



Notes from the Owners of Salish Dawn

Thank you for choosing to charter Salish Dawn. She is the culmination of a two-year search to find a trawler comfortable and safe enough to explore the waters of Alaska and beyond. When we first laid eyes on the Seahorse 52 Long Range Trawler we were impressed by her gracious lines, layout and condition. Her large fuel capacity, stabilizers and sea-kindly hull added to our first impression.

When you look inside there is a stately and well-crafted beauty to her. The spacious living quarters are graced with stunning woodwork. The widebody design creates a larger than normal salon and roomy galley. Downstairs the suites are well appointed and have tons of storage.

On the upper deck is a flybridge with a full enclosure for comfortable cruising. The visibility from the flybridge is wonderful. We have also equipped her with a large dinghy and kayaks should you want to do some more intimate exploring.

Here is a list of her primary features:

- 2 Cabins and 2 Heads – The cabins are large with lovely wood finishes. There is good cross ventilation and lots of storage. Each head has a shower and are well appointed.
- Sea-kindly – Salish Dawn has a deep keel with stabilizers which provide a comfortable ride.
- Ease of handling – For a vessel 54 feet long she handles surprisingly well around the docks. A large rudder and thrusters fore and aft certainly help.
- Comfort control is easy with both diesel heat and reverse cycle air conditioning.
- Large solar panel allows staying charged while at anchor.
- Starlink internet provides high speed connectivity.

We do have some basic rules we would appreciate you following, mainly no pets and no smoking.

Listed below are some tips on how to get the most out of her equipment. We sincerely hope you have a great time. If you have questions, or feedback, we would love to talk to you. **You can reach us at 206-963-1308 (Mike's cell) or 206-818-8008 (Lauri's cell).**

Smooth seas, Mike & Lauri Huston

Salish Dawn's Spec's:

Year: 2011
LOA: 54' LWL: 50' 2"
Beam: 15' 6" Draft: 5'
Displacement: 58,000 lbs (wet)
Mast height above WL: 25' (with mast up)
Fuel: 845 gal. (3 tanks)
Water: 316 gal. (2 tanks) - Hot water: 11 gal.
Holding: 60 gal.
Engine: 300 hp. John Deere (Turbo charged)
Generator: 9 kw Northern Lights
Dinghy: 12' center console Apex with 30 hp
Tohatsu

Other useful measurements:

Refrigerator

- Main compartment 1' 8" W x 1' 8" D x 2' 5" H
- Freezer compartment 1' 8" W x 1' 8" D x 1' H

Berth mattress sizes

- V-Berth 6' 8" L by 4' 10" W at head (34" at feet)
- Master has a queen mattress

Headroom: V-Berth 6' 4", Salon 6' 5", Master 6' 5",
Pilot House 6' 4"

INDEX (Showing page numbers):

Emergencies	4
Being Whale Wise	5
Anchors and Windlass	5
Batteries & Charging	8
Berths	9
Dinghy and Outboard.....	11
Docking.....	13
Eartec Headsets	13
Closed Circuit TV	13
Electrical Panels.....	13
AC Panels.....	15
Generator.....	17
Inverter.....	18
DC Panel	19
Electronics/Instruments.....	19
Chart Plotters/MFD	21
Depth Sounder.....	22
Radar	22
Wind Instruments	23
VHF Radios	23

Autopilot and Rudder Position	25
Entertainment.....	27
Stereo w/ Sirius	27
TV/DVD Player	27
Starlink/Internet.....	28
Engine and Operating Under Power.....	28
Thrusters	31
Flybridge.....	32
Fuel Tanks and System	33
Galley.....	34
Heads and Holding Tanks	36
Heating & Air Conditioning.....	38
Furnace:.....	38
Air Conditioning and Reverse Cycle Heating:	40
Repairs (Tools & Spares).....	40
Tank Tender	41
Washer/Dryer	41
Water.....	43
What's Unique about Salish Dawn	45

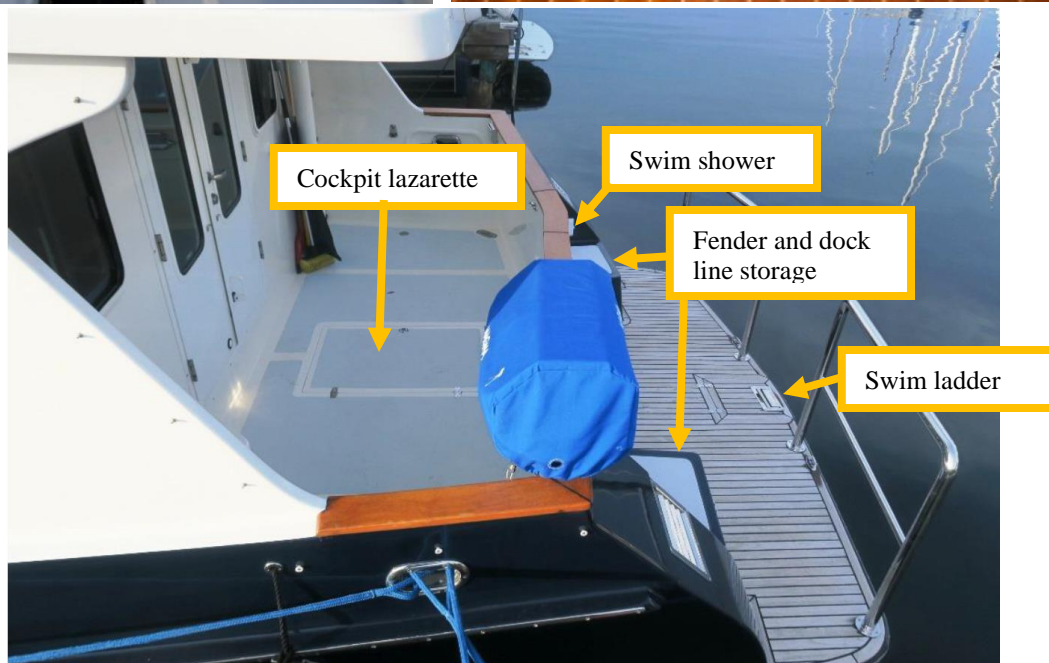
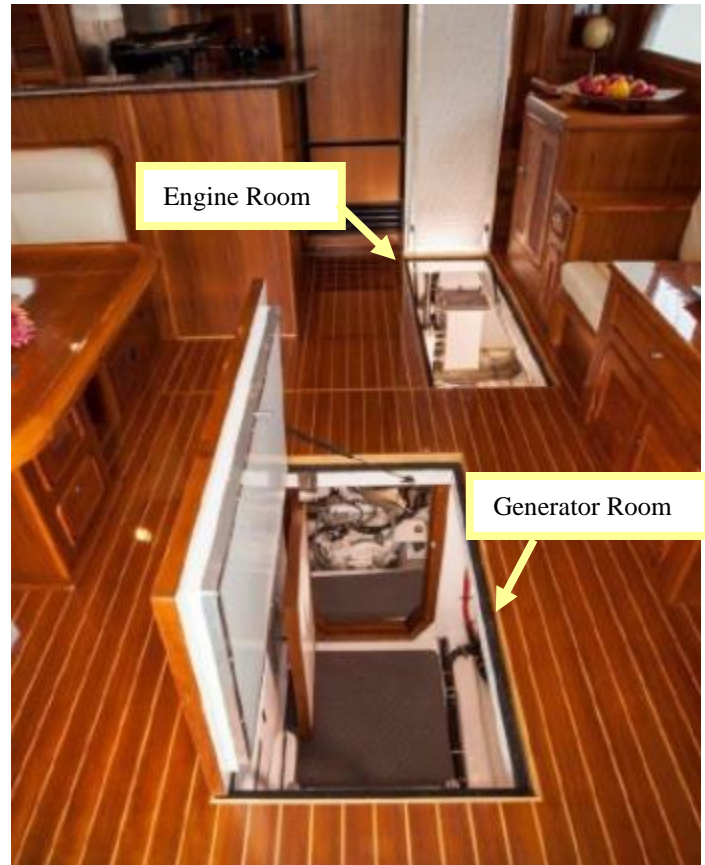
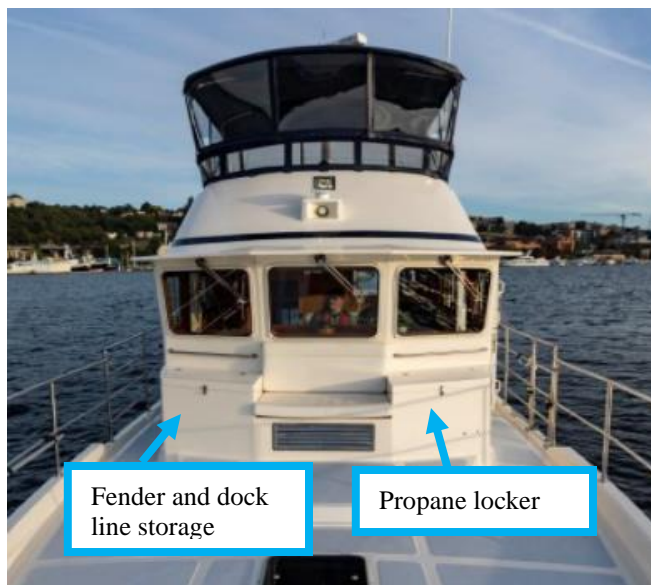
Conventions for these notes:

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.

The picture to the right shows the salon looking forward. The two hatches enter the engine room and the generator room. These two rooms house a lot of the ship's equipment and are referred to in several sections of these notes.

The pictures below show a front view of the pilot house and the cockpit area.



Emergencies

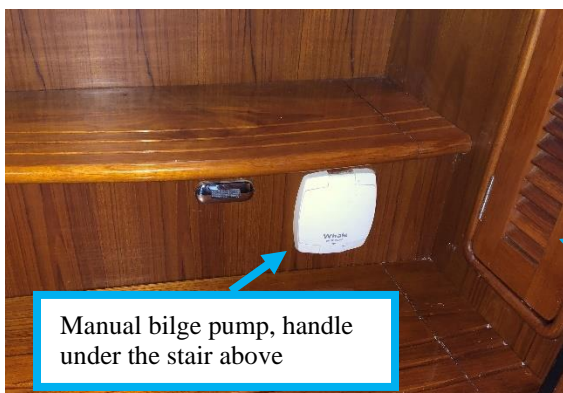
Fire Extinguishers – There are four ABC rated fire extinguishers onboard. Locations are:

- Salon near aft door
- Pilothouse – side of electrical panels
- Master cabin below near door
- V-berth over desk

Hitting a Log or Running Aground – In case of a log hit or running aground, immediately check for leaks in the bilge. Once you are sure no water is entering the hull contact **San Juan Yachting at 360-671-4300** 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 sea chest and through-hulls. There is a diagram showing the location of the through hulls in the white notebook. Get the crew on deck and into life jackets if you discover a significant leak. There are wood plugs wired to each of the through hulls. Just so you know, Salish Dawn does have a high-water alarm, the panel is located on the port side of the pilothouse helm. In addition, the individual pump controls will alarm when a pump runs.

There are four bilge pumps. The manual bilge pump is located under one of the steps between the salon and pilot house (see picture below) and the handle is under the step tread (it lifts up). There is a Y-valve located behind the cupboard door just forward of the ice maker (see picture to right) which allows the manual pump to draw from the engine room or the forward bilges.



Manual bilge pump, handle under the stair above



Y-Valve in this cabinet

The three electric bilge pumps have automatic float switches, **but they can be run manually – switches on right side of pilothouse helm.** The float switches and pump intakes are located as follows: Cockpit lazarette, Engine room bilge and V-berth bilge.



Emergency Equipment – Flares, air and manual horns, etc. are in the cabinet forward of the Electrical Panels. Life jackets are under the pilothouse settee seat nearest the elect. panel.

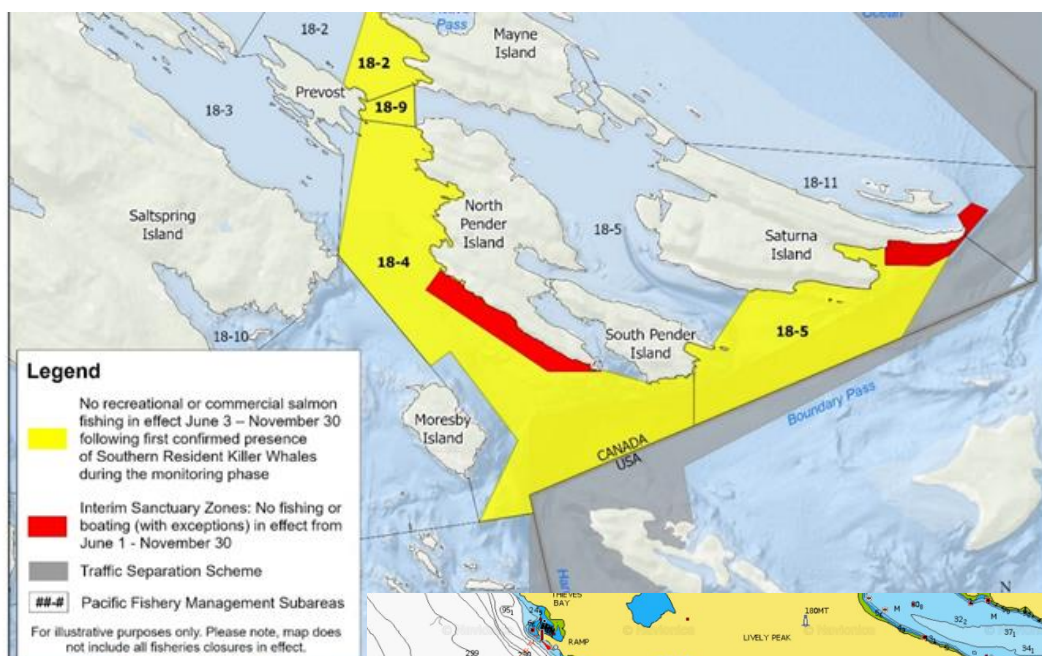
Crew Overboard – There are life rings on both sides of the boat plus there are cockpit cushions, one of these should be thrown to the person in the water first. Second, hit the MOB button on the chart plotter so you will know where they are (this takes more than one button). We also have a LifeSling mounted on the upper deck rail, port side. The dinghy davit could be used in conjunction with the LifeSling to get the person back onboard.

Being Whale Wise

Our resident orca whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food, and noise pollution from boats makes it harder for them to thrive. In an effort to decrease human impact both the Canadian and US governments have implemented new rules. We provide a summary of these rules in the packet you receive when you arrive and more information in section 10 of the white reference book onboard Salish Dawn. Here is a summary of the rules in Washington State and in BC:

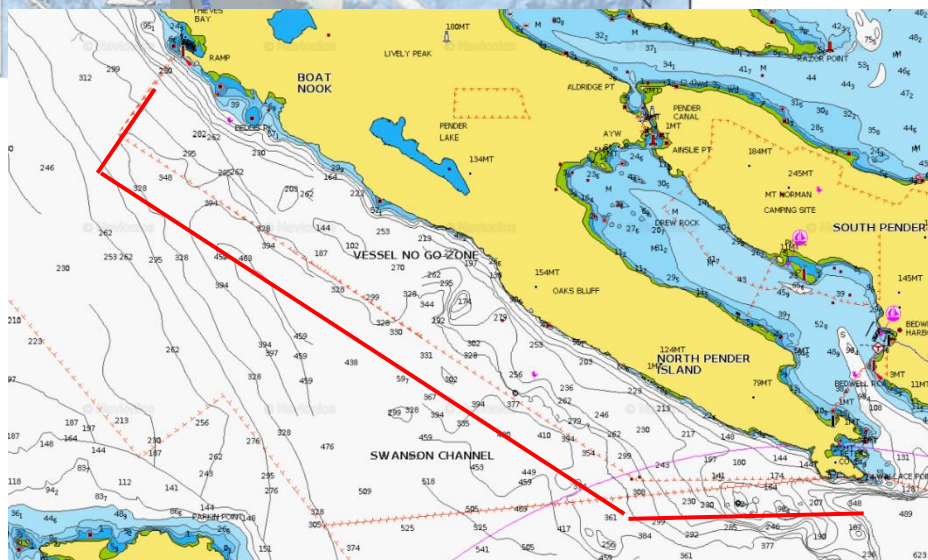
Washington State: In an effort to reduce boat-related noise, which negatively affects the southern resident orca's salmon foraging behavior and success, Washington State made some rule changes, effective January 1, 2025. Vessels are not allowed to approach within, or intentionally position themselves to become within, 1000 yards of a southern resident orca. If you find yourself inadvertently within 1000 yards of a southern resident orca, you must reduce speed to less than 7 knots and proceed as directly as possible to a distance that is more than 1000 yards away. However, if you find yourself inadvertently within 400 yards of a southern resident orca, you must disengage your transmission and wait for the orca to move away. Exceptions will be made where safety or rules of navigation do not allow compliance. Since most of us would not be able to distinguish a southern resident orca from a Biggs orca at any distance, let alone 1000 yards, please assume any orca you see is a southern resident.

British Columbia: In Canada they have gone a step further by creating some zones where boats are not allowed to further improve the environment for whales. Those zones are red on the diagram below.



And here is an example of what they look like on Salish Dawn's chart plotter(s). The red lines have been added to help point out the dashed lines, which are what you will see on the plotter.

Note this zone is just to the west of Bedwell Harbour, so on your way in or out of here be sure to avoid this area.



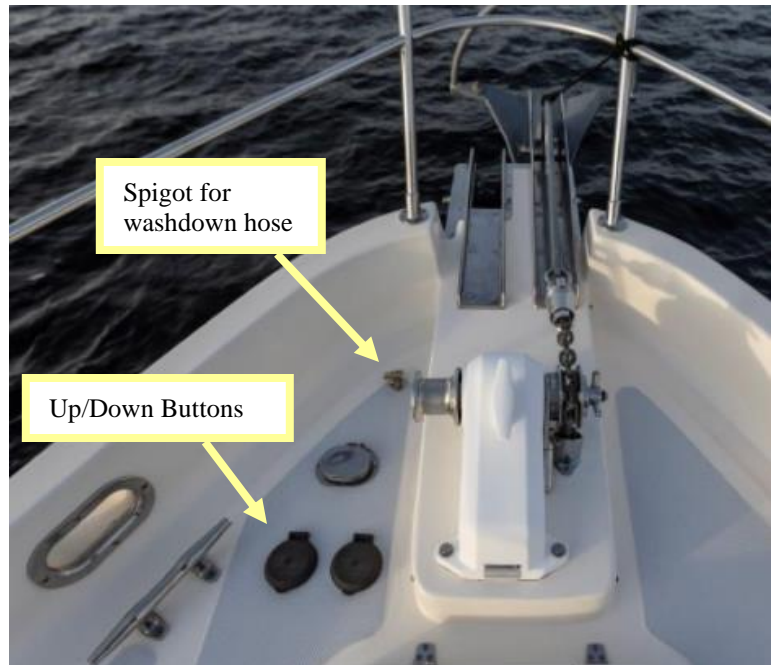
Anchors and Windlass

Salish Dawn is equipped with two anchors, one forward (85# Mantus with 300' of 3/8" chain) and a 21# Fortress in the cockpit lazarette along with 50' of chain and 200' of rode. The primary **chain is marked with yellow poly line threaded into the links every 25 feet and there are two lines in a row at 100 and 200 ft**. While anchoring can be done using hand signals or the Eartec two-way headsets can be used to make communicating a bit easier. The use of these headsets is discussed in the Docking section of these notes. Also, note the depth sounder is set to read from the transducer which is about 2 feet below the waterline. Plus the bow chain roller is about 6 feet above the waterline. Therefore, be sure to add 8 feet to the depth reading when calculating scope.

The scope normally used in the San Juan and Gulf 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 Salish Dawn'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 8' (to account for the distance from sounder to roller on bow) and take that total and multiply by 4 (typical example would be 25' of water + 6' of tide increase + 8' = 39' x 4 = 156').**

The electric anchor windlass receives power from the house battery bank. The circuit breaker for the windlass is located in the upper electrical cabinet at the lower right. **Please note the windlass will work without the engine running. However, doing so for more than just a minute will drain the house bank, so it is best to have the engine running when using the windlass.**

The up-down buttons are on the forward deck (see picture to right). 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 bridle to the chain and cleating to both forward cleats (not the cleat on the windlass), and then running out more chain until the chain on the drum is slack. The snubber/bridle is typically stored in the anchor locker just aft of the windlass.



There is also a remote control for the windlass (see picture to right). This remote is normally stored in the drawer just forward of the electrical panels. To turn it on press the middle button – once it is on press the same button for 2 seconds to unlock the control. Then the up and down buttons will control the windlass and the amount of chain deployed shows on the screen. The left and right buttons are used to navigate the menus. This unit will turn itself off after a few minutes of non-use.

There is also a trip-line and float setup stored in the anchor locker should find you are anchoring in a rocky area or where there might be old logging cables, etc.



Detailed operating instructions are listed below:

Lowering the anchor:

- a. Turn on the circuit breaker for the windlass (lower right of upper electrical cabinet).
- b. Turn on windlass remote control, nice to use but not a requirement.
- c. Untie the line holding the anchor in place.
- d. Lower anchor just over the roller, do this slowly to prevent it swinging into the bow.
- e. Position boat and with the boat dead in the water lower the anchor until it is on the bottom.
- f. Continue lowering anchor while slowly backing the boat (usually in and out of gear 10 secs).
- g. When within 20 ft. of desired scope stop boat.
- h. Secure the chain with the snubber/bridle and run out enough chain to take the load off the windlass. **DO NOT LEAVE THE LOAD ON THE DRUM.**
- i. Set the anchor by reversing at idle for 1-2 minutes.
- j. Turn off the circuit breaker and, if appropriate, turn on the anchor light.

Raising the anchor:

- a. Start the engine.
- b. Turn on the windlass circuit breaker.
- c. Turn on the windlass remote control.
- d. Turn on the wash down pump, breaker is located on the DC Panel and labeled 'RW Pump'.
- e. Attach hose with nozzle to spigot – hose is normally stored in the stbd locker below the pilothouse windows.
- f. Take in enough chain to retrieve the snubber.
- g. When retrieving the anchor, never use the windlass to pull the boat; instead, slowly power (idle only) 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 gently drive the boat forward (forward-neutral-forward-neutral) to free the anchor. Please watch to be sure the chain does not rub against the hull.
- h. Please use the wash down hose to 'wash' the anchor and chain as it is retrieved. This will keep the boat and anchor locker cleaner.
- i. **The chain will pile up in the anchor locker so you will need to open the hatch behind the windlass to get access. Then use the boathook to push the chain off to the sides – this needs to be done at about 75' increments. Just keep an eye on the pile and push it over if it gets too high, the pile should not get above the floor inside the locker.**
- j. Secure the anchor by re-tying the line to the pulpit.
- k. Return the hose and nozzle to their cozy home.
- l. Switch the windlass breaker "off" to prevent draining the battery, then turn off the seawater pump and anchor light on the main panel. Turn off the remote and stow.

Stern Ties: There is a 600' spool of stern-tie line on a hose reel stored in the cockpit lazarette. When feeding out line it is best to place the spool on the swim step. Then feed a loop of the line through one of the stern chocks to cleat it (do not tie to anything on the swim step). Just a reminder, if you take the line to shore and back to the boat it is illegal to go around a tree. The reason is the line will gird the tree when retrieving the line. You can tie to a tree with a bowline.

When retrieving the line, it is important to coil the line smoothly on the reel, or it won't all fit.



Batteries & Charging

Salish Dawn has 4 battery banks onboard:

- **House Bank and Stern Thruster** – 550 amp/hr 24 V, located in the Generator room.
- **Engine Start Bank** – 220 amp/hr 24 V, located in the engine room, port side aft.
- **Generator Start Bank** – 100 amp/hr 12 V, located in the Generator room.
- **Bow Thruster Bank** – 220 amp/hr 24 V, located in the V-berth under the sole.

We have her wired for maximum convenience. The battery banks are separated from each other by combiners so it should be impossible to drain the start battery. The batteries onboard are charged in several different ways:

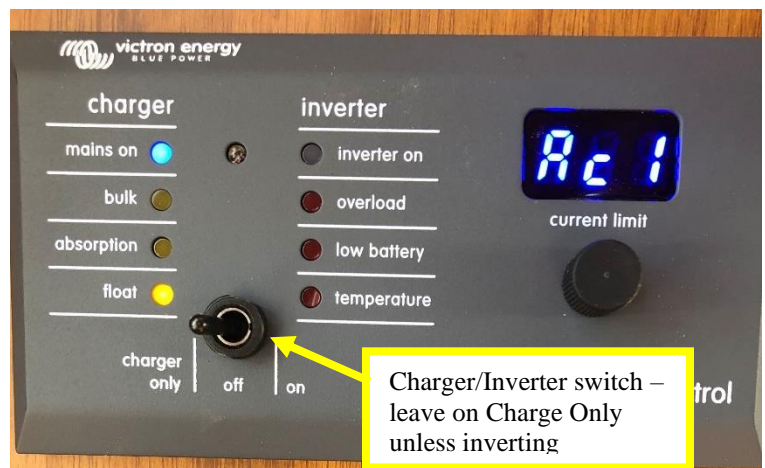
- **Solar Panel** – We have a 400-watt panel mounted on the stern rail of the upper deck. This system is basically automatic and greatly reduces the need to run the generator.
- **Shore Power** – This will provide power to the Victron charger, which is discussed below.
- **Generator** – Basically provides shore power while off the dock (more info in the Electrical section).
- **Main Engine** – The alternator on the main engine is large and does a great job of charging.



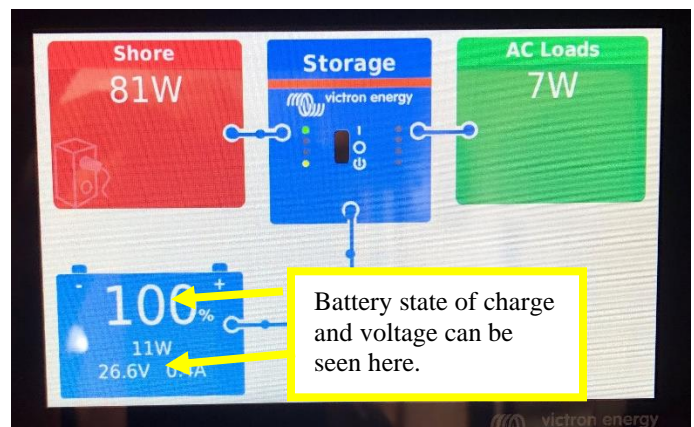
Battery Charger – The Victron inverter also acts as the ship's battery charger. There are two controls for the charger/inverter. The easiest to use is the inverter control on the fwd side of main electrical cabinet (picture to right). The switch has three positions:

- Charge Only
- Off
- On (Invert)

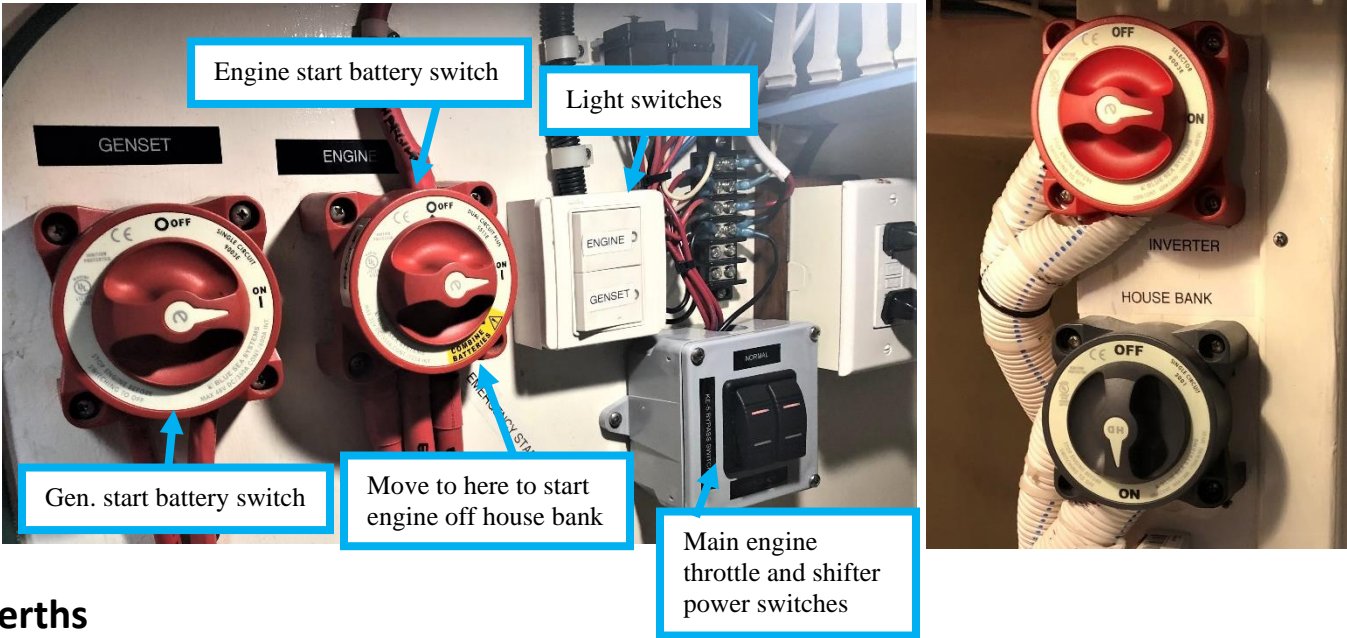
This switch should be left in the Charge Only position unless the inverter is needed, mostly so it is not left off when shore power is connected or the generator is running.



The screen in the upper right corner of the main electrical panel displays the status of the batteries and shows what the system is doing. This screen goes to sleep after a bit, just touch the screen to wake it up. The system is a 24 VDC system so fully charged is 26.6 volts (as shown). If the voltage drops to 24.3 it is time to start the generator and charge the system for several hours. Please note the voltage is more important than the percentage (state of charger reading), which is intended to give a rough idea of usage. This percentage should not go below 60%, 50% is the useful limit.



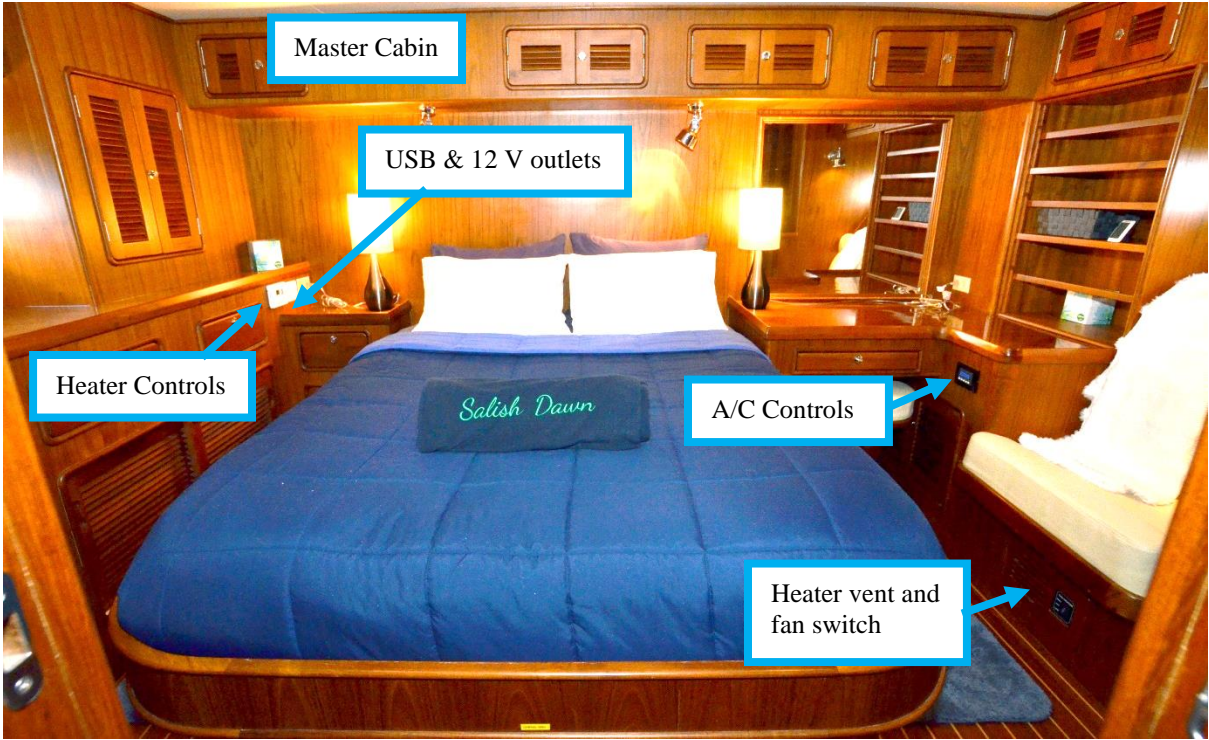
It is unlikely you will need to use them, but just in case, the battery switches for all but the bow thruster batteries are in the Generator room, starboard side. There is also a position to allow starting the engine using the house bank (see pictures below).



Berths

Salish Dawn has two cabins: a mid-ship master cabin and a V-berth. Both the salon settee and pilothouse settee can be used as single bunks. The usefulness of these berths is improved by removing the back cushions.

Below is a view of the master cabin, please note there are opening ports on each side of the cabin for good cross-ventilation. **If you do open these ports, be sure to close them before getting underway.**



The V-berth has a pullman style double berth, it is queen size at the head and narrower at the feet.



Showers

CAUTION: THE WATER CAN BE AT SCALDING TEMPERATURES! Both showers drain into a sump which is automatically pumped overboard. Showers can consume large amounts of water, so best to make them short.

The shower door in the master head slide back and forth in rough water if not retained. Therefore, please keep the bungee cord attached when not showering (pictured to right).

There is also a hand shower fixture back at the swim platform, starboard side. This is useful for washing off shoes after returning from the beach.



Dinghy and Outboard

Salish Dawn is equipped with a 12' Apex dinghy with a 30 hp Tohatsu engine. The dinghy is roomy (easily holds 4 adults) and has a center console. There is a chart plotter with depth sounder at the console. **The outboard has a four-stroke engine, so do not add oil – it uses straight gasoline.** Also, the shifter must be in the neutral position to start the outboard.

We would very much appreciate your special care when beaching the dinghy. Beaches in the San Juans are seldom gentle, sandy beaches; often they are rocky and covered by barnacles equipped with sharp rubber cutters. So, any extra care will be appreciated. **When you return from shore please clean your shoes, the swim step shower can be used for this purpose.**



The dinghy and kayaks are raised and lowered using the davit/crane on the upper deck. This unit is hydraulic with the breaker in the bottom of the Upper Electrical cabinet. **Special notes on the operating the davit:** It is extended all the way and there is no control to shorten the arm. The way to effectively shorten it is to raise it. The up and down buttons control the lift line. The left and right controls instead raise and lower the arm, respectively. Left and right movement is manually done by swinging the arm, this can take some muscle so best to have a second person help control the dinghy swing.



SUPER IMPORTANT – KEEP DOWNWARD TENSION ON THE LIFT LINE AT ALL TIMES WHEN PRESSING THE DOWN BUTTON. IF THIS IS NOT DONE THE LINE CAN JUMP OFF THE SHEEVES AND GET JAMMED.
Lowering and Raising the Dinghy:

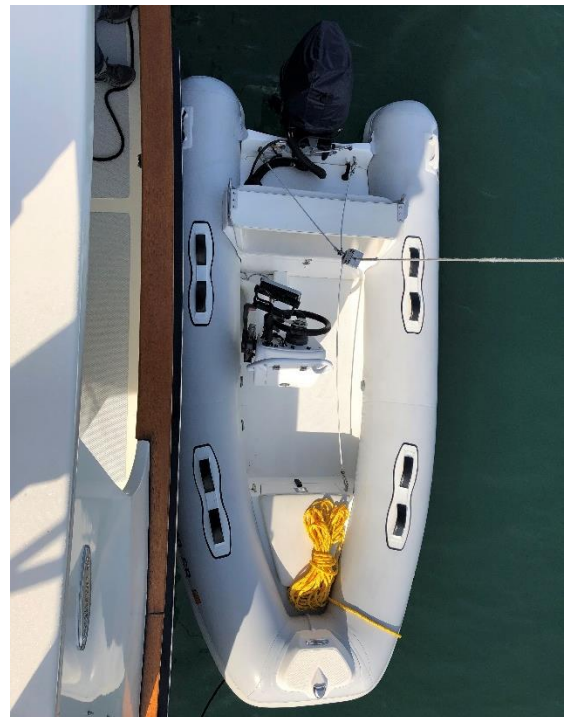
1. Lower chain on stbd side of upper deck.
2. Untie line keeping davit arm from swinging.
3. Free end of lift line from line (down on controller).
4. Take cover off dinghy and remove strap-down lines.
5. Be sure the transom drain plug is in place as it is frequently removed to keep the boat dry.
6. Be sure the lift bridle is hooked up. The front leg of the lift bridle goes to the eye on the port side in front.
7. Raise the arm (left on controller) and swing it so the hook is directly over the bridle ring, lower hook and attach to ring (see picture to right).



8. Use the Up button just enough to raise the dinghy 6 inches or so.
9. Use engine tilt control to lower engine all the way (controls on both the shift handle and stbd side of motor housing).
10. Raise dinghy until hook is almost all the way to the arm.
11. Take dinghy bow and stern lines in hand then swing dinghy over the side of the boat. This is the part that can take some muscle. Be sure the arm does not go all the way to the stern pulpit.

12. You will likely need to lower the arm (Right on the controller) to get it away from the side of the boat.
13. Lower dinghy while using lines to keep it from swinging into the boat. Please have a crew member go below to control the dinghy as it gets close to the water.
14. Once the dinghy is in the water lower the hook about a foot more so the dinghy can be pulled toward Salish Dawn's bow, this will allow entry to the dinghy from the side gate.
15. Unhook the crane and move the dinghy to the stern and secure it.
16. Raise the hook and secure to railing to keep it from swinging.

This process can basically be reversed to raise the dinghy.
Note it is important to tilt the engine up a bit before lowering it all the way or it will hit the deck. Also, note you will need the dinghy's stern toward Salish Dawn's bow when preparing to raise it.



Docking

Salish Dawn handles well for a large craft; the result of having a large rudder and cut-away keel at the bow. Her deep keel will slow slippage in a side-wind, but it will not stop it. So, in strong winds be sure to test the thrusters to see if they can control the boat or not. Obviously, this is best done before you get to the dock.

There are some other considerations worth mentioning: **Salish Dawn is a widebody design - meaning there is no walkway on the port side. Therefore, it is best to dock starboard side to the dock. Another factor in selecting a starboard docking is the fairly pronounced prop-walk to starboard.** She is a heavy boat (58,000 lb. wet) so she will drift a fair distance. **One last point, the stabilizer fins can flop to one side or the other and become unwanted rudders. To prevent this be sure the stabilizers are in Park (see the Stabilizer Section under Engine) before starting to dock backing up.**

Fenders are stored in several locations:

- Deck brackets on either side of bow
- Locker under starboard side of the pilothouse windows
- In both swim-step lazarettes

Dock lines are stored in the two lockers mentioned above.

Visibility can be an issue, especially when backing into a slip. There is a rear-view camera which displays on the pilot house overhead. This camera is aimed at the starboard quarter to help with docking. But it is best to have a trusted crew member on the side/stern when docking to give you feedback on distances. To help with communications we have provided the headsets discussed below.

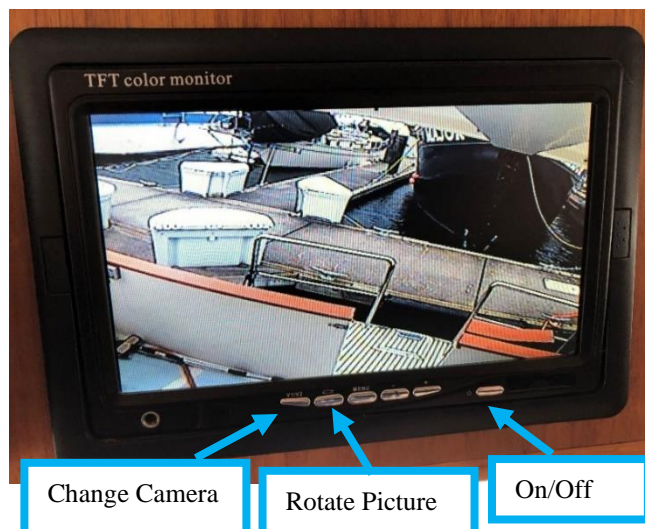
Eartec Headsets

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 under the nav table in the pilot house. 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. Please be sure to put the loop of string over your head when using these units, they can slide off your head easily and this string is intended to keep them from going for a swim. When done using these take the batteries out of them. Turning them off does not seem to stop the batteries from draining. There is a battery charger that will hold all four batteries in the same pouch. One last note, putting the mic arm straight up mutes the unit.



Closed Circuit TV

This system provides a view off the back of the boat and of the engine room. It is powered by the CCTV breaker, but the 24 to 12 V breaker must be on first. The right most button is the ON/OFF. The left most button cycles through the cameras. The second one from the left rotates the image 90 degrees. The other three buttons can be used to adjust the image, brightness, contrast, etc. To be honest, we do not use this system much because we do most of our docking from the flybridge.



Electrical Panels

We have marked all the breakers on the panels with colored dots – their general meanings are listed below:

Green: ON for the duration of your trip (normally)

Yellow: ON as needed, activity based

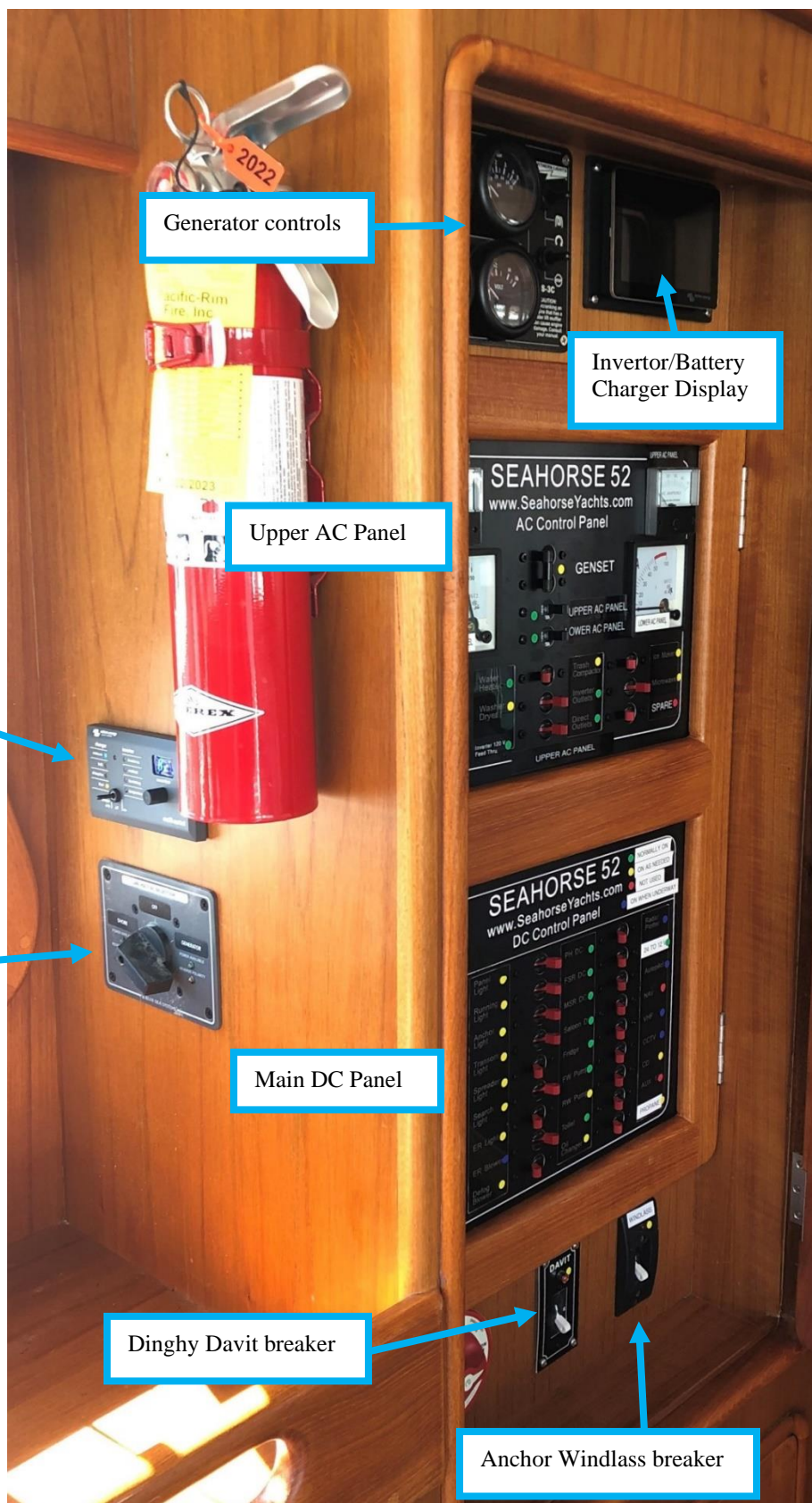
Blue: ON when underway

Red: Not used

Upper Electrical Cabinet

The electrical panels on Salish Dawn are straight forward and clearly marked. The picture to the right provides an overview of the upper panels. The items shown are covered in more detail in the appropriate sections:

The shore power/generator selector switch is located on the left side of the panel (under fire extinguisher)



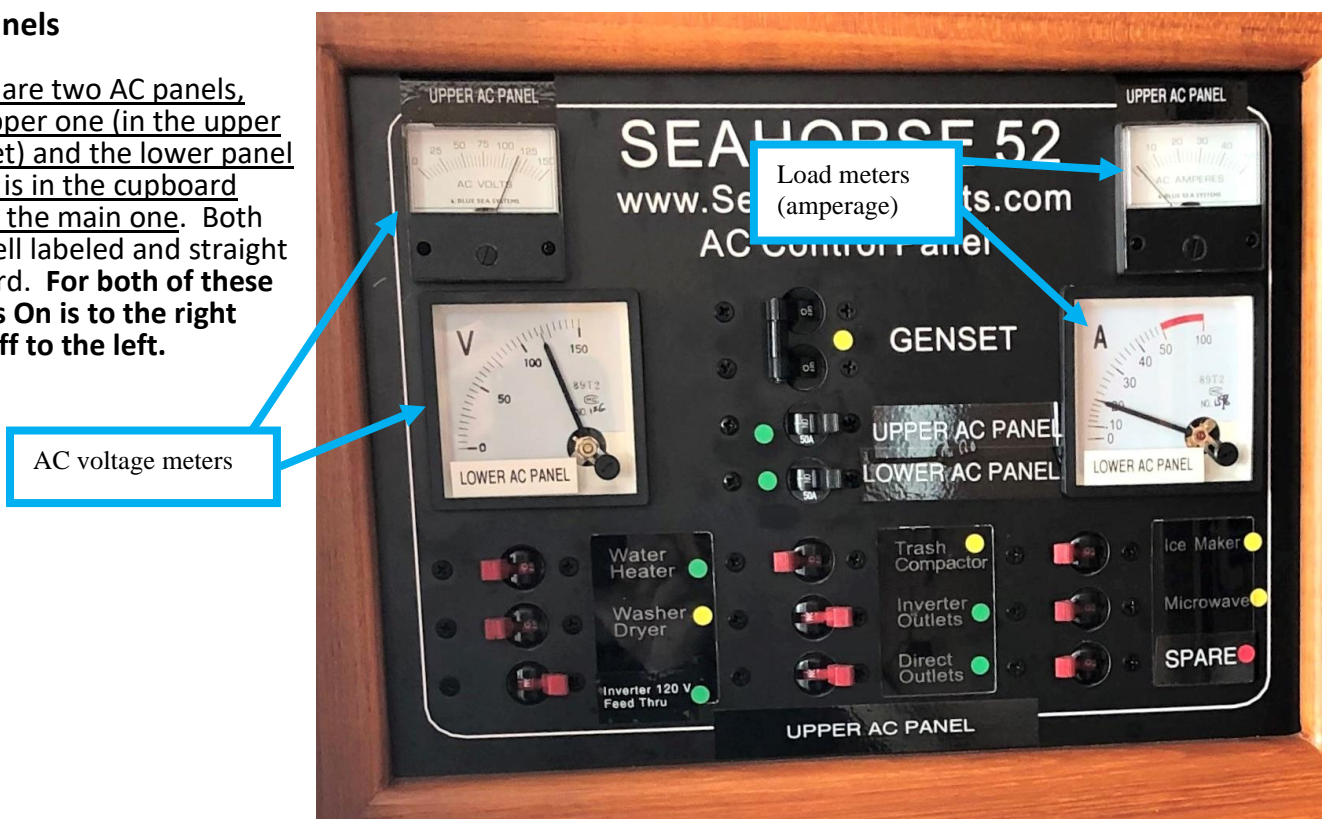
Lower Electrical Cabinet

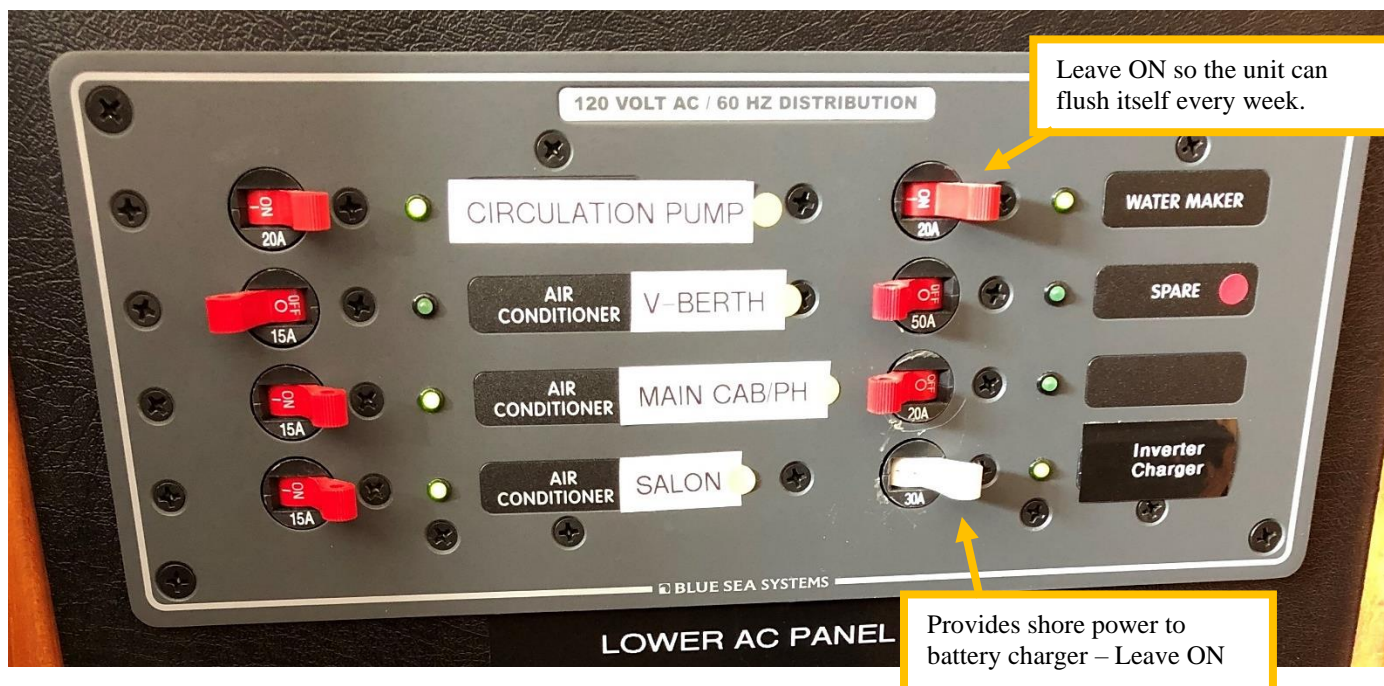
This cabinet is located below the upper cabinet in the pilot house and has the switch for the furnace, another AC panel (the Lower Panel) and the controls for the water maker.



AC Panels

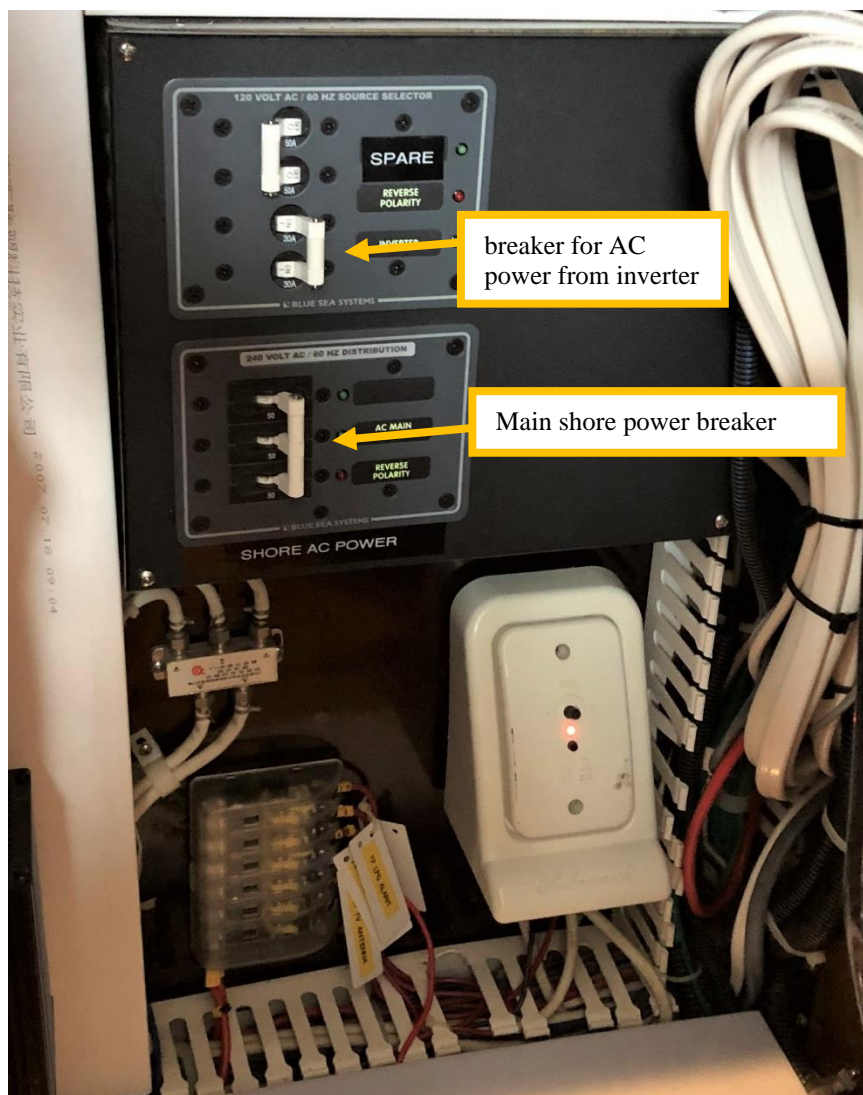
There are two AC panels, the upper one (in the upper cabinet) and the lower panel which is in the cupboard below the main one. Both are well labeled and straight forward. For both of these panels On is to the right and Off to the left.





Behind Lower AC Panel

The main shore power breaker is the large three pole switch located behind the lower AC Panel. Also located in this compartment is the breaker for power coming from the inverter to the AC panels.



Using AC Power

AC power (120 VAC) can be sourced three different ways: shore power, generator, or inverter. Each of these options are discussed below. There are outlets in each cabin, each head, the pilothouse, on the flybridge and in the galley.

Shore Power – When hooking up shore power be sure the selector switch shown to the right is in the off position. This switch is on the forward side of the upper electrical cabinet. Then hook up the shore power cord (stored in the cockpit lazarette) to the receptacle just aft of the starboard pilot house door. Once connected, turn the selector switch to Shore.

The shore power connection is 50-amp, but a 30-amp connection can be used, but it will limit the items that can be used. The converter to plug into 30-amp power is in the fender locker, starboard side in front of the pilot house. If you have two 30-amp plugs available there is a splitter which can be used to provide full 50-amp power in the same locker.



Generator

Salish Dawn has a Northern Lights 9-kw generator capable of powering the vessel like a 50-amp shore power cord. The sequence for starting and stopping the generator are listed below:

Starting:

- Locate the generator control panel (upper left of the main electrical cabinet) and hold down the glow-plug switch for 10-15 seconds.
- While continuing to hold the glow-plug switch down push up on the Start/Stop switch until you hear the generator running. Once the engine starts release the Start switch but continue to hold the glow-plug switch down for 2-3 seconds to allow the oil pressure to build.
- Allow it to warm up for about 2 minutes. Please note you will not be able to see any cooling water exiting with the exhaust as there is an underwater exit for it.
- **Turn off the Inverter/Battery Charger control. If this is left on during startup the solar panel will take over charging and the generator will not help charge the batteries.**
- Turn the main selector switch (shown above) to Generator.
- Turn on the breaker labeled GENSET in the middle of the Upper AC panel. You should now have AC power to the vessel, verify this by looking for voltage on the AC meters.
- Now turn the Inverter/Battery Charger control to Charge Only.



Stopping:

- Turn off the GENSET breaker.
- Turn the main selector switch to Off.
- Push down on the Start/Stop switch.

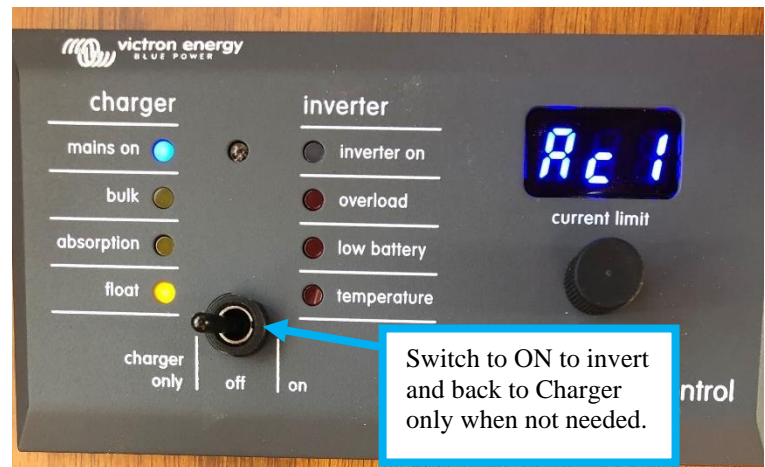
One last item: if the generator is running and the breakers are on, but you are still not getting power, check the breaker located on the aft wall of the Generator Room (see picture to right).



Inverter

The inverter is a Victron 3000-watt unit. Not big enough to power everything, but certainly large enough to make coffee or warm something in the microwave without having to start the generator. This same unit also acts as the battery charger. The controller is located on the fwd side of the Upper Electrical cabinet and is shown to the right. The screen on the upper right of the Upper Electrical cabinet shows the status of the system and loads. This screen goes to sleep, just touch to wake it up.

Please remember the inverter can draw down the batteries quickly, so be judicious when using it.



Please note only some of the outlets onboard are powered by the inverter, they are labeled 'Inverter'.

Power Consumption – Here is a list of the AC powered items and their approximate power usage:

- AC Units – 10 amps EACH
- Microwave – 15 amps
- Icemaker – 5 amps
- Water Heater – 12 amps
- Battery Charger – up to 20 amps when batteries are low. When batteries are charged, minimal.

If on a 30-amp connection it is necessary to pick and choose what to run when. Even on a 50-amp connection there are limits, especially when running the air conditioning. There are amp meters on the top AC panel showing current usage, remember to add them together to get the total draw.

DC Panel

The DC system, including the battery banks are 24-volt. However, there are items requiring 12 volts, for example, the VHF radios, stereo, etc. There is a transformer in the system to produce the needed 12 VDC current for these items. There is a 24-volt breaker (labeled 24 to 12 VDC) which feeds power to this transformer, and thereby, the bottom 5 breakers of the righthand row which all feed 12 VDC items. When you are onboard and plan to cook, listen to music, watch TV, etc. this breaker will need to be on. It is okay to just leave this breaker on during your trip.

The DC panel is also straight forward, but there are some abbreviations that might be useful:

• ER = Engine Room	• FW = Fresh Water
• PH DC = Pilot House Lights	• RW = Raw or Sea Water
• FRS DC = Forward Stateroom Lights	• CCTV = Closed Circuit TV
• MSR DC = Master Stateroom Lights	• CD = Stereo

Here are a few other explanations which might be helpful:

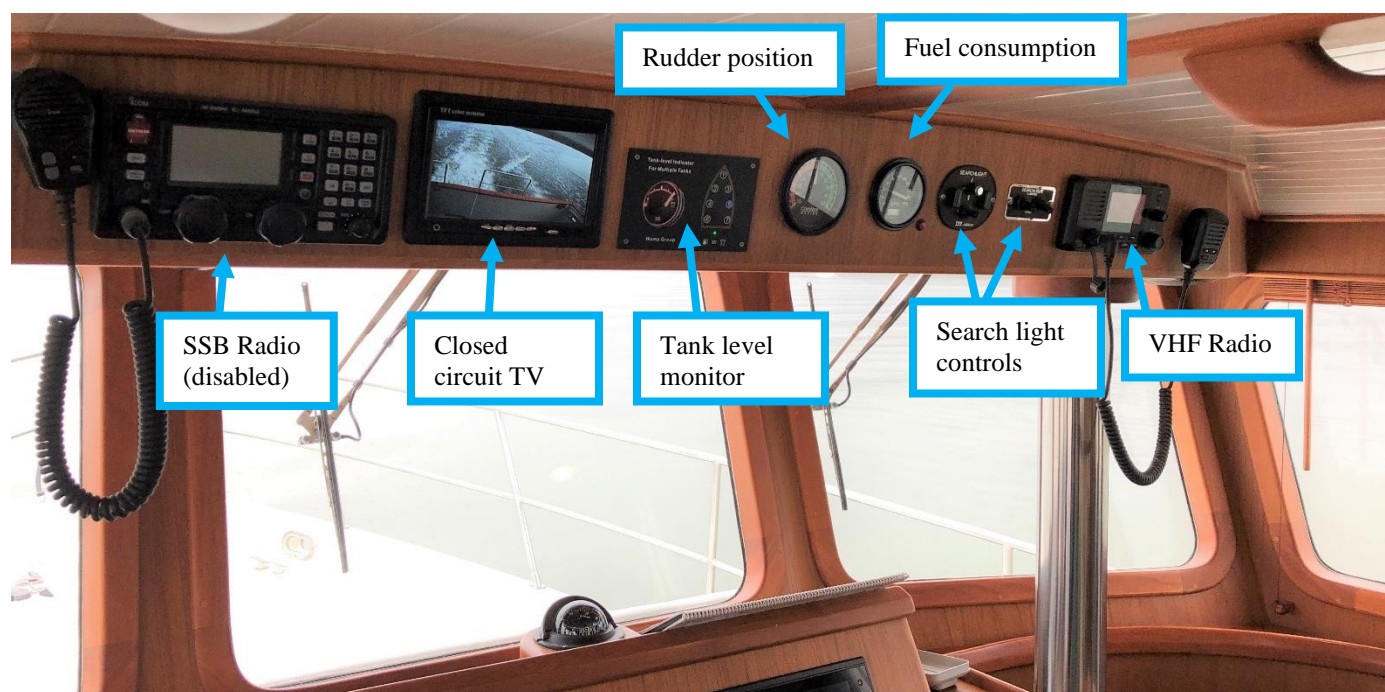
- Spreader Light = deck lights on upper deck
- Defog Blower = the two fans above the pilot house windows
- 12 VDC items requiring the 24 to 12 VDC breaker:
 - VHF radios
 - Tank gauge system
 - FlowScan (fuel consumption meter)
 - Propane solenoid
 - Stereo and TV antenna system
 - CCTV – rear view and engine room cameras
 - 12 VDC plugs and USB plugs on flybridge, in pilot house, V-berth and master cabin.



These five breakers are 12 V and need the 24 to 12 V breaker on to get power.

Electronics/Instruments

Here are pictures showing the pilot house helm:



Overview of fly bridge helm:



Chart Plotters/MFD

We have two color chart plotters installed at each helm. They are integrated with the radar and AIS. The "Radar/Plotter" breaker must be on at the electrical panel to power the units. Then press the power button (lower right corner) and then press "I Accept" to clear the notice. The manuals for the chart plotters and radar are below the chart table.

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 – Some of the functions below require the selection of the Layers tab, the one with a curled page, press Menu to bring up the options shown. Also, once Layers has been selected, be sure the Radar option is turned off, the instructions below require this.



- **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 the tab with the curled page, Settings, Orientation.
- **Display Brightness:** Power button (short press), Brightness.

- **Course over Ground (COG) Vector/Line:** Menu (right of Home), Choose the tab with the curled page, Layers, Heading Line – set source to GPS.
- **AIS Overlay & Targets:** Menu (right of Home), Choose the tab with the curled page, Layers, Other Vessels, AIS.

Depth Sounder

In deeper water (over 5-600 ft.), 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 readings 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 24" 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 depth 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 school of fish pass 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 midday. 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 we recommend running the radar on a clear day to develop a familiarity with what different situations look like on the screen.

To start the radar press Menu then Layers, then Radar. 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 put the radar back into standby mode. Or you can clear either icon by pressing HOME and then pressing the CHART icon.



A.I.S.

Salish Dawn 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 additional information (such as name, size, speed, etc.) about the vessel. The system also transmits this same type of information about Salish Dawn to other vessels with A.I.S.

Wind Instruments

Wind speed and direction can be displayed at both helms and can be displayed on the plotters as well. We normally have the depth and boat speed shown on both plotters, but pressing the up or down button on this display will scroll between the pages shown below.



VHF Radios

There are Garman VHF radios at each helm. They are both powered by the VHF breaker, remember the 24 to 12 V breaker must be on first. There is also a handheld VHF which we normally keep on the nav table.

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 a working channel (68, 69, 72, 74 or 78). We listen to weather channels 1-10 (whichever gives the best reception, normally 4 in the San Juan Islands) 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).**



Listed below are instructions on how to use some common features:

- **Turning On and Off the radios** – the pilot house radio is set to go on when the breaker is turned on. The flybridge radio must be turned on manually – press the red 16/9 button for 2 seconds to turn it on. On either radio holding the red 16/9 button for 2 seconds will also turn them off.
- **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 Volume and Squelch**

- Pilot House Radio – Press the Vol/Sq knob to toggle from setting squelch to volume. Turn the same knob to adjust either.
- Flybridge Radio - There are separate volume and squelch knobs on this radio.

- **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.

Misc.: Salish Dawn also has an SSB radio, but it has been disabled. There are two handheld instruments onboard, a depth sounder and a range finder, which are stored in the drawers forward of the electrical panels.

Autopilot and Rudder Position

Salish Dawn has a ComNav autopilot with controls at both helms. Listed below are the operating instructions for the system. Also, there is an indication of the rudder position on the overhead panel in the pilothouse, see picture to right. Note the Autopilot needs to be on for this indicator to function.



- **Turning On:** To get this system working turn on the breaker (DC Panel) and press the Pilot button on the controller for 2 seconds. This will activate the autopilot and the rudder position indicator, then hit the STB/Off button if you do not actually want the system steering at that moment. There are two modes of operation (Pilot and Nav), but only Pilot mode is currently functional.
- **Switching Controllers:** If the screen on the controller you want to use is blinking it is not the active controller, to make it active press both the red and green buttons at the same time until the controller beeps.

The next page lists some instructions from the user manual.

There is one other mode of operation not covered in the list on the next page – Power Steering mode. This mode allows you to swing the rudder using the remote rather than the wheel.

- **Entering Power Steering:** With the system in Standby mode pressing either the Red or Green buttons will not only start this mode, but will also begin moving the rudder in that direction. Any additional presses of these buttons will move the rudder in their respective directions. Pressing and holding one of these buttons will cause the rudder to swing rapidly. The rudder position will display for a second and then disappear.
- **Viewing Rudder Position on Flybridge:** While in power steering mode, pressing the Set button will change the display so it shows the rudder angle (in degrees) – functionality stays the same. This can be very handy if docking from the flybridge. It also allows use the wheel to steer and see the rudder position.
- **Leaving Power Steering:** Pressing SBY/OFF will return the system to standby mode or press Pilot to return to auto-steering.



Operation Commands

COMMAND	ACTION	RESULT
Steer by compass	1440/1460 is off or in STANDBY MODE. Point bow and press <u>Pilot Key</u> .	Boat will settle on course. Display will show nnnP
Turn OFF	Press and hold <u>SBY/OFF Key</u> for two seconds.	Immediately upon pressing the <u>SBY/OFF Key</u> you will have manual steering control. The Autopilot will turn off in two seconds.
Course Change: small, to Port	1440/1460 in PILOT MODE. Press <u>Red Key</u> Once.	One degree course change to Port.
Course Change: small, to Starboard	1440/1460 in PILOT MODE. Press <u>Green Key</u> once.	One degree course change to Starboard.
Course Change: large, to Port	1440/1460 in PILOT MODE. Press and hold <u>Red Key</u> . Display will show: nnnd Displayed course will decrease. When it reaches your desired heading release the key, & press the <u>Pilot Key</u> . Actual vessel heading will likely lag behind displayed course.	Boat will settle on new heading. Display will show: nnnP
Course change: large, to Starboard.	1440/1460 in PILOT MODE. Press and hold <u>Green Key</u> . Display will show: nnnd Displayed course will increase. When it reaches your desired heading release the key, & press the <u>Pilot Key</u> . Actual vessel heading will likely lag behind displayed course.	Boat will settle on new heading. Display will show: nnnP
Dodge: left	In PILOT or NAV MODE. Press and hold <u>Red Key</u> . Display will show: nnnd Release <u>Red Key</u> to return to PILOT or NAV MODE.	Vessel turns left. When key is released, the PILOT/NAV MODE display returns and vessel returns to original course.
Dodge: right	In PILOT or NAV MODE. Press and hold <u>Green Key</u> . Display will show: nnnd Release <u>Red Key</u> to return to PILOT or NAV MODE.	Vessel turns right. When key released, the PILOT/NAV MODE display returns and vessel returns to original course.
Rudder response: change	In PILOT MODE. Press <u>Set Key</u> once. Display will show either: FAST or SLOW Press <u>Red</u> or <u>Green Key</u> .	Autopilot will switch to the other set of rudder response adjustments.
Steer by GPS, plotter, etc.	Select Waypoint. Press <u>Nav Key</u> .	Display will show HHHn Pilot will steer by compass and NMEA data received. If no NMEA data received, pilot will remain in NAV MODE, but will steer by compass.
Dim or brighten lights on Control Head.	In STANDBY MODE: Press <u>Set Key</u> once. Press <u>Green Key</u> to increase or <u>Red Key</u> to decrease brightness.	Control Head's backlight will move through eight levels of brightness.

Entertainment

Stereo w/ Sirius

We have installed a good quality Fusion stereo/CD player on the pilot house overhead panel with speakers in the pilot house, salon and on the flybridge. Please be aware of other boats when you are in harbor and adjust the Fader so that the flybridge speakers are turned off when not in use. The stereo can be controlled from the chart plotters as it is tied into the NEMA 2000 system. To get to the Fusion controls on one of the plotters press Home, then Media – the picture below shows what the screen will look like:



We also have a Sirius subscription; this service is integrated into the stereo. Here are some hints on using either Sirius or a device of your own to provide content.

- The stereo's power comes from the CD breaker on the DC panel. And the 24 to 12 V breaker will also need to be on.
- SiriusXM is an option on the same screen as AM, FM, Bluetooth, etc.
- To play from your own device select the Bluetooth option and sync with your device.

Games – We do have some games onboard, cribbage, poker chips, cards, and Travel Scrabble are available. These are stored in the drawer or cupboard aft of the aft seat on the starboard side of the salon.

TV/DVD Player

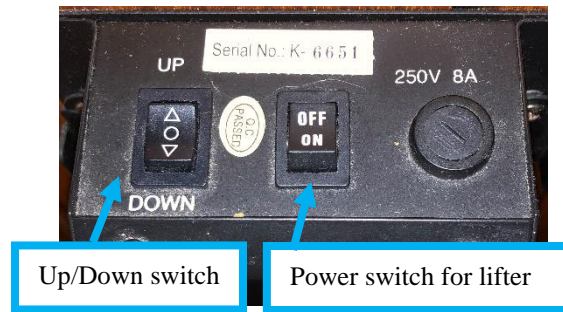
Salish Dawn has TV built into the cabinet on the starboard side of the salon. Here are pictures with it hidden and raised.



There is a TV antenna on the ship's mast, so where available, you can watch broadcast TV. Please note the antenna requires 12 V power so the 24 to 12 V breaker must be on. The TV can connect via wifi, Bluetooth, HDMI and others. So, if you have movies on a device, such as a laptop, they should be easy to access. We do have an HDMI cable onboard.

There is also a DVD player in the drawer below the TV along with the remote. This needs to be plugged in the 110 AC power using the extension cord at the base of the TV and the HDMI cable must connect the player and the TV. Use the Source button on the TV controller to select the HDMI port you plugged into.

There is a remote control for the TV in the drawer in front of the TV. The power must be on for the lifter remote to work, the switch is in with the TV, lift the lid and look on the left side (see picture below). Also, this whole system requires 110 VAC so the inverter, generator or shore power must be available. The TV, being LCD, has a relatively low power draw so using the inverter is okay as long as you keep an eye on the battery level.



Up/Down switch

Power switch for lifter

Starlink/Internet

We have installed a Starlink system on Salish Dawn. When running, this system provides high speed Internet throughout the boat. The antenna is mounted on the mast and the breaker to turn it on is on the upper AC panel. Since this system uses AC power the inverter must be on unless the boat is on shore power or the generator is running. The system is accessed via Wi-Fi, the name of the network is Salish Dawn and the password is on a label next to the breaker on the AC panel.

This system draws between 50 and 75 watts, so it should not be left on all the time, especially at night. If Wi-Fi calling is activated on your phones and the system is running, you should have full phone service. Be aware, the service is generally reliable, but 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.

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

Engine and Operating Under Power

Operation – We have found the **300 hp John Deere engine** to be very reliable. **Cruising should be done at engine RPMs of 1400 to 1800.** Because the engine is turbocharged it is not good to run it below 1600 for long periods of time. If you end up running at lower RPMs for a significant time, then near the end of your day take her up over 2000 for 20 minutes to burn off the carbon. The following table gives approximate cruising information and there is a consumption meter on the overhead panel (**The ranges listed assume a 25% reserve of the 845 gal. total**):

RPM	Boat Speed	Fuel Consumption (approximate)	Total Range using all tanks
1000	5.6 Knots	2.0 gal/hr	1775 Naut. Mi.
1200	6.5 knots	2.8 gal/hr	1470 Naut. Mi.
1400	7.3 Knots	3.5 gal/hr	1320 Naut. Mi.
1600	7.8 Knots	4.2 gal/hr	1225 Naut. Mi.
1800	8.2 Knots	5.0 gal/hr	1115 Naut. Mi.
2000	8.8 Knots	6.0 gal/hr	960 Naut. Mi.
2200	9.3 knots	7.0 gal/hr	890 Naut. Mi.



Also, there are blowers for the engine compartment which are vented out on the swim step. The blowers are manually activated and using them when running during the summer is a good idea. They are turned on using the ER Blower breaker, lower left on the DC panel.



Starting:

- Be sure the vessel is ready to go, i.e. close ports downstairs, clear counters in galley, etc.
- Visually check the engine, look for fluid or oil under the engine or eelgrass in the sea chest. 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).
- Make sure the gearshift is in neutral.
- Turn on the key switch, wait 3-4 seconds then press the start button.
- You will not be able to confirm cooling water flow as it vents under the waterline.
- There is no need to warm up the engine, getting out of the harbor will do this.

Note: if you need to run the engine at higher RPMs while in neutral, press the Select button on the throttle controller (under flap) as you shift into forward, the light next to the N should blink. This will allow the throttle to be advanced without going into gear. To return to normal shifting mode again press the Select button as you shift to neutral, the light next to the N should stop blinking.

Engine Overheat – The first alarm to signal an overheat situation will likely be the exhaust temp alarm, this alarm reports on the wiper panel to the left of the helm (see picture above). If it is safe to do so, please shut down the engine and look for the cause. It is worth checking on the oil level, coolant level, fuel level and raw water strainer (sea chest). If you see something obvious and can fix it great, if not please call us or San Juan Yachting.

Running in Reverse – Prop walk is to starboard, noticeable but not pronounced. Best to get her moving and then go into neutral, unless you want the walk to starboard.

Salish Dawn has a large rudder, which is nice when maneuvering. But when operating in reverse this large rudder can overpower the steering system. **At speeds over 3 knots in reverse the steering system is not strong enough to turn the rudder**, so you will need to steer using the thrusters or go slower. Also, don't forget to Park the stabilizers.

On the wall to port of the helm is the horn/Wiper panel. These switches are self-explanatory. The tank gauge switch powers the tank monitor located on the overhead panel above the helm (see sections on fuel and water for more details). **Please do not use the Anchor Up/Down control, as**

this should be done from the bow so the anchor chain can be watched. The Fuel Pump is for transferring or polishing and is unlikely to be used. The wipers have a wash system (far right switch), if this tank runs dry it can be refilled using the water line in the propane locker (port side under pilot house windows).



Note – this fuel pump is not normally used. It transfers fuel between tanks and valves need to be changed.

Changing Helms

If you want to move up to the flybridge, or vice versa, you will need to put the engine in neutral. Then move to the other helm and lift the little door over the Select button. Pressing this button moves control of the engine to the new location.

It is also necessary to change which autopilot controller is active. After switching the shift control press both the red and green buttons on the autopilot controller at the new station. It should beep and stop blinking.



Stabilizers

Salish Dawn is equipped with Key Power hydraulic stabilizers. The control is to the port of the engine panel (picture to the right). To engage the system, press the Run button. To disengage press the Stop button. You can set the reactivity using the Sensitivity buttons. The control box is powered by the Radar/Plotter breaker and the computer has a breaker in the Generator room, fwd wall. Before entering an area of close quarters maneuvering be sure to press the Park button to lock the fins. Otherwise, they can flip to one side and act like an unwanted and uncontrolled rudder. Also, using the stabilizers will slow the vessel some as they create extra drag.

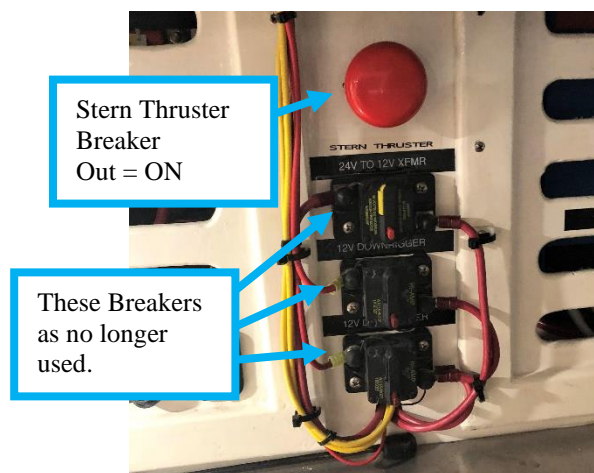


Engine Shutdown – First make sure the engine is at idle and the gearshift in neutral. Then simply turn off the key switch in the pilothouse. Don't forget to turn off breakers for plotters, autopilot, etc. and put covers on the flybridge instruments (if they have been used). Please note it is possible to turn the engine off using the Stop button on the flybridge engine panel and in an emergency please do so. But under normal circumstances please use the key in the pilothouse, mainly because it is very easy to forget to turn the key off after the engine is stopped. When the key is left on the electric fuel pump on the engine and other items continue to run. So, we have just gotten into the habit of stopping the engine downstairs.

Thrusters

Salish Dawn is equipped with both bow and stern thrusters. These are electric thrusters and can overheat if run too long. Usage should be limited to bursts of less than 10-15 seconds, not continuous. The controllers are on the shelf on the starboard side of the helm. To turn on the thrusters hold both On buttons down at the same time. Note the system will automatically shut down after 10 minutes of non-use.

The breakers are located in different locations, but they both look like red mushrooms, **pull out to turn them on**. The bow thruster's breaker is in the V-berth and the stern thruster's breaker is in the Generator room on the starboard side (see pictures). Note, both breakers need to be on for the controller to power up.



There is also a remote control for the thrusters which normally is stored in a bracket just port of the main helm. **For this remote to work its control box must have power (which is supplied by the Radar/Plotter breaker) before turning on the remote.** The remote is turned on by pressing both On buttons at the same time. The remote will blink when it is on.



Flybridge

We feel the flybridge on Salish Dawn is one of her better features. It has full enclosure allowing for comfortable use during most conditions. And the visibility is stunning, full 360 degrees. Most of the instruments are duplicated so operations are safe and easy. If needed, there are panels to fully enclose the flybridge – they are usually stored under the helm access on the port side. As with all enclosures, 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. In the summer the flybridge can become quite toasty – if this happens the middle front panel can be unzipped and help open with bungee cords (under see on port side of flybridge), clip to gromets on panel and to rings in

We also have panels to create a full enclosure around the aft 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 SJY know ahead of your boarding.

Tables and Chairs – Stored on the upper deck, near the stairs going to the flybridge, we have four folding chairs and a couple small folding tables. They are covered with canvas to protect them, please be sure to recover them when finished. Also, it is important to put the bungee cords back in place or they will slide around (or off the boat) in rough water.



Kayaks – There are two single sit-inside kayaks on racks on the upper deck. They are there for your enjoyment but require some care in getting them down to the water level. It is best to have two people involved in lowering them or carrying them. The paddles are in the cockpit lazarette. Please do not wear the inflatable PFDs when kayaking, instead wear one of the vest type PFDs stored under the pilot house settee.

Fuel Tanks and System

Salish Dawn has three fuel tanks holding a total of 845 gals. There are two wing tanks in the engine room, each holding 300 gals. Plus, there is a keel tank holding 245 gals. The engine, generator and furnace all run off the keel tank. The level in all three tanks can be monitored on the overhead panel in the pilot house. Position 1 is the keel tank, 2 and 3 are the port and starboard tanks in the engine room respectively. Plus, the wing tanks have sight glasses easily visible in the engine room.



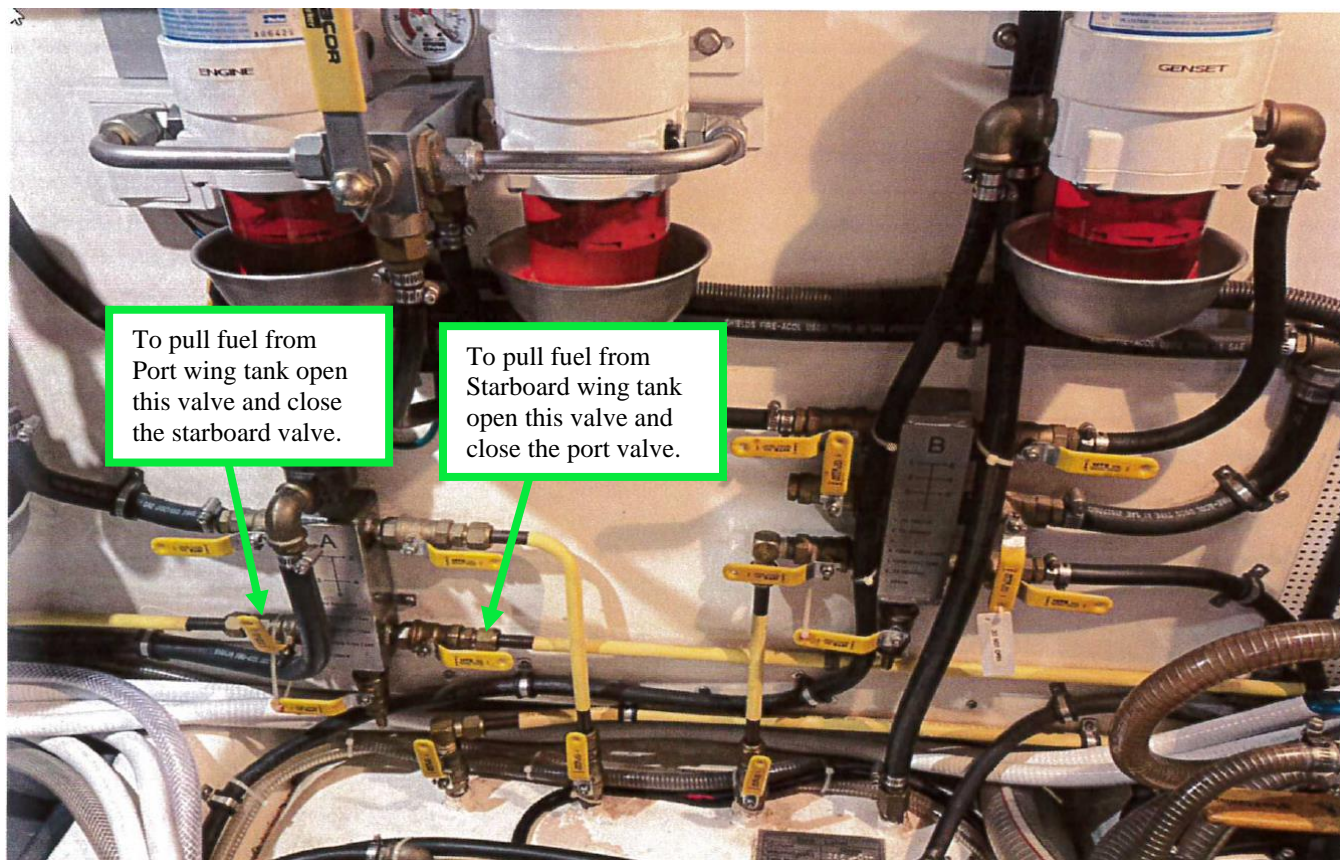
There are two deck fittings, one for each wing tank: one is on the port side about mid-ship under the first step going to the upper deck (see picture). The other is on the starboard side just aft of the pilot house door.

When filling the tanks be sure to monitor the tank levels using the sight glasses in the engine room – stop filling when the fuel gets to the top of what you can see. We realize this does not completely fill the tanks, but it does provide an easy mark for everyone to shoot for and have it consistent. This equates to just over 3/4s full on the tank gauge monitor.



Port fuel fill is under the lid to this step.

The fuel system has a lot of valves in the engine room, but most will not be used during a normal charter. The two that will be used regularly are shown below and switch which tank is being used to feed the keel tank (and thereby the engine). Switching water and fuel tanks is the main tool for maintaining an even list. It is not a good idea to open both valves at the same time, do so will just create more list.



To pull fuel from Port wing tank open this valve and close the starboard valve.

To pull fuel from Starboard wing tank open this valve and close the port valve.

Galley

For those of you who are interested in fine dining while on vacation, we have done our best to set up Salish Dawn with a well-equipped galley. We have place settings for eight onboard and a good selection 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.

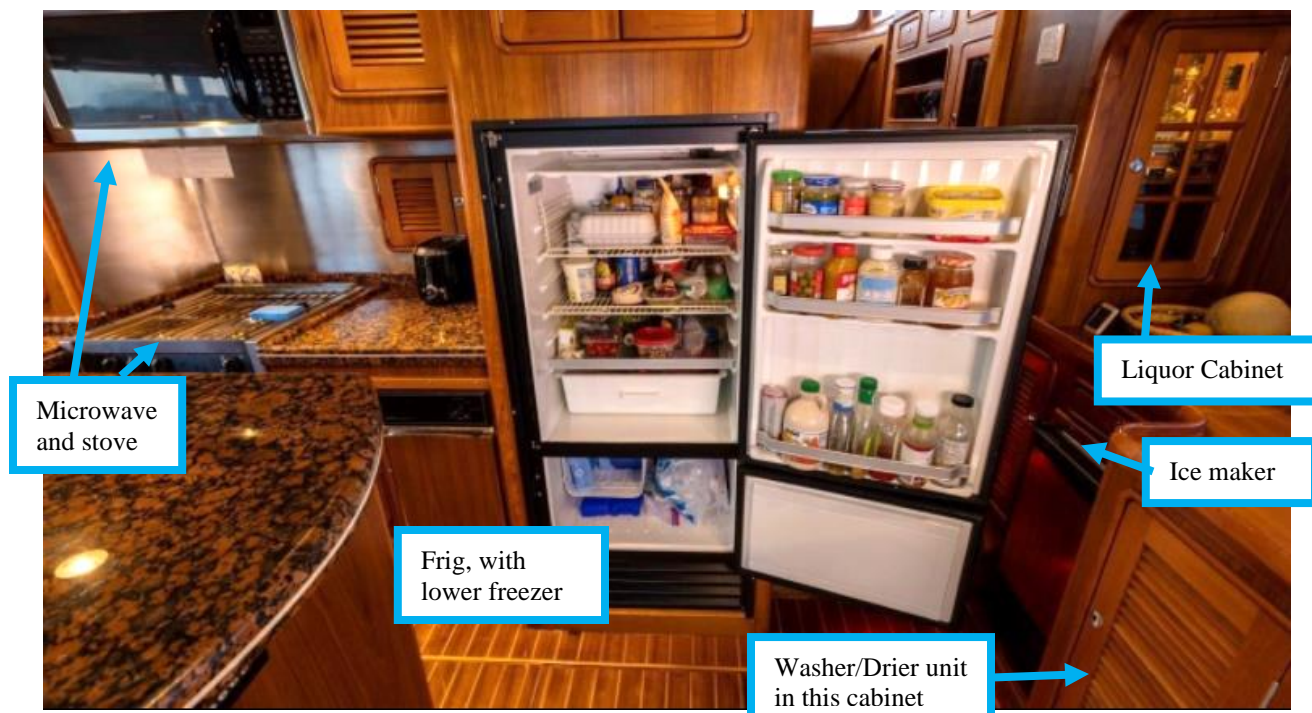
- Spices – Most common spices are there, i.e. salt, pepper, oregano, sage, thyme, garlic salt, dried chopped onions, chili powder, etc. The assortment is quite good (see picture to right).
- Condiments – Cooking oil, olive oil, red wine vinegar, Worcestershire sauce, A-1 sauce, Tabasco sauce.
- Supplies – Saran wrap, aluminum foil, baggies, containers, garbage bags.

All we ask is when you use the last of something that you replace it.

There is also an assortment of cleaning supplies should you need them, some under the sink.



Before we discuss each of the different appliances, we thought an overview might be handy – as they say, a picture is worth a thousand words.



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

- 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 finally the stove.
- The propane solenoid valve controller is in the galley left of the microwave. It is powered by the Propane breaker on main DC panel lower right. Press the on/off button on the controller and hold for a second (it does not respond to a quick tap). Remember the 24 to 12 V breaker must be on, it powers the Propane breaker.
- The burners and oven have a clicker lighting system activated by pressing in on the control knobs. Should this fail, butane lighters are provided. Once lit, continue to press the control knob in 2-3 seconds to heat up the safety shutoff thermocouple.
- When you are finished with the stove turn the solenoid off.



Please note that both propane valves (solenoid and manual) are located in the propane locker (port side locker under pilothouse windows), which is vented. 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 Salish Dawn has two tanks (one connected and a spare).

Refrigerator – The on/off switch is on the panel and the thermostat is in the upper compartment on the right side. **We usually keep the thermostat set to point at about 11 on the clock.** **Also, we normally leave the unit running 24 hrs a day without battery issues.** The box is broken into two sections: a large refrigeration section (upper) and a smaller freezer section (lower).

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 or have the generator running. Also, the AC Outlets switch on the left side of the 110V Panel will need to be on. If running on the inverter be very judicious as the microwave is a large draw on the batteries – best to use for warming rather than cooking.

Barbecue – The stainless-steel propane barbecue is mounted on the stern rail. The propane tank is mounted on the transom below the BBQ. Be sure the BBQ controller is off when opening the tank valve; having it on will cause the safety system in the tank to engage and severely limit the flow to the BBQ. **If this happens close the tank valve really tight and reopen slowly.** 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.** The clicker does work but is touchy, so a butane lighter might be needed – best to poke is through between first and second grates from the right.

Toaster and Coffee Maker – Be aware both can run batteries down if overused. Coffeemakers come in three flavors onboard – electric drip, Melitta drip and French press.

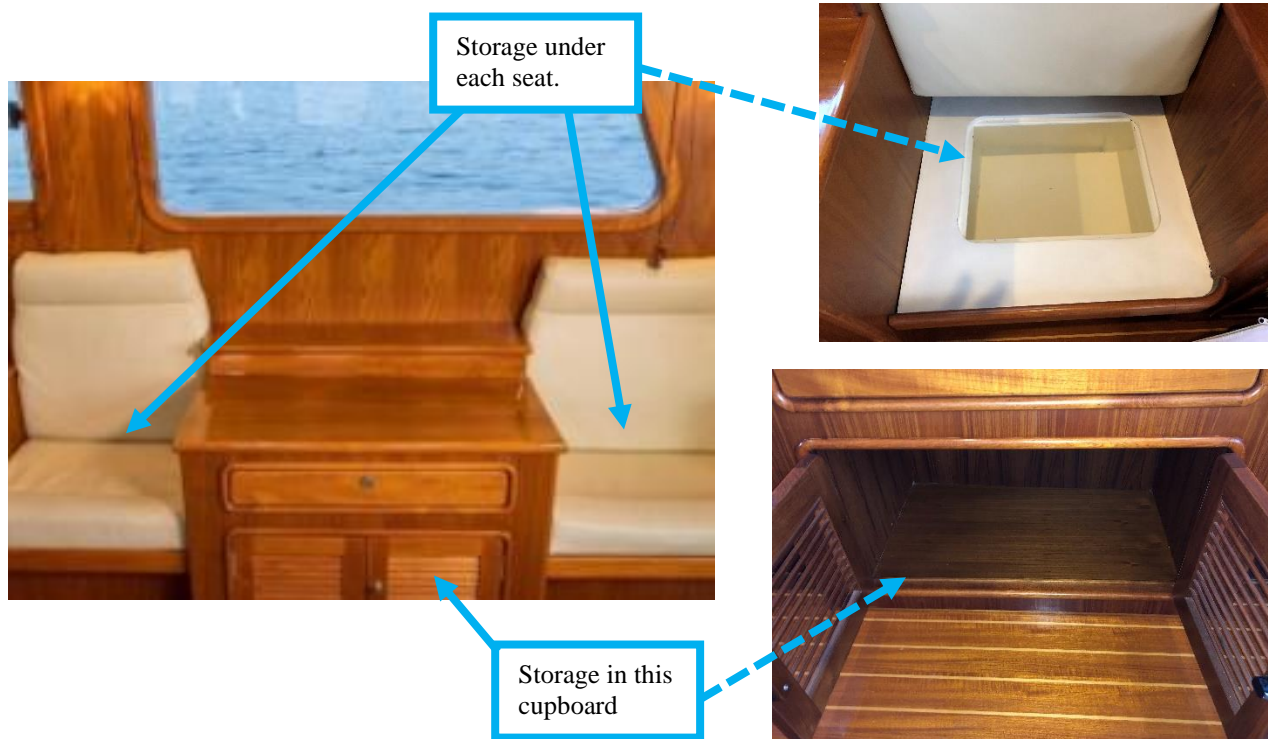
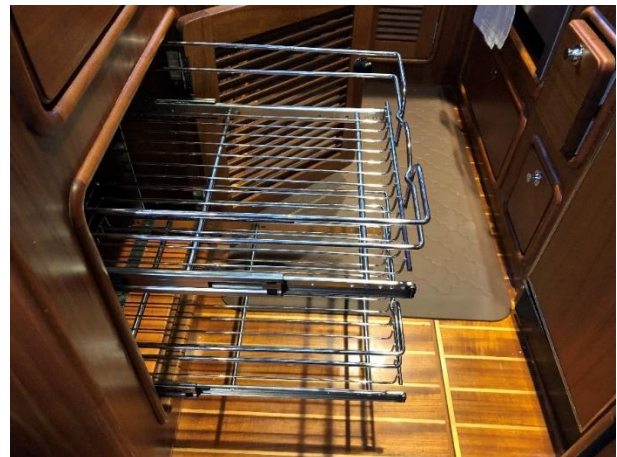


Ice Maker – The ice maker requires 110 AC to run so it is best to make ice when on shore power or the generator is running and then transfer the ice to the freezer. **The ice maker will run off the inverter and it is a bit of a power hog. So, when the inverter is on be sure the ice maker is off. The exception to this would be when the engine is running and keeping the batteries charged.** It takes several hours to make usable quantities so it would need to be a fairly long run to be practical.

If you do need ice, it is best to make it when running or on shore power and then take that ice and put it in a baggie and into the freezer. Once this is done, put a few paper towels in the bottom of the ice maker to soak up the melting frost and turn off the ice maker. Please leave the door ajar to let it dry out.

Trash Compactor – The trash compactor acts as the galley's garbage receptacle. It is not necessary to use the compacting feature, but if decide to do so be sure to use the heavier bags, they are located in the bottom step going to the pilot house. One main hint, be sure the bag is stretched out to all corners as the compactor comes down from the top and can get caught in the bag. Also, the breaker on the upper AC panel label Trash Compactor will need to be on.

Storage – Salish Dawn has lots of storage for groceries. Here are some pictures to give you a flavor. The picture to the right shows the storage racks in the galley. In the salon, starboard side, there is storage under the seats on either side and in the cupboard under the TV cabinet (pictures below). The under-seat storage is about 18" by 18" and 12" deep. The cupboard is about 24" by 12" and 12" high. In addition, there is space under the main settee and the table pedestal. And the main cabin has lots of additional storage.



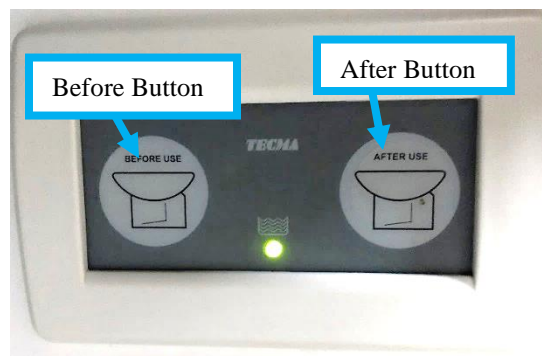
Heads and Holding Tanks

Toilets – 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.

Both heads have Tecma electric auto-flush toilets. Operation of the electric heads requires the associated breaker on the DC panel be turned on (middle row near bottom). Both flush 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:

The toilet controls have the following effects:

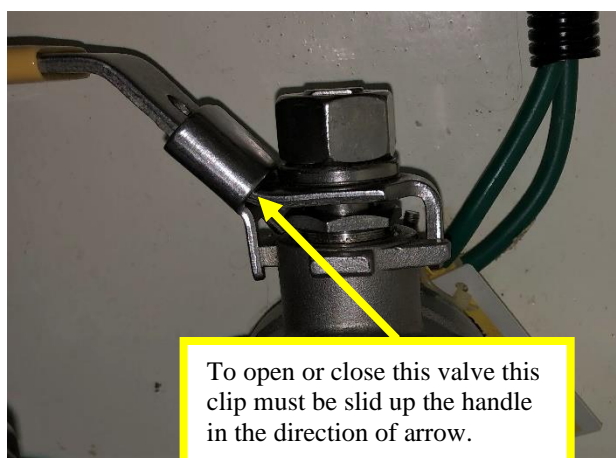
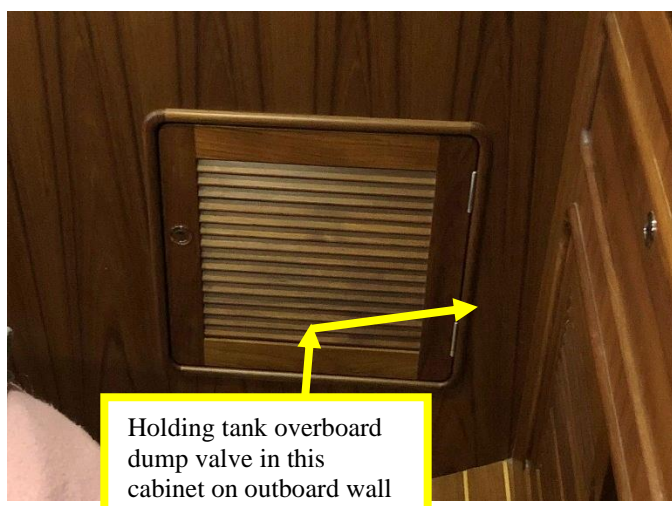
- Before Button – Adds water to the bowl.
- After Button – Flushes the toilet, then after a delay of about 15 seconds purges the line going to the holding tank.



Odor Control – The purge process that runs 15 seconds after the After Button is pressed completely empties the bowl and pumping mechanism. This leaves areas that are impossible to clean open to the air and may lead to unpleasant odors. The best way to eliminate this issue is to wait 15 seconds for the purge to happen and then press the Before Button. This puts water in the bowl and eliminates the odor issue.

Holding Tank – The holding tank holds 60 gals, so under normal usage emptying every couple of days should prevent over-filling. That said, each full flush puts about 2 gals in the holding tank and each After only flush about 1 gal., so letting urine sit for two or three uses and then flushing is a useful strategy to extend capacity. There is no level indicator so be sure to empty the tank frequently.

Emptying the holding tank can be done one of two ways: dumping overboard or at a pump-out station. To dump overboard open the valve under the stairs leading down to the cabins. Access to this valve is in the master cabin, forward wall, starboard side (see picture below). Once you locate the valve it is necessary to lift the locking clip before opening the valve. This is a gravity dump system, so no pump to run. Please note dumping a full tank overboard will take 5-10 minutes. If you are pumping out the deck fitting is on the starboard side just aft of the pilothouse door.



Heating & Air Conditioning

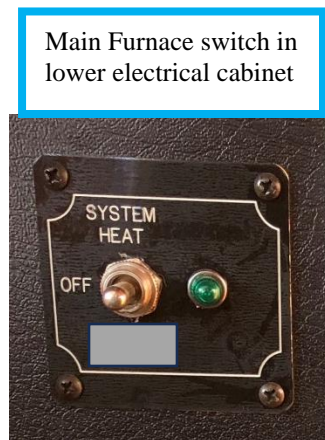
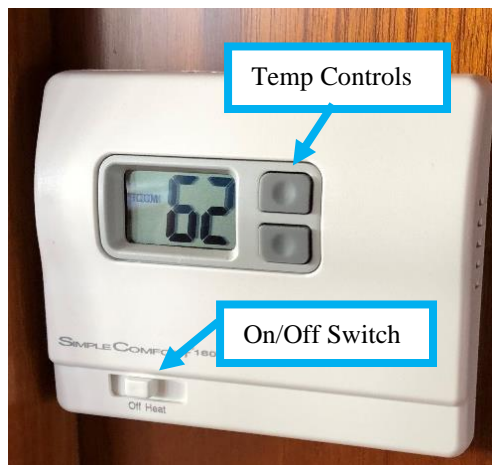
Salish Dawn has two ways to heat the cabin: the first is a Webasto hydronic furnace and the second is the reverse cycle air conditioning units. It is most economical to use the reverse-cycle heating whenever you are on shore power and the hydronic heat when underway or anchored out.

Furnace:

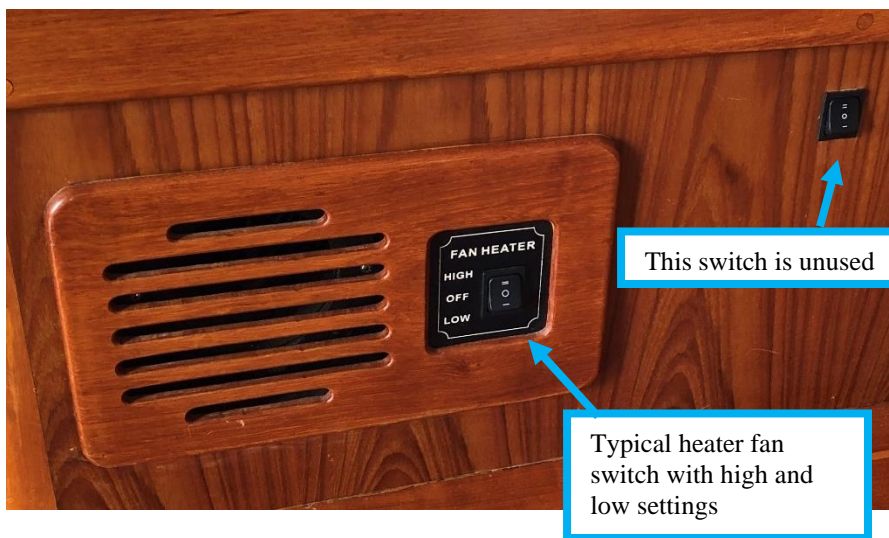
The furnace is a Webasto diesel fueled hydronic system and is mounted in the cockpit lazarette. The switch to turn on the furnace is in the Lower Electrical cabinet, upper left corner. Please note the Engine Heat position on the switch is NOT connected. However, when in the upper position the system will automatically pull heat from the main engine should it be running (and up to temperature) and shut down the furnace. When this happens the rest of the system (thermostats and fans) will continue to run normally. And the reverse is true, if the main engine is shut down the furnace will startup to provide heat.

The furnace will not run until at least one of the On/Off switches on the thermostats is on and the temperature setting is above room temperature or the hot water tank needs heat. There are two thermostats, one in the main cabin which controls the fans in both cabins downstairs and on the wall aft of the electrical panels, which controls the fans in the salon and pilot house.

It will take a few minutes for the system to warm up, so have patience. There are heater units in each stateroom, the pilot house and two in the salon. Each has a switch to run the fan on high or low. **Please note the fans will not run until the system has come up to temperature, which can take 15-20 min.** Once running the heat is dry and comfortable, especially on those occasional rainy days or cool evenings!



Main Furnace switch in lower electrical cabinet



The distribution headers for the system are under the galley sink. During the spring and fall we have the valves the valves open. During the summer we close the ones going to the staterooms and salon closed to prevent hot water from being circulated throughout the boat and heating it up. Should you want heat to a stateroom or the salon during the summer you will need to open the appropriate valves. Don't forget to close them when you no longer need heat in the cabins. LEAVE ALL OTHER VALVES IN THE POSITION SHOWN IN THE PICTURES BELOW, INCLUDING THE ONES TO THE PILOTHOUSE. The pilothouse valves need to remain open because the expansion tank for the system is in that area.

Return Block – Outside wall
under galley sink

Supply Block – Forward wall
under galley sink



Stateroom heater
valves

Salon Heater valves

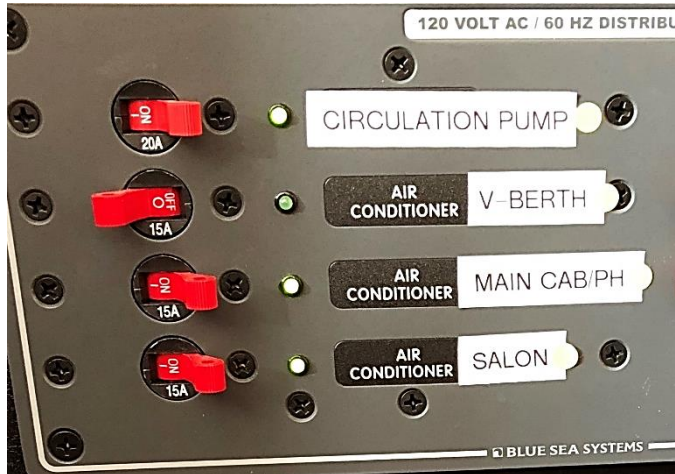
Just to eliminate confusion, there are smoke and CO detectors in several places around the boat. The CO detectors have a digital readout showing temperature. **These do not have anything to do with the heating or cooling systems.** Please see picture to the right:



Air Conditioning and Reverse Cycle Heating:

There are three A/C units onboard and an equal number of thermostats/control units. One unit for the salon and one for each of the staterooms. **The pilothouse gets its heating or cooling from the unit in the master cabin.** To run the system there are four breakers on the Lower A/C panel. The first breaker labeled "Circulation Pump" runs the water pump for the system and must be on to run any of the A/C units. The other three are for the units (see picture below). Note that the boat must be on shore power or have the generator running to use the A/C units.

Once the breakers are on go to the individual units and set the temperature you want and choose between heating and air conditioning by pressing the Mode button.



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, tape, wire ties, etc. used most often are under the step below the nav table. There is a selection of miscellaneous hardware in the cabinet under the nava table and there are other useful items (line, lubricants, etc. under the footrest of the pilot house settee close to the port door. The rest of the tools are in the Generator room, behind the ladder. Engine spare, including filters and belts, impellers, etc are in a bin on top the engine start batteries (engine room, port side). If you have problems that you are not comfortable handling, please call us or San Juan Sailing (see numbers on page 1).

Tank Tender

The Tank Tender can be used to check levels in the following tanks by pressing the associated number:

1. Keel fuel tank
2. Port fuel tank
3. Starboard fuel tank
4. Port water tank
5. Starboard water tank
6. Not used
7. Not used

To activate the Tank Tender turn on the switch on the panel to the left of the main helm, it is labeled 'Tank Gauge'. Also, be sure the 24 to 12 V breaker is on as this device requires 12 VDC power.



Washer/Dryer

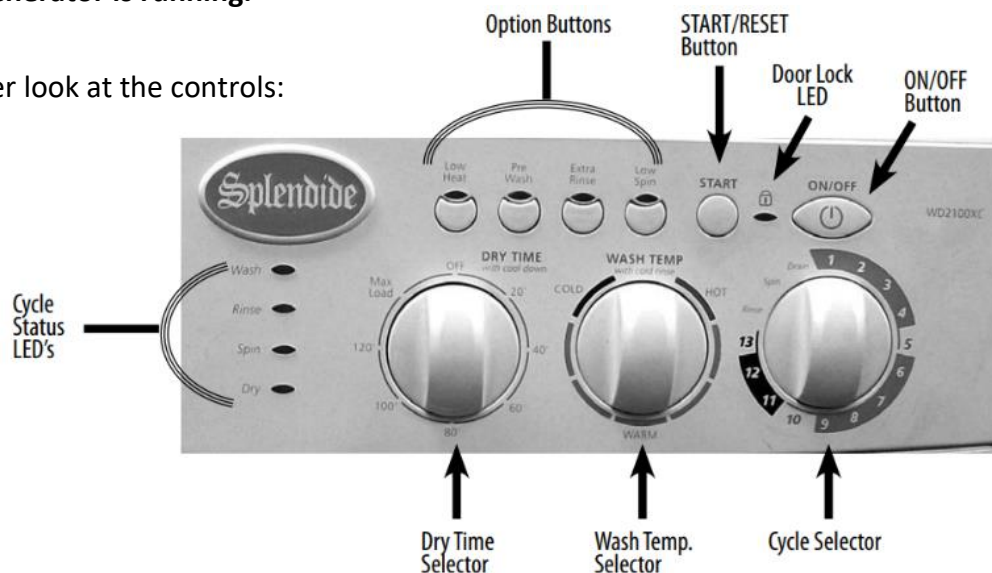
There is a combination washer and dryer unit in the cabinet across from the galley. It is intuitive to use, but just in case here are the basics. But first an important hint – after washing, take everything out of the washer and then shake things out before starting the drying process. If this is not done, they tend to ball up and drying takes much longer. Also, the unit is not large, please do not overload, half full seems about right.

We keep a supply of laundry detergent and dryer sheets in the bottom step to the left of the unit (the step below the bilge pump going to the pilot house), feel free to partake.

This unit can only be run when on shore power or with the generator is running.



Here is a closer look at the controls:



And here is a list of the cycle options:

Type of fabric	Degree of soil	Program Knob		Detergent		Fabric Softener	Bleach	Special Programs	* Cycle Length	Cycle Description
		No.	Cycle Name	Pre Wash	Wash					
Cotton Heavy Duty Cycles										
Heavy cotton fabrics: i.e. sheets, socks, towels, jeans, underwear, sweatshirts, etc.	Exceptionally Soiled	1	Super		•	•	•	Low Heat Extra Rinse Low Spin	96 min.	Wash cycle, rinse cycles, intermediate and final spin cycles. (1200 RPM High Spin)
	Heavily Soiled	2	Heavy	•	•	•		Low Heat Pre Wash Extra Rinse Low Spin	77 min.	
	Soiled	3	Regular	•	•	•			77 min.	
	Lightly Soiled	4	Express	•	•	•			63 min.	
	-	5	Dry	NOTE: A spin cycle is carried out at the beginning of this dry cycle					Low Heat Low Spin	20 to 180 min.
Permanent Press Cycles										
Synthetic, light cotton and more delicate fabrics: i.e. button-ups, khakis, rayon shirts, etc.	Heavily Soiled	6	Heavy	•	•	•		Low Heat Pre Wash Extra Rinse	66 min.	Wash cycle, rinse cycles, intermediate and final spin cycles. (1000 RPM High Spin)
	Soiled	7	Regular	•	•	•		Low Heat Pre Wash Extra Rinse Low Spin	59 min.	
	Lightly Soiled	8	Light	•	•	•			53 min.	
	Lightly Soiled	9	Express		•	•			Low Heat Low Spin	
	-	10	Dry						Low Heat	20 to 180 min.
Delicates Cycles**										
Silk and particularly delicate fabrics	Soiled	11	Silk	•	•	•	•	Low Heat Pre Wash Extra Rinse	30 min.	Wash cycle, rinse cycles, anticrease or Drain ONLY. (NO Spin)
Wool and Hand Wash fabrics	Soiled	12	Wool		•	•	•	Low Heat Extra Rinse Low Spin	65 min.	Wash cycle, rinse cycles, anticrease or spin cycles. (800 RPM High Spin)
Delicate and lighter fabrics prone to wrinkling	-	13	Dry**	To prevent wrinkles, cycles 11 and 12 will end with the laundry left to soak and the 'Rinse' LED flashing. To finish the cycle, press the START button				Low Heat	20 to 180 min.	Timed drying (High Heat)
About Rinse, Spin and Drain										
* Above cycle lengths may vary according to water pressure, load size and fabric type. ** Silk cycle cannot be set to go from 'wash-to-dry' automatically.		Rinse	NOTE: When used, fabric softener is automatically dispensed during the last rinse of each cycle.					Low Heat Extra Rinse	35 min.	Rinse cycles, intermediate and final spin cycles
		Spin	NOTE: High spin speed varies depending on the cycle you choose.					Low Spin	16 min.	Draining and final spin cycle
		Drain	Drains any water from the drum					-	1 to 4 min.	Drain ONLY. NO spin cycle.

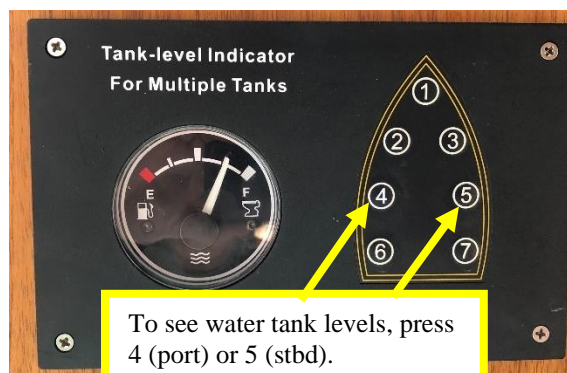
Water

The water onboard Salish Dawn is very drinkable, plus there are charcoal filters in-line in the galley.

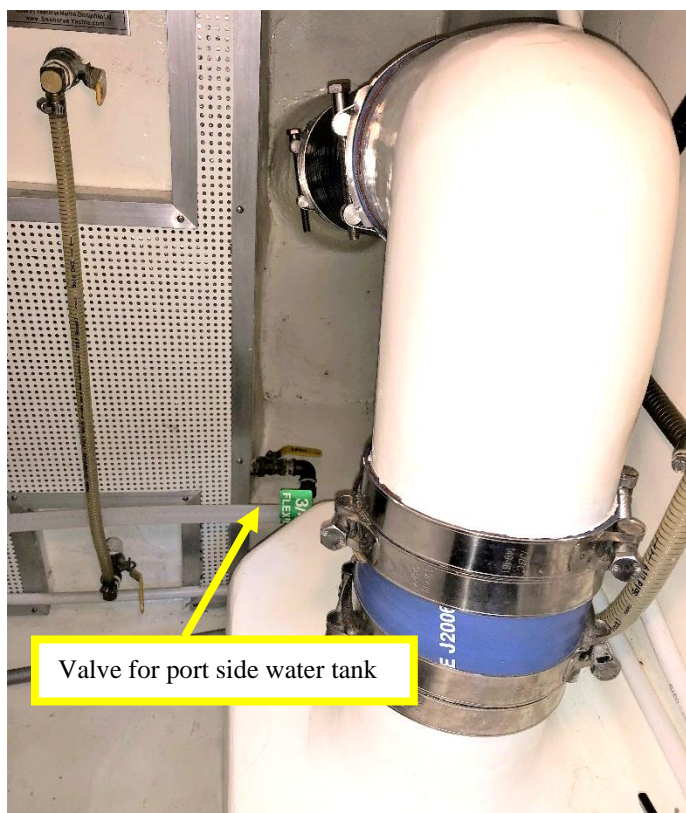
Water pressure – The breaker for the pump is on the main DC panel and is labeled 'FW Pump'. There is a pressure accumulator so the pump will not run all the time.

Water tanks – Salish Dawn has two water tanks, each holding 158 gals, located on the outside walls of the generator room.

The level in each tank can be determined using the Tank-level Indicator on the overhead panel in the pilothouse. Press number 4 for the port tank and number 5 for the starboard tank.



You will likely want to switch tanks before they empty to help control trim. Changing tanks requires switching valves on the forward side of the water tanks, which are located in the Generator room, see pictures below:

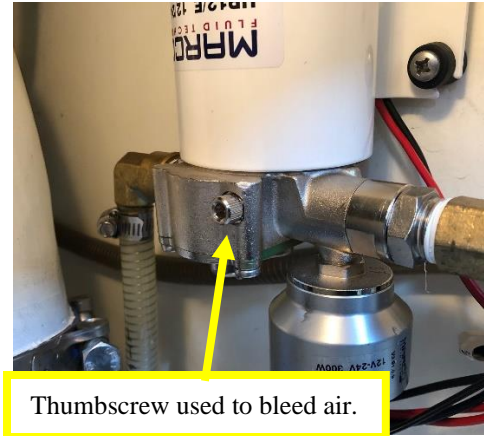


Filling the tanks is done using the deck fittings located in the cockpit, one on each side of the boat (see picture to right).



Priming the Water Pump – If a water tank is run dry the pump will shut itself off after 10-15 seconds. This pump is not good at priming itself, so there are specific steps needed to re-establish water pressure:

- Switch the feed valves so a full tank is now supplying water (or fill empty the tank).
- Bleed the air out of the pump by loosening the thumbscrew on the side of the pump, see picture to right. The pump is on the forward wall of the generator room.
- Open the galley sink faucet to allow air out of the system once the pump primes.
- Turn the FW Pump breaker off and then back on to reset the pump.



Water Heater – The hot water is stored in a 11-gallon tank located in the engine room, forward port side. The water is NOT heated automatically, it takes one of the following actions:

- If on shore power or the generator is running, turn on the Water Heater switch on the upper AC panel. We suggest turning this on and just leaving it on for your whole trip. If there is not AC power available nothing will happen, and the inverter cannot power it, so no harm.
- The other option is to turn on the furnace (Hydronic heating system) by moving the switch in upper left of the lower electrical cabinet to the up position. Turning this on will cause the hydronic system to heat the water. This system will use engine heat if the main engine is running and up to temperature, or will fire up the furnace. It is a good idea to turn this switch off when on shore power, otherwise the furnace will continue to cycle. The advantage of this system is hot water is generated while at anchor without running the generator. It is best to turn this system off at bedtime to reduce noise and lower the draw on batteries.

Water Maker – Salish Dawn has an 800 gals/day water maker installed. However, we do not have it operational for most charters. If you are planning a multi-week charter into some desolate areas, we can commission it for you – there is a small fee involved. **The breaker for the water maker should be left on, this allows it to flush itself.**

Saltwater Wash Down Pump – We have a saltwater pump installed with two hose spigots, one by the anchors and on the side of the sink cabinet in the cockpit. There is a hose with a nozzle in the fender storage locker under the pilothouse windows, starboard side. The switch for the pump is on the Main DC panel and is labeled 'RW Pump'. Please turn off the pump when not in use, thanks.



What's Unique about Salish Dawn

- **Shore Shoes: Cleaned or Removed**

Shore shoes can pick up lots of 'stuff' that increases the wear and tear on the interior. Help us keep her looking great by cleaning the bottom of your shoes before stepping into Salish Dawn or better yet, removing them whenever inside. The swim step shower works well to clean shoes.

- **No Hard Shelled or Roller Luggage Downstairs**

The woodwork in Salish Dawn is exquisite and we would like to keep it that way. Therefore, please do not take luggage down the circular staircase. Please empty the suitcase upstairs and then store in the lazarette. Feel free to take duffle type bags down, but please use care.

- **Damp Lifejackets Need Fresh Air**

If a lifejacket, flag or canvas cover is even slightly damp, please hang it where fresh air circulates until it's completely dry. The slightest moisture in an enclosed place creates mildew quicker than one would think.

- **Anchor Chain**

- Use the saltwater washdown system with the dedicated coiled hose to thoroughly wash mud and marine debris from the anchor chain BEFORE it goes into the chain locker. Failing to do so can result in foul odors in the chain locker!
- When retrieving the anchor, the chain will pile up and jam. The chain needs to be spread using a boat pole at 20' intervals.

- **The engine benefits from a periodic run at high speed**

Salish Dawn is equipped with a reliable John Deere diesel engine. But the engine, like and diesel engine, can build up diesel soot in the turbo chargers and exhaust ports when cruising for many hours at low-speed economy cruise (less than 1700 RPM). We've found it helpful to run the engines at high-speed cruise (2000-2100 RPM) for at least 15 minutes every other day while cruising to help keep the buildup to a minimum.

- **Open the Ports and Windows**

Salish Dawn is quite water and airtight, which is a good news/bad news situation. If you keep all the ports and windows closed with people inside, she will fill with moist air and create lots of condensation. This will fog the pilothouse windows and create mildew. The best prevention is to crack two windows in both the pilothouse and salon for most of your trip (short rain or spray). Also, open (at least a bit) ports or hatches in the cabins when sleeping to allow some air flow.

- **Vessel Trim**

Salish Dawn has a very slight list to port when all the tanks are filled. Therefore, we suggest starting out pulling water and fuel from the port tanks. Switch sides as usage and trim dictate. It is best to only have one water and one fuel tank open at a time. There is a level in the chart table that can be used to visually see the current list.

- **Gates**

The transom walk-thru and the starboard side gates both tend to open themselves and swing around in heavy seas. This was happening even with the slide latches in place. So, we added the rubber stoppers as a preventer. Close the latch and flip the little nob up, then push the rubber stopper over it (picture to right).



We hope this information helps. Have a great time.
Mike & Lauri Huston