



**Information & operations manual for
Nautitech Open 46 Flybridge 2019
'Quiet Flight'**



Welcome



Welcome to Horizon Yacht Charters and your Nautitech Open 46 Flybridge "Quiet Flight". 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,

Sylvia and Andrew
Directors

Office Hours:

Monday – Sunday 08:30 – 17:30

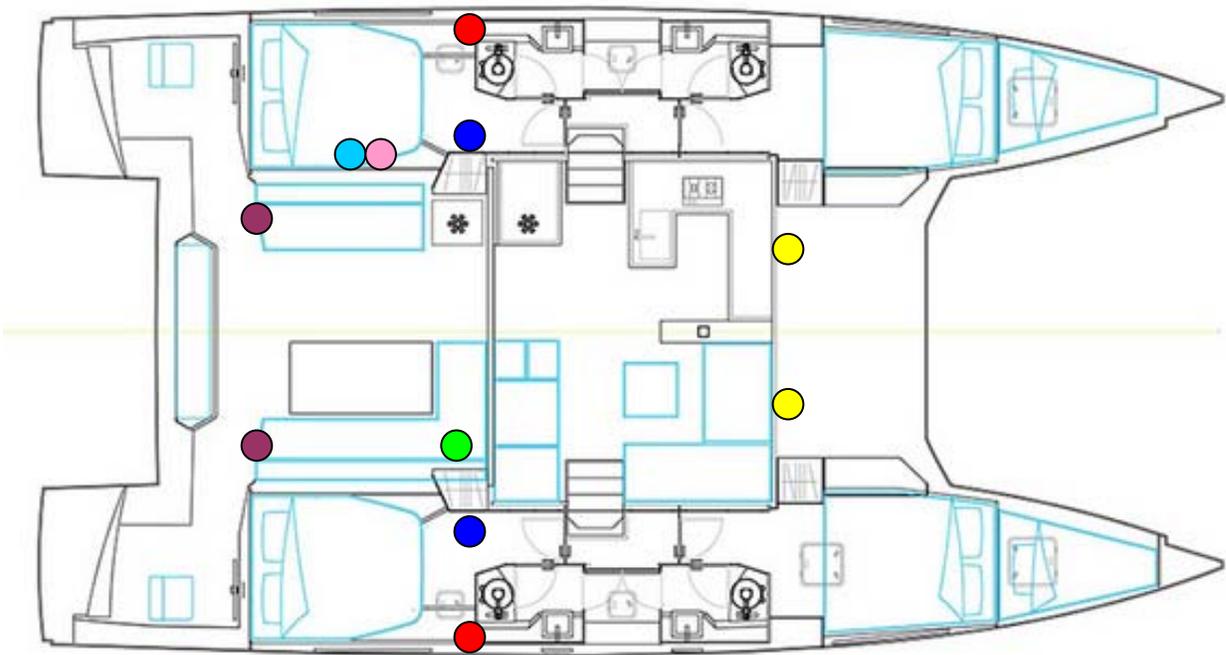
Telephone: (284) 494 8787

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

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1. Yacht specifications



Length	44' 10"
Beam	24' 6"
Draft	4' 10"
Fuel	160 gallons total (2 x 80G)
Water	160 gallons total (2 x 80G)
Engine	2 x Volvo D2-55F
Generator	Onan MDKBL 9.5KW

Location of:

- Fresh water refills (foredeck)
- Diesel refills (amidships)
- Manual bilge pumps (each cockpit locker)
- Propane tank (under stbd cockpit seat)
- Windlass breaker (port aft cabin – under bunk)
- Electric winch breaker (port aft cabin – under bunk)
- Diesel cut off valves (under companionway floors)

2. 12-volt panel

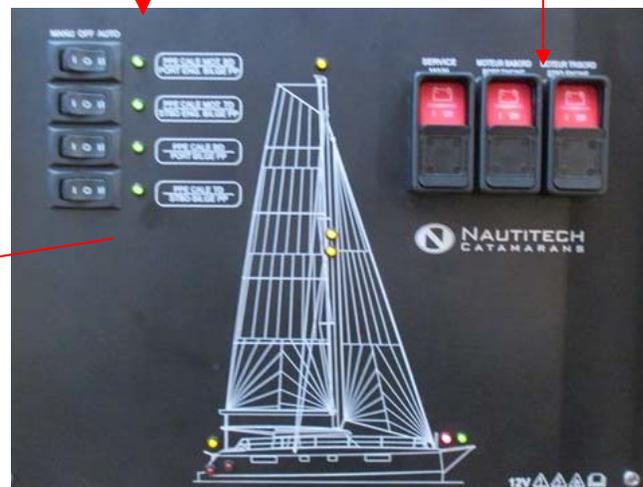
The following list corresponds with the photo below and tells you what each switch does from top to bottom, left column first.

Water gauges Fuel gauges Volt meter



Eng and hull bilge pumps
Leave in Auto position

Battery isolators



Left column

1. Navigation lights
2. Steaming lights
3. Anchor light
4. Deck floodlight
5. Salon lights
6. Cockpit lights
7. Port cabin lights
8. Stbd cabin lights
9. Salon floor lights
10. Cockpit courtesy lights

Center column

1. Underwater lights
2. Spreader lights
3. Fresh water pump
4. Galley salt water pump
5. Port shower / AC drain
6. Stbd shower / AC drain
7. Salon fridge
8. Galley fridge
9. Cockpit fridge
10. Freezer

Right column

1. Nav instruments
2. Autopilot
3. VHF
4. Radar
5. Stereo
6. Not in use
7. LPG
8. Propane detector
9. Not in use
10. Wifi

It is important to leave the combined Shower and AC drain switches on so that condensation from the AC units can be pumped overboard automatically.

110v Breakers

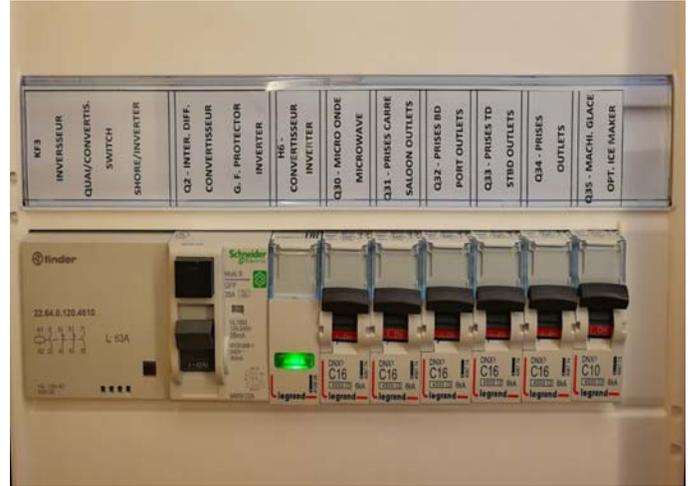
The 110v breakers are in the port companionway cupboard

The 110 volt outlets will operate whilst you are plugged in to shore power or running the generator. If the outlets do not work then ensure that the 110v breakers are in the 'On' position.

Top row of breakers (Chargers and Water Heater)



Middle row of breakers (Outlets)



Bottom row of breakers (Air Con)



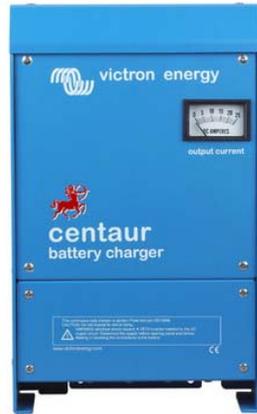
Main 110V breakers in port eng room



There is no selector switch for Shore power / Generator. The yacht is equipped with the ability to detect whether the generator is running and will select the most appropriate source of input whether from shore power or generator.

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. **If you have the Generator running you do not need to use the Inverter.**



Battery Charger



Inverter

(Both located under the port aft cabin berth)



Inverter remote control located at the Nav desk

To use the inverter:

1. Press the "on" button on the Inverter control panel. The green light on the panel will then illuminate.
2. All the 110V outlets are now live.

When finished, switch the inverter off and check that the light on the panel is no longer illuminated.

4. Engine start procedure

Quiet Flight has twin electronic engine throttle controls on the flybridge. The operation of these will be demonstrated during your technical brief. DO NOT attempt to operate these until you have been shown the correct procedure.

You have two 55HP Volvo D2-55F engines and therefore two start panels. You must switch on both engines before getting underway.

- Make sure engine is in neutral.
- Press the On/Off button then press the start button until you hear the engine running.
- When the engine is running check to make sure you have water coming out of the exhaust.
- To stop the engine, press the stop button until the engine has stopped.
- An alarm will sound after you stop the engine. Press the 'On/Off button' once more to turn off the ignition.



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 are two diesel filler caps located on both starboard and port decks, which are clearly marked "DIESEL", DO NOT PUT WATER IN HERE.

5. Daily Engine Checks

- Check the oil level using the grey dip stick located to the left-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 right of the engine is the seawater filter, **do not** remove the cap.
- 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

Oil filler cap

Sea water strainer



Oil dipstick

Alternator belt



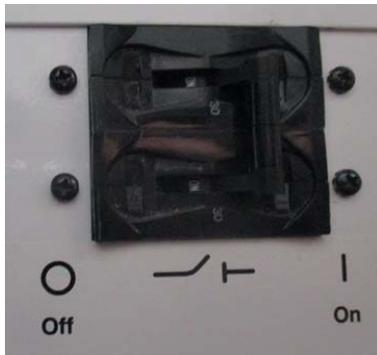
Emergency engine start switch in Stbd eng room

6. Generator

You must not run the generator when underway

There is no selector switch for Shore power / Generator. The yacht is equipped with the ability to detect whether the generator is running and will select the most appropriate source of input whether from shore power or generator.

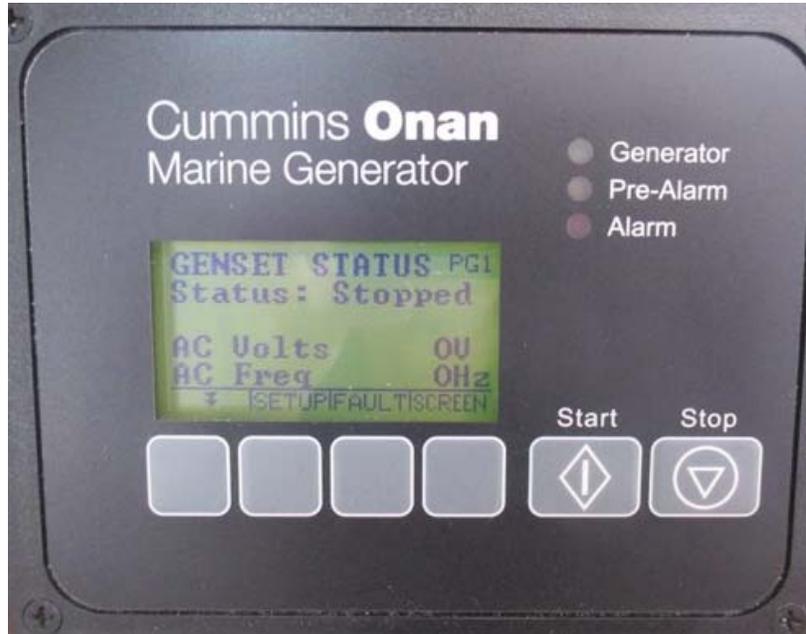
Quiet Flight is fitted with its own 9.5KW generator which will run the 110v outlets, the air conditioning and will also charge the batteries in place of the engines but at a lesser rate. **The generator is in the stbd eng room** and the start panel is inside the salon at the Nav desk.



DC circuit breakers



Starting the generator



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.
- Once the display is the same as that show above, press **and hold** the Start button again until the Generator starts and a solid green LED lights up next to 'Generator' on the panel. This will take a few seconds.
- 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

Stopping the generator

- **Allow the Generator to cool down for 5 mins under no load before shutting it down**
- Press the Stop button once. The generator will shut down. The start panel will turn itself off after a preset period of time.

7. Air conditioning

The air conditioning unit 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 is a 5th unit located in the saloon.



Reset breaker



Operate the air conditioning as follows:

- Switch on the power button.
- Select "cool" via the mode button.
- Select your base temperature using the temperature controls. **Do not set the temperature below 70 degrees otherwise the unit may freeze up.**
- Select fan strength using the fan control.

Load up the generator with one air conditioning unit every five minutes so that the generator does not overload. If all the air conditioning units fail to turn on, check the reset breaker on the left side of the generator



All AC units drain into automatic sump boxes, one in each hull; therefore you will hear intermittent pump operation of the drain pump when running the Air conditioning. **It is important to leave the 12V combined Shower and AC drain switches on for this reason.**

8. Instruments

Located on the Flybridge are a B&G Triton² digital display and autopilot controller, B&G Triton² Autopilot control and a B&G Zeus³ 12 Chartplotter.



B&G Triton² digital display and autopilot controller



B&G Triton² Autopilot control



B&G V50 wireless handset



B&G Zeus³ 12 Chartplotter

9. 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 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 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

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.

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

Nav station electronics:



B&G V90 VHF Radio



B&G Triton² digital display and autopilot controller



B&G Triton² Autopilot control



B&G Zeus³ 12 Chartplotter

10. Batteries

The systems on your yacht are all 12volt except for the air conditioning, battery charging and electric 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 although at a much slower rate. Check the battery voltages and make note of them before charging.

To charge your batteries, start both engines, hold the button between both shifters and move them forward until the red LEDs at the shifters start flashing (you have disengaged the transmission). Run the engines at 1400 rpms for 1.5 hours twice daily, morning and night.

Once you have completed charging shut the engines off. Wait 15 minutes before checking the battery voltages, (directly after turning off the motor they will remain in an excited state for about 10 minutes).

The House system should come to rest at 12.8v. and then slowly get lower. When the system gets to about 12.2v you should consider doing a charge.

Quiet Flights house battery bank is isolated from the engine and generator start batteries.

The batteries are located under the port aft cabin berth. They do not require any checks whilst on charter.



Hold to disengage
transmission.



11. Anchoring, using the windlass and Electric winch

Setting your anchor:

Preparation:

- Establish a non-verbal communication system from bow to stern, as with the noise of the engine and wind, verbal communication proves difficult.
- Tie the dinghy painter close to the boat at the bow or amidships to avoid wrapping it around the prop.

Location:

- Choose a clear area to anchor in, normally in 12 to 25 feet. A white bottom is sand and perfect for anchoring. A brown or green bottom will be grass, rock or coral. **Only anchor in sand.**
- Make sure that you are not on a lee shore; i.e. that the land mass is protecting you from the elements and that you are not being pushed onto the shore. **A lee shore is the most dangerous place to anchor your yacht.**

Action:

- Manually lift the anchor over the bow roller and feed the chain so the anchor is just above the water surface.
- Use the elements; approach from down wind or current, whichever prevails.
- Once the yacht is stationary use the electric windlass to drop the anchor. The elements will push you back and away from the anchor.
- Minimum scope is 5:1. In heavy weather you may want to increase that, always ensuring your swing area is clear of any obstacles.
- Engage reverse, slowly building up to 1500 rpm to really drive your hook into the sand.
- Once set, put the engine in neutral and allow the yacht to settle, take transits around the bay to ensure you are not dragging, it is always advisable to snorkel the anchor and ensure it is bedded in correctly and not just lying on its side.

Attaching the snubbing line:

- Once you are happy that the anchor is set you must attach the bridle. The bridle protects the windlass and it is important that you attach this 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 off the chain it means that there is not enough tension on the line. In this case re-attach the hook and pay out more chain until the line is once again taut.

Setting a secondary anchor:

- If a second anchor is required, e.g. you are anchoring in a mooring field and need to control your swing room, deploy the primary as above and attach the secondary at the bow. Drive the boat forward at a 45-degree angle to the primary. Once in line with the primary deploy the secondary and allow the elements to push you back. Increase astern to 1500 rpm to drive in the secondary. Snorkel over the anchor to ensure a good hold.

A windlass breaker is installed under the port aft bunk.

Manual operation of the windlass

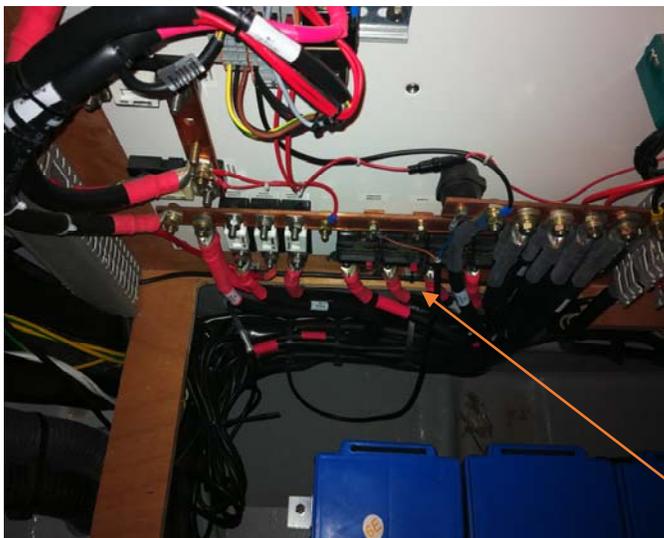


If you lose power to your windlass, start the engine and fast idle the engine at 1400rpm **in neutral**, to make sure you have sufficient battery voltage. Then make sure the windlass breaker has not tripped in the port aft cabin. If you still have no power, you can operate the windlass manually.

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

Turn it counter-clockwise to loosen the gypsy. 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 paid out sufficient 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.



Windlass breaker

Windlass and electric winch breakers are under the port aft bunk.

Electric Winches

There are X3 winches located at the flybride, the main winch can be operated manually or electrically. **Extreme care should be taken if using the winch electrically as accidental damage or injury can easily occur.**

Breaker installed under the port aft bunk for the winch.

Operating switches for single speed winches



THERE ARE 3 ELECTRIC WINCH BREAKERS UNDER THE PORT AFT BUNK AFTER THE WINDLASS BREAKER.

12. 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.**

13. Bilge Pumps

Your yacht is equipped with a fully automatic bilge pump in each hull and in each engine compartment. A manual pump is in each of the cockpit lockers and diverter valves allow the pump to be used in either the hulls or engines compartments. Their use will be demonstrated to you during your brief. **The switches for these pumps are on the lower left side of the 12v panel and must be left in the 'Auto' position to function properly.**



Automatic bilge pump

Manual bilge pump pick-up



Manual bilge pump diverter valve in cockpit lockers

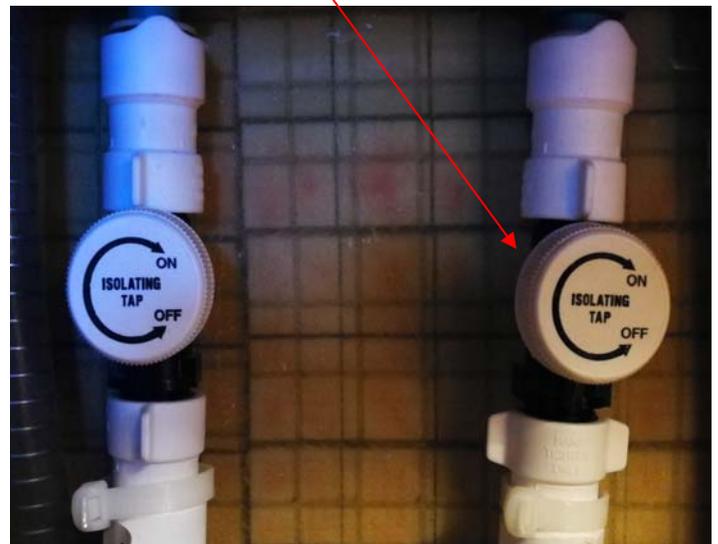
14. Fresh water system

Quiet Storm is equipped with two equal sized water tanks with a **total capacity of 160 gallons**.

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

To use the fresh water system, turn on the fresh water 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 (located under the Nav desk), it is time to change over to the second tank. **The valves are in the stbd fwd cabin locker.**

Water tank valves



15. Heads

- **Nothing is to be put down the head unless it has been digested first.**
- Prior to use, press the lower left button for a few seconds to wet the pan.
- Use the head, remembering that all non-human waste must be put into the waste bin.
- After use, press the upper button for at least 20-25 seconds to flush the pan.
- Lastly, press the lower right button to leave the pan dry.
- Wherever possible please use the heads ashore as this keeps our waters nice and clean.

Each hull on Quiet Flight has a fully operational holding tank which can be used by closing a valve on the waste seacock. **Note that the valve handle has a locking sleeve that needs to be lifted before moving the handle.** These are located under the central bilge floor boards. Check that the holding tanks are empty before returning the vessel and please flush each one through to minimize residual odors.

- Wherever possible please use the heads ashore as this keeps our waters nice and clean.
- **Blocked heads will be cleared at a cost to you of \$150.00 sewerage fee, plus a technician's fee of \$75 per hour and the call out fee.**



Holding tank
Discharge valve in
each bilge.
Note the locking
collar at the base of
the handle which
needs to be moved
to turn the handle.



16. Showers

Your yacht has a hot & cold, fresh-water shower in each head and at the deck shower on the stbd transom. There is also an additional shower room in each hull.

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 (ensure that the shower pump switch is selected on the 12V panel).



Shower sump box in each hull

Transom Shower

The valve on the left has two functions;

- By pushing the valve up or down you can turn on the water and adjust the water pressure.
- By turning the knob clockwise and counter clockwise you can change the temperature of the water. Be careful. The water can be very hot. Test before showering.

To use the shower head simply pull it out and press the lever on the back. If no water comes out make sure that the 12V water switch is on, that the shower hose is not kinked (access from the stbd eng compartment) and that the water pressure valve is in the correct position.



17. Refrigeration

Quiet Flight is fitted with two fridges and a freezer. All these are 12v systems. They are 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 10 for charging instructions.
- Secondly, **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.

Each unit has an internal thermostat but no drain.

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.



18. Propane and stove

The propane tank locker is located under the stbd fwd cockpit seat.

To use:

- Press the 'LPG' button on the 12V panel.
- Push in and then turn the relevant stove knob 90 degrees anti-clockwise 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 off on the propane tank.

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



Gas safety

All our yachts are fitted with propane detectors. On Quiet Flight, the alarm and associated red light will be shown on the Xintex S-1 control shown above. The propane 'sniffer' has been placed in the bilge (propane is heavier than air and so 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:

- Press the 'Alarm mute' button on the control panel.
- Close the valve on the propane tank.
- Check the stove and surrounding area for propane smell.
- If detected, open all 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 pumps or any other electrical system if you suspect a gas leak.

19. 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.



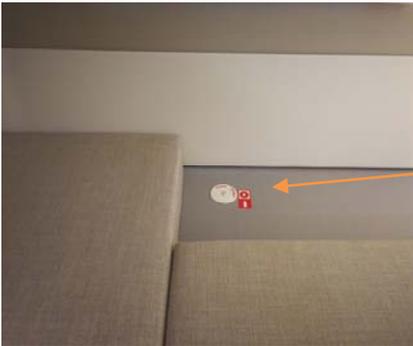
20. Fire Safety

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, automatic heat-operated fire extinguishers are installed in each compartment. There is also fire ports located under each aft cabin mattress.



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 protected at all times 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 definitely gone out and will not re-ignite.

21. 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 long line while motoring or 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 evenings 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 themselves and sample the local cocktails.
- 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 at all times.**
- **Never take the dinghy onto a beach or anchor it off. If docking, always deploy the dinghy anchor from the stern 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 when in the dinghy.
- GAS to OIL ratio
 - 1 US Gallon = 3 ounces (80ml)
 - 2 US Gallons = 6 ounces (160ml)
 - 3 US Gallons = 9 ounces (240ml)
 - 4 US Gallons = 12 ounces (320ml)
 - 5 US Gallons = 15 ounces (400ml)

Outboard Engine - 15HP 2 stroke



