



Operations Manual for Fountaine Pajot Lucia 40 'Cats 'n Dawgs'



Welcome

Welcome to Anacortes Yacht Charters and your Fountaine Pajot Lucia 40 "Cats 'n Dawgs". We hope you had a pleasant journey and are looking forward to a fantastic vacation and some of the finest sailing in the world here in the Salish Sea.

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 AYC 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 cruise

Table of Contents

Welcome	1
Yacht specifications	3
12-volt panel	4
Batteries	8
Pre Departure Checks	10
Engine Start Procedures	12
Generator	14
Heat Pump/Air Conditioning	16
Instruments	17
Auto Pilot	19
Chart Plotter	20
Stereo	23
VHF Procedure	24
Anchoring, Windlass & Electric winches	26
Picking up a Mooring Buoy	31
Fresh Water Systems	34
Sanitation Systems	36
Showers	38
Refrigeration	39
Stove and Propane	40
BBQ	41
Fire Safety	42
Tender & Davits	44
Starlink	48
Paddle Boards	48
Misc	48

Yacht specifications



Length	38' 6"
Beam	21' 9"
Draft	3' 11"
Fuel	79 gallons
Water	140 gallons
Engine	2 x 30 hp Volvo Penta D1-30F
Generator	Onan 7.5 KW MDKBJ

Location of:

- Fresh water refill (foredeck)
- Diesel refill (port aft cockpit)
- Manual bilge pump (stbd aft cockpit)
- Propane tank (foredeck locker)
- Windlass breaker (stbd eng compartment)
- Electric winch breaker (stbd eng compartment)
- Diesel cut off valves (port aft cabin, under bunk)

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.



- Always On
- Always Off
- Bilge Manual On
- As Needed

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Navigation lights 2. Steaming lights (Under Power) 3. Masthead (Anchor) light 4. Deck floodlight 5. Navigation instruments 6. Hull (Cabin) lights 7. 2 Drawer Fridge 8. Fresh water pump 9. Galley sea water pump | <ol style="list-style-type: none"> 10. Bilge pump – port hull (leave in auto) 11. Bilge pump – stbd hull (leave in auto) 12. Bilge pump – port eng (leave in auto) 13. Bilge pump – stbd eng (leave in auto) 14. Freezer 15. Extra 16. Starlink WIFI 17. Extra 18. Extra |
|--|---|

110v/220v Breakers

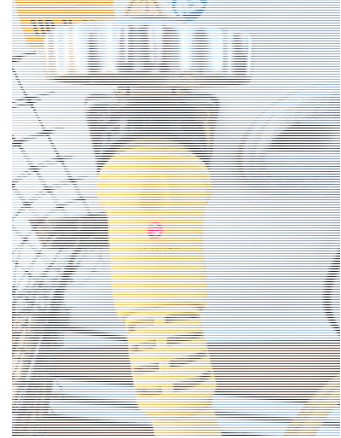
The AC breakers are in the port engine compartment

The 110-volt outlets will operate while 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 as shown below.



Shore Power / Inverter / Charger

Cats 'n Dawgs runs on 50 Amp, 240V shore power connection. Always request this first if reserving moorage at a marina. Alternately, if 50A is not available, the smart Y adapter may be used when the two 30A dock outlets are on opposite legs of the marina's 120/240v supply. If the outlets are on the same leg, the adapter will not deliver proper 50A/125-250V power (And the red indicator on plug will not light up).



Since we typically don't know how the 30A circuits are phased just try plugging in to a couple of different 30 A connections and see if they work. There is zero harm or danger if a trial connection doesn't provide the 50A of power. You will just have to settle for the 30A, 120V option.

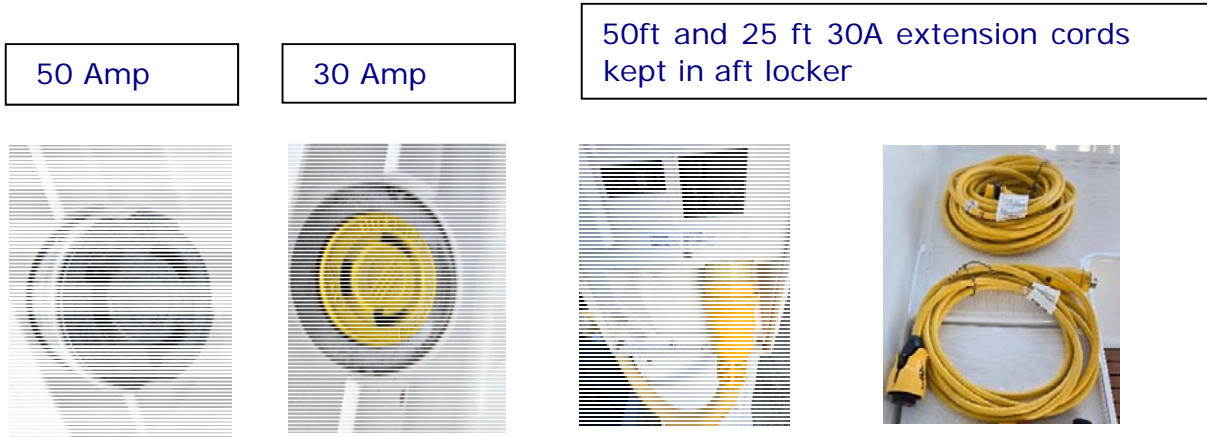
50A power allows the heat pumps/AC to work. They are the only device on boat requiring 240 volts. If you can't get 50 A then you can use the "pigtail" (shown below with Smart Y adapter) to convert the male plug to a 30A 120V connection and still get all the shore power needed to run outlets AND heat the water. You will just have to run the generator if you want to turn on AC or the 3 heat pumps on the boat.



Cats 'n Dawgs **Power cord is 50 ft in length**. To ensure the easiest power cord connection to power pedestal you should either request a side tie or end tie (usually cheaper than paying for two slips). If the marina is going to put you in a slip it typically means you are getting and (possibly paying for) two slips due to 22 foot beam and you have an option of which side to tie. You should always moor to starboard side since the helm is on that side and you can visualize proximity to dock much better to allow your mate to step off with lines. To reduce cable run always back in so shore power can reach the pedestal regardless of location. Keep in mind there are no rear bumpers or fenders AND you have a tender that extends out a couple of feet so back down with care! Your slip request to marina would be "**stern in starboard tie**". If they say "we have a bow in port tie" say SOLD! It's the same thing.

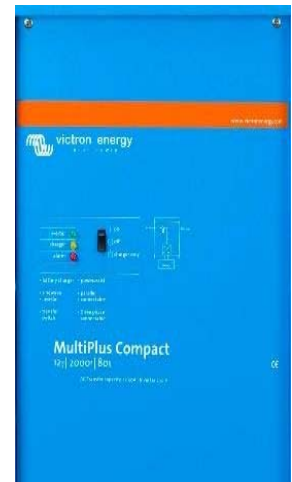
Connecting to shore power.

1. Connect female end of cord to boat. Thread in black collar to outlet
2. Connect Y adapter or Pig Tail to male end if direct 50A not available.
3. Plug male plug into proper outlet after ensuring it is switched off. 50A has two blades bending out. 30A has one blade bending in.
4. Flip breaker on.
5. Check for red indicator light at boat connection.
6. If no red light and using smart Y, turn off breaker and try a different 30A combination. In rare circumstances I have used the 50ft 30A extension connected to one leg of smart Y and ran cord down to a 2nd pedestal and got 50Amps to work!
7. When disconnecting turn off all AC high powered items on boat first (A/C, heaters, Air Fryer, etc). Then do items 1-4 in reverse!



Inverter/Charger

The Victron energy management system completely automates turning on the charger and/or inverter depending on current energy status of shore power, underway under power or running the generator. The Victron MultiPlus delivers up to 2000 watts of power to AC outlets when running on batteries or underway with engines. It also delivers up to 80 A of charge on shore power or Generator. The batteries charge directly from alternator underway and from solar whenever it's light out!



Batteries

Cats 'n Dawgs has a brand new set of Victron AGM batteries. 4 x 165 amps or 660 amps total at 12 volts. **You can draw batteries down to 50%** so this equals 330 amps x 12 volts or about 4000 watts (4 Kw hours) of available power not counting what the 400 watt solar panels produce. With some nice sunny summer days in the San Juans Cats 'n Dawgs could easily go 3 to 4 days at anchor without recharging batteries with generator. Short cruise to a new anchorage would easily top off batteries AND heat the water for showers without having to start generator.

House bank. Stbd Engine Comp



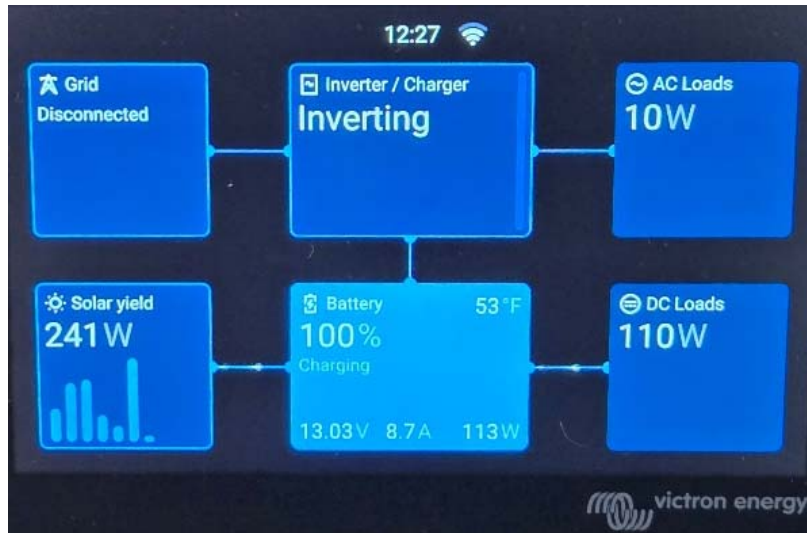
Genset & Port Eng Start Batteries



The other battery systems on boat are the 2 dedicated start batteries for Port Engine and the Generator. These are both 50 amp AGM batteries that are topped off by solar panels, alternators or battery charger when on shore power or running generator.

Keeping the house batteries charged to 50% or greater is essential to ensuring your 12volt systems will work. Batteries can be permanently damaged if SOC is allowed to drop below 50% The Victron Energy Management system keeps a running log of State of Charge so please don't get caught running house bank below 50% threshold! If you do discover the batteries below 50% recharge as soon as possible to prevent permanent damage.

Fridges, freezer and Starlink draw the most power. Lights, Stereo, and Navigation instruments draw far less. Coffee maker, Air Fryer and Space Heater are power hogs and will drain batteries fast if not on shore power or running generator! If you conserve energy, you can go days on batteries with the solar panels keeping batteries topped off. If something is not being used, then turn it off. We often explain that 12-volt power is like water; you need to replace what you use. You can recharge your batteries with the engines under way or your 110-volt battery charger when running the generator or on shore power. This charger and inverter system is completely automated when running the boat.



In the Victron energy monitor example (above) the boat is off shore power with 10W AC (perhaps charging a phone), 110W DC (Probably fridge, freezer and Starlink all running), and 241 W of power coming into battery from solar. The battery is shown at 100% State of Charge (SOC). Inverter was automatically keeping AC outlets running.

Charging Options: Motoring to a destination will automatically charge your batteries. **When anchored use the generator to charge batteries if solar hasn't kept up and batteries approach 50% state of charge (SOC).** The best thing to do is monitor your batteries state of charge on the Victron energy monitor panel. If they get down to 50% then it is time to recharge your batteries. Batteries recharge quickest at "Bulk" charging so bringing them back up to 75% or 80% is plenty since charging will slow as you approach full charge. Charging twice a day for 1.5 to 2 hours should be plenty to get batteries back to 75% while also heating your hot water tank and maybe providing power for space heater and coffee maker (in morning) or air fryer when cooking meals in evening. Timing is everything!

Pre Departure Checks

Vessel & Deck

- Shore power disconnected and stowed
- Dock lines ready for release (Leave bow and stern looped from dock cleat back to deck cleat)
- Fenders positioned for departure
- Hatches, ports, lockers closed and secured
- Tender secured and locked to davit
- Anchor secured

Electrical & Systems

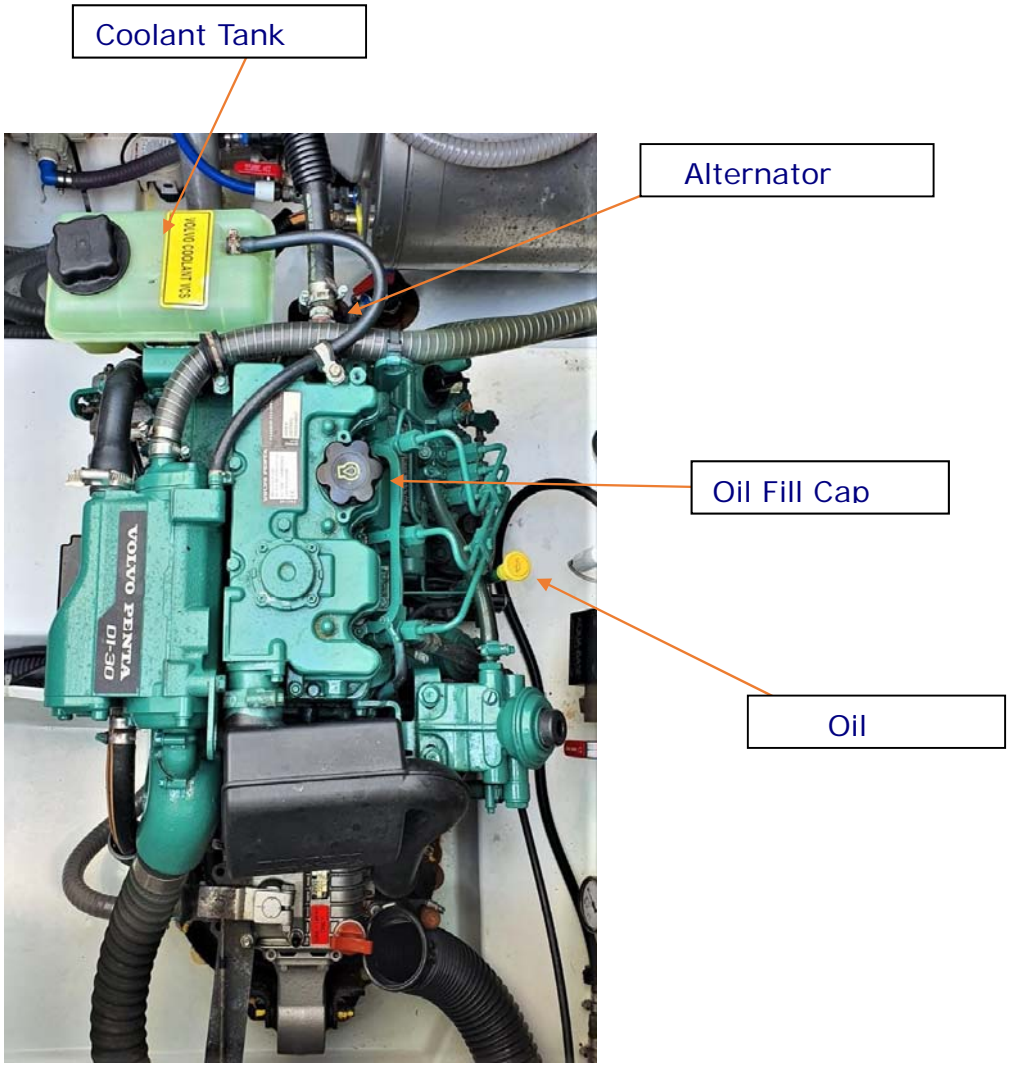
- House battery ON / sufficient charge
- Chart plotter / instruments ON
- VHF radio ON and volume set
- Anchor light off
- Navigation lights (If needed)
- Fuel and Water adequate for trip
- Bilge levels normal
- Headsets charged

Engine Compartments

- 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.
- Seawater strainers are clear. (2 strainers on port side)
- Engine coolant level should be between the maximum and minimum lines.
- Check for any engine leaks or bilge water below engine.
- Check the drive belts for any damage and correct tension.

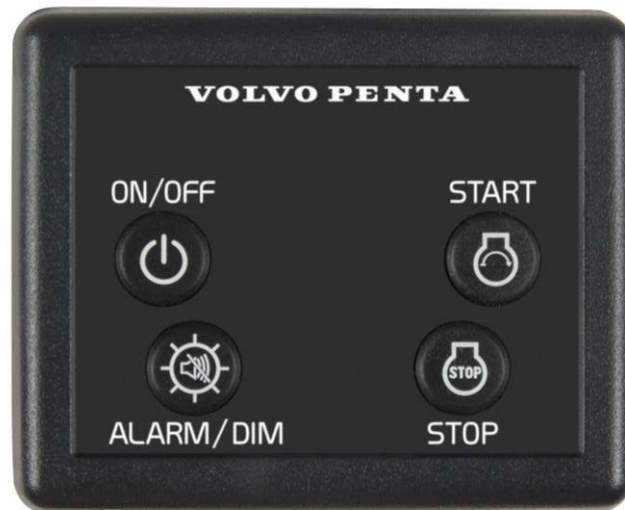
KEEP HANDS CLEAR OF ALL MOVING PARTS.

ANY PROBLEMS CALL AYC



Engine Start Procedures

- 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.



After Start

- Check voltage / charging on Victron Panel
- No oil pressure or other alarm
- RPM stable at about 900 rpm (idle)
- No unusual vibration or noise

Ready to Leave Dock

- Headsets on for communication with crew
- Engines warmed (3 to 5 minutes)
- Helm in control (Wheel centered)
- Wind, current and tides assessed
- Final 360 degree visual check

There is an emergency parallel switch in the stbd engine compartment. It enables the port engine battery to be combined with the house bank if the engine start battery is too low.



Emergency parallel switch

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

Cats 'n Dawgs engines run on diesel fuel. There is a diesel filler cap at the aft of the cockpit which is clearly marked "DIESEL" **DO NOT PUT WATER IN HERE.**

Generator

Cats 'n Dawgs is fitted with its own 7.5 kw generator which will run the 110v outlets, the Hot Water Heater, the air conditioning and will also charge the batteries in place of the engine. The generator is in the port engine room and the start panel is inside the saloon next to the 12V panel.

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



- To use the 110v outlets those circuits will be closed on the 110v outlet switches in the starboard engine compartment. These switches are kept on unless an overload trips one to off
- The water heater will activate when the generator is running but this is not usually needed. Hot water is primarily generated by running the main engines and remains hot for hours after shutdown.

To start the generator:

- Make sure all the 110v systems (especially the air conditioning) have been switched off prior to starting the generator.
- Press the start button to establish communication with generator control. The status on the display is 'Stopped'.
- Press and hold the 'Start' button. The status will move from 'Stopped' to 'Starting' to 'Running'.

- Allow the generator to warm up for 5 minutes and then gradually load up the system, adding one load (air conditioner) 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' button. The generator will shut down.

Generator control panel in salon



Generator raw water strainer located in port engine room.



Keep in mind that the generator exhaust exits on the port aft right next to engine exhaust in case another boat or dinghy moors next to you. Sea water is separated from generator exhaust and does not flow out of exhaust pipe like it does for the engines. It exits separately at the port hull beneath the waterline.

Heat Pump/Air Conditioning

It is critical that the load is applied to the generator slowly. Heat Pump/AC units must be turned on a few minutes apart to avoid overloading the generator.

The 220V Heat Pump/AC units will operate when the vessel is plugged in to 50 amp shore power or when the generator is running. **Each hull has its own individual air conditioning control unit and there is one for the salon.** The Heat Pumps circulate Sea Water when operating so you will hear/see water pumping into the sea from between the two hulls.

Condensed Water from all three AC units drains to the shower drain sump boxes in the bilges and as a result you may hear intermittent pump operation when running the air conditioning. These are hardwired and no switches are needed for them to operate.

The heat pump/AC 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 to maintain temp within boat.

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:

The controls are very intuitive. For A/C push power button and press mode button until you see "COOL" displayed. Then set the maximum temp you want that section of boat. Press fan button for automatic fan speed. The closer to set temp the slower the fan runs. You can press it again to get "manual" fan setting and set the speed you desire.

For heating select mode until "HEAT" is displayed. Set the minimum temp you want for that section of boat. When selecting a temp you will see the word "Set" next to digits. In a few seconds the display will revert back to the actual temp measured at control unit. Example at right shows set temp and fan set to manual speed. Example above shows actual temp of 59 degrees and auto fan speed very slow (since the actual temp is WAY below the set temp of 75 degrees).



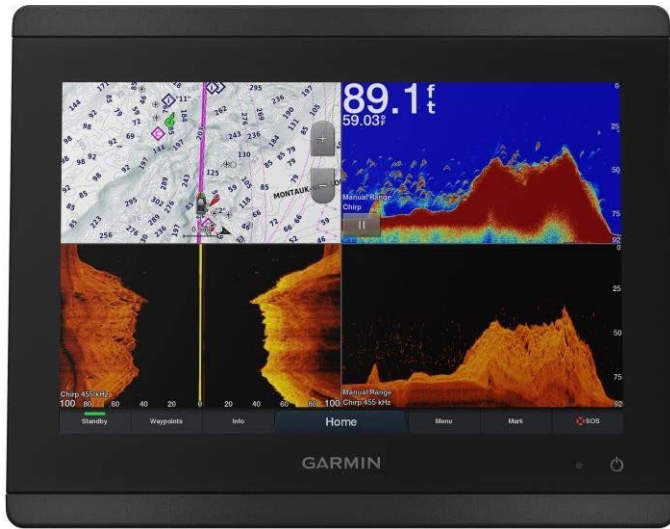
Instruments



Located at the helm position are 2 **Garmin GMI 20 multi units**, a **Garmin GHC 20 Autopilot**, a **Garmin Gpsmap 8410 chartplotter** and a **Garmin GHS 315i VHF handset**.



located at the nav station is a **Garmin GPSmap 8410 Touchscreen Chartplotter** and a second **Garmin GHS 315i VHF handset**.



Garmin GMI 20 multi units



Depth is read from under the keel

Power (Brightness)
Double push the Power button if display is in dark mode

Return

Toggle page up

Menu

Toggle page down



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

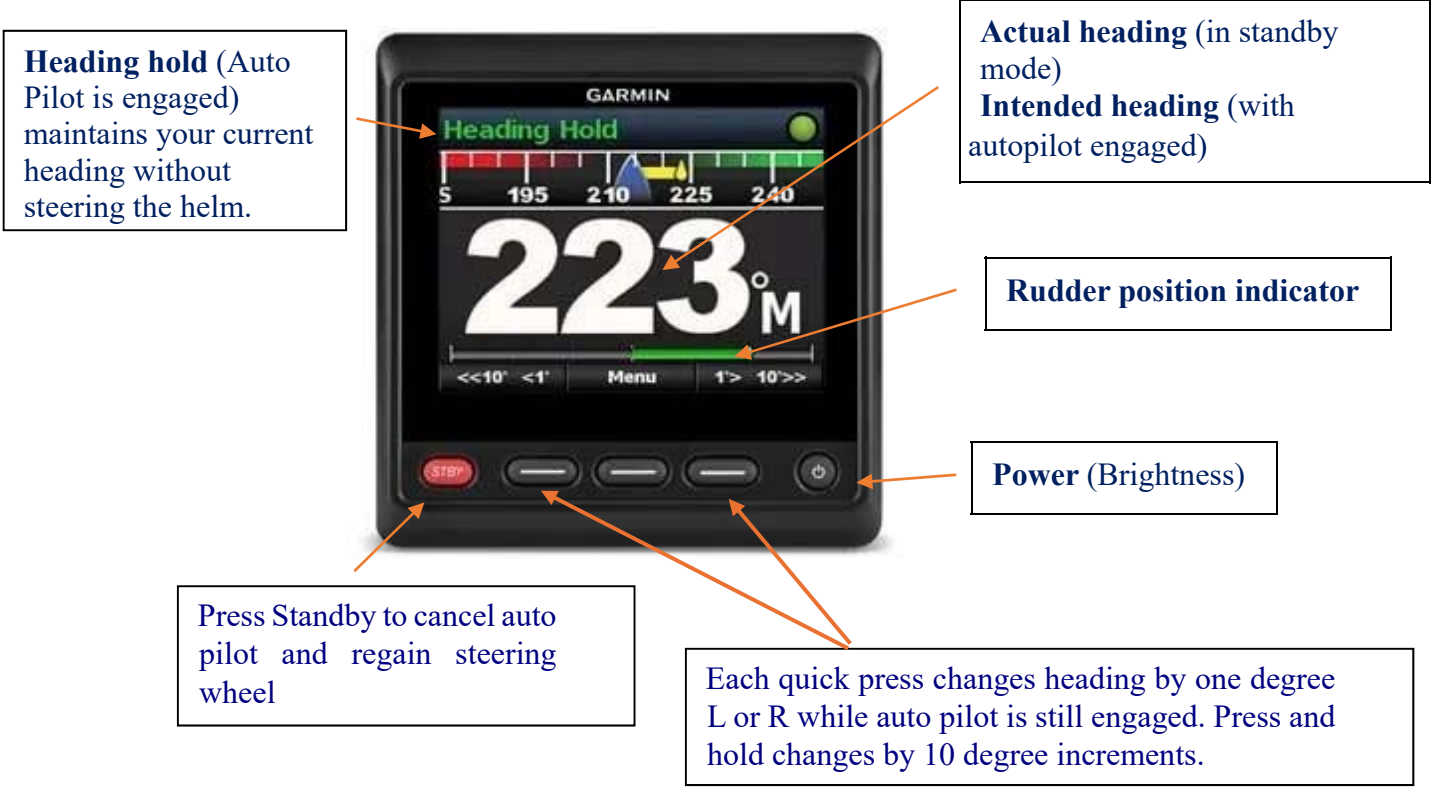
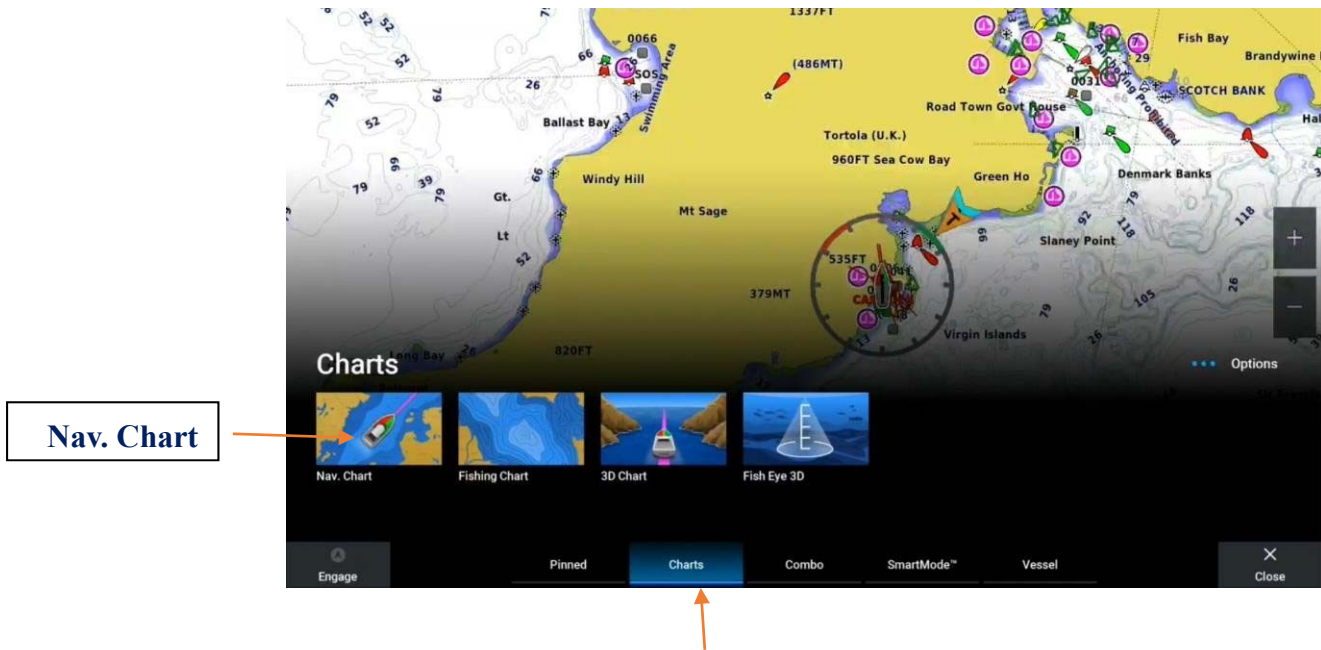


Chart Plotter

To open charts select charts and then Nav. Chart



Charts

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 steer the boat to the cursor and will keep the boat on that exact course line automatically adjusting for currents and drift to take boat directly to selected waypoint. **Pressing the red STBY key will immediately disengage Auto Pilot**

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 Anacortes Yacht Charters No go areas when using the chart plotter.

My Vessel, Current Location on Chart

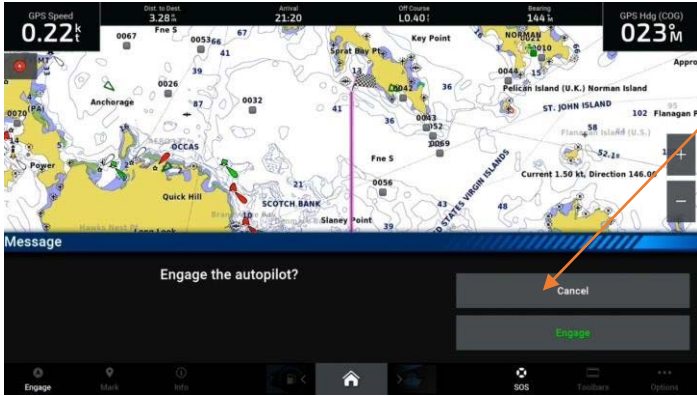
Chart Options



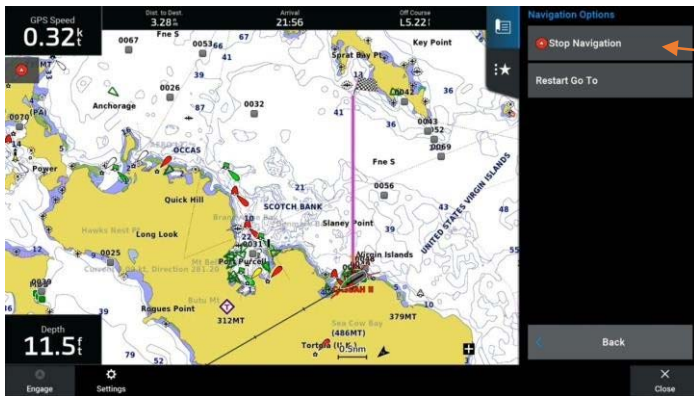
ZOOM

Touch chart to place cursor for navigating

Stop Panning realigns screen with your vessel



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



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



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

Stereo

Fusion Entertainment MS-RA205 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 MS205 to complete the pairing process.

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 there is 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.

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 AYC Office immediately. 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.

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.

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 color and type are also useful).

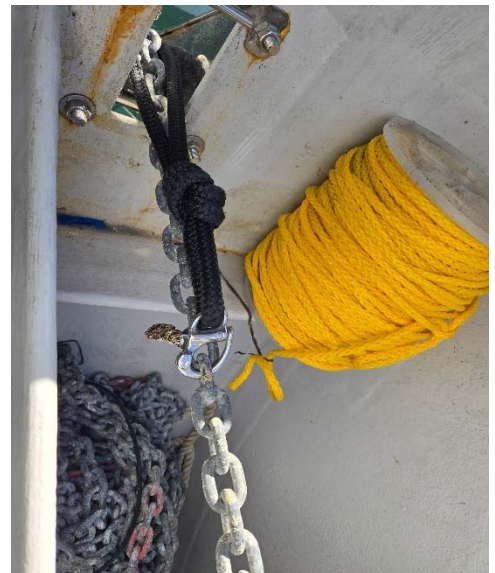
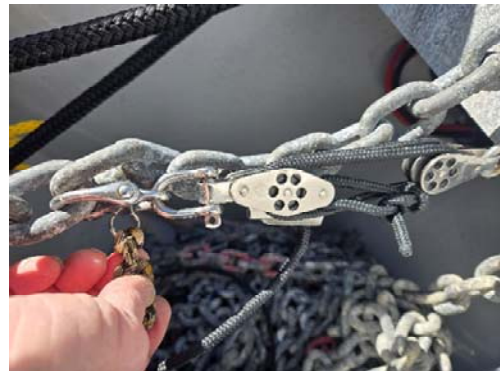
Wait 1 minute for a response, repeat message.

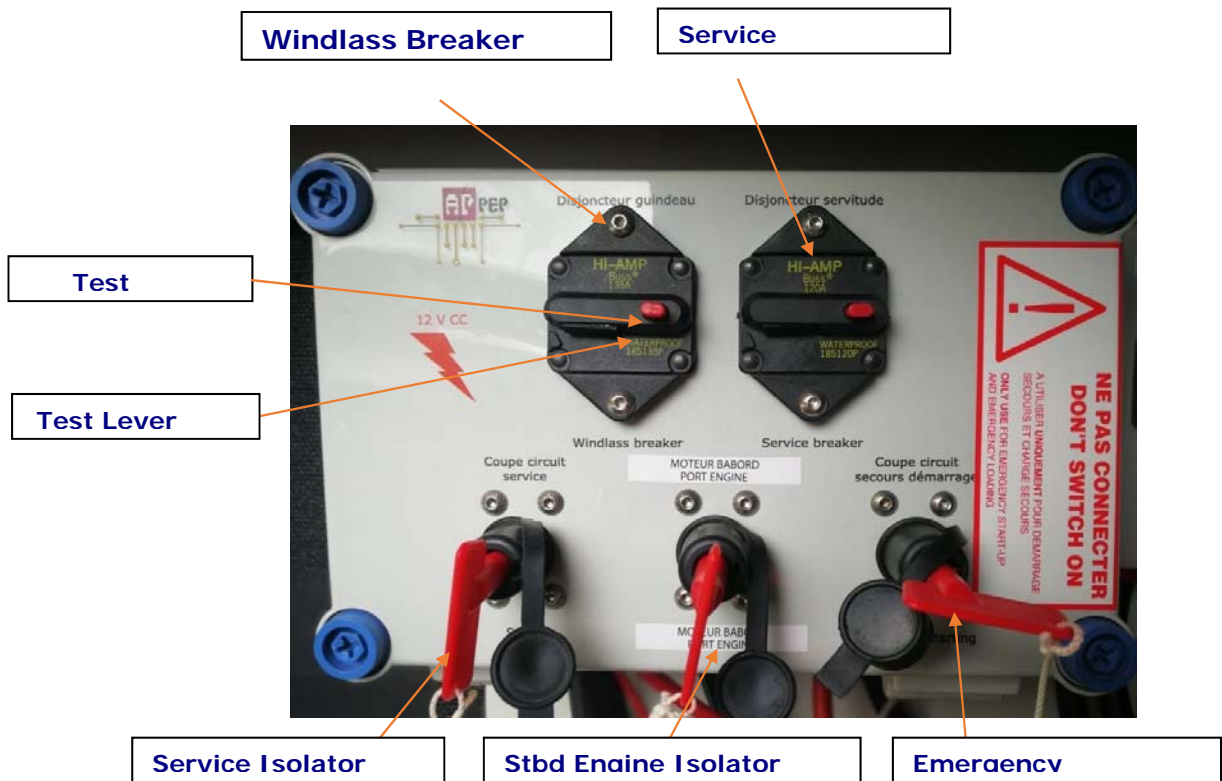
Anchoring, Windlass & Electric winches



Chain: 150ft
Rode: 150ft
Marked: Every 25ft
Minimum scope: 4:1
Set in reverse: 1500 Rpms
Always use bridle

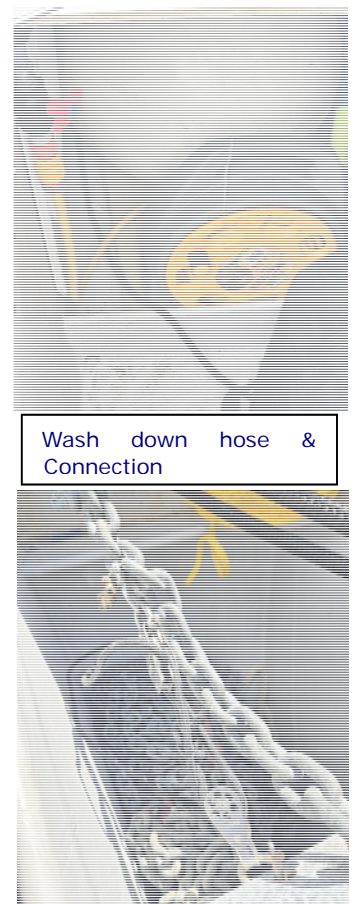
1. Wearing headsets to communicate with helmsman prepare for anchoring by removing security line from anchor chain. Relax tackle first then unclip shackle
2. Holding remote, slowly lower anchor about 2 feet until it clears holder and is hanging free
3. Helmsman will identify anchorage using depth sounder and swing clearance from other boats and bring boat to a stop
4. On command drop lower anchor constantly using chain markings to determine how much scope is deployed then stop windlass within 10 feet of planned chain length for a minimum of 4:1 scope
5. Now connect bridle to chain as in photo and then lower another 15 ft of chain until bridle has taken complete weight of chain
6. Helmsman should now back down at about 1500 RPM to set anchor. If you see tension in chain at windlass let out more chain until there is some slack and bridle is taking all the load from anchor.
7. When it is determined anchor is set place remote back in cradle and stop engines





Retrieving Anchor:

1. Wear PFDs and headsets and establish communication with helmsman and discuss plan.
2. Turn on sea water pump on 12 volt panel
3. Retrieve windlass remote from cradle.
4. 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 bring anchor chain up until bridle connection comes through anchor support and can be detached. Loop bridle over mooring cleat next to windlass.
5. Bowsman continues to direct helmsman toward anchor until directly over it and then retrieves anchor with engine in neutral and at 1400 rpm to keep sufficient power to windlass. When anchor clears water you can stop it just below bracket to wash any mud off with wash down hose. As soon as anchor clears water helmsman can go into gear and make headway.
6. You then need to align anchor to face correctly to load into bracket. Have the boat hook with you so you can spin the anchor a bit if needed or use pressure from washdown.
7. Raise into bracket slowly and leave about 4 inches from all the way up. Now connect the security tackle to 2nd chain link from anchor and pull it in tight with cord.
8. Return remote to cradle and close front locker door

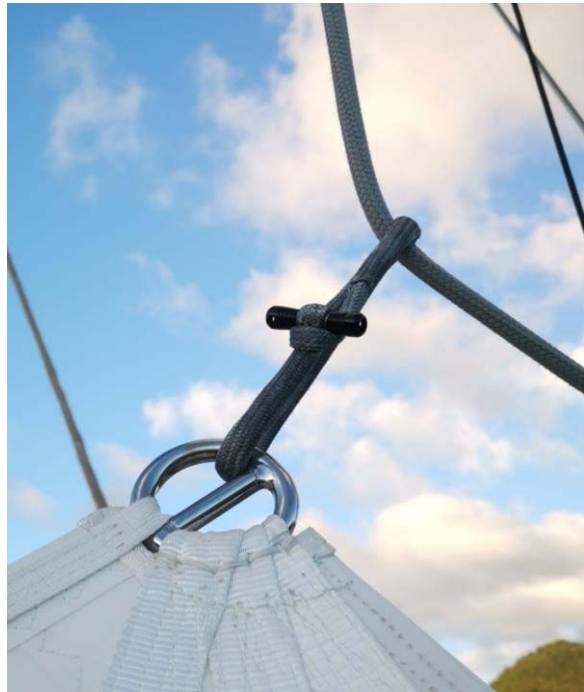


Main Halyard

The main halyard on Cats 'n Dawgs 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.

Winches

The right hand 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.**



Winch button

Electric winch

Should the electric winch be overloaded a breaker in the **stbd engine compartment** will trip. When the breaker trips you will notice a yellow lever drops down from the bottom of the unit. To reset the breaker, simply push the lever back up until it 'clicks' back in place.

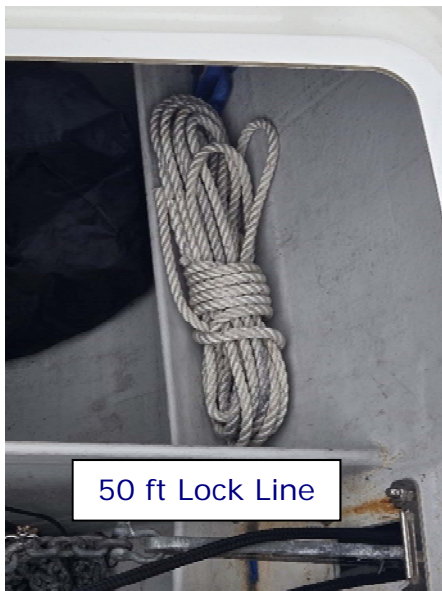
Electric Winch Breaker

(Stbd Engine Compartment)

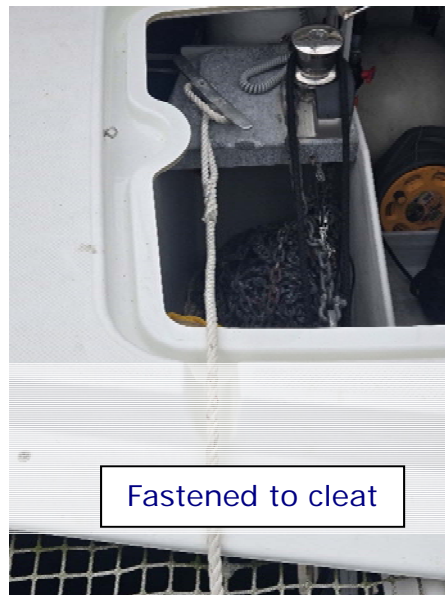


Picking up a Mooring Buoy

- First open the forward anchor locker and retrieve one of the 50ft lock lines stored there. Fix the eye of this line to the mooring cleat next to the windlass. Run the rest of this line forward thru the notch in the hatch and over the bow roller at front of trampoline and then back over the tensioning cable and drop the slack line on trampoline
- Approach the public mooring buoy (usually state park or DNR), keeping the bow into the wind or current, whichever prevails.
- Have a crew member (preferably your strongest) wearing a headset and a PFD on the center trampoline to pick up the mooring ring with the boat hook. We'll call this lad the Bowman. He/She should have the boat hook with them to hook the mooring ring.
- The bowman will direct the helmsman to the mooring buoy and also advise when to go into and out of gear by describing the estimated distance to the buoy.
- As boat gets within reach of the mooring ring be sure to have the helmsman bring boat to a stop (back down if necessary) so that the ring can be hooked. The bowman will then quickly lift up the heavy ring, slip the end of mooring line through it and then release the ring back down to the buoy while pulling the line through.
- Quickly feed the line back into the bow roller and then pull the line back to the anchor locker and take a turn around the cleat. Pull in all the slack you can and tie it off to cleat.
- You may then ask the helmsman (with engine still out of gear) to go forward or back so you can pull in any remaining slack and refix the line to cleat so that buoy is positioned between the two hulls near the bow roller.
- For backup to the cleat take a bite of the remaining lock line, tie a big overhand knot with it (so you have a loop) and drop it over the windlass drum. If the line were to slip through cleat the drum would take the slack.
- To depart, release the loop from the windlass, untie the bite, and uncleat line and toss it on the trampoline. As the helmsman backs the boat away from buoy grab the line still extending to cleat and began pulling it back through the ring. The other end will soon drop into water and be free of buoy.
- Pull all line back onto trampoline. While doing so instruct helmsman when boat is clear of buoy and point to its location so helmsman knows which way to steer.
- Finally free the eye of line from the cleat and make up the line and close anchor locker hatch.



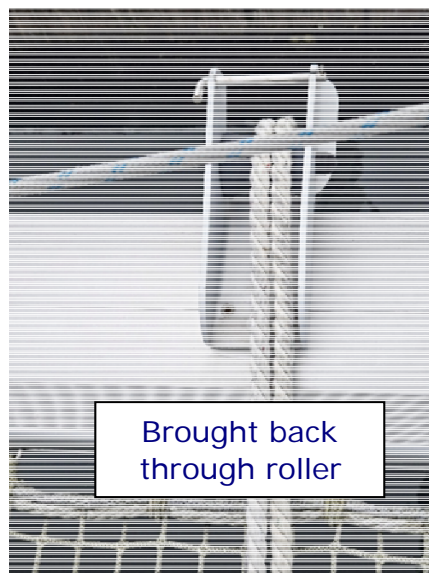
50 ft Lock Line



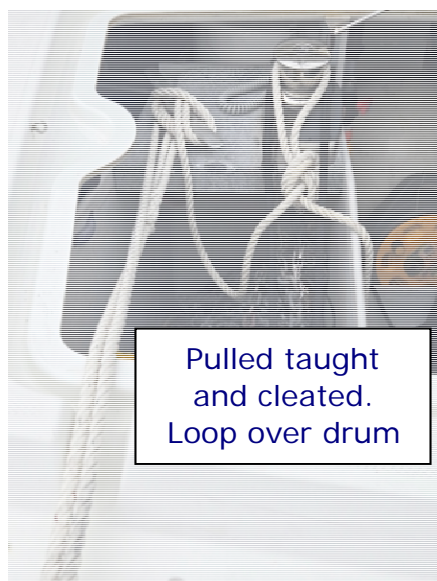
Fastened to cleat



Ready to grab bouy ring



Brought back through roller

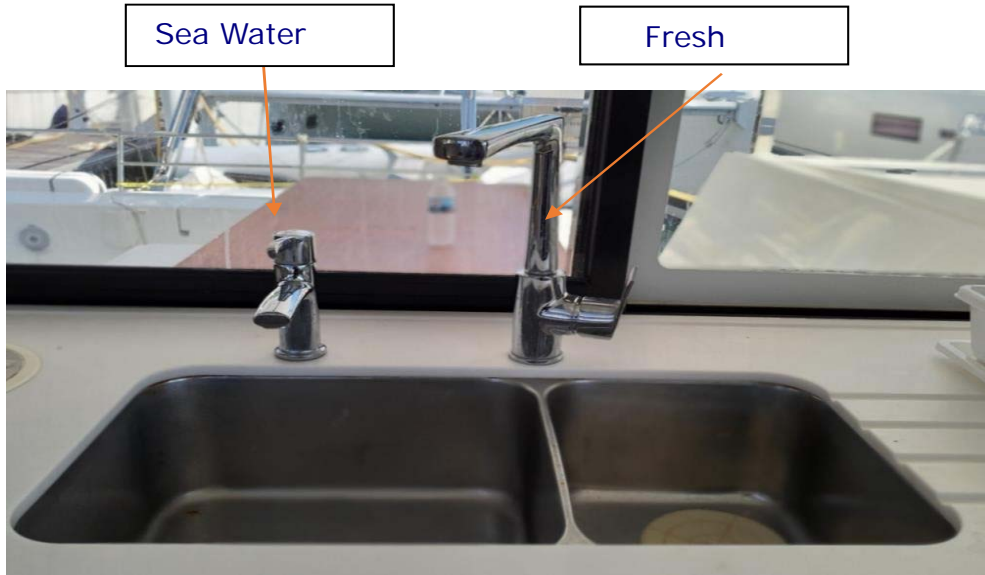


Pulled taut and cleated. Loop over drum



Hatch closed with bouy centered trampoline

Fresh Water Systems



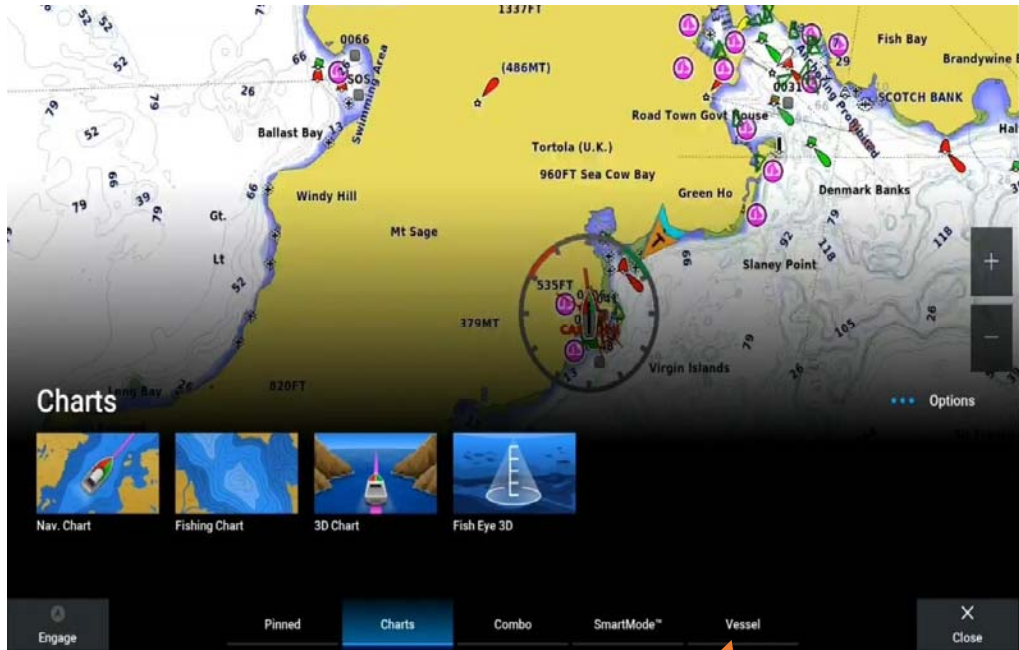
Cats 'n Dawgs is equipped with a single water tank with a total capacity of 140 gallons, therefore there are no change over valves. Before filling the tanks let the water run from the hose for a while before placing the end into the filler that is located on the foredeck. Please ensure that the correct 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. **If you run the tank out of fresh water you MUST TURN OFF HOT WATER HEATER on AC panel or you will burn it out!**

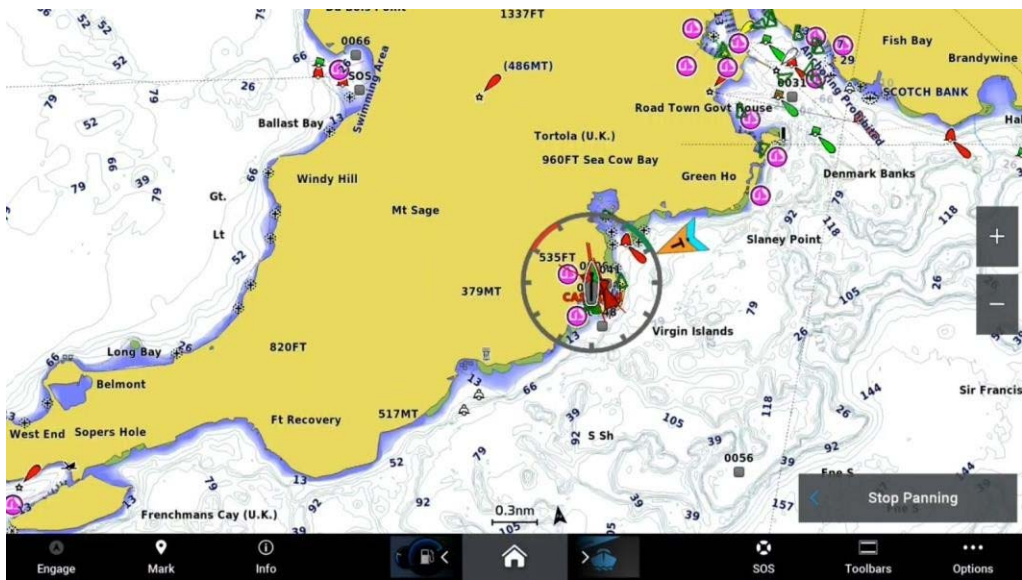


Vessel Gauges:

There are no traditional analogue gauges on Cats 'n Dawgs. Digital water and fuel gauges can be accessed through either of the two Garmin chart plotters. Simply hit the home icon on the bottom of the screen and select vessel from the list of options. Select Fuel to show both fuel and water gauges. Vessel will show fuel gauge and water gauge.



Select Vessel to see fuel & Water guages



Sanitation Systems

Nothing is to be put down the heads unless it has been digested first.

Cats 'n Dawgs has 2 electric flush salt-water toilets with a powerful macerator. These modern heads are far less problematic than the old manual flush heads, but care must still be exercised. Each head has a rocker switch for flushing. One position to add water to bowl and the other to pump contents through macerator into holding tank. It's okay to flush Marine 2-ply tissue, but tampons, flushable wipes or paper towels are not permitted and will definitely knock the toilet out of service. The person who plugs a head with a non-flushable product is responsible for its repair.

Normal flush with no solids.

- Add a small amount of water to bowl to help with evacuation
- Hold rocker switch for a wet flush a couple seconds after bowl is dry

To flush with solids in bowl:

- First add water to bowl about half full before doing your business
- Press and hold pump switch to start a normal wet flush
- Listen to sound of macerator as you flush. When sound returns to steady frequency the bowl is clean and flush is done
- Add maybe another quart of water to bowl and flush that to clear lines to holding tank.

Holding (Black Water) Tanks

Head contents go to blackwater holding tanks on the port and starboard sides, located in each head hidden behind wall panels. **Each tank has a capacity of 12 gallons with no indicator for tank fullness.** With about ½ gallon per use, the tank will be full after about 24 flushes. Good for 2 or Maximum to 3 days depending on size of crew. If the blackwater tank is overfilled, it is possible to clog an air vent or break a hose. To prevent such an unfortunate and messy event plan on emptying the blackwater tanks every 2nd, depending upon your usage. There are two ways to empty the blackwater holding tanks:

1. Go to a pump-out station and pump the both port and starboard blackwater tanks. A list of pump out stations is in the Gray book.
2. Cruise over the Canadian border and dump the blackwater at sea in mid-channel while underway. * Note that the entire Puget Sound and San Juan Islands are designated as a No Discharge Zone.

Holding Tank Outlet Valves:

Holding tank valves must **be in closed position AT ALL TIMES**. They may NEVER be opened in US waters!

Starboard Holding tank seacock



Open



Closed



Showers

Your yacht has a hot & cold, fresh-water shower in each head and at the deck shower on the port 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. These are hard wired not switch-operated.



Transom Shower (Twist head to turn on, cold water only)



Refrigeration

Cats 'n Dawgs has two internal 12v refrigerator drawers and a 12v freezer. These systems are designed to run 24hrs a day.

There Are 4 ice trays in the freezer. They will make ice in a few hours. I prefer to also keep a high end Ice Chest like a YETI or IGLOO and keep a bag of store bought ice in there for drinks. Or you could keep it in the freezer too. There are 4 can coolers in freezer too.

There is a thermostat in the upper freezer. 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

The thermostat for the fridge drawer unit is on the fwd upper face.

2 drawer fridge



Freezer

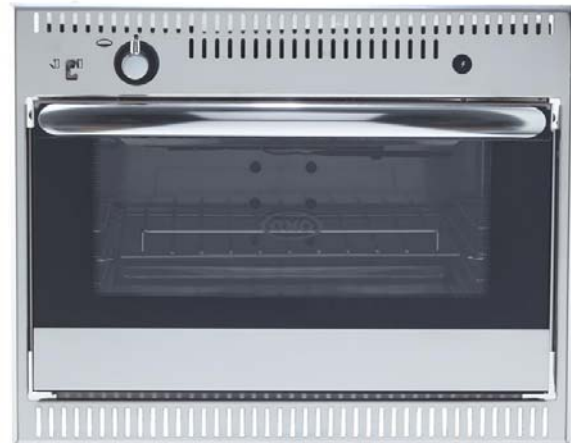


Stove and Propane

The propane tank is in the central bow locker.

To use:

- Open the manual gas valves under the galley sink
- To light the stove, turn the relevant knob 90 degrees counter-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.
- To light oven push in valve, turn 90 degrees and hold in while lighting. You will see blue flame through hole at bottom of oven. You must keep flame lit about 10 seconds before releasing knob.
- Note: at max setting this oven may only reach 325 degrees. Use Air Fryer for faster and more versatile cooking



Gas safety

- Photos of gas valves under sink and propane detector mounted under Nav station. There is also propane detector in aft locker with BBQ Propane bottles

BBQ

- In cooler weather with enclosure down the Magma BBQ and tools are stowed under the settee in the main salon.
- Propane canisters are in aft locker.
- After sliding starboard rear enclosure window section out of way BBQ will mount to rail. Be very careful not to lose clamps
- 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.

To use the grill, open the top, **push in, and turn** the control valve counterclockwise to START and light the flame bar. Hold the valve pushed IN until the thermocouple heats up and the BBQ stays lit. Once lit, turn the dial to the desired heat level. When cooking is finished, rotate the dial clockwise to the OFF position.



Regulator



Propane canisters needed for Grill



Fire Safety

Read instructions on all safety equipment before setting off.

Prevention is the best answer to fire safety.

- Never leave the stove, oven or BBQ burning unattended.
- Never change propane tanks while barbecuing.
- Keep matches away from children.
- Know location of fire blanket. Under galley sink.
- Know location of all 3 fire extinguishers
 - o Guest berth hall closet marked Fire Extinguisher
 - o Master berth closet marked Fire Extinguisher
 - o Salon under navigation station.



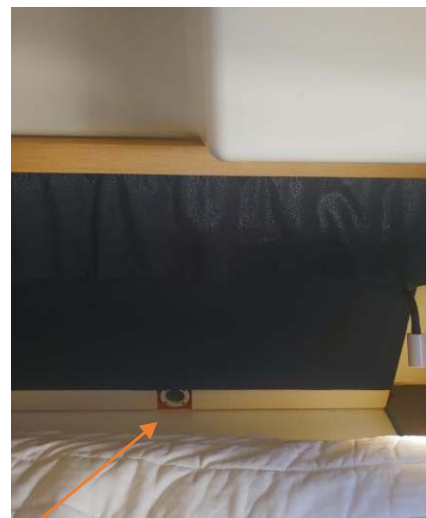
Engine compartment fire:

Fuel shut-off valve is under the port aft bunk. In the event of a fire in the engine compartment **do not lift the hatches to the compartments.** Remote access to these compartments can be gained from the rear of each aft cabin bunk via a round access hole.

- Pull the safety pin out.
- Squeeze lever until all the contents of the extinguisher have been discharged.

Open fire:

- Pull out the safety pin
- Aim at the base of the fire and squeeze lever 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.



Round access hole to engine compartment.

Galley fire:

Read instructions on a fire blanket before setting off.

- A fire blanket hangs inside cupboard door under sink.
- If stove fire turn off both propane gas valves under sink at same time
- 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.



Tender & Davits

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

- Cats 'n Dawgs includes a Highfield 310 RIB (Rigid Inflatable Boat) tender that is 10.5 ft in length, has a 20hp outboard w electric start and power trim/lift, auto bilge pump, navigation lights and helm station. Under the helm seat is a long cable lock, fire extinguisher, battery access and room for storage (such as PFDs). Maximum capacity is 4 adults. There's a 6 gallon gas tank in bow. Use only non ethanol, unleaded gas available at most marinas.
- The tender is suspended on 2 davits with rated capacity of 100 kg each which is right at the total weight of the boat with full fuel. For this reason **NEVER step into tender or load supplies until it is lowered into the water**. The tender must always be attached to davits with bow to the starboard side of catamaran.
- Keys to the tender outboard and set of backup keys are kept in nav station. The second key on fob fits both **security padlocks on davit chain lock** and cable lock under helm seat.

Don't forget to lock/unlock tender



- There is a patch kit and a foot operated air pump in orange dry bag under helm seat in tender. There is also an easier to operate hand air pump w pressure gauge in aft storage locker. This pump also works great on the paddle boards



- The tender is manually hoisted onto the davits via 4 to 1 tackle and two lines running through 2 black line clutches as seen in photos. These clutches, when closed, allow line to pass through under load but will not allow it to lower. It takes two adults to lower tender. **CAUTION: NEVER RELEASE EITHER CLUTCH WITHOUT AN ADULT HOLDING THE LINE OR AFIXED TO THE WINCH!**



To lower dinghy unzip rear enclosure (If down) to gain access to the rope clutches on each davit and to allow the lines to run straight to the davits. Launching is a 2 person job one on each davit line. Run the rear line around the winch one full turn and then back to your hand as you stand next to rear davit. Front davit line can just be held and lowered by hand since it is not as heavy. **While EACH OF YOU ARE HOLDING LINE** release the line clutch by pulling lever straight up. You are now each supporting all 450 lbs of boat!



- Lower the boat about one foot each then **CLOSE THE CLUTCH LEVER before releasing line.** You will see the tender is tilting out and down as seen in photo to right. With levers locked walk to each boarding step and push port pontoon of boat away until it drops down hanging level.
- Now return to the davit lines and **while holding lines again release the clutch levers** and lower boat rest of way to water. Once floating **CLOSE the levers** to hold boat in place!
- Board the bow end of tender from the Stbd landing step. You should lower the stern boarding ladder into the water to get it out of the way. Use the davits to brace yourself when entering or exiting tender. IT WILL ROCK! Be sure to bring and wear PFDs for everyone on boat.
- After everyone is loaded and sitting down **Start Engine BEFORE detaching from davit lines.** Be sure engine is warmed up (takes about 20 seconds) and running fine at idle then the clutch levers can be released to introduce slack and the shackles can be pulled and disconnected. **NOTE: with everyone loaded on board the boat will drop another inch or so into the water when clutch is released**

- To start tender engine first pull throttle lever straight up if it is locked down all the way forward. It should lock into place indicating gear is in neutral. Put key in ignition and **attach red kill cord to your PFD webbing!** This will kill engine if you fall overboard. This is especially critical if you are driving alone. Next pull up start/choke lever as see in photo. Turn key and engine should start AND RACE FAST within seconds. After about 10 seconds you can slowly lower the start lever until engine drops to slow idle.



- With engine idling now disconnect the shackles. Push off from boat and put engine in gear (forward or reverse depending how you're aimed) and go. Squeeze the grip on throttle lever to move it into gear in either direction. Always shift to neutral before stopping engine.
- To stop the engine just turn key off then remove. **NEVER LEAVE KEYS IN IGNITION!**

- If leaving boat at public dock take red kill cord with you and key. You can put PFDs in storage under seat. There is a cable lock in the storage area too so you can lock boat to a cleat for additional security (highly recommended). Key on fob fits this lock.



- Keep the kill cord with you to prevent anyone from borrowing it. You have been provided with a dinghy lock and cable. Use them.
- If motoring toward a beach kill the engine and use the power trim on side of throttle to lift engine all the way to keep from damaging prop. **DO NOT BEACH BOAT IF TIDES ARE GOING OUT!!! YOU WILL BE STUCK!** The boat weighs 450 lbs and CANNOT be dragged across the beach you will damage the hull! If tides are coming in you can use the very long painter (bow line) to tie boat to a log or rock. If you come back 30 minutes later boat will be floating and you just pull it in.
- Do not speed in and around other yachts.
- 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. The white light is fastened to back of seat and can be unfolded and slipped into socket on the deck behind drivers seat. Nav lights are on the console along with electric bilge pump.



Lights

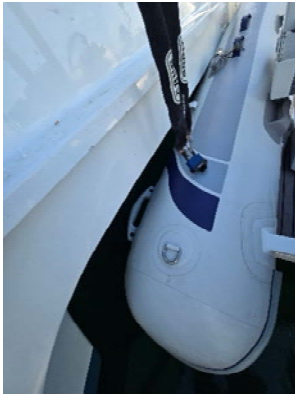


DOCKING TENDER FOR THE NIGHT

- If you are at anchor and intend to use the tender the next day please connect the boat to the shackles and pull boat up about 6 inches. More if in rough water. This keeps boat from banging into the hull of catamaran overnight
- To raise boat you will need to run the stern davit line to the aft winch, wrap it three times and crank boat up 6 inches using winch handle
- The bow can be pulled up by hand. I usually wrap line around my hip (like a belay) and use my body weight to pull bow up.
- Next morning just drop it back into water and you're good to go.

RAISING TENDER FOR TRAVEL

- Connect boat to shackles and pull lines firm while standing in tender.
- Remove all items from boat. Press gear/throttle lever all the way forward down flat
- Connect rear davit line to winch while 2nd person pulls bow line.
- WITH CLUTCH CLOSED the line will pull through but WILL NOT lower back down. This way you can haul up in stages.
- Move the small sliding enclosure window next to winch out of way so winch handle won't scratch the polycarbonate "glass"
- Wrap rear line 4 times around winch and then through locking feed at top of winch. Begin cranking. With a hip belay technique, the bow line can be pulled manually (by most) or you can alternately run this line to winch and switch back and forth with stern line raising the tender about a foot at a time
- The molded rubber lift handles on port side of tender **WILL CATCH ON THE TRANSOME EDGE** as you raise tender. For this reason you MUST stop and check when tender is about 18 inches up to free the handles from catching. As they get close reach down and pull the handle up tilting the tender a bit so that they are clear. Then continue to hoist boat up. Continue to check that boat is clear as you raise it until there's about 2 inches of line space beneath the davit blocks.



- Now attach the chain and padlock to stern of tender coil up the two tender davit lines and you're done!

Starlink

Cats 'n Dawgs has ROAM Starlink with unlimited data.

- This should get you unrestricted WIFI throughout US and Canadian inland waters
- Name of WIFI is Cats 'n Dawgs Guest
- Password is "WelcomeAboard"
- Depending on use Starlink can use up to 50 amps of battery per day out of your 330 amp budget, about the same as the fridge. So if you are multiple days at anchor you may consider reducing video streaming or be prepared to run generator a little more to keep batteries charged. This won't be an issue if you are on shore power or changing anchorages each day.

Paddle Boards

- The Hobie SUPs are kept in racks and held down by bungee cords
- Paddles are kept in anchor storage locker
- Kayak paddles are also available if you want to sit on board and paddle it like a kayak
- High pressure handpump in aft storage locker
- They are easy to launch by holding bow line and letting board slip off front of trampoline into water and then leading around the side of boat to board off starboard swim ladder.

Misc

- First Aid kit in hanging locker, master berth
- Emergency (aluminum) tiller handle stored in aft locker
- Vacuum cleaner under floor board master berth just in front of bed
- Transducer for depth & Speed is in floor board by door to forward guest berth
- There is large storage area under salon couch
- Burgees and Canadian flag in top shelf of master hanging locker
- Tools and spares in storage behind master shower
- Engine motor oil and coolant are stored in aft locker.
- Deck key that fits fuel, water and pump out caps is on orange foam ring in nav station