Notes from the Owners of Illuminé

Welcome aboard Illuminé!

Illuminé has been to Alaska three times and around Vancouver Island, so we know she is a wonderful Northwest cruising sailboat. We also personally want to cruise on her in relative comfort, so we have outfitted Illuminé with systems and amenities that make that possible.

Here is a list of her primary features:

- 3 Cabins – The cabins are large and have great headroom.
- Fast – Illuminé cruises at 8 knots under power and sails like a dream.
- Ease of handling – Two can easily handle her; in-mast furling, electric winch on the main and everything is led aft.
- Deck Salon Design – The raised salon provides great visibility and light. You can easily see outside while cooking and read without lights on a cloudy day! Also, the Deck Salon design allows tankage to be placed under the sole which lowers the center of gravity.
- Roomy Cockpit – 8 people can sit in the cockpit and not feel crowded.
- We have added a full enclosure (available upon request) and extra fuel and water tanks.
- Lots of storage for provisions
- Solar Panel keeps battery charged on sunny days without need to run the engine or hook up to shore power.
- New Bow Thrusters in added in the Spring of 2023 increase ease of maneuvering and docking.

The list goes on… electric fresh-water head, a second 15 hp outboard motor for the dinghy when you want to do faster coastal exploration, memory foam on top of the regular mattresses for added comfort…

In addition, there are two other reasons we believe Illuminé is an excellent choice:

First, we have made every effort to keep her in pristine condition. For example, we replaced the engine in 2017 with new more powerful turbo diesel; in 2019 we added new Canvas and Electronics; in 2022 we added new sails, a feathering Maxprop, a larger Rocna Anchor, and new House and Starter Bank Batteries; in 2023 we replaced all of Illuminé's running rigging, added a new stainless-steel barbeque, a new Victron digital inverter/power generation system; and in 2024 we replaced all the Standing Rigging, added Starlink and a Pepwave router, and installed a new Windlass.

Second, to enhance the cruising experience, we have carefully outfitted Illuminé. For example, the galley is equipped for gourmet cooking, and we have a vast collection of spices, condiments, baggies, saran wrap, etc. onboard. There are lots of 'little touches' (toaster, candles for ambiance, hand-held VHF radio, monogramed comforters, and a high-quality Bose Bluetooth speaker that can

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connected to any Bluetooth enabled device. See the inventory list on the web page for more details.

Last season, several of the returning charters said they appreciated the light of Illuminé (due to the deck salon configuration), and appreciated all the additional comfort oriented touches. We thank them for the kind words as it was gratifying to know we have made good choices outfitting Illuminé. We hope you will feel the same way when you have finished your charter.

Listed below are some tips on how to get the most out of Illuminé and her equipment. We sincerely hope you have a great time. If you have any feedback, suggestions or ideas for enhancing the cruising experience even further, we would love to hear from you. **Please send us an email at "Brent@tenthousandfeet.com"**

Happy Sailing!

Brent and Diane

Illuminé's Spec's:

Year: 2005

LOA: 43' 4" LWL: 37' 5"

Beam: 13' 8" Draft: 5' 2"

Displacement: 20,955 lbs (dry)

Mast height above WL: 60' (with antenna)

Fuel: 106 gal. (3 tanks)

Water: 146 gal. (3 tanks) Hot water: 10 gal.

Holding: 12 gal. Fwd, 20 gal. Aft

Engine: 80 hp. Yanmar (Turbo charged)

Other useful measurements:

Refrigerator

- Main compartment 1' 6" W x 1' 10" D x 2' 1" H
- Chiller compartment 10" W x 1' 10" D x 2' 1" H

Berth mattress sizes

- V-Berth 6' 10" L by 5' 0" W at head (24" at feet)
- Quarter Berths 6' 8" L by 5' 2" W

Headroom: V-Berth 6' 4", Salon 6' 4',

Shower 6' 7", Quarter Berths - 7' 2"

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Key to Markings: Throughout these notes we have use the following convention:

- ALL CAPS – used for safety and operational warnings.
- Underlining – indicates the location of things.
- **Bold –** indicates important knowledge or data.

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Emergencies

Fire – There are three ABC rated fire extinguishers onboard. They are located (a) forward cabin port side near the floor just aft of the bunk (b) by your feet if you are standing at the stove and (c) aft port cabin port side, just inside the door by floor. All are ABC fire extinguishers. If you have a fire at the stove turn off the gas solenoid switch at the electrical panel.

Hitting a Log or Running Aground – In case of a log hit or running aground, immediately check for leaks in the bilge and then check for cracks in the fore and aft sections of the bilge where the keel attaches to the hull. Also check all keel bolts. Once you are sure no water is entering the hull contact **San Juan Sailing at 800-677-7245** and proceed to the nearest harbor and have a professional diver check the hull, keel, prop, and rudder before proceeding.

Leaks – Make sure the bilge pumps are running. Then determine the source of the water, check the prop shaft first and then the through-hulls. You cannot get to the shaft seal easily since the wall between the aft cabins needs to be removed first, but you should be able see water flowing at the back of the engine if the seal is broken. There is a diagram showing the location of the through hulls in the notebook. Get the crew on deck and into life jackets. There are wood plugs wired to each of the through hulls.

There are three bilge pumps. The manual bilge pump is located on the port side of the cockpit, just behind the steering wheel. The handle is in the port aft cockpit locker just above the pump. The electric bilge pumps have automatic float switches **but the switch on the electrical panel can be used to power the main pump manually (this breaker is normally off)**. The float switches and pump intakes are located under the salon sole about 2 feet aft of the mast compression post.

Steering Failure – If the steering system fails there is an emergency tiller in the port cockpit locker. It fits on rudder post which is accessed through the cap in the helm seat. You will want to reduce sail or power when using this tiller since the rudder is large and the tiller is small.

Emergency Equipment – Flares, air and manual horns, etc. are in the aft portside cockpit locker.

Crew Overboard – Throw a Type IV PFD or cockpit cushion to the person in the water first. Second, hit the MOB button on the chart plotter so you will know where they are. Then use one of the procedures discussed in the skipper's meeting to get back to the person. We keep the LifeSling mounted on the stern rail, port side, at all times.

Anchors and Windlass

Illuminé is equipped with two anchors, one forward (44# Rocna with 320' of chain) and a Fortress in the port cockpit locker along with 70' of chain and 200' of rode. The primary **chain is marked with poly line threaded into the links every 25 feet and there are two lines in a row at 100, 200 and 300 ft**.

The scope normally used in the islands is 4 to 1, definitely not 7 to 1 (unless conditions call for it, i.e. sustained winds over 25 knots). Most of the anchorages are well protected and popular, so you will likely have someone anchored nearby. After you have paid out the suitable amount of chain, 1-2 minutes of IDLE reverse sets the anchor (you do not need more due to the MaxProp and Illumine's relatively large engine).
Here is an easy formula for how much chain you need out; add the water depth on sounder, plus any tide increase expected during the night, plus 5' (to account for the distance from sounder to roller on bow) and take that total and multiply by 5 (typical example would be 25' of water + 6' of tide increase + 5' = 36' x 4 = 144').

The electric anchor windlass receives power from the start battery. The circuit breaker for the windlass is located behind the companionway steps in the port quarter berth. **Please note the windlass will run without the engine running**. **However, doing for more than just a few seconds will drain the start battery, so it is best to have the engine running when using the windlass.**

The up-down controller for the windlass is secured inside the forward locker. Please do not use the windlass controls at the helm as it is very easy to ding the bow with the anchor; anchoring should be a two-person job! Also, be sure to take the tension off the windlass by attaching the snubber to the chain and a cleat (not the windlass), and then running out more chain until the chain on the drum is slack.

Detailed operating instructions are listed below:

Lowering the anchor:

a. Turn on the circuit breaker for the windlass (port aft berth, behind stairs).
b. Untie the line holding the anchor in place (this line doubles as the snubber).
c. Lower the anchor until the needed chain is paid out.
d. Secure the chain with the snubber and run out enough chain to take the load off of the windlass. DO NOT LEAVE THE LOAD ON THE DRUM. If you are expecting wind during the night it is a good idea to run the snubber over port roller and secure it to the port cleat. The reason is this, if the snubber line stays on the starboard side along with the chain it slides from side to side as the boat swings and bangs the chain into the roller brackets. It can be quite noisy for anyone sleeping in the V-berth.
   i. When setting the Snubber: cleat the bitter end of the snubber to a bow cleat. Lay the hook through the center of the bow pulpit. Place the hook around a link, (it is not meant to fit into/thru a chain link) Release some chain, easing the hook over the anchor roller. Pay out enough chain to place tension on the snubber line and remove the load from the windlass drum.
e. Set the anchor by reversing at 800 RPM for 1-2 minutes, **DO NOT go above 1000 RMP**.
f. Turn off the circuit breaker and, if appropriate, turn on the anchor light.

Raising the anchor:

a. Start the engine.
b. Turn on the circuit breaker for the windlass and, if needed, turn off the anchor light.
c. Turn on the wash down pump, located on the main panel.
d. Take in enough chain to retrieve the snubber.
e. When retrieving the anchor, never use the windlass to pull the boat; instead, slowly power toward the anchor while using the windlass (up button on the remote control) to take up the slack. Also, if the anchor is really stuck in the mud you will hear the windlass slow under the load. Immediately stop the windlass and drive the boat forward to free the anchor.
f. Please use the wash down hose to 'wash' the anchor and chain as it is retrieved. The will keep the boat and anchor locker a lot cleaner.

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g. The incoming chain will pile up against the aft end of the chain locker so the operator needs to reach in and push the pile of chain forward every 20-30 feet of chain. Also be aware the lines used to mark the chain length can catch in the outlet of the windlass and may cause a jam. Just run the windlass back out for a second to clear.
h. **Once the anchor is out of the water please bring onto the boat by hand.** Please do not pull the anchor up onto the rollers using the power of the windlass, doing so will likely chip the fiberglass as the anchor swings into the bow.
i. Secure the anchor by hooking the snubber onto the chain and tying it to the windlass drum (the chain over the drum should not be the only thing keeping the anchor onboard).
j. Switch the windlass breaker "off" to prevent draining the start battery, then turn off the seawater pump and anchor light on the main panel.

Stern Ties: There are times when adding a stern tie to shore will be handy, especially in Desolation Sound and north. Illuminé has **500' of line on a spool** for this purpose. It is stored in the swim step locker along with a 3' piece of PVC pipe. We use the pipe to mount the spool in the transom walk-through so that the line can easily be deployed and recovered. The recovered line is usually very wet so we leave the spool sitting on end in the walk-through for a couple hours to dry before we put it away.

Barbecue

The stainless-steel propane barbecue is mounted on the stern pulpit. There is a line plumbed from the main propane tanks inside the propane locker to the BBQ. However, you will need to turn on the valve located inside the propane locker. Be sure the BBQ controller is off when opening this valve or the tank valve; having it on will cause the safety system in the main tank to engage and severely limit the flow to the BBQ. When done with the BBQ turn off this valve; DO NOT RELY ON THE CONTROLLER AT THE BBQ AS THE ONLY SHUTOFF FOR THE PROPANE. Also, the solenoid switch on the main panel does NOT need to be on to run the BBQ.

Batteries, Solar Panel & Inverter

Illuminé has **6 batteries onboard**, one for starting the engine and five to power the cabin accessories. We have her wired for maximum convenience. These two battery systems are separated from each other by a combiner so it should be impossible to drain the start battery. The batteries are located under two aft berths.

Battery Monitor – Illuminé has a new Victron System Monitoring Display that is used to monitor the batteries (see picture below). The voltage normally starts at 13.3 when fully charged. It will then drop to 12.45 and levels off for quite a while, then starts dropping again. When it starts dropping this second time, you have very little reserve left. **And, it is time to recharge when the voltage gets to 12.2 volts** – PLEASE DO NOT RUN THE VOLTAGE BELOW 12.0 – DOING SO DAMAGES THE BATTERIES.

Inverter – We have installed a new Victron **2400 watt inverter** so 110V power can be used at any time. Be careful as it is easy to draw the batteries down.

The "Float Light" comes on when the batteries have finished charging and the batteries are just maintaining a float voltage to keep them healthy and deal with any loads.

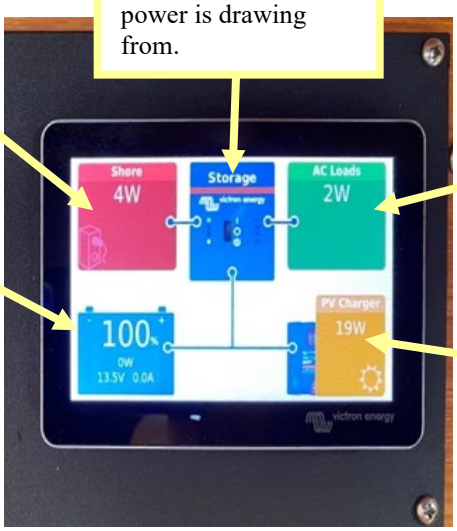
Flip the switch to the ON Position only when you need to turn on the inverter in order to generate 110 Volts through the AC outlets **when away from Shore Power** (e.g., when you are running the microwave, toaster, fan, charging a laptop, etc.).

Note: This draws down the batteries rapidly if the Main Engine is not running. When the Main Engine is running, the engine's alternator offsets much of the battery draw.

Otherwise, always leave the switch turned in the "Charger Only" position, as you run the risk of running the house batteries low without realizing it.

Shows Wattage coming in from Shore Power

Shows where the power is drawing from.



Show current battery charge. The voltage should show 13.3 +/1 a couple of decimal points.

Shows AC (110 V) wattage draw,

Shows wattage coming in from the Solar Panel.

Solar Panel – The solar panel installed over the bimini and is capable of 330 watts. This is enough power to keep the batteries up to full charge when sitting at anchor, assuming 'normal' systems usage, i.e. the refridgerator, lights, the heater, etc., and some sun. It will allow limited use of the inverter; say to run the microwave for a minute or two to warm something up. The system is self-controlling and should not require any attention.

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Berths

Our boat sleeps seven; two in the private cabin forward, two in each of the quarter berths and one in the main salon. All three double berths are quite roomy, each about equal to a queen bed. Also, each of the berths has a memory foam topper for extra comfort.

Cabin Heat

Illuminé has two ways to heat the cabin: the first is a Webasto 5000 forced air furnace and the second is a small hydronic heater run off the engine cooling system.

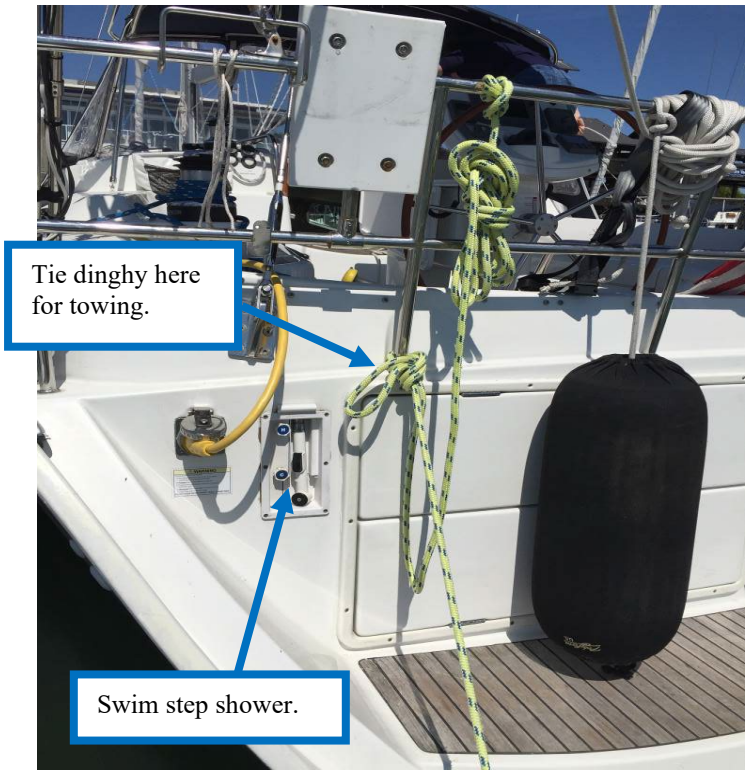
Furnace – The Wabasto is diesel fueled and is mounted in the starboard cockpit locker. The thermostat is located on the main panel to the right of the stereo. Simply turn on the switch on the thermostat and set the temperature you want. **There is a 2-3 minute delay from when you turn it on to when you will hear the fan running**. **There is a toggle switch on the controller with a fan and flame on it; when the fan is pushed in the furnace is in fan only mode, when the flame is pushed it is in heating mode**. The furnace breaker is located in the port quarter on the panel below the berth. The diesel is pumped from the main tank and the intake does not go all the way to the bottom of the take. So, if you are planning to use the heater do let the fuel tank go below 1/3 full, otherwise the heater will lose prime. Should this happen it takes about 6-7 start sequences to re-prime the system.

When the furnace is running you may notice a clicking noise, this is the electric fuel pump pulling from the main diesel tank. Also, we do not recommend running the furnace all night (although it is doable) as its draw on the batteries is sizable. It is also fairly noisy, especially from outside the boat and in the starboard quarter berth. The heat is dry, comfortable, and on those occasional rainy days or cool evenings, makes a huge difference in cruising comfort!

Hydronic Heater – This heater is located under the aft end of the outer settee seat; it is in the same compartment as the hot water heater. The switch to run the fan is on the main panel and the hot air from it blows into the space under the settee table. **This heater works only when the engine is running** as its heat comes from the engines cooling system. It is plumbed into the loop that runs engine coolant to the hot water heater, the coolant runs through the water heater first. This means it will not work at full capacity until the hot water tank is up to temperature. The intent of this heater is to take the chill out of the cabin when running, it is not big enough to fully heat the boat.

Dinghy and Outboards

Illuminé is equipped with a **10' hard bottom dinghy and two outboards, a 15 hp Yamaha and a 2.3 hp Honda**. The dinghy is roomy (easily holds 4 adults) and the outboards are easy to operate. The dinghy tows with the least drag if brought close to the boat – a couple of feet off the stern. This guarantees that you won't accidentally wrap the painter around the propeller when you back up! **It tows best when tied to the stern pulpit base just inboard of the Yamaha. If it is tied to the port cleat it tends to hunt, moving inboard to the stanchion eliminates the hunting and having it on the port side keeps it away from the engine exhaust.**



We very much appreciate your special care when beaching the dinghy. Beaches in the San Juan's are seldom gentle, sandy beaches; often they are rocky and covered by barnacles equipped with extra sharp rubber cutters. So any extra care will be appreciated.

Both outboards have four stroke engines, so do not add oil to the gasoline mixture – they use straight gasoline. San Juan Sailing will be sure you have full gas cans which are normally in the swim-step locker. This is the only locker where the gas fumes will not get into the boat. Also please do not cruise with the outboards on the dinghy as a large wake or gust of wind can overturn the dinghy.

The Honda is light so it's easy to transfer from the stern rail mount to the dinghy transom (and vice versa) by hand. The Yamaha is not light, so we installed an outboard crane to get it on and off the dinghy. We tend to use the Honda for short trips to the beach or harbor and the Yamaha if we are going exploring or the run is long enough where extra speed is handy.

Honda 2.3 hp Operating Instructions:

Starting the Outboard

a. Push the fuel valve lever (starboard aft corner of the outboard) aft to open.
b. Pull out the choke switch (starboard forward corner of the outboard).
c. Open the air vent on the top of the fuel cap by turning counter-clockwise.
d. Make sure the black U-shaped kill clip (with the red lanyard) is clipped into the red shut-off knob (port forward corner of the outboard).
e. Turn the handle throttle ¼ turn counter-clockwise.
f. Pull the cord until it starts (you shouldn't have to pull it more than 5 times).
g. There is no transmission--just throttle up to go forward and throttle down to stop. If you want to go in reverse--just swivel the outboard around 180 degrees.

To Shut Off

a. Shut the outboard off by pushing in the red shut-off knob (where the kill clip is clipped in). Or just pull the red lanyard until the clip pops off.
b. To avoid prop damage, shut the outboard off and raise it out of the water before you reach the shore. Pull the outboard forward and out of the water until it clicks and stays in place.
c. To put the outboard shaft back in the water, release the stainless steel lever on the starboard side of the shaft.

d. Put the outboard back on the outboard mount on the stern rail and tighten both braces.
a. Push the fuel valve lever forward to close and close the air vent on top of the fuel cap

Troubleshooting

If the engine won't start, review steps 1-6 above to make sure you've done all 6 steps. There is a spare spark plug and spark plug wrench in with the safety equipment in case you need them. If the outboard is running and you're heading toward shore, and the engine suddenly quits, it's usually that someone has forgotten to vent the fuel cap. If the engine is running fine but the propeller isn't moving, the shear pin is probably broken – just take the cotter pin out to remove the propeller and replace the broken shear pin (a spare pin is located forward of the shaft under the handle grip).

Yamaha 15 hp Operating Instructions: This outboard is pretty standard and intuitive to operate. Tilting it is probably the main exception to this. Therefore, we have included the manufacturer's instruction for this area on the next page.

Outboard Crane Operation

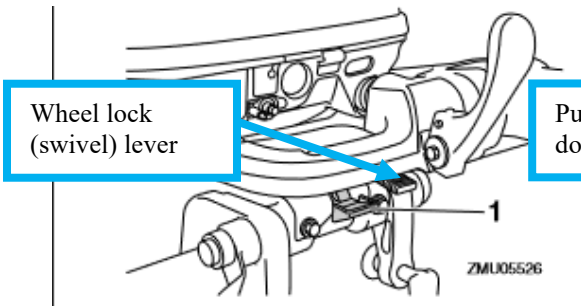
a. The dinghy will need to be untied from the station and re-tied on the other side of the boat so the stern can be brought over under the crane.
b. Untie the block and tackle line and pull hard enough to take the weight of the outboard.
c. Loosen the transom clamps and slide the outboards off the mounting rack by pulling the engine towards you. Note the crane is not tall enough to lift the motor up off the rack.
d. Lower the outboard to the dinghy and clamp to transom.
e. Before lifting the outboard back onto the boat tighten the 'wheel lock' by moving the red tipped handle to the left. This will steady the motor making it easier to handle.

Starting the Outboard

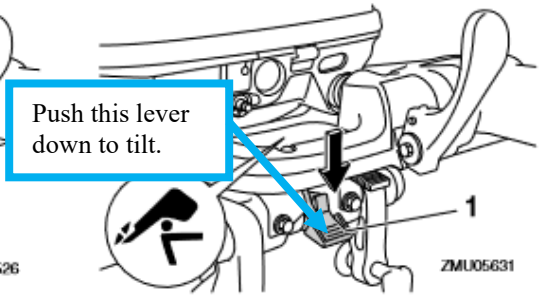
a. Attach the fuel tank hose to the motor and pump the bulb until firm. Also, be sure air vent on fuel tank is open.
b. Make sure the black U-shaped kill clip (with the red lanyard) is clipped into the red shut-off knob (port forward corner of the outboard).
c. Push the rubber fuel priming button on the motor several times (not the bulb in the fuel line).
d. Pull the cord until it starts (usually first or second pull).
e. Once the engine is started,, move the 'wheel lock' lever to the right to free up the steering.

Tilting the outboard (more details on next page)

a. Shut off the engine by pushing red kill button in or pulling the clip.
b. Move the 'wheel lock' lever to the left to keep the motor from swinging.
c. Push the tilt button down (under lifting handle right in front center of the outboard).
d. Use the handle as a lever to tilt the motor.
e. Push in the button on the lower back, right side to engage the catch.



1. Tilt lock lever (Lock / tilt-down)



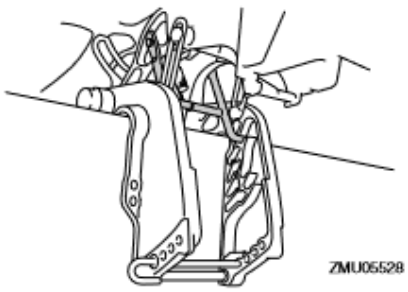
1. Tilt lock lever (Release / tilt-up)

To lock it, set the tilt lock lever in the lock position. To release, push the tilt lock lever in

EMU26330

Tilt support bar

The tilt support bar keeps the outboard motor in the tilted up position.



Docking

Illuminé has a shoal keel and a relatively high freeboard; this combination can create some sideslip in heavy winds. Be aware that she turns better with a little speed (around .75 – 1.0 kt), if you go really slow she will slide sideways more than you might expect. The other important issue is prop-walk – **Illuminé has slight prop walk to por**t, not pronounced but noticeable.

Eartec Headsets (Brent's Note: These went missing over the winter and have just been re-ordered. New ones will be put back onboard on April 19th)

We have 4 two-way radio headsets onboard to make communicating easier during docking (and other activities, like anchoring). These headsets allow you talk with each other like you would on a phone. They are stored in the black pouch by the books to the right of the Nav Table. There is one master unit, it is labeled Main on the end that does not have the earmuff. On that same end is an On/Off switch. The other units will go on automatically when the batteries are inserted in them. **When done using these take the batteries out of them and put them back in the Charger. (We have learned that turning them off does not seem to stop the batteries from draining.)** There is a battery charger that will hold all the batteries plus some extra batteries the same pouch. One last note, with the mic arm straight up the units are muted.

Dodger, Bimini & Full Enclosure

As with all dodgers, please be gentle. If the glass becomes spotted with salt please get a pot of fresh water from the galley sink and "flood" the salt crystals off the plastic. Our dodger has some very handy rails on the back and sides that make staying upright and onboard easier. The connector canvas between the dodger and bimini can be removed by unzipping it. If you do remove it, please fold and store it so the windows do not crease.

We also have the panels to create a full enclosure around the cockpit. However, when not zipped in place they are a bit bulky to store, therefore we do not have these on the boat for summer charters. If you are doing a spring or fall charter and would like to use them, please let SJS know ahead of your boarding.

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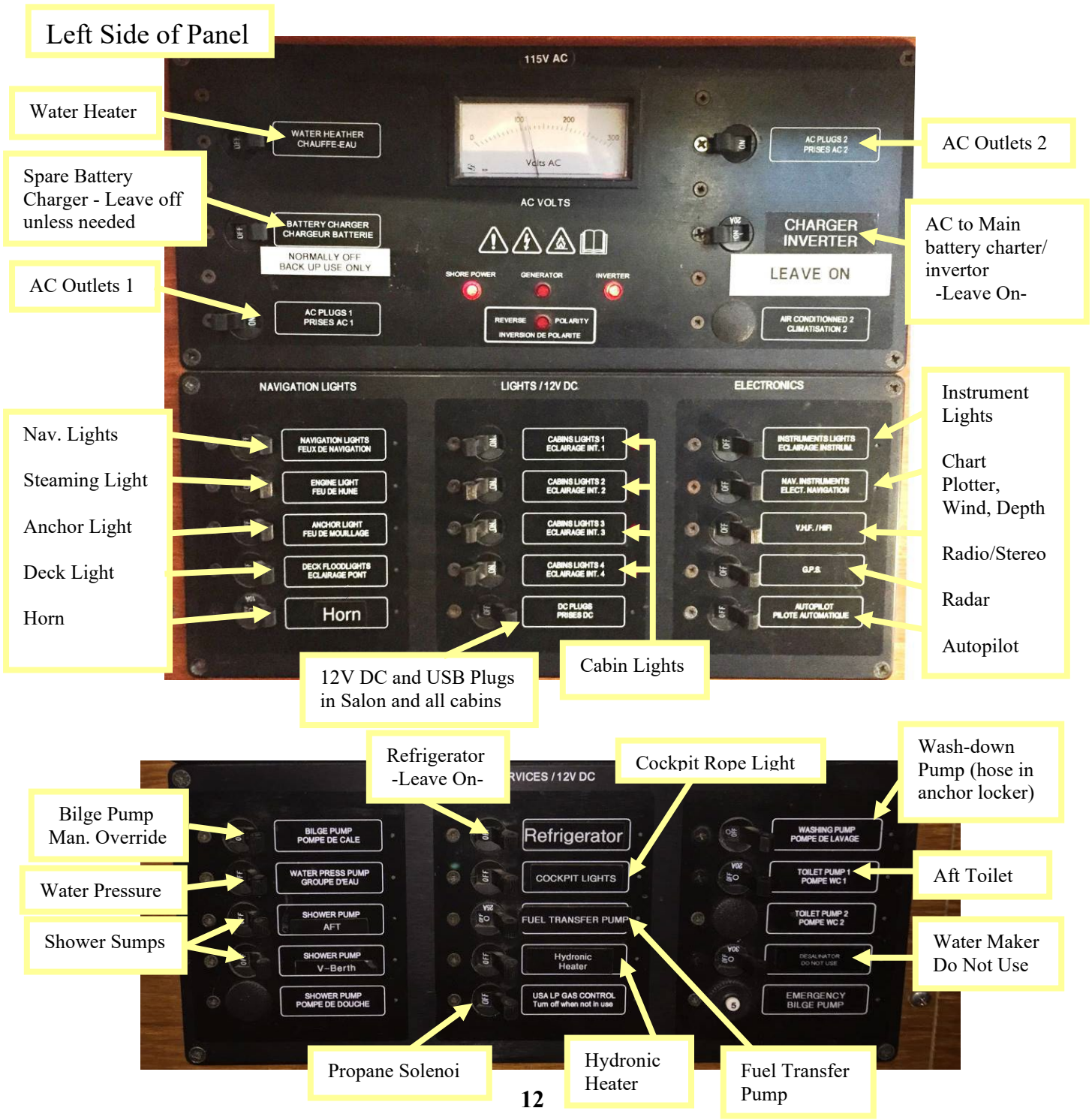
Electrical Panels

The electrical panels on Illuminé are straight forward and clearly marked. When you leave the boat at the end of your trip the only 12V switch that needs to be left on is the refrigerator. On the 110V panel the battery charger on the right should be on (the outlets can be left on if desired). The heater switch and should both be turned off. The left AC Outlet breaker services the aft cabins, galley and starboard salon outlets. The right breaker services the port salon outlet (in bookshelf area), V-berth and forward head outlets. We have also added a string of LED rope lights for cockpit lighting. They are mounted under the bimini, the breaker is labeled Cockpit Lights.

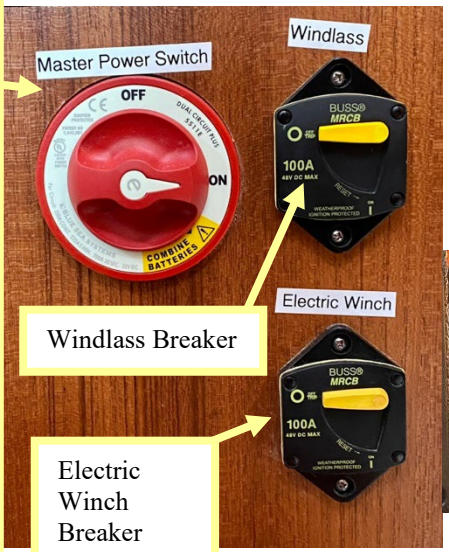
IMPORTANT: There is one other breaker not shown in the pictures; the <u>main 110V breaker is located in the aft port side cockpit locker. (same locker as the safety equip.).</u> If shore power is not working check this breaker. It should be up.



Panel in Port Quarter Berth (below berth)

Battery Switch for House Starter Banks

"Combine" setting allows one to start the engine off the House bank. Use only in an Emergency



Windlass Breaker

Electric Winch Breaker

Furnace Breaker (Leave on)

Below the V-Berth, Starboard Side

Battery Shut Off Switch for the Bow Thrusters

Electronics / Instruments

Chart Plotter, AIS & Radar

Plotter Power

Horn Button (horn mounted on mast)

Bow Thruster

Depth and Speed

Chain Counter (Not Activated)

Wind Instr.

Auto Pilot

Chart Plotter/Radar – Illuminé is equipped with a Garmin color chartplotter. It is powered by the "Nav. Instruments" Electronics breaker on the DC electrical panel. After power is applied, the system will return to the last formats / settings selected. The most popular selections for screen formats are accessed by selecting Home, then Favorites, then chose the desired app for each plotter. The Chartplotter It is integrated with the radar and AIS.

Please refrain from changing settings beyond the typical functions like chart orientation, radar overlay, AIS overlay and range. For a complete orientation of how to operate and get the most value from a Garmin chartplotter, we recommend downloading the user manual for the Garmin GPSMap 1243 plotter. The manual is also loaded into memory of the plotters if you wish to review something while onboard. The manuals for the chart plotter and radar are also in the chart table pedestal**.**

We recommend that your PRIMARY navigation tool be the Maptech waterproof chart book or paper charts (both have the most active "killer rocks" marked in red). The best way to stay off the rocks is by knowing where you are at all times. The primary role of the chart plotter is to verify that you are where you think you are. And, when in a tight place it will allow you to zoom in for a better view than the real charts provide.

Commonly Used Chart Plotter functions

- **Finding the Navigational Chart:** Home (bottom middle), Charts, Nav Chart .
- **Zooming In and Out:** These are touch screens so use two fingers or the + and – buttons on the screen.
- **Returning the screen to the vessel's current location:** Stop panning (lower right corner of screen)
- **Clearing Pre-existing Waypoints, Routes and Tracks:** Info (left of Home), User Data, Delete User Data, then the desired option for Tracks, Routes or Waypoints.
- **Chart Orientation:** Menu (right of Home), Choose Settings, then Orientation.
- **Display Brightness:** Power button (short press), Brightness.
- **Course over Ground (COG) Vector/Line:** Menu (right of Home), Heading Line – set source to GPS.
- **AIS Overlay & Targets:** Menu (right of Home), Other Vessels, AIS.

Chain Counter/Windlass Controller – We have decommissioned the chain counter with its readout located at the helm, as it isn't as accurate as it needs to be. While this instrument could provide control of the windlass, it is not practical to bring the anchor in from this position since the chain will pile up and the windlass will jam. Good anchor management requires someone on the foredeck managing the chain and keeping the anchor from hitting the bow of the boat. Note that you need to have the Windlass Breaker switched on to use the Windlass.

Depth Sounder – The digital depth sounder will not give accurate readings beyond 400'. In deeper water, the sensitivity on the unit increases as the transducer tries to get some reading back. Consequently, when you are in deep water false readings caused by currents, changes in water temperature, fish, etc. are common. These false reading often report very shallow water so knowing you are in deep water will prevent momentary heart attacks. **If the depth reading is blinking on and off it means the unit is not getting a return signal (i.e. you are in very deep water)**. The depth showing on the sounder is being measured from the transducer (about 18" under true water level) so the water under the boat is really a bit deeper than the reading. But, we strongly recommend leaving 10-12 feet of water under the boat.

We suggest using the depth sounder mainly as an aid to navigation in shallow water. However, the key to avoiding rocks is not the depth sounder – but knowing where you are on the chart at all times. ROCKS ARE THE SINGLE BIGGEST NAVIGATIONAL AND SAFETY HAZARD IN THE ISLANDS – BUT THEY ARE ALL MARKED ON THE CHARTS. We do not recommend using the alarm. Experience in the islands tells us that it goes off at the wrong time – usually the middle of the night as a seal or fish passes underneath.

Radar – You should have little need of the radar except for the highly unlikely event that you are suddenly enveloped by fog, which is rare in this area, but can happen. Fog in the islands usually forms in the wee hours of the morning and burns off by mid-day. So, if it's a little soupy after breakfast, we put on an extra pot of coffee until it lifts. Please remember that SJS contracts do not permit night or restricted visibility sailing. However, for practice you can watch the radar screen and what is actually happening during a clear day to develop a familiarity with what it looks like.

Be sure the GPS breaker is on at the panel. Then press HOME and then RADAR OVERLAY. This will bring you back to the chart, but with the Standby icon in the upper left corner of the screen. Pressing the Standby icon will cause the radar to start transmitting and bring change the upper right corner icon to the Xmitting icon shown to the right. Pressing the Xmitting icon will but the radar back into standby mode. Or you can clear either icon by pressing HOME and then pressing the CHART icon.

Knot Meter – If the digital knot meter shows a reading of "0.00" while underway, the impeller is most likely clogged. Sometimes it will clear its self; wakes from big powerboats are good for this. You can also try clearing it by traveling in reverse. The instrument transponders are under the forward end of the salon just port of the mast. You can remove the impeller to clear it but only if you are experienced in such things. If needed, the SOG (speed over ground) reading on the chart plotter will work as a standby knot meter.

A.I.S. – Illuminé is equipped with an Automatic Identification System. This system will show most commercial vessels on chart plotter screen as triangles. The triangle points in the direction that vessel is moving and if you move the cursor over the triangle the system will give you addition information (such as name, size, speed, etc.) about the vessel. The system also transmits this same type of information about Illuminé to other vessels with A.I.S. This system should come on automatically.

The AIS is an added safety feature which allows large commercial vessels to easily see you and your direction/speed. They may try to contact you via VHF channel 16 to verify your course intent. In addition AIS allows San Juan Sailing/Yachting to provide faster assistance in case of unplanned maintenance issues as well as alert San Juan Sailing/Yachting of Vessel name's return approach. Vessels with AIS can be viewed in real-time through mobile device apps and websites like www.marinetraffic.com that will reveal vessel name, course, speed, track, and other information.

Auto Pilot – To engage the auto pilot simply hit the Auto button and to disengage hit the Standby button. Please note the Auto button is fairly easy to accidentally hit, so if your wheel locks up and you cannot steer try hitting the Standby button. Also, the digital compass for the auto pilot is located in the port quarter berth on top of the closet (under the wood box). Placing anything magnetic in this area can cause the auto pilot to not work properly. This compass is also feeds the boat's current heading to the chart plotter, so something like an electric toothbrush or cell phone placed near this compass can cause both the auto pilot and chart plotter problems.

Bow Thruster – To turn it on, push both "On" buttons at the same time. Note that it will cycle off if you don't use it for 4-5 minutes. Simply push the right arrow to have the thruster push the bow towards the right, and the left arrow to push the bow to the left.

Phone/Device Charging, WiFi, and CPAP Machines – There are 12-volt cigarette lighter type outlets and USB plugs in all the cabins and the salon. Note: You may see an Illuminé **WiFi network** pop up on your cell phone or device, currently it is just a network for some of the onboard electronics. For CPAP machines, the plugs in the cabins are near the bunks.

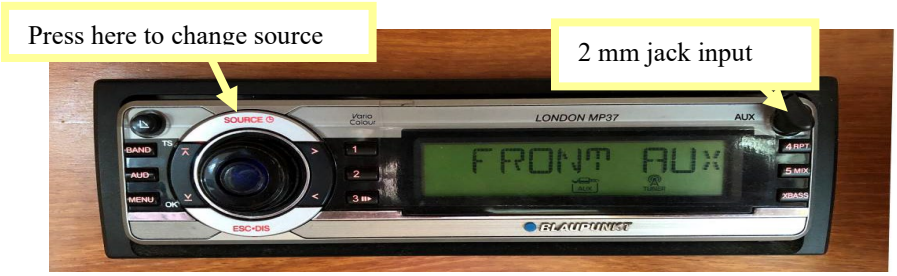
Bluetooth Speaker – Because today's Bluetooth speakers can provide incredible sound in a small package, we have just added a high-quality Bose Bluetooth Speaker to Illumine that you can connect via Bluetooth to from your own device or plug into with the provided unplug the 2 mm cord (in the nav table). The speaker will run for 12+ hours on its battery and there is also USB powerplug in the Nav Table to charge it when it has run low. Please be aware of other boats when you are in harbor and keep the volume low if you bring the speaker up on deck, as sound travels over water quite amazingly. The speaker is water resistant, but not waterproof, so refrain from bringing it up on deck if there is a chance it might get wet.

Built-In Stereo – There is a Stereo/CD player on the electrical panel and with speakers in the cabin and cockpit.

We also have provided a cord in the nav table to plug your own device into the Stereo if you wish.

- The stereo's power comes from the same breaker as the VHF.
- To play from your own device unplug the 2 mm cord plugged into the upper right corner on the stereo. Also, the source on the stereo needs to be set to Front Aux, this can be done by pressing the Source button on the stereo (see picture).

There is also a selection of CD's in the V-Berth Cabinet above the Settee.



VHF Radio – The main radio is mounted at the nav station and a RAM mic is mounted in the cockpit. If the RAM happens to come unplugged please turn off the radio before connecting the mic as THE RADIO CAN BE DAMAGED IF YOU PLUG IN THE RAM MIC WITH THE RADIO ON. There is also a hand held unit for use in the cockpit, the dinghy or ashore.

We recommend that you monitor Channel 16 during your cruise. It is reserved for emergencies and boat-to-boat initial contact. After contact, move to channels 68, 69, 72, 74 or 78. We listen to weather channels 1, 2, 3, 4 or 8 (whichever gives the best reception) before we sail in the morning and prior to anchoring for the evening. Listen for the reports identified as "Northern Inland Waters". **San Juan Sailing monitors channel 80** during office hours (closed Sundays).

Below are instructions on how to use some common features:

- **Turning On and Off the radios** – the Main Cabin radio is set to go on when the breaker is turned on. The cockpit radio must be turned on manually.
- **Silencing a DSC Alarm** – When the DSC button on a radio is pressed by another boat (or the Coast Guard) it sounds an alarm on all boats in the area. To silence this alarm, press any key on the radio.
- **Changing from High to Low transmit power** – Press the HI/LO button in the bottom row and then select 1W (low power) or 25W (hi power) on the soft keys.
- **To quickly get to channel 16** – tap the red 16/9 button (upper right). Holding it in for a second will take you to channel 9.
- **Accessing the weather channels (WX)** – Pressing the large channel select button (lower right) will toggle between weather channels and normal channels.
- **Adjusting Squelch –** Press the Sq button and then push the up or down volume buttons.
- **Adjusting Volume –** Press the VOL button and then push the up or down volume buttons.

- **Changing between International & U.S. channel** – Press the MENU key, on the soft keys Select CHANNEL then FREQUENCY BAND, Use the Channel knob to select USA, INTERNATIONAL, or CANADA. The radios should be left in USA mode.
- **How to set up and use Channel Scanning**
  - To set up the channels to be scanned press the Scan soft key, then use the large knob to select the channel to be saved and press the Save soft key. Repeat this for all channels desired. Pressing the Save button on a channel already saved will remove it from the saved list. Saved channels have a * on the screen when they are selected.
  - To start scanning press the Saved soft key. To get back to where the Scan soft key is on the screen press the Clear button. To restart scanning after transmitting it is necessary to press the Scan and then Saved soft keys again.

Wind Instruments – Wind speed and direction are displayed at the helm.

Starlink/Wifi Internet – For 2024, we have installed a Pepwave Wifi router and Starlink. We are the 1st sailboat in the SJS fleet to experiment with installing both and we will collectively learn about both their strengths and limitations this season. Thus we ask that you work with us to make the systems work within the constraints of sailboat battery realities and internet download limitations.

We have set it up so the Pepwave WiFi router is the hub of both mobile broadband Internet and Starlink. When Starlink is <u>not</u> turned on, the system defaults to Verizon mobile broadband, which works well in some parts of the San Juans and not in others.* With just using the Pepwave Wifi router, we have found that internet download and upload speeds are decent when in the major ports but spotty when outside the ports.

We have also found that using one's phone as a mobile hotspot can sometimes provide <u>even faster</u> connectivity in some instances, and that if **T-Mobile** is your provider, you may find even better connectivity with it in some areas of the San Juans, and in Canada.

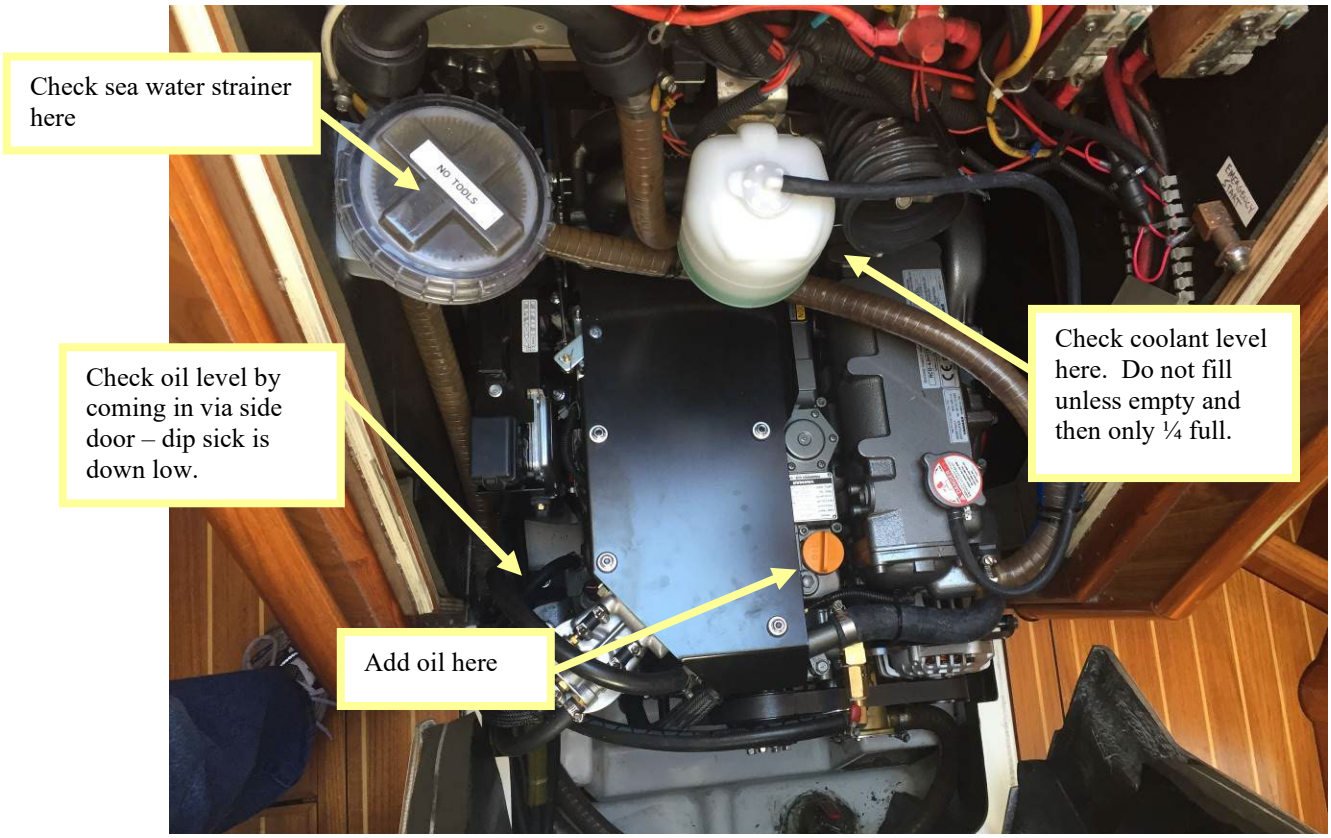
Starlink can provide great connectivity when needed, although we advise not using it for long periods since it draws 4-5 amps (55-70 watts) and will slowly drain Illumine's batteries unless you are connected to shore power or running the engine. **Please keep a careful eye on battery levels (See Battery Monitor on Page 7) when using Starlink.**

Starlink is accessed via the Illumine Wi-Fi network, the name of the network is "Illumine WiFI," and the password is on the Instrument Panel next to the breaker. The Starlink antenna is mounted on the rear port side of the boat, and the breaker to turn it on is on the instrument panel.

Starlink definitely should not be left on for long periods, and especially at night. While the service is generally reliable, there are occasional pauses (3-4 secs.) when the unit moves between satellites. Also, it takes about 5 minutes to boot and link up with a satellite. The Wi-Fi will come up after just a few seconds, but there will not be any Internet until things link. Also know that while Starlink generally provides quite fast download speeds, the upload speeds are sometimes a bit less than – or comparable to – regular broadband WiFi upload speeds.

We have provided this system to provide better connectivity, but we have no control over it and therefore do not guarantee that it will work in all circumstances.

Engine and Operating Under Power



Operation – We have found the **80 HP Yanmar engine** to be very reliable**. Cruising should be done at engine RPMs of 1900 to 2400 (**the boat feels most comfortable to us at 2200 to 2300). Because the engine is turbocharged it is not good to run it below 1900 for long periods of time. The following table gives approximate cruising information:

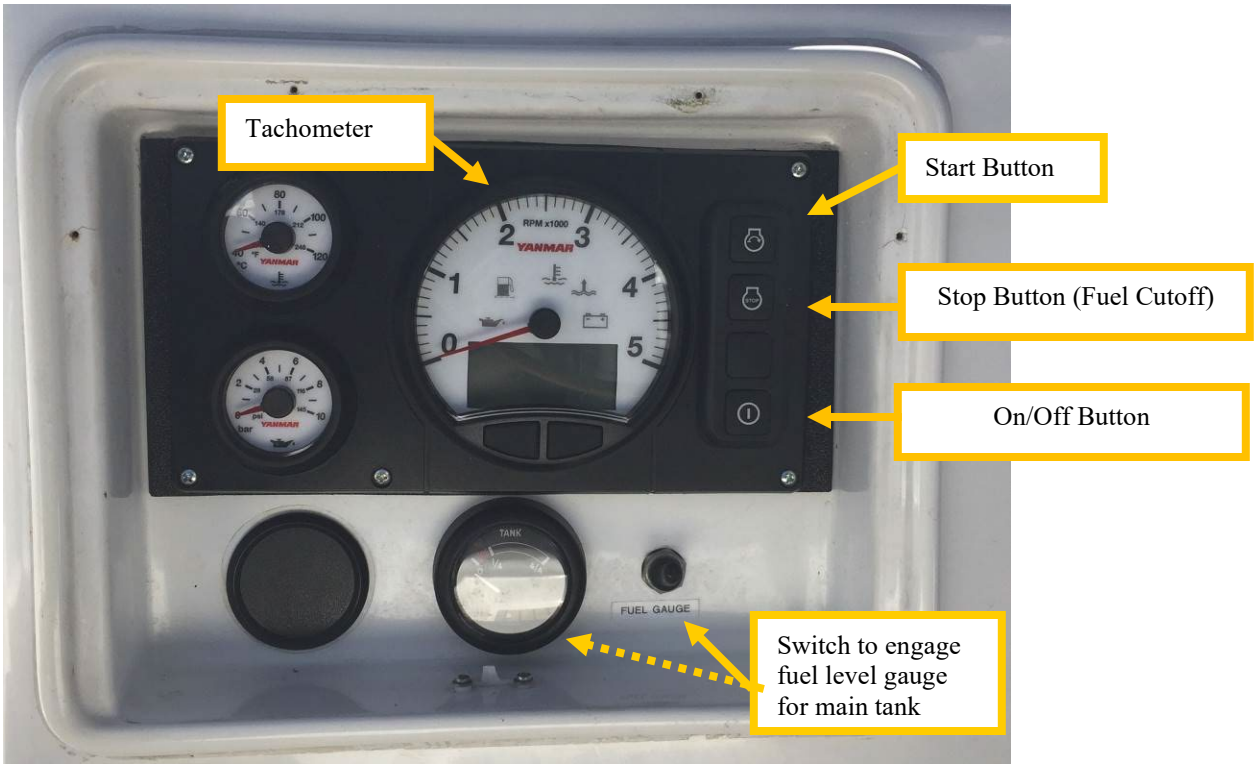
RPM's	Boat Speed	Fuel Consumption	Range - Main tank only	Total Range using all tanks
2000	7.3 Knots	Approx. 1.3 gal/hr	230 Naut. Mi.	535 Naut. Mi.
2200	7.6 Knots	Approx. 1.5 gal/hr	209 Naut. Mi.	488 Naut. Mi.
2400	8.0 Knots	Approx. 1.6 gal/hr	205 Naut. Mi.	475 Naut. Mi.

The ranges listed assume a 25% reserve in the 53 gal fuel tank. We find pushing the engine beyond 2500 RPM or 8.3 knots does little good as the boat reaches hull speed at about this point.

Also, there is a blower in the engine compartment which is vented in the transom walkway between the cockpit and the swim step. **This blower is temperature controlled so do not be surprised when it comes on automatically. Also, it may run after the engine is shut off until the compartment cools off.**

Starting:

a. Visually check the engine, look for fluid or oil under the engine or eelgrass in the strainer. There should be no need to check the oil level unless you are out for more than a week (it is checked every turn-around by our maintenance pro). If you do want to check the oil level the dipstick is easily accessed via the hatch opposite the stove.
b. Make sure the gearshift is in neutral (approx. vertical).
c. Push the On/Off button (bottom right of panel). **It only takes a quick push – if you push it in and hold it too long it will turn on the then right back off again**. Then, once panel has booted up (takes 3-4 sec.), push the Start button (upper right).
d. After she starts, check for water flowing out the exhaust.
e. There is no need to warm up the engine, getting out of the harbor will do this.



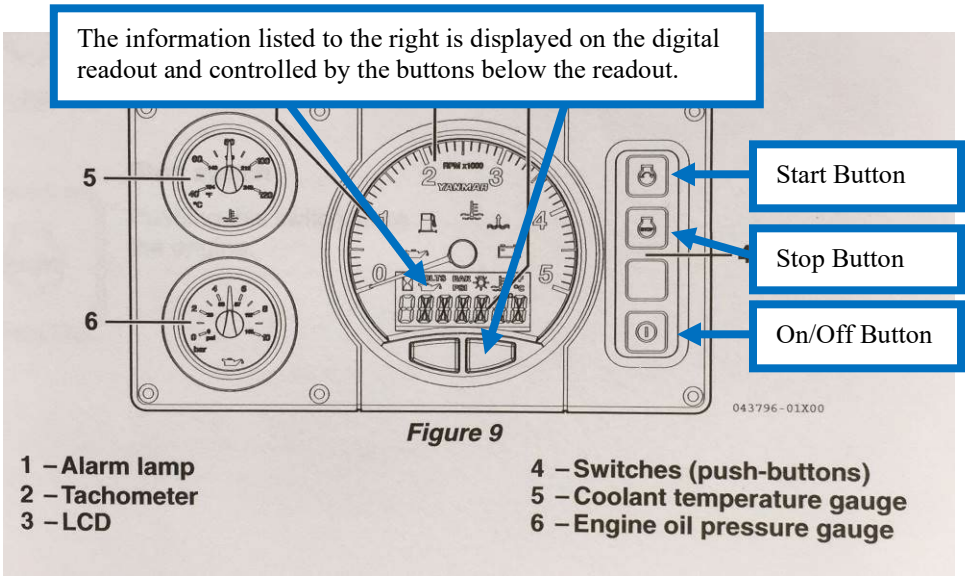
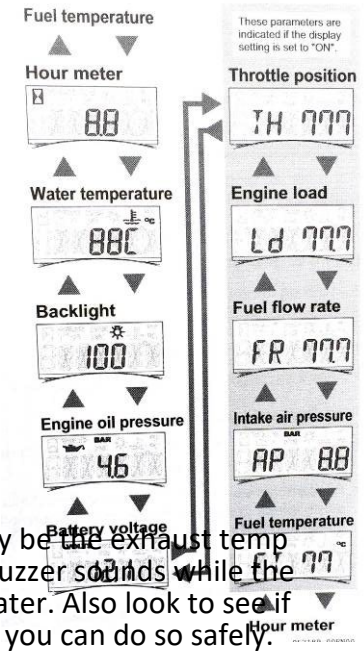


Figure 9



Engine Overheat – The first alarm to signal an overheat situation will likely be the exhaust temp alarm, the panel is located in the port stateroom behind the stairs. If the buzzer sounds while the engine is running look to see which alarm is sounding, high temp or high water. Also look to see if there is cooling water exiting with the exhaust and shut the engine down if you can do so safely. Overheating is the most likely cause for the buzzer but the engine has its own alarms, for example it will also alarm if you run out of fuel. It is worth checking on the oil level, coolant level, fuel level and raw water strainer. If you see something obvious and can fix it great, if not please call us or San Juan Sailing.

Engine Shutdown – First make sure the engine is at idle and the gearshift in neutral. Then push the Stop button for about 2 seconds. You can also use the On/Off button, doing so will kill the engine and turn off the panel. **If you are sailing when you turn off the engine you may need to put the gearshift into reverse just for a second; this helps feather the Maxprop. If the prop needs feathering you will likely hear the shaft turning when you go below.**

Fuel Tanks and System

The **main tank feeding the engine holds 53-gallons** and sits under the salon floor (under aft large hatch next to sinks). The fuel shut-off valve is located on top of the tank. The fuel gauge is located at the helm and can be activated by the switch in the same area (see picture on previous page). However, d**o not believe this gauge, it has a tendency to stick and show more fuel than may actually be there. Instead, note the hours when you leave and fill the tank if have run 25-30 hours.** The engine hours can be viewed using the digital readout on the engine panel, see diagram above.

When filling the tank listen closely and stop as soon as you hear fuel coming up the fill pipe. It will foam out the vent if you go further. The deck fitting for the main tank is on the port side about mid-ship.

There are two additional fuel tanks, which are not normally used (nor are they really needed for a normal one-week charter). If you are chartering for more than one week and going far enough (say to Desolation Sound) to warrant using the additional tanks please request the Fuel System Supplement to these notes. Your checkout person should then provide some additional training along with the extra notes.

Galley

For those of you who are interested in fine dining while on vacation, we have done our best to setup Illuminé with a well-equipped galley. We have place settings for eight onboard and most of the pots, pans and utensils needed for food preparation. There is usually a large assortment of spices condiments and supplies onboard. The following list is intended to give you a flavor of what we try to keep onboard. Please note that no refrigerated items are included.

- Spices – most common spices are there, i.e. salt, pepper, oregano, sage, thyme, garlic salt, dried chopped onions, etc. The assortment is really quite good.
- Condiments – Cooking oil, olive oil, red wine vinegar, Worcestershire sauce, A-1 sauce, Tabasco sauce. Some spices are in the rack above stove and more, along with the condiments, are located in storage under galley sole.
- Supplies – saran wrap, aluminum foil, baggies, containers, garbage bags (under sink)and coffee filters (cupboard next to microwave).

Spices and condiments (under sole in front of stove)

Spices on wall above stove

All we ask is when you use the last of something that you replace it (or refill it with the "replenishment" spices under the galley sole. There is also an assortment of cleaning supplies should you need them, some under the sink and more in the cabinet in the shower.

Microwave – We have installed a microwave in the galley for convenience. You will need to be sure the inverter is on before using unless you are hooked to shore power. Also, the AC Outlets switch on the left side of the 110V Panel will need to be on.

Toaster – Same story as the microwave. Be aware both can run batteries down quickly!

Storage – Illuminé has lots of storage for groceries. Here are some pictures to give you a flavor. These compartments are quite large, the doors are about 20" by 20".

Liquor Cabinet
(Under Aft Nav seat)

Pantry #1
(Under Fwd Nav seat)

Pantry #2
(Under V-Berth)

Heads & Showers

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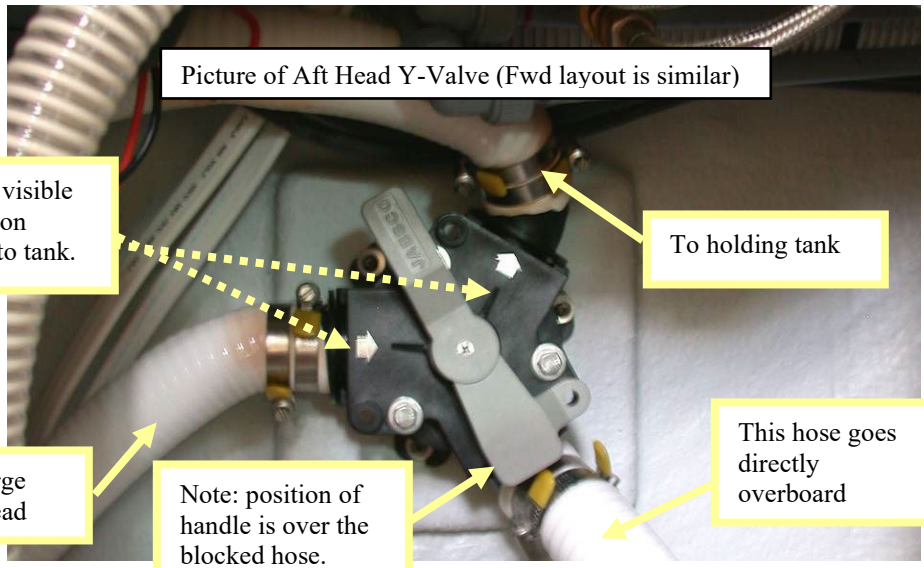
Please do not put anything in the toilet that has not been eaten. Experienced sailors deposit toilet paper in a wastebasket, not down the toilet because paper tends to clog the system. The forward head has a standard (manual) toilet and the aft head has an electric auto-flush toilet. Operation of the electric head requires the associated breaker on the panel be turned on (second down on the right hand row). It flushes with fresh water so the water pump will also need to be on. The controls are next to the toilet (sink side), see picture right:

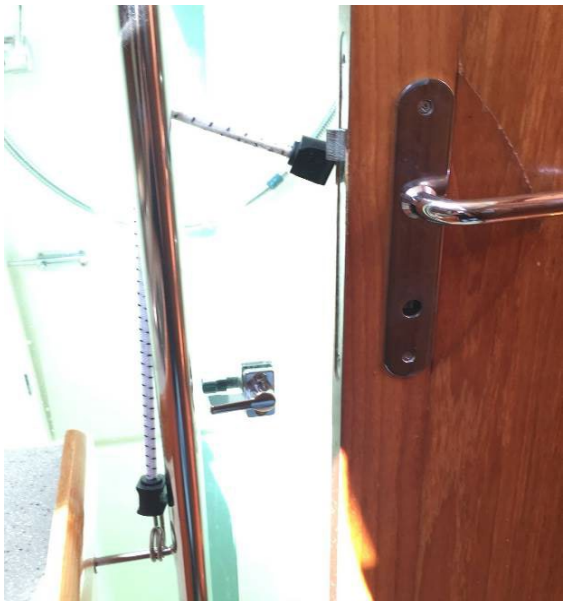
Press button 2 to Auto-flush (adds flush water and drains bowl). Press button 1 to manually add water to the bowl and press button 3 to manually drain the bowl.

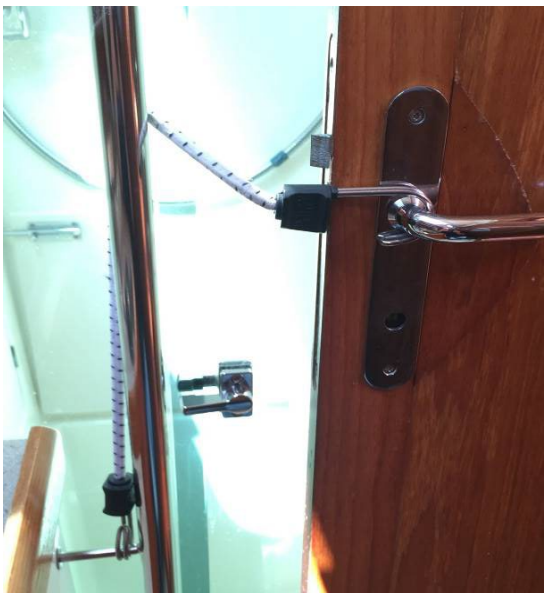
Each head has its own holding tank, the **aft one holds 20 gallons and the forward one holds 12 gallons**. There are Y-valves located in each head under the sink. They are normally set to have the head pump into the holding tanks. On the Y-valves there are silver arrows indicating flow in and out; the arrows that are showing indicate the direction of the flow. This is backward from what is intuitive.

The tanks can then be dumped overboard (if you are in Canada) by opening the drain valves: In the aft head the tank drain valve is under the sink and in the forward head it is located behind the toilet, open lower door outboard of toilet to access. The valve under the forward sink is NOT the correct valve. Please note these are gravity drain tanks, there is no need for a macerator. They will normally drain in less than a minute (you will hear them finish with a 'woosh' if the engine is not running); or pump out when in harbor. If you want to pump out the tanks the deck fittings are on the port side. If you have four people on board and have 'normal' usage, the tanks will need to be emptied every other day. If you have more onboard or heavy usage, please dump or pump every day. **There is no level indicator so being 'regular' with your dumping is important** – sorry about the pun (-:.



One last hint, the door to the aft head from the salon will swing and bang if not held in place. So, you can close it or use the bungee cord we have installed to keep it open (see pictures below). We prefer you use the method shown in the first picture and in rough conditions the method shown in the right-hand picture will hold it tighter, but tends to rub the door.





Refrigerator

The on/off switch is on the panel and the thermostat is in the cupboard next to the microwave. **We usually keep the thermostat set a little below 6. Any higher and things start to freeze. Also, we normally leave the unit running 24 hrs a day without battery issues.** The box is broken into two sections; the larger one (aft) has the coils in it and keeps things the coldest. The forward one is smaller and does not have coils, just holes letting cold air in from the aft box. It works best for fruits and vegetables that do not need to be as cold. We find that our ice lasts longer (usually several days) if we put the ice in the back-right corner against the coils. If you have meat you want to keep good and cold this same area is useful.

Drain Pump – As your ice melts you will need to pump out the water that collects in the bottom of the icebox. We have installed an electric pump for this purpose. The switch is to the right of the sink just under the counter lip.

Repairs (Tools & Spares)

It is our goal and hope that you will not need to make repairs during your trip. That being said, we have also provided a good selection of tools and spares in case you need them. The tools are stored in one of two locations: the smaller tools used most often are under the sole of the dinette, forward end. In this same location we have miscellaneous hardware, tape, wire ties, etc. The rest of the tools and the spare parts are under the forward end of the dinette. The spares include engine filters and belts along with a replacement head pump. If you have problems that you are not comfortable handling, please call us or San Juan Sailing (see numbers on page 1).

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Sails and Rigging

Mainsail – Unlike a standard main, it is best to have wind in a furling main when deploying, similar to deploying a furling jib. The wind adds even pressure all the way up the mast and helps the sail deploy. This even works going down wind (in moderate winds, up to about 15 knots). The new main is made of laminate, which is slippery and helps the sail deploy. However, since it is brand new, it is also a bit stiff and doesn't wrap as compactly inside the mast. This means you need to keep just a bit of tension on outhaul when furling it to ensure it wraps tightly inside the mast. Also be sure to only furl it to the black dot. However, should you have any issues or questions please feel free to call San Juan Sailing. Here are the procedures we use for furling and unfurling:

Unfurling:

f. Un-cleat the boom vang, furling line, outhaul and main sheet.
g. Usually we wrap the main sheet 2 turns on the port winch but do not cleat it. The idea being to not have it tight but also to keep it from running out freely.
h. Remember to fall off so there is wind in the sail.
i. Take a couple wraps on the starboard winch with the outhaul line. Start pulling the sail out of the mast by hand. **If you do use the winch, DO NOT force the sail out. At the first sign that the sail is not coming out freely, stop and loosen the outhaul. Then, go forward to the mast, grab the foot of the sail and give it a hard yank out of the mast (aft). This method works 100% of the time for us with very little fanfare.**
j. Once the sail if fully deployed putting the outhaul on the winch is reasonable and necessary.
k. Tighten boom vang and sheet in as needed. It is okay to use the electric winch on the sheet.

Furling:

a. Travel over or loosen the sheet (don't need it flapping unless in stronger winds as it is best to keep a little wind in the main as it helps tension it for a tight wrap on the furling drum.
b. Un-cleat the outhaul and take all but one wrap off the winch. Use this to keep tension on the sail so it wraps tightly around the furler.
c. Take a couple wraps on the port winch with the furling line. Pull by hand. You may need to use a winch handle, lightly, just to get it started. **Do not use the electric motor!**
d. The entire sail does not go into the mast, please leave the last foot or so exposed (it is covered with UV protection and designed to be out).
e. Tighten boom vang and sheet to keep boom from swinging too much but not so tight that the boom comes down to the dodger.

IMPORTANT: **Be sure to keep a bit of tension on the outhaul in order to get a nice tight wrap of the mainsail inside the mast.** A little wind (it does not take much) in the sail will accomplish the same thing. Remember, if you furl the main without any wind pressure on it (if you're becalmed), tension on the outhaul line is the ONLY force that will get you a nice tight wrap inside the mast. A loosely furled main inside the mast could mean a tough next deployment or, in the worst case, a jammed main. Also, be aware that too much halyard tension will cause the furler to bind. So, please do not add halyard tension. If the main is repeatedly arguing with you try loosening the halyard – it does not take much, just an inch makes a big difference.

Headsail - Our genoa is a 130 and takes a good sail shape at the full out position. Its size helps in lighter air, but during periods of heavier winds you may furl the headsail as desired. **Please keep moderate tension on the roller furling line when deploying the headsail to prevent a rat's nest on the drum. Similar tension on the sheets should be used when furling to prevent 'candy striping' of the furled sail.**

Electric Winch – **The electric winch should be used only for sheeting in the main sail** or running a person up the mast on the boson's chair. IT SHOULD NOT BE USED TO ADJUST FURLING OR OTHER LINES. It is too powerful and can easily break sails, lines or fittings, all of which will break before the winch does. The winch circuit breaker is behind the companionway steps in the port quarter berth.

Sailing Characteristics

Illuminé is a very solid vessel with surprisingly well balance handling characteristics. This being said, as with most modern cruising boats, Illuminé has a beamy stern and a shoal draft keel. This causes her have excessive weather helm if she heels over too far. **Therefore, it is necessary to trim for less heel when the wind hits 15-20 knots.** Here are the basics: Move the jib cars back and sheet in to flatten the lower part of the jib, this will also twist off the top. On the main, tighten the outhaul to flatten the sail and loosen the sheet some to twist off the top. Then use the traveler to trim for the amount of heel you want. These steps seem to work well up to about 20 knots, beyond that reefing the main becomes necessary. We have sailed in 30 knot winds with just a 90% jib and no main; she handled it beautifully, the steering was balanced and we were doing 8 knots to windward. She does not like to sail on the main alone.

Showers

Experienced cruisers know the sailor's shower: get wet, turn it off, soap up, rinse off. **CAUTION:** THE ENGINE CAN HEAT THE WATER TO SCALDING TEMPERATURES! Each shower has a sump pump with a switch located in the shower area. These pumps also have breakers on the main panel.

There is also a shower fixture back at the swim platform. This is useful for washing off shoes after returning from the beach. This fixture is located on the transom to port of the aft storage locker.

Stove

The gimbaled propane stove has two burners and an oven. Propane is heavier than air and requires caution. For your safety, please follow these procedures:

a. Make sure all stove controls are in the "off" position. As with the BBQ, having the stove valves open when the solenoid is opened will cause the safety system to kick in. This will severely limit the flow to the stove. If this happens close all the valves, including the one on top of the tank. Then open the tank valve, then the solenoid and final open the valves at the stove.
b. Turn on propane solenoid valve switch on the electrical panel.
c. Light a match or the butane lighter and push in the stove knob and turn to high. The burners will take a while to light on the first use. When the flame lights, hold in the knob for about 3 seconds to allow the thermocouple to sense the flame.
d. When you are finished with the stove turn the solenoid switch at the panel off.

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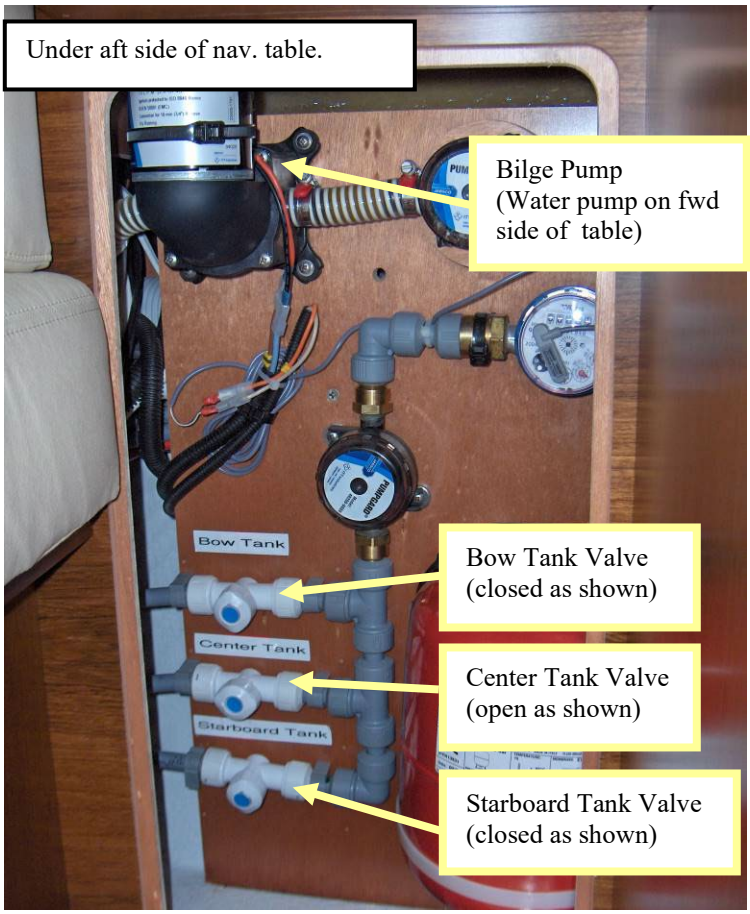
To light the oven, you will need to push in and turn the "oven" control knob on the front of the stove. Then put your butane lighter through one of the two holes in the bottom metal "floor" of the oven. You should hear the burner ignite (and see through the hole). If you have trouble lighting it, remove the metal floor/bottom of the oven, exposing the U-shape oven burner. You'll easily be able to light it when exposed. Replace the metal floor/bottom after it is lit.

Please note that both propane valves are located in the propane locker in the aft starboard side of the cockpit, which is vented and isolated from the rest of the boat. That way, any leaks will be vented away from the boat. San Juan Sailing's staff fills the propane tank every 3 weeks. One tank normally lasts 4-6 weeks and Illuminé has two tanks (one connected and a spare).

Water

Water pressure – The water pressure switch is located on the electrical panel. Please switch this off when motoring or sailing. You could burn out the water pump should one of the tanks run dry (and you would not hear the pump running over the sounds of motoring or sailing). There is a pressure accumulator so you will be able to get some water even with the pump turned off.



Water tanks – Illuminé has three water tanks, a 40 gal. tank located under the V-berth, a 40 gal. tank under the settee (starboard side) and a 60 gal. tank located under the salon (middle section). Selection valves are behind the panel under the nav table, aft side. Only one valve should be open at a time, otherwise water flows from tank to tank and the meter readings become useless.

There is a digital readout on the main panel that shows the water level in the Bow Tank and the Starboard Tanks. We recommend Starting with the Bow Tank, and when it runs out switching to the Starboard Tank, and then finishing with the Center Tank. When you have switched to the 60 Gallon Center Tank, you should probably start thinking about topping off your water supply within the next couple of days.

The deck fitting for the bow tank is on the port side forward of mid-ship. The fitting for the starboard and center tanks are on the starboard side about mid-ship. The center tank fills from the inboard fitting and the starboard tank fill from the outboard fitting.

Water Heater – The water is heated automatically when the engine runs under load (it takes about 45 minutes), running it at idle in the morning doesn't work, sorry. **CAUTION:** THE ENGINE CAN HEAT THE WATER TO SCALDING TEMPERATURES! The hot water is stored in a 10-gallon tank located under the dinette seat just in front of the galley. It can also be heated electrically when shore power is available. The switch is located on the 110 V panel.

Salt Water Wash Down Pump – We have a salt water pump installed with a fitting and hose in the forward anchor locker. The hose is long enough to reach the stern so that you can use seawater to wash down the swim step after returning from shore. The switch for the pump is on the main panel (upper right corner). Please turn off the pump when not in use, thanks.

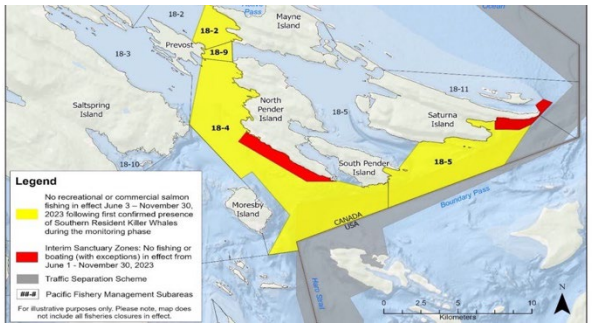
Being Whale Wise

Sighting a whale, (and other marine wildlife), is a thrilling experience and one you'll never forget. But whales are having a difficult time surviving due to declining salmon runs. They use echolocation to find and catch their food, therefore noise pollution from boats and ships make it harder for them to thrive.

The US and Canada have implemented strict viewing guidelines and "no go" sanctuary zones. Per the Waggoner Guide: *"Transport Canada seems to have made it a practice to send registered letters after the fact, threatening fines of up to $250,000, or a summary conviction with not more than a $1,000,000 and/or imprisonment of not more than 18 months. This is serious business and boaters should maintain situational awareness at all times."*

San Juan Sailing provided you a summary of these rules in the packet you receive when you arrived and there is more information in section 10 of the white reference book onboard Raven. In general, stay at least 400 ft. away from the whales. Sometimes they come to you, if this happens shutdown the engine and turn off the instruments (assuming this is safe to do). They can hear the pings of the depth sounder – this is why we ask you turn off the instruments.

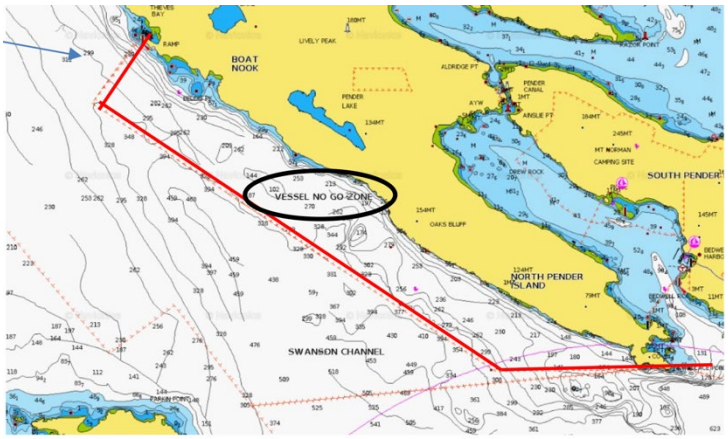
Canadian "No Go Zones" marked in red.



The No Go Zone is shown on Illumine's chartplotter with red dashed lines

To help you identify these lines, the chart here shows them in solid red.

Note this is just to the west of Bedwell Harbour, (a Canadian customs location). Be sure to avoid this area if Bedwell is on your itinerary.



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What's Unique about Illuminé

In many ways she is similar to other charter boats. Therefore, you are likely to find most of her systems will be familiar and easy to operate. There are a few things about her that are not 'typical'. These are the things that may require special attention or where it may be best to deviate from customary operating procedures. And, some are listed here because we believe they will help you plan your charter.

Fuel Gauge – The fuel gauge does not work reliably, therefore it is best to note the engine hours when you get onboard (or when you fill the tank) and refill when you have run 25-30 hrs. At about 1.5 gal. per hour this will consume 40-45 gals. of the 53 available in the main tank. Again, keep in mind the furnace needs the tank to be over ¼ full, so don't run this long before fueling if you are needing heat.

Electrical System – There are 5 new (as of 2022) batteries in Illuminé's house bank and a large solar panel to keep them charged. You should be able to sit at anchor (assuming some sun is shining) and not have battery issues.

Galley – We try to keep a good supply of spices, condiments (olive oil, vinegar, Syrup) and consumables (saran wrap, baggies, etc.) on board. We've also included some re-usable containers for leftovers in order to reduce waste. All we ask is when you use something up, please replenishing the supply if you get a chance to do so, thanks. Also, please put the spices and condiments back under the sole when you return to Bellingham as the cleaning crews tend to throw out items left in the galley.

MaxProp – There are two main advantages to Illuminé's feathering prop; the first is speed. In light winds she will sail up to half a knot faster with the prop feathered. The second advantage shows up when you are backing up under power. Fixed propellers are not very efficient in reverse so they require high engine RPMs to get any real power. Because the Maxprop's blades rotate when in reverse they are just as efficient in reverse as they are in forward. **When you put Illuminé in reverse you will notice that she responds faster than a boat with a fixed prop**.

Bilge Pump – **The electric bilge pump has a timed relay wired to the float switch which will continue running the pump for about 30 sec. after the float has dropped. Also, this relay is wired straight to the battery so the breaker for the bilge pump is normally in the off position. Turning on the breaker will cause the pump to run continuously.** This time delay was added to allow enough time for the pump to empty the line so water would not drain back into the bilge and re-activate the switch.

Note, we have added a second Bilge Pump switch beside the Exhaust Temp and High-Water Alarms. This switch is currently not operational. Later in the 2024 season we will be installing a second backup Bilge Pump which will be connected to this switch, but for now the switch can be left in the off position.

We hope this information helps. Have a wonderful time sailing Illumine!

Brent Snow and Diane Wagener, March 2024.