S/V Out of Office

2020 Fountaine Pajot Astrea 42

4 Cabin / 4 Head

Operator's Manual

Welcome

Welcome to New England Sailing Center and your Fountaine Pajot Astrea 42 'Out of Office'.

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 NESC 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.

Have a wonderful charter.

Office Hours:	**Daily, 8:30am – 5:30pm**
Telephone:	**(401) 619-1697**
Fleet Manager:	**(401) 835-5275**
	Technical questions, damage reports and emergencies
Manual Feedback:	**svoutofoffice@gmail.com**

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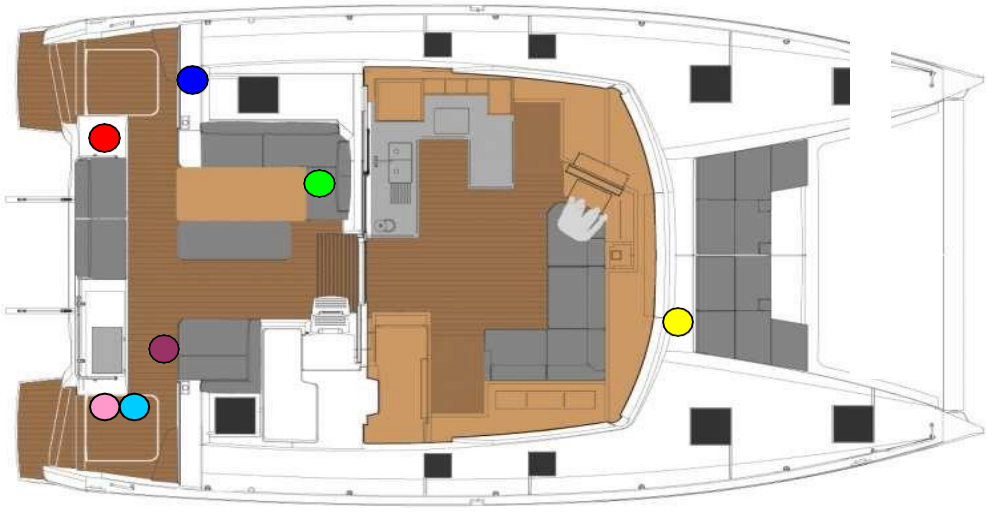
Yacht specifications

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 MDKDM



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)

Power Instructions

Breaker Panel

When you first arrive, ensure the following switches are on (see image below):

- All Bilge Pumps – top 4 right
- 2 refrigerators
- Navigation system
- Fresh water pump
- Sea water pump
- Hull lights (as needed)

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 Navigation Lights

Mooring Light

Searchlight

Navigation Instruments

Hull (Cabin) Lights

Refrigerator 1 (2-Drawer)

Fresh Water Pump

Sea Water Pump

Bilge Pump Port

Bilge Pump Stbd

Bilge Pump Port Eng

Bilge Pump Stbd Eng

Refrigerator 2 (Peninsula)

Courtesy Light

TV/Wifi (Not Available)

Unknown

Unknown

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.

Run the engines at 1400 RPMs or more (or the generator) for a minimum of 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).

The House system should come to rest at 12.8v and then slowly get lower. When the system gets to 12.2v you should start planning to re-charge the batteries soon.

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

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

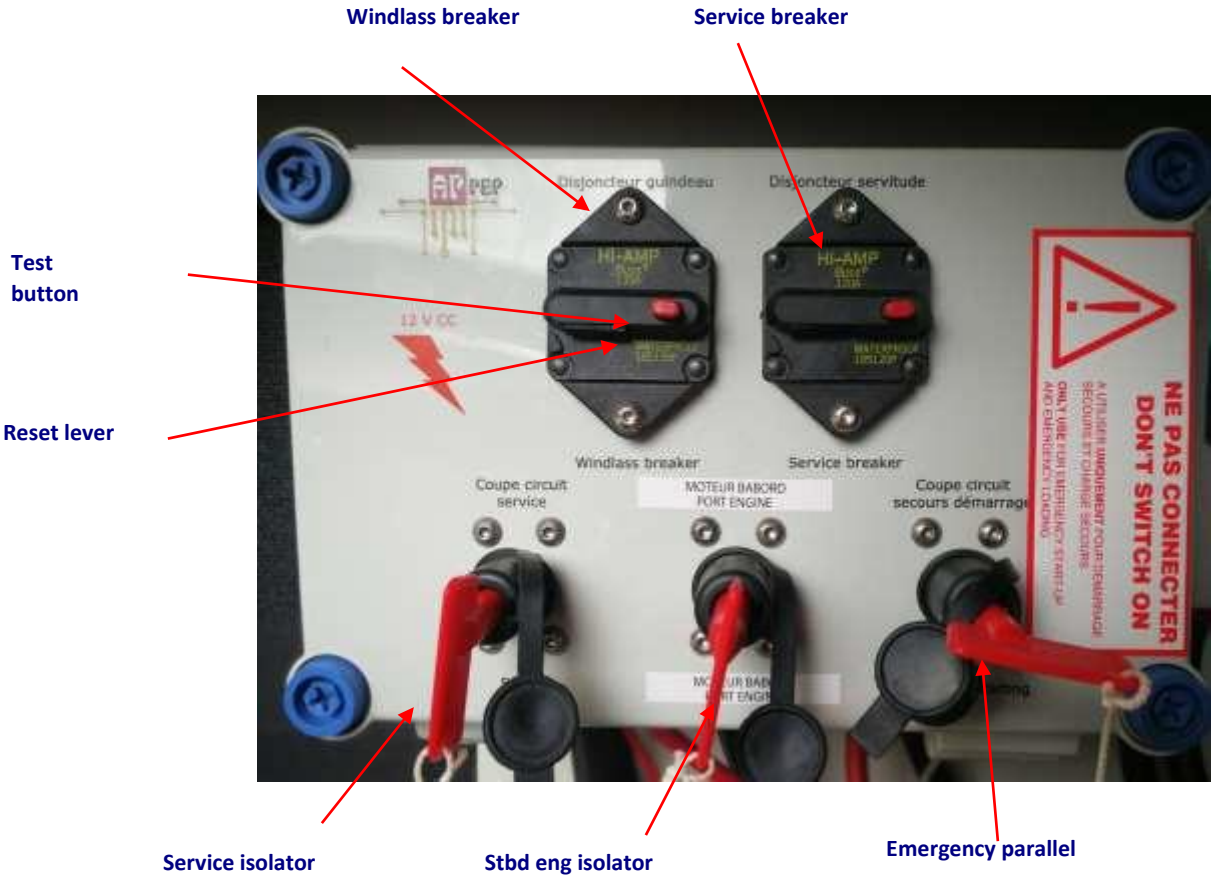
Main Battery Voltage is displayed on the helm station (Fuel Display – Upper Right)

- **See Navigation Instruments.**

Electric Outlet (USB/110v) Locations

Aft Cabins (Port and Starboard)	• 2 USBs, one in each of the base of the light at the head of the bed. • Next to bed, another USB plus a 110 Outlet (to use 110 outlet, invert switch should be on, see Power Instructions • Auxiliary Power (or "cigarette lighter") Outlet that can be used as a USB port if you bring an adapter (starboard side only)
Forward Cabins (Port and Starboard)	• 2 USBs, one in each of the base of the light at the head of the bed.
Main Salon	• Auxiliary Power (or "cigarette lighter") Outlet that can be used as a USB port if you bring an adapter • USB behind navigation station that only works when radio is on
Kitchen	• 110vAC outlet on side behind oven with an extension cord attached. You can plug in multiple appliances but please only use one at a time. Needs inverter (see Power Instructions).

Service Breakers



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

Generator

Never use the generator while underway.

Never run the generator when the engines are on.

You will need to run the generator if you want to do any of the following:

- Charge the main batteries in place of the engine
- Run the air conditioner
- Use the 110V for high current appliances (blender, hair dryer, etc.)

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 genera the back.

Main breakers for the generator

Turning On Generator

1. Make sure all the 110v systems (especially the air conditioning)
2. Slide black cover down and push top red button (see image 1)
3. Push ‘Start’ on generator panel and hold it down until it starts (see image 2)
4. After a slight delay the light on the switch will flash and go green, you will hear the generator start.
5. Allow the generator to warm up for 5 minutes ad then gradually load up the system, adding one load (air conditioner) every 5 minutes.

Turning Off Generator

1. Allow the generator to cool down for 5 minutes under no load before shutting down.
2. Push ‘Stop’ on generator panel and hold it down until it turns off completely (see image 2)
3. Wait a few seconds, slide black cover up and push bottom red button (see image 1)

Image 1

Image 2

Generator raw water strainer

Please do not run the generator when excessive seaweed is present.

The generator raw water strainer is in the port side hull below the floor at the base of the stairs. It 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 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 (under the seat located below helm station)
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 instruction

Inverter

The Inverter allows you to run 110V appliances (toaster, hair driver, etc.). For heavier draw appliances, such as hair dryer, blender, etc, turn on the generator before you turn on the inverter switch.

Warning: Leaving the Inverter turned on will severely deplete the house batteries. For that reason, it is better to start the generator or engines before turning on the inverter.

To use the inverter,

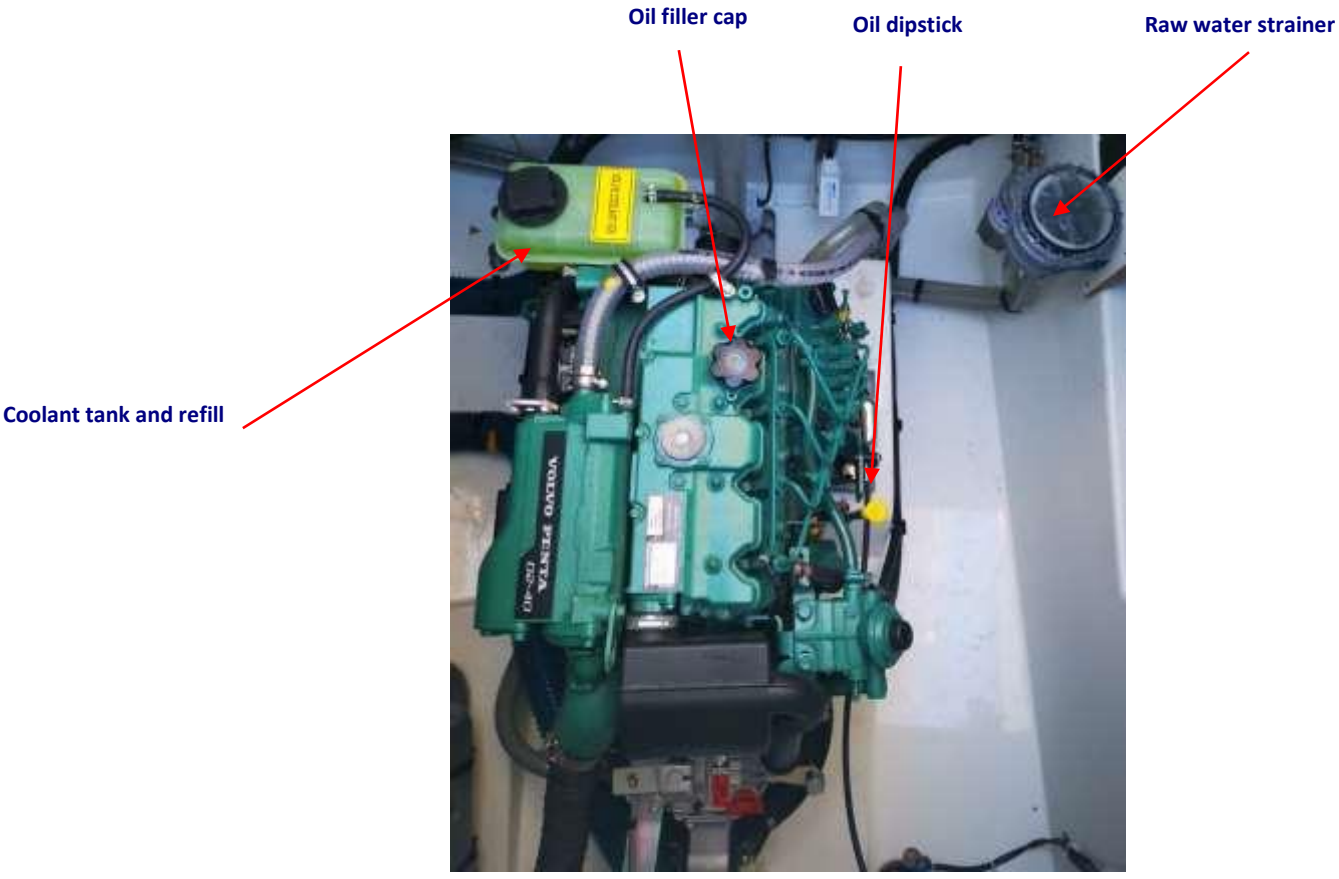
1. Move the toggle switch on the Digital Multi Control to 'On'. The 'Invert On' light above the switch will the illuminate.
2. All the 110v outlets are now live.
3. You can adjust the current limit to be higher/lower depending on what you are powering. We recommend not higher than 24.
4. **Switch off the inverter when you are finished with it to prevent your house batteries from depleting.**
5. Check the battery level 15 minutes after you've turned off the switch to ensure batteries are still charged as needed (if you did not have the generator turned on)

Daily Engine Checks

1. 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.
2. To the rear of the engine is the seawater filter, **do not** remove the cap.
3. To the rear of the engine is the engine coolant reservoir. The coolant level should be between the maximum and minimum lines.
4. Check for any engine leaks or bilge water below engine.
5. Check the belt for any damage and correct tension.

KEEP HANDS CLEAR OF ALL MOVING PARTS.

ANY PROBLEMS CALL NESC



Engine Start Procedure

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

If you need to run the engines (power possibly) but don't want to engage transmission, pull handle out as shown in image below.

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 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 NESC.

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

Fans/Air conditioning

Fans

Because it's easy to catch your fingers in the blades of the fan (our experience), we recommend you adjust fan position before turning on. Locations are:

- 2 in the Salon
- 1 in each cabin

A/C

6 control panels for AC. Locations are:

- 2 in the salon
- 1 in each cabin

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.

Operate the air conditioning as follows:

1. Switch on the power button.
2. Select "cool" via the mode button.
3. Select your base temperature using the temperature controls. **Do not set the temperature below 70 degrees F (22 degrees C), otherwise the unit may freeze up.**
4. 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.

Note: If all the air conditioning units fail to turn on, check the reset breaker on the left side of the generator

Reset Breaker

AC Control Panel Instructions

1 CapTouch Wi-Fi Control Display

Icon	Name	Function
	Fan	Cycles through the different fan speeds
DOMETIC	Dometic	Brand identification. No operational function
	Up	Raises the temperature set point
	Down	Lowers the temperature set point
	Temperature Indicator	Displays the inside, set point, outside, and water temperatures, as selected
AUX	Mode Indicator	Indicates the current display mode
MODE	HVAC Mode	• Cycles through the different modes • Sends the display to sleep if held for three seconds

Available Modes and Options for Operation

Icon	Description/Mode	Function
	COOL	The COOL mode 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.
	DEHUMIDIFICATION	The DEHUMIDIFICATION mode icon illuminates when the DEHUMIDIFICATION mode is selected. This mode controls humidity during periods when the vessel is unoccupied and prevents the cabin temperature from dropping below the minimum default temperature setting. During humidity control: • The fan circulates air for 30 minutes. • Air temperature is sampled and recorded. • After 30 minutes, a cooling cycle starts and continues until the temperature is lowered 2 °F (1 °C) or until the cooling cycle runs a maximum of one hour. • Four hours after the temperature is satisfied or the cooling cycle times out, the cycle repeats. For temperature control: • After the 30-minute fan circulation, if the sampled temperature is at or above the factory default setting 50 °F (10 °C), a cooling cycle begins and runs for humidity control. • If the temperature is below 50 °F (10 °C), a heating cycle begins. The heating cycle continues until the temperature reaches 50 °F (10 °C) or until the heating cycle runs a maximum of one hour. • Four hours after the temperature is satisfied or the cooling/heating cycle times out, the cycle repeats, each time determining whether cooling or heating is required. For DX systems only: the DEHUMIDIFICATION mode heat cycle will not run when the ambient temperature is below 40 °F (4 °C). This protects the condenser coil from freezing. Systems configured with electric heat will run the DEHUMIDIFICATION mode heat cycle regardless of the cabin temperature.
	HEAT	The HEAT mode icon illuminates when the HEAT mode is selected or when the unit is in an AUTOMATIC mode heating cycle. Only the heating system operates. If the ambient temperature rises above the set point, the system will not automatically switch to the COOL mode.
	AUX HEAT	The AUX HEAT mode icon illuminates when the optional auxiliary electric heater is in operation. If the ambient temperature rises above the set point, the system will not automatically switch to the COOL mode.
	OFF	All control outputs are turned OFF. The display reads OFF. All settings are saved in non-volatile memory.
	ON	All control outputs are on and the display indicates the current state of operation. The display shows the cabin temperature. All parameters operate as set.
	AUTOMATIC	The AUTOMATIC mode icons illuminate when the system is in AUTOMATIC mode, which 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. The COOL and HEAT indicators or COOL and AUX HEAT icons are illuminated according to the AUTOMATIC mode.

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 unit and let 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 (Hight pressure fault):	The AC units on the Altair 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 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 counter clockwise 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.

AC Pump

AC Pump strainer

Turn counterclockwise to release air from the strainer

AC Pump Inlet

Instrumentation

Located at the helm position is a Garmin GPSMAP 8410 Touchscreen Chart Plotter, 2 Garmin GMI 20 multi units, a Garmin GHC 20 Autopilot and a Garmin GHS 10i VHF handset.

The navigation station in the salon has a 2nd Garmin GHS 10i VHF handset.

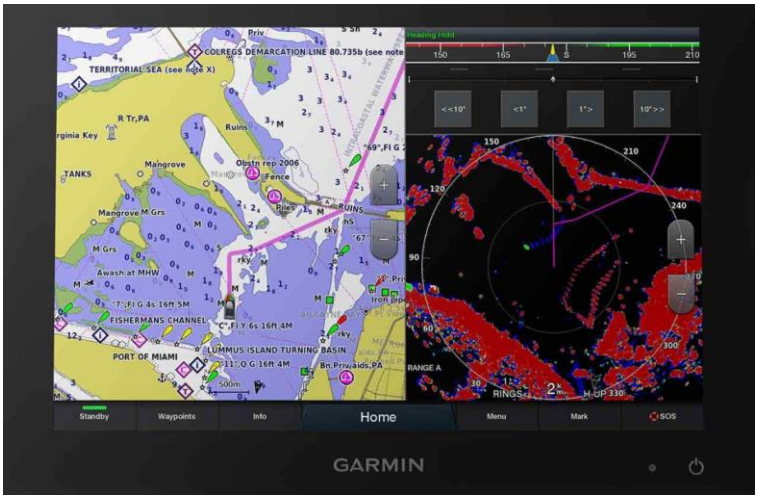
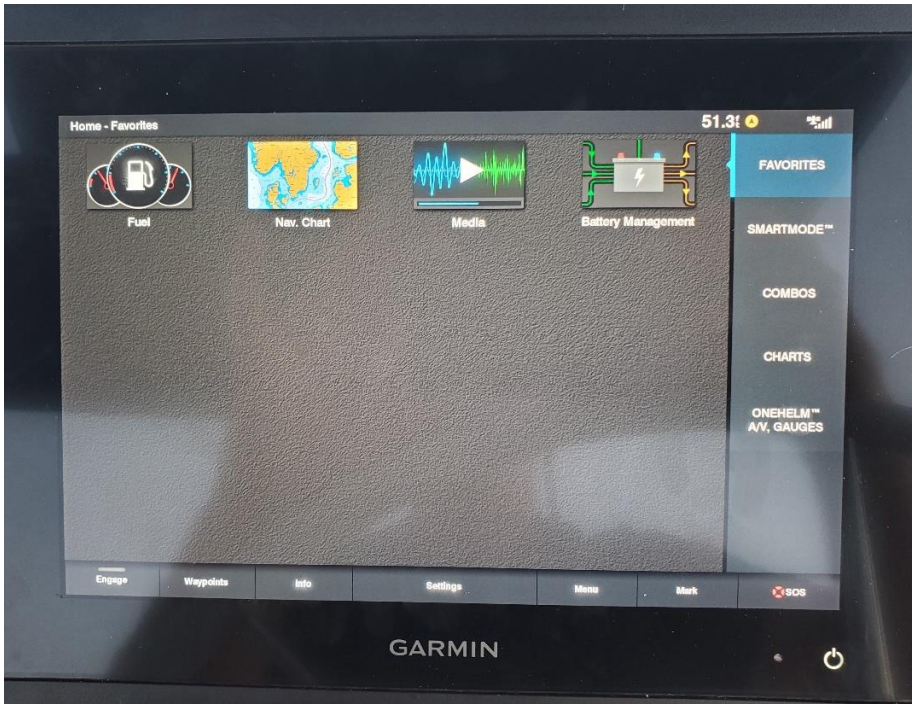


Chart Plotter

Power On Procedures

1. Press the Power Button on the Lower Right (Touch Screen)
2. Press “I Agree” to accepts conditions for use. Takes a few minutes to completely start.
3. If the screen does not start on the “Home – Favorites” screen, press “Favorites” on the top of the menu on right. Displays the following 4 icons (see below):
    - Fuel
    - Nav. Chart
    - Media
    - Battery Management

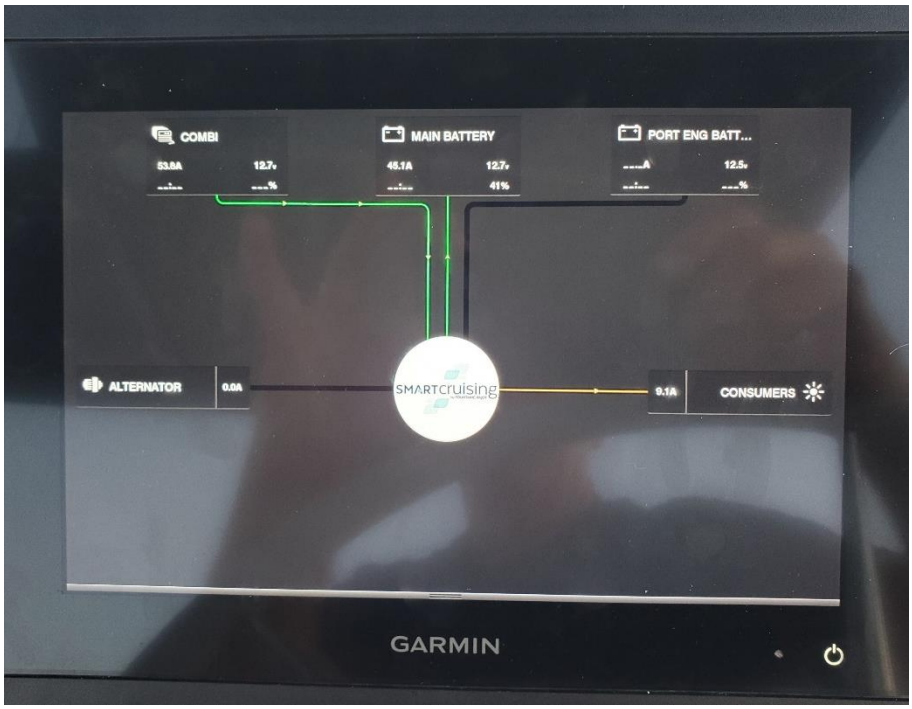


- FUEL - provides status on Fuel, Fresh Water, Main Battery, DC Current Consumer, DC Alternator Current, Port Eng. Battery (see image under Batteries)
- NAV CHART

- MEDIA - Controls Fusion Multi-media center from helm station.

- BATTERY MANAGEMENT - additional information on battery system.

  This display will not only show the voltage status of both the Main and Port Engine batteries, but will also visually display the consumption current draw on the batteries and flow of current (whether charging or drawing down batteries).



Auto-Pilot (Garmin GHC 20)

The Auto-Pilot provide the following options:

- **Heading Hold** – tracks to the compass heading. Best option while under power.
- **Wind Hold** – tracks to the Apparent Wind Angle (AWA).

For each auto-pilot method, the left and right buttons will provide adjustments

- **Quick Press –** adjusts current setting by 1 degree in desired direction.
- **Press and Hold (~2 secs)** – adjust current setting by 10 degrees in desired direction.

Additionally, the current rudder position is shown above display for the menu options. In the image above, the rudder position is all the way to the right.

To avoid damage to the rudder, please be aware of rudder position when in reverse.

Also, center rudder postion when steering using the engine controls. DO NOT rely on markings on the steering wheel.

Primary Multi-Unit (Left) - Garmin GMI 20

By default, this unit is setup with the Sailboat profile. There are 5 pages associated with this profile, but the primary page used is the Preset Wind Page (see below):

This display provides all the necessary indicators for sailing:

- **TWD** – True Wind Direction
- **TWS** – True Wind Speed
- **AWA** – Apparent Wind Angle, also visually on dial (blue pointer)
- **TWA** – True Wind Angle, also visually on dial (green pointer)

Additionally, the Apparent Wind Speed (AWS) is displayed in the center. **Critical to understand for sail reefing plan.**

Drift direction and speed are also available in the center of the dial.

Secondary Multi-Unit (Left) - Garmin GMI 20

By default, this unit is setup with the custom profile OUTOFOFFICE. There are 4 pages associated with this profile (see below).

Please feel free to set the profile to your own preferences or customize one of the 2 other profiles.

Please do not change the OUTOFOFFICE profile.

First page in the OUTOFOFFICE profile (this is usually the default). There is an option to scroll through the pages at a set interval.

Displays:

- Compass Direction (True)
- Depth (key in low depth situations or anchoring)
- GPS Speed (Speed over Ground)

Second page is the current position coordinates.

Critical to have quick access in the event of calling in an emergency. Must be able to provide in degrees, minutes, and seconds.

The next 2 pages in the OUTOFOFFICE profile are useful when navigating using waypoints or following an active route.

- **Waypoint VMG** – (Velocity Made Good) is the speed of the vessel with respect to the target waypoint. Used to identify best sailing angle to reach, possibly under reduced GPS speed.
- **Desired COG (T)** – this is direction of the course of your vessel to reach the waypoint, however, this may be different than heading or bearing based on winds and current.

Tracking your route (and timing) through waypoints, this display will provide the following:

- Next waypoint in your route
- Distance to Next Waypoint
- Time to Next Waypoint

VHF Procedure

Out of Office is fitted two Garmin GHS 10i VHF handsets, one at the helm and one at the nav desk. The speaker with volume control is located below the nav desk.

GHS 10I

GHS 10 speaker, below nav desk

Fusion MS-AV650 stereo with Bluetooth, USB and Aux inputs located at the nav desk.

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 no use Channel 16 for your conversations – this channel is for hailing and distress only.

Channels to use:

16	Hailing and Distress.
74	Contact NESC Yacht Charters (when in range).
71	Conanicut Marina and Launch Service
14	Newport Harbor Master
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 NESC Office immediately at 401-494 8787 or 401-542 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 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 Out of Office ' 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: Call the US Coast Guard Station's 24 hour #401 846-3675 or NESC 24 hour help line 401 619-1697.

Preparing to Set Sail

Hatches

Before setting sail OR in inclement weather, ensure all windows and hatches are both closed AND locked with ALL latches. Anything less will leak. If you open the most forward hatches in the fore peaks, please make sure to close and re-lock. (we have already had those leak on us)

Check oil in engine

Rig and Electric Winches

The right most winch 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.

To

Each of the following lines have a clutch to secure and hold the line.

- Halyard
- Reef Lines (1st, 2nd, and 3rd)
- Mainsheet
- Traveler Sheets (one in each direction – see Note below)

There are no clutches to secure the jibsheets, so the active sheet will need to remain on the respective winch to secure.

Tips for Managing the Traveler while Jibing

Some key items to note regarding use of the traveler while jibing. To prevent severe action on the mainsail, boom, and mainsheet, allow sufficient time to reposition the traveler to the center position prior to jibing. It is best to use the electric winch to move the traveler.

As the traveler sheet is a continuous line, it can often be confusing which line is required to move the traveler in the correct direction. Labels have been applied below the 2 clutches to secure the lines for moving the traveler.

- To move the traveler to STARBOARD, use the line furthest away from you.
- To move the traveler to PORT, use the line closest to you.

Avoid moving either the traveler too far and/or let out the mainsheet where the sail is making contact with the spreaders or side-shrouds.

Reefing

Understanding the reef system and reefing schedule for a cruising catamaran is **very critical**. Unlike a monohull sailboat it is a challenge to *feel when it's time* to reef. Refer to the following sail reduction plan in the table below. Allow adequate time to complete the reefing *before* the wind conditions exceed these limits.

NOTE: The Apparent Wind Speed (AWS) is used to execute the reef reduction plan.

Mainsail	Genoa	Beating and Close Reaching	Tailwind and Broad Reaching
Full / Max	Full / Max	0 – 18 kts	0 – 15 kts
Mainsail 1st Reef	Genoa 2/3	18 – 25 kts	15 – 20 kts
Mainsail 2nd Reef	Genoa ½	25 – 30 kts	20 – 25 kts
Mainsail 3rd Reef	Genoa 1/3	30 – 35 kts	25 – 30 kts
Mainsail 3rd Reef	Genoa 1/5	35 – 40 kts	30 – 35 kts
Mainsail Down	Genoa 1/10	> 40 kts	> 35 kts

Reef System and Instructions

Reef 1 is an automatic reef system and does not require you to leave the helm station.

Reef 1 (Yellow/Black Line)

1. Release slightly the mainsail sheet.
2. Release the mainsail's halyard to lower the tack of the reef 1 at 20cm (~8") of the boom.
3. Haul up the reefing line (Yellow/Black).
4. Haul up the mainsail's halyard if it is necessary so that the tack point is at 10cm (~4") of the boom

Reef 2 and Reef 3 are a classic reef system and requires a visit to the mast to secure the tack point.

Reef 2 (Red/Black) and Reef 3 (Blue/Black)

1. Release the mainsail sheet
2. Release the mainsail's halyard
3. Strap the tack point
4. Haul up the mainsail's halyard
5. Haul up the reef

Anchoring & The Windlass

Anchor Chain Markings

The anchor lengths have been marked off using multiple colors of parachute cord tied to the chain at 15-foot increments. Reference table below for markings and recommended length of rode for

bottom depth. NOTE: Allow sufficient depth to account for draft plus freeboard height (~10 feet). Assumption is depth is measured from surface and not bottom of keel.

Chain Length (Feet)	Mark Color (Cord)	Number of Cords	Min Depth (7.5:1)	Max Depth (5:1)
15'	White	1	No	No
30'	White	2	No	No
45'	White	3	No	No
60'	Rainbow	1	No	2'
75'	Rainbow	2	0'	5'
90'	Rainbow	3	2'	8'
105'	Black	1	4'	11'
120'	Black	2	6'	14'
135'	Black	3	8'	17'
150'	White	1	10'	20'
165'	White	2	12'	23'
180'	White	3	14'	26'
195'	Rainbow	1	16'	29'
210'	Rainbow	2	18'	32'
225'	Rainbow	3	20'	35'
240'	Black	1	22'	38'
250' (End of Chain)	White, Rainbow, Black	1 of each	23'	40'

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.
- If you are towing the dinghy, 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, OR, choose an established anchorage for the area. In the Caribbean, 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.
- Out of Office has **250 ft** of chain and it is marked every **15 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 loosen the tension on the chain slightly.
- 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 snap shackle through the chain link. Pay out enough chain so that the snubbing line becomes taut and there is no tension on the chain.
- 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 bottom. Take transits as you set the anchor so that you know that the anchor is not dragging.
- In the Caribbean, 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. When you can reach the snap shackle on the bridle, reattach the bridle to the hook in the anchor locker. Continue raising. **Ensure the anchor chain does not go under either of the hulls by having helmsman rotate to the direction of the anchor. Also ensure that 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 anchor 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 NESC 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 NESC.

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 counter clockwise 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 paid 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.

Picking up a mooring buoy

If you are towing the dingy, ensure the dinghy painter is tied off short on the bow or amidships and is clear of the prop.

Boat hook is stored in the portside bow locker.

1. Approach the mooring buoy, keeping the bow into the wind or current, whichever prevails.
2. Have a crew member on the bow to pick up the mooring pendant or line(s) with the boat hook.
3. 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 pendant for any signs of wear and tear; if you are unsure about a mooring buoy's integrity, choose another location to moor up.
4. The bowman should ready a line to a bow cleat to slip through the eye of the mooring pendant. This line is then shortened and brought back to the same cleat.
5. 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.
6. 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.
7. 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 pendant 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 pendant.

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)

Freshwater system

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

To use the freshwater system, turn on the freshwater breaker located in salon near nav station on 12v breaker panel (see Power Instructions).

Freshwater gauge is located on the navigation panel at the helm (see Navigation Panel Instructions). There are no other traditional analogue gauges on Out of Office.

- Don't let water get below 50%. The gauge is not 100% accurate. We've experienced that tanks are empty even though gauge shows 30% full.
- 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.
- If you suspect tanks are out of water, fill the freshwater tanks, turn on faucet, then turn on breaker. Let water run for a few seconds until running smoothly, then turn off faucet. Pump should turn off in a few seconds. If it does not stop on its own, turn off breaker and contact NESC
- A reserve freshwater pump is installed in the port bow locker opposite the generator. There is a primary pump with a back-up pump just below. Please do not switch pumps without contacting NESC.
- To switch pumps, first move the diverter valve all the way up until it's in line 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.

Filling Fresh Water Tanks

To fill up water tanks, you can call Conanicut Marina on channel 71 to request to pull up to dock to fill with water for free. Mention you are a catamaran and they will have you pull to the outside north dock.

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 directly behind the lounge seats. Please ensure that the correct fillers are used, NOT the holding tanks or the diesel fill.

Fill until gauge reads 100% or water is overflowing (takes gauge a few seconds to catch up)

Fresh Water Conservation Tips

- Use the saltwater faucet (smaller right faucet) in kitchen to wash and rinse all dishes and then just do a final fresh water rinse.

- Turn off shower when lathering up and keep shower at lower than full volume if not needed.

Heads/Showers

Out of Office has 4 combination head/shower stalls.

Heads

- **Nothing is to be put down the head unless it has been digested first.**
- Light switches for head are just outside on the wall for the head

- 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.

- Note, there are two holding tanks, one in each pontoon. **They are not very large so take care to have them pumped out frequently** (every 2 – 3 days, depending on use). You can request a pumpout from Conanicut Marina (ch 71). They will come out to the boat and pump out for free (part of the marina service). If you are over 3 miles off the coast, you can also empty into the ocean by turning the 'T' valve ¼ turn to be in line with the pipe. This is located in the forward head stall on the starboard side and in the rear head stall on the port side. Remember to turn the valve back to closed once you are within 3 miles of shore.
- **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 technicians fee.**

Shower

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

The vanity faucet doubles as the shower head.

Faucet Position

Shower Position

To use the shower

- Pull faucet carefully out of sink and hook up high to the left for shower being careful of kinks in the hose.
- In the aft heads, turn handle forward for hot water. In the forward heads, turn handle back towards wall for hot water.
- There is a button on the back of the faucet head that switches from shower spray to single stream
- Remember to remove everything from bathroom before you shower so it doesn't get wet.

Transom Shower

To use the shower in the starboard side transom, simple push on the head to release and pull out. Nozzle control is in the head. When done, sampling push back into the hull until the head engages in place.

Refrigeration

Out of Office has 2-12v refrigerators with a small freezer at the top, one located under counter in kitchen and one in the cockpit. It also has 2 large refrigerator drawers in the salon. 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. Initially set the thermostat to 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. **If it is necessary to use ice in the refrigerator, please ensure that it is contained in a waterproof container to prevent excess water from leaking.**

Two-Drawer Fridge

Salon fridge

Photo not available.

Cockpit fridge

Bed in Salon

There is an additional bed in the salon if needed or desired. To use,

1. Unlock all 4 clasps on pedestal table
2. Push down firmly and hold down while reaching under and locking clasps.
3. Pull table out from each end to make room for 1 extension and add widest extension to table, stored under mattress (large brown rectangular bag behind sofa on starboard side)
4. Take mattress out of bag and lay across sofa and table. Add sheets or blanket to cover mattress to keep it clean.

Stove, Grill, and Oven

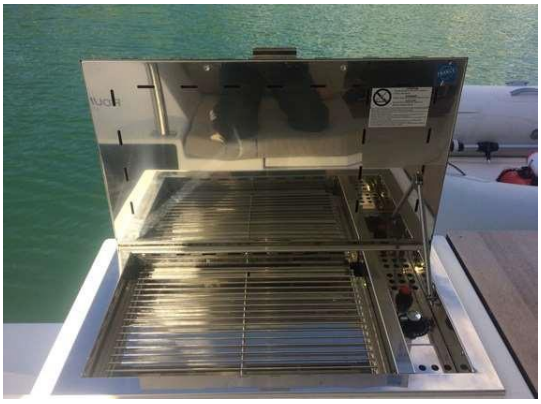
All appliances are gas appliances and all use the same gas (Butane) tank. The propane tank locker is located under the forward cockpit seat. To replace, twist off one tank and twist on the other.

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 (see image below). Make sure these are all open and try again.

Stove

- Use lighter in draw to light.
- Hold down knob, turn towards light setting, and light.
- Hold down for another 10 seconds. If not, it may go out.

Grill



- Valve to turn on gas for grill is under sink on the right wall.
- Valve should be turned towards aft (on), up (off)
- Turn on gas knob and hold down, press red button to light and keep holding gas knob down 10 seconds.
- Check periodically as burner may go out due to high winds.
- When using the BBQ, please be aware of the location of the dinghy (if on the davits),

and considering tying off away from the grill.
- Never use the BBQ while sailing.
- 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.

Oven

- 2 modes. Bake and Broil.
- Bake – hold down right most knob and turn left all the way towards light and hold for 10 seconds. You should hear it go on automatically.
- The numbers on the dial are Celsius
- Broil – hold down right most knob ad turn right all the way to light and hold for 10 seconds, you will hear and see it go on automatically along the top middle of the burner.

Fire Safety

Smoke Detectors

- 3 – one in galley on side of stove and one in each hull

Fire Extinguishers (6 total)

- Each Engine Compartment
- Kitchen, under sofa near nav system
- One in each cabin in the closet

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.

Dinghy, Outboard & Davits

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.

- If you are towing the dingy instead of carrying on the davits, always tow 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.
- 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.
- 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.

To lower from davits

- Put plug in before you lower
- Wrap the bow line around winch once and hold while someone releases the clutch and lower halfway.
- Put clutch back on
- Wrap the stern line around winch once and hold while someone releases the clutch. Lower all the way to the water. Replace the clutch
- Go back to bow line and repeat procedure to lower bow remaining way to water.
- You may have to release clutches a little more to get boat firmly in water and can release from boat once you climb in but keep taught until you are free of lines.
- Good idea to keep painter line under bow tied to cleat on boat until you are ready to leave. Be careful not to let engine hit starboard steps.
- To release snap shackles, pull on tiny ring and it will release the fitting.

To raise onto davits

- Always remove plug before you walk away after it's stored for the evening. **Failure to remove the dinghy plug while on the davits could expose the davits to excessive load in the event of a rainstorm and water is collected.**

- If there's water in the dingy, remove plug from stern of dingy before raising.
- Point tiller handle up before raising.
- Attach dingy to snap shackles and tie painter to cleat
- Make sure clutches are secure and take up any slack line
- Wrap bow line around winch and raise halfway (handle on side of bench)
- Wrap stern line around winch and raise all the way (have someone lean over back sofa to help guide dingy away from boat so handles don't get caught on the way up)
- Wrap bow line around winch and finish raising.
- Have bow slightly higher than stern.

To operate engine

- Gas tank is under seat in bow of dingy. Check to ensure there is enough gas.
- Make sure motor is in Neutral.
- Throttle is very sensitive!
- Make sure bulb in fuel line is full. Do not overfill.
- Pull choke out
- Ensure throttle is all the way down in start position (marked on throttle)
- Pull chord to start
- After a few seconds of warming up, push in choke
- Set lever for forward or reverse
- Throttle is on tiller handle
- To turn off, Put in Neutral, then push stop button. Note, there's also a deadman switch if you have to use that.