is a primary pump with a back up pump just below it. **If you have any problems with the fresh water pump do not attempt to switch pumps without first calling the manager on duty.**

To switch pumps, first move the diverter valve all the way up until its inline with the hose from pump 2, then move the selector switch from pump 1 to pump 2. Open a faucet and ensure that the pump is running and you have the diverter valve in the correct position.



Selector switch for freshwater pumps

Diverter valve




16. Heads

- **Nothing is to be put down the head unless it has been digested first.**
- Pegasus is fitted with three electric heads, with a switch by the head sink.
- Prior to use, hold the left side of the switch to add water.
- To flush, hold the right side of the switch for 12 to 15 seconds. To keep heads smelling fresh, repeat flush a few times and ensure the water in the head is clear.
- 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 charterer's expense as per the charter contract. This includes the chase and technician's fee.

Head switch



- Before using it, ensure that there is enough water in the bowl.
- If the bowl is empty, hold the lower Flush Control Switch on switch on number 1 or **ADD WATER**  position until the flushing pump is primed, and water enters the bowl.
- During use, pump as necessary to keep the contents of the bowl low enough for comfort. Using the number 2 side of the switch **PUMP OUT**. 
- After use, hold the number 2 side of the Flush Control Switch **PUMP OUT**  for a few seconds (Hold for as long as possible so the waste travels all the way through the lines).
- **ADD WATER** and **PUMP OUT** until water in the bowl is clear.
- Hold the **PUMP OUT** side of the Flush Control Switch until the bowl is empty. Always leave the bowl empty to minimize odor and spillage.

Holding outlet valves:

Please open all seacocks to holding tanks when more than one mile from shore and pump them through. Close holding tanks when less than a mile from land. Pump holding tanks through on your last day of charter, prior to returning to the marina.

Starboard Holding tank seacock



Open



Closed



Port Holding tank seacock in main shower



Open



Closed



17. Showers

Your yacht has a hot & cold, fresh-water shower in the heads and at the deck shower on the transom. The engine heats the water.

If the engine has been running, the hot water can be very hot – be cautious!

To use the showers, the fresh-water pump must be activated on the 12V panel.

The head showers drain into a sump box which has an automatic float switch and pump, so the water will be pumped out automatically.



Transom Shower (Twist head to turn on and adjust temperature)



18. Refrigeration

Pegasus has a 12v refrigerator and separate freezer inside and a 12V cockpit fridge. This system is designed to run 24hrs a day if you wish. To ensure that they do not fail there are two things you should do.

- Firstly, keep your batteries charged. If the level goes below 12v the system will malfunction. Refer to section 12 for charging instructions.
- Secondly, do not puncture the cold plate in your fridge! **Do not chip at the ice or use any other sharp items in the fridge.** If something is frozen to the side of the fridge do not force it away. Pour warm water on it if you need to melt the ice.

There is a thermostat in each fridge. It is a white dial with numbers on it going from 1-7. Putting 7 at the apex of the dial is the coldest setting. Keep it on this setting until it is too cold. Then you can turn the system down or off if you wish. Or if it is not cold enough, augment the system with ice.

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

Please note that we are in the tropics, and we cannot guarantee that items will remain frozen when placed in the fridge and that fruit, vegetables and other fresh produce may have a shortened shelf life.

Two Drawer Fridge



Freezer



Cockpit Fridge



19. Propane and stove

The propane tank locker is located under the forward cockpit seat.

To use:

- Press the switch located on the 12V panel. This opens the solenoid on the tank.
- To light, turn the knob you want 90 degrees clockwise, push the knob in and light the burner with the electric igniter button.
- Hold the knob in for 5-10 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 manual shut offs - there are three. One on the propane tank itself and two in the galley under the sink. Make sure these are all open and try again.

The 12v solenoid system is a USCG approved device. You do not need to shut any manual valves unless you wish.

Galley oven



Galley three burner stove



Propane Safety

Pegasus 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!!

If the alarm goes off, follow these steps:

- Close the valve on the propane tank.
- 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



**Emergency propane shut off valves
below galley sink**



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

20. 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.

Magma Propane Grill



Regulator



Propane canisters needed for Grill



Fire Safety

Please read instructions for all safety equipment before setting off.

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, do not open the engine hatch, as opening this will allow more air to enter the compartment and thus feed the fire. There are automatic fire extinguishers located in each engine room. Should there be a need to manually fight an engine fire then removing the mattress in each aft cabin will reveal an access hole for a fire extinguisher to be used.

- Pull the yellow key out
- Press down on the red button until all the contents of the extinguisher have been discharged.

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.
- Ensure hands and limbs are protected from the fire by the blanket.
- Carefully lay the blanket over the fire, laying the blanket away from you and keeping yourself always protected from the flames.
- 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.



21. Dinghy, Outboard & Electric dinghy platform

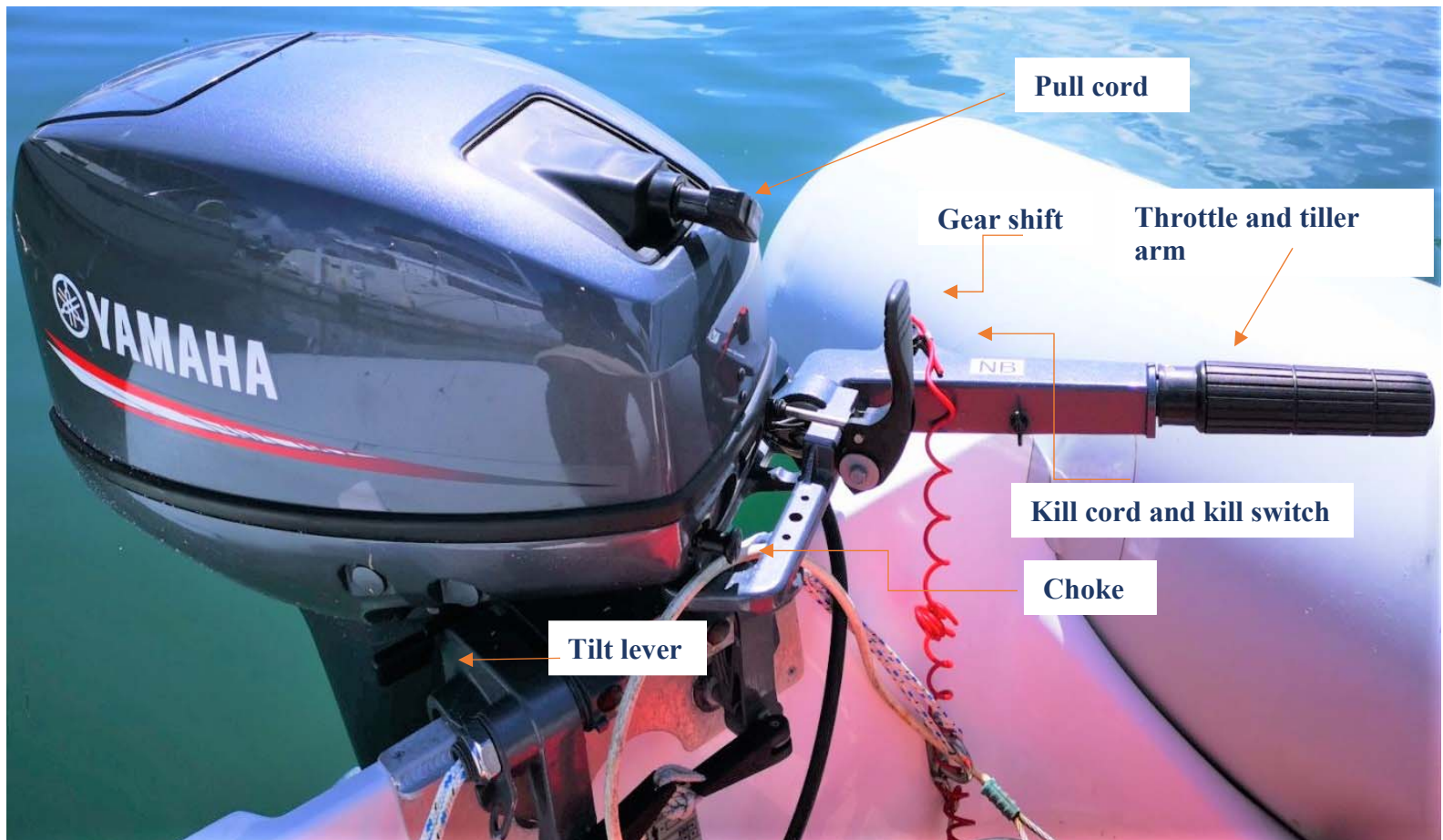
The driver of the dinghy must be over 18 and must always be wearing the kill cord. Never operate the dinghy under the influence of alcohol or drugs.

- 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.
- Most of the time it is fine to leave the outboard on the dinghy, but 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 choking.
- 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 with 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 Gall = 3 ounces.

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 the vent is left closed it can damage the tank and cause a fuel leak.**
3. Few pumps on fuel line bulb.
4. Make sure the outboard is 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 starts push choke back in.

Outboard



Fuel tank – INSTALLED IN BOW LOCKER

