

Owner's Notes – SAGE

2016 Marlow Hunter 40
Nancy and Eric Davis, Boise, Idaho.

Welcome to Sage! She was delivered overland to Specialty Yachts, Vancouver, BC in April, 2016 straight from the Marlow Hunter factory in Florida.

We made a factory visit in February, meeting the craftsmen, and women, who take so much pride in their skills and each boat they produce. We saw the 'behind the scenes' plumbing, electrical and mechanical installations, bulkhead connections, lightening grounding, through-hull mounts, etc, and couldn't have been more satisfied with all categories as testimony to the quality materials, workmanship and design improvements which David Marlow is credited for bringing into the Hunter line.

It is also important to mention our gratitude to San Juan Sailing. We have chartered many boats over the years in the Puget Sound and can claim without question that SJS has exceeded all our expectations, both as charter customers and now boat owners in the sail fleet. SAGE is in experienced, caring hands.

The name SAGE is based on our high desert world in the Great Basin of the U.S. where vast ranges of indigenous wild sagebrush remind us in many ways of the ocean. Hard to describe, but purely natural and, at times, intoxicating.

We meant for SAGE to be a comfortable home on the water as much as a great handling sailboat, and we have achieved both in the Marlow Hunter 40 model. The cabin is warm with rich mahogany cabinetry and full wall finishes. She is a 'furniture boat' as opposed to the IKEA-like new designs you see at boat shows. At the end of the day, we relax below in real comfort and enjoy a very large galley for a 40 footer. SAGE is very easy to handle under sail, with the sheets run to the helm area in the cockpit. The arch-top mounted traveler attaches the mainsheet near the end of the boom giving maximum leverage and ease of sheeting in the main, and keeps a clear cockpit and forward view. Her hull shape is a new design which is meant to improve stability in rough water, less heeling and better tracking. We have experienced all of this.

There are a couple of nuances that are special to SAGE:

- **She starts in any gear, so be sure you are in neutral to help control your heart rate.**
- **Bow thruster is directly wired to switch and battery. No DC breaker on DC Panel.**
- **Fenders are extra-large to help prevent bumps, and do not fit in any lockers. Tie to rails.**
- **Traveler is on the top of the arch, and the mainsheet is double ended.**
- **At this time, the BBQ has no shut off valve in the LPG locker so be sure you turn it completely OFF at the control unit on the side of the BBQ.**
- **The swim platform / transom is very useful, hand operated; special instructions apply (within).**
- **'Lazarette' is used throughout these notes as the correct term for the stern locker.**

More than anything, our hope is that you use and enjoy SAGE for the great sailing and domestic comforts she is capable of delivering. We wish you a safe, enchanting and exciting time on the Northwest waters.

All our best, Eric and Nancy Davis.

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1. EMERGENCY EQUIPMENT: You are not likely to need these but must know their location.

QUICK NOTES

- Extinguishers in all staterooms and next to the microwave oven.
- Wooden plugs are taped to each thru-hull.
- There is a rubber mallet in the tool bag under the Nav seat to seat the wooden plugs.
- Emergency tiller in port cockpit seat locker.
- Flares and Horn in port cockpit seat locker.
- Engine stops: check sea strainer, oil level, coolant level.
- Bilge Pump to manual mode: DC panel switch.
- Emergency Bilge Pump behind starboard helm, handle clipped under LPG locker lid.

DETAILS

Fire: There are 4 BC rated Fire Extinguishers aboard SAGE. These are good for liquids and electrical equipment fires:

1. In the forward stateroom next to the compression post
2. Main salon above the microwave
3. Port aft stateroom on the inner bulkhead
4. Starboard aft stateroom on the aft bulkhead above the berth

Leaks: – First determine the source of the water, check the saildrive first and then the thru-hulls. There is a diagram showing the location of the through hulls in the notebook. There are wood plugs taped to each thru-hull which can be pushed into a broken thru-hull with a mallet in the tool bag to seat them.

There are two bilge pumps. [Detailed information on them is in the **Bilge Pump Section 9**] The manual bilge pump is located on the aft wall behind the starboard helm and the handle is clipped under the top of the LPG locker lid. The electric bilge pump has an automatic float switch, but the switch on the electrical panel can be used to power the main pump manually (this breaker is normally in the auto mode). Notify San Juan Sailing as soon as safely possible.

Steering Failure: There is an emergency tiller located in the port cockpit seat locker. In the event you should lose steering, remove the round cap between the helm seats with a winch handle and insert the emergency tiller over the top of the rudder post.

Engine Failure: If the engine quits, it is most likely due to overheating, low oil pressure, or a fouled propeller. If you are in a confined area where you cannot use your sails to keep clear, drop the anchor to keep the boat safe. See if the engine will start in neutral, if so a fouled prop is probably the problem.

Distress Equipment: Port cockpit seat locker:

Flares are in the port cockpit seat locker.

Air Horn is there also.

Repair Tools are under the Nav seat.

Spare Parts are under the companionway steps and behind the port salon settee.

Technical Manuals If a mechanic needs this level of repair info for an emergency, they are located under the aft starboard settee seat by the water heater in Tupperware boxes. As a guest, we do not expect you to need this level of detail; call San Juan Sailing for assistance.

2. BOAT SPECIFICS:

Length Overall (LOA)	41' 3"
Hull Length Overall (Lh)	40'
Length of Waterline (LWL)	36'
Beam (max)	13' 2"
Draft	6' 8"
Displacement	19,098 lbs.
Ballast	5,425 lbs.
Sail Area	910 sq. ft.
Mast Height from Water Line	65 feet overall
Headroom – Salon	6' 6"
Water Capacity	90 US Gallons (between two tanks)
Holding Tank Capacity	20 US Gallons Aft, 20 Gallons Forward
Fuel Tank Capacity	50 US Gallons
Water Heater	10.5 US Gallons (120 v)
Water Maker	Spectra, 6 gal/hr, extended cruises only, extra charges apply.
Propane Capacity	10 lbs.
Inverter	Victron Energy, for charging devices, 120V limited.
Solar Panel	170 watt
Engine	56 HP Yanmar
Bow Thruster	4 HP (3kw)
Berths	<ol style="list-style-type: none"> 1. Forward V Berth, 82" long, head dimension 70", foot 20". 2. Port Aft stateroom berth, 76" long and 44" wide. 3. Starboard Aft stateroom berth, 76" and 62" wide. 4. Salon conversion berth, 76" long and 56" wide

Refrigerator is 2.75 cu ft.

Freezer is 1.6 cu ft.

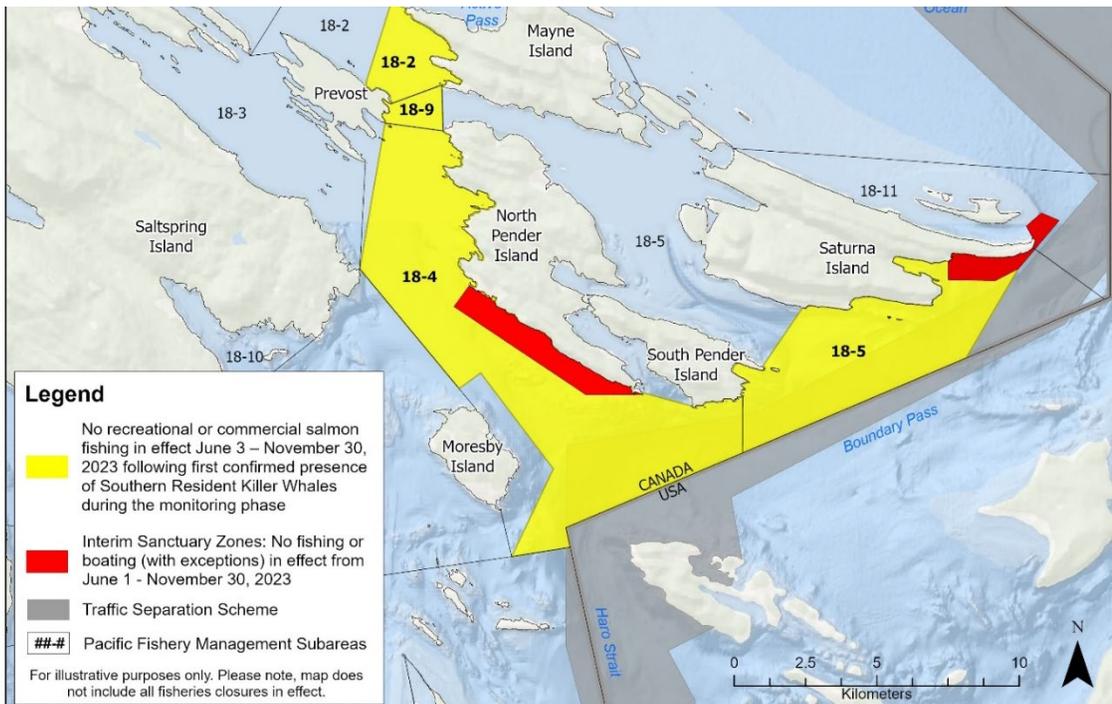
OFFICIAL VESSEL DOCUMENTATION NUMBER – 1268472 – This number is marked in black on the hull inside the port cockpit locker. Also see Documentation Registration section of the Charter Guest Reference Manual

HULL IDENTIFICATION NUMBER – MHL40135A616

3. BEING WHALE WISE:

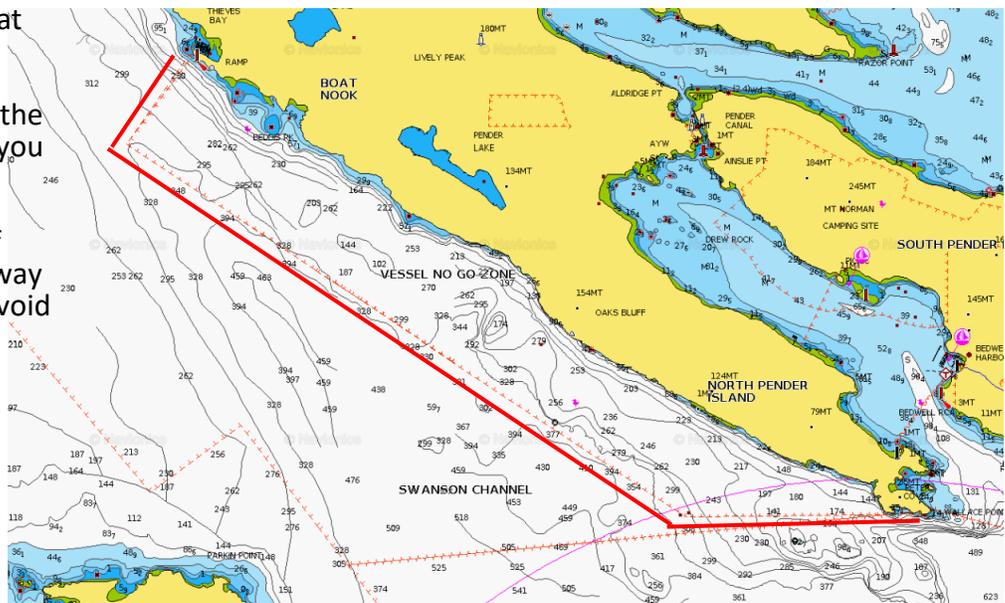
Our local Killer Whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food. Therefore, noise pollution from boats and ships make it harder for them to thrive. In an effort to decrease human impact both the Canadian and US governments have implemented rules. We 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 Sage. In general, stay at least 400 yds. 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 have you turn off the instruments.

In Canada they have gone a step further by creating some zones where boats are not allowed. This further improves the environment for the whales. The red areas in the diagram below show these zones.



And here is an example of what they look like on Sage'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 is just to the west of Bedwell Harbour, so on your way in or out of there be sure to avoid this area.



4. ANCHORS:

QUICK NOTES

- Primary anchor has 300' chain, marked at intervals noted on underside of chain locker lid.
- Secondary anchor is stored in the stern lazarette. Lower swim platform to access.
- Stern Tie spool is in port cockpit locker. PVC shaft for deployment is in stern lazarette.

DETAILS

The primary anchor is a 20 KG (44 lb) Lewmar claw with 300' of chain. Set correctly, this is good ground tackle that should help you get a good night's sleep.

The secondary anchor is a 15 lb Fortress with 50 feet of chain and 250 feet of nylon rode. It is not marked. It is stored in the aft lazarette just under the swim platform. If you deploy it in the dinghy, watch out the sharp points don't puncture the air tubes (I have attached sleeves to the stock to help protect the dinghy air tubes and the fiberglass onboard SAGE).



Secondary Anchor with dinghy protection sleeves attached. Please leave them attached when transporting anchor in dinghy. They also protect the fiberglass when in storage on SAGE.

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. Most coves are 20' - 40' deep; so expect to pay out about 100'-180' of chain. After you have paid out the suitable amount of chain, 1-2 minutes of idle reverse sets the anchor. Also, the tides can change water depth up to 15 feet in our waters so be aware of where you are in the cycle when choosing an anchorage and deciding how much chain to put out. Here is an easy formula for how much chain you need; 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 4 for a 4:1 scope (typical example would be 25' of water + 6' of tide increase + 5' = 36' x 4 = 144').

Stern Tie Line. Reel on PVC tube//PVC tube slipped over lifeline.



The Stern Tie Line is 600 feet of poly line on a reel stored in the port cockpit locker. There is a PVC tube stored in the lazarette through which you can slide the top stern safety line and the reel can be slid over the tube for deployment. We have found it easiest to put the swim platform down, conditions permitting, to load the dinghy and row the line to shore. Please do not cut this line as the entire length is needed in some of the more difficult anchorages in Desolation sound.

Anchor Light: When anchored, not in a marina, turn ON the Anchor light breaker from dusk to dawn. Be sure to turn it OFF in the morning.

5. ANCHOR WINDLASS:

QUICK NOTES

- Windlass controls are on the foredeck.
- Run engine whenever running windlass.

- Release chain brake
- Windlass breaker on electrical panel on the side the nav seat.
- Wash-down pump breaker switch is below the VHF at the nav station.
- Wash-down pump runs continuously when turned on even when nozzle is closed.
- Snubbers use the cleat in the anchor locker.
- Use the white snubber to release strain on windlass (after laying out rode but before setting the anchor) and small black snubber to secure anchor when transiting.
- Read retrieval notes below.

DETAILS

SAGE is equipped with an electric windlass that makes deployment and retrieval of the primary anchor very efficient. It is wired to the start battery. Have the engine running anytime you use the windlass so you don't deplete the start battery. The master breaker for the windlass is located on the electrical panel on the lower side of the Nav seat.



Windlass Breaker on side of Nav seat

To start engine, must be ON

To turn the switch ON, push up the little lever that may be hanging at an angle out the bottom of the bar that is across the face of the switch. If there is no bar hanging down, the switch is already ON. To turn OFF the windlass breaker, push the little red button on the right hand side of the bar on the face of the switch.



Anchor locker. Note gloves for handling chain on retrieval, White snubber, black safety line (attached), and sea-water wash-down hose with nozzle. Chain markings are currently Yellow at 100', 150', 200'. Last yellow at 250'. Red starts at 280'. End of chain 300'.

Deploying the Anchor: With an electric windlass, it's important to deploy the anchor over the bow roller into the water by hand. Release the anchor securing line and put it aside for the time being. Pay out on the deck enough slack in the chain before you release the anchor so that you can lower the anchor into the water about one foot below the surface.

(By having the anchor slightly in the water, the water will buffer that troublesome "pendulum" action that causes a partially deployed anchor to swing and ding the bow before you get it all the way into the water with a windlass controller that you're not familiar with.) Once the anchor is in the water, then use the electric windlass to lower the anchor to the bottom of the bay and deploy the desired amount of scope. Once you have the proper amount of scope paid out, attach the white snubber and set the anchor. Be sure it's not dragging, and that the load is on the cleated snubber, not the windlass drive.

Retrieving the Anchor: When retrieving the anchor, we only move the boat towards the anchor when it's very breezy. The weight of the chain will pull the boat up to the anchor. Just pause in retrieval periodically to let the boat catch up. Many of the San Juan anchorages have very muddy bottoms. We find that using the salt water wash down pump and hose at the bow when retrieving the chain keeps the locker clean and odor free. Turn ON the pump at the Johnson pump control at the nav station. THE CHAIN WILL NOT FALL DIRECTLY INTO THE CHAIN LOCKER AS IT IS COMING IN OFF THE WINDLASS. It is necessary to continuously 'feed' or 'push' the chain forward, into the locker, with a gloved hand or the mop handle (mop requires a two person operation).



When turned ON, the salt water pump may continuously whether hose nozzle is open or closed. Be sure to turn OFF when finished cleaning chain and deck.

Also, when retrieving the anchor, only retrieve it up to where you can see the anchor about one foot below the water (again to buffer any possible "pendulum" action). Then, by hand, retrieve the anchor from just below the water onto the bow roller. We find this again prevents a pendulum action. Take your time. **Remember, please do not pull the anchor up onto the bow roller using the power of the windlass. Hand retrieval prevents damage.**

Securing the Anchor. Use the black anchor securing line and snap shackle to pull any slack out of the anchor chain and tie it to the cleat in the anchor locker so that the anchor cannot escape the bow roller and self-deploy or crash around if the weather is a little bouncy. Engage the keeper plate back over the chain at the foot of the bow sprit for added protection. Ease tension on the chain by tapping the 'down' switch just momentarily.

6. BARBEQUE:

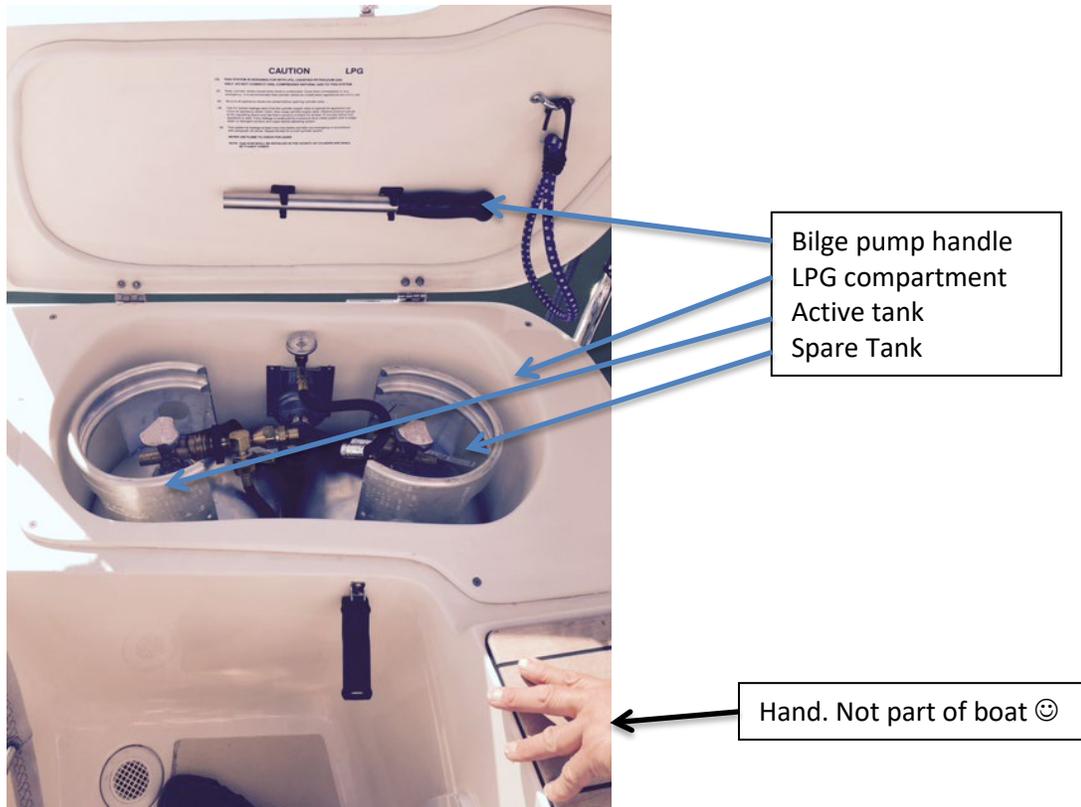
QUICK NOTES

- Currently, there is no LPG shut-off to the BBQ. Be sure to FULLY close the BBQ heat control.
- BBQ can get very hot, cook carefully.
- Clean grill when done.

DETAILS

The BBQ is mounted on the starboard stern rail. It is connected directly to the boat's LPG tank prior to the shut off solenoid, so any time the tank is open, the gas can flow to the BBQ. If the valve on the LP tank in the locker is not already on, turn it on BEFORE turning on the gas valve at the barbecue. Doing this in reverse will put the tank into 'safety mode' and very little gas will come out. This is explained in detail in the San Juan Sailing safety briefing meeting attended by your Skipper and First Mate.

Please be sure that the control valve on the side of the BBQ is fully closed and in the locked position when finished so you won't empty the LPG tank. There is a second tank in the LPG locker, but it may not be filled. We have found that one tank will suffice for a two-week charter. Watch your food closely, as it can be done quickly. As a courtesy to the next guest, please clean the grill when you are done using the BBQ.



7. BATTERIES AND CHARGING:

QUICK NOTES

- Leave battery handles ON (horizontal).
- Start battery and thruster batteries are isolated from the house usage.
- Charging is done by both shore power, running the engine and a solar panel.
- **Drop no lower than 12.2 volts before charging.**
- Keep shore power cord away from the furnace exhaust.
- Shore power circuit breaker is located at the aft end of the port quarter berth. Check it if the batteries are not charging when Sage is connected to shore power.

DETAILS

The batteries need no attention as they are maintained weekly by the boat's maintenance Pro. The battery panel on the side of the Nav seat has two red battery handles and the start battery handle should be turned to OFF only when you are leaving the boat for a period of time. The house handle stays on all the time. There are DC (car type) phone charger sockets in the salon and each stateroom.

The Blue Sea battery monitor on the panel next to the VHF microphone will give you an accurate measure of your house battery status (1), as well as the status of the start battery (2) and the bow thruster battery (3). Fastest charge rate by the engine alternator is produced between 1500 and 2000 engine rpm.

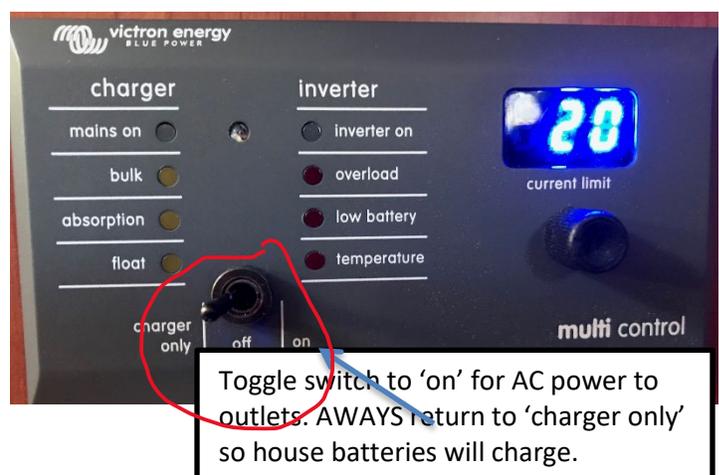


There is also a battery monitor on the upper right of the upper DC panel above the Nav seat which shows voltages of the house and start battery banks. Toggle the switch left for start battery and to the right for the house batteries.

There are three shore power cord adapters stored in a mesh bag in the large port cockpit locker if you find yourself in a marina with power supply sockets other than what will accept our standard 30amp cord.

Sage is equipped with a 170-volt **Solar Panel**. On a sunny or partly sunny days, the panel will come close to running the instruments and the auto pilot while sailing with the engine off, thus conserving house-bank battery power. You can see the power flowing into the batteries on the battery monitor!

Sage is also equipped with a DC/AC inverter. The control panel is on the forward side of the nav station bulkhead. When not on shore power the inverter can be switched to 'ON' and it will convert DC current from the house batteries to AC and send it to two outlets; one on port, just below the inverter control panel, an one on starboard just forward of the dish dryer cabinet. The inverter is sized and intended as a charging station for lap-tops, phones and other devices. It will not operate the microwave and is not intended for hair dryers, toasters, etc. **It is important to always return the inverter toggle switch to the 'charger only' position. If that is not done, the batteries will not re-charge from shore power. Also, the dial on the face of**



Toggle switch to 'on' for AC power to outlets. ALWAYS return to 'charger only' so house batteries will charge.

the inverter panel controls how much power flow to the battery charger, and should always be dialed to 20.

8. BOW THRUSTER:

QUICK NOTES

- Thruster power is always on to the switch at the helm if engine is on.
- On the port helm, hold thruster button down until green light appears.
- Push green and red arrows for the direction you want the bow to move.
- Boat pivots on its keel, so if bow goes right, stern goes left.
- Use sparingly, in bursts as it can overheat and drop off line.
- Master switch for thruster is under V-berth, port aft opening.
- Before operating, be sure all dock lines are clear of the thruster.

Dial current limit to 20, always.

BOW THRUSTER DETAILS

SAGE has a great maneuvering assistant with its bow thruster. At the port helm, push the button on the thruster control and the red indicator light shows that the toggle stick is 'live'.



Toggle Stick in the direction you want the bow to move.

Power button, press and indicator light comes on.

We find it beneficial to have the engine running, which it probably will be as you are maneuvering, and to test the operation of the thruster prior to leaving the dock and just before coming into the marina so you won't be surprised. Excessive use, beyond short bursts of 5-10 seconds on the thruster will cause it to overheat and it will shut down until it cools off, which can take up to 10 minutes. Also as a self-protection measure, the thruster will time-out and shut off if it hasn't been used for a few minutes. If this happens, just push the ON button again, and it will start up.

If you are unfamiliar with a bow thruster, remember that the boat pivots on its keel about amidships when using the thruster, so moving the bow to port will cause the stern to go to the starboard. Thus, a prudent skipper will keep tabs on the location of both ends of the boat to avoid an accidental strike. The thruster will also suck in a loose bow line if one is in the water! If you desire, or have small inquisitive hands aboard, you can turn OFF the thruster under the V-berth on the port side opening with a battery switch mounted on the forward wall of the compartment.

9. BERTHS:

QUICK NOTES

- Sleeps 5 in staterooms and 1 or 2 on the settee conversion in salon.

- See paragraph 24, for detailed conversion photos if necessary.

DETAILS

SAGE has three generous staterooms with the following sized berths and a salon table conversion:

1. Forward Stateroom is a V-berth, 82" long, with a head dimension of 70", and a foot dimension of 20 inches, and has an ensuite head and shower.
2. Port Aft stateroom berth is 76" long and 44" wide.
3. Starboard Aft stateroom berth is 76" and 62" wide.
4. The salon conversion berth is 76" long and 56" wide.

Each stateroom has a hanging locker, heat control, and reading lights. The mattresses are forgiving, comfortable, and all have provided us with a great night's sleep... also the occasional nap. All berths have inner spring mattresses. San Juan Sailing provides clean linens, comforters, sheets etc.

Settee Conversion.



Picture of settee converted to double berth. See Section 25 below for photo sequence of how to do it.

To convert the dinette and surrounding settee two items are needed; a shorter center post for the table and a protective cover for the table. Both are stored in the forward starboard salon cupboard. Remove all cushions to make the conversion. The long center leg needs to be replaced with the shorter one. It can be a little hard to disengage, but it will come loose by pulling vertically and wiggling a bit. No tools are needed. Place the tabletop in the bag for protection before placing the cushions. Replace the tabletop on the short leg being sure the top also sits on the supports along the seat edges. Those using the salon as a berth will need sleeping bags. [paragraph 24 has a photo sequence showing this procedure].

10. BILGE PUMPS:

QUICK NOTES

- Main Bilge Pump is on a digital water sensing switch and is always on.
- Manual override for the main is on the DC electrical panel.
- Emergency Bilge pump is behind the starboard helm.
- Emergency Bilge pump handle is clipped to the inside of the LPG locker lid.
- Dinghy bilge pump (blue) located in lazarette.

DETAILS

In the unlikely event that SAGE takes on water, the automatic bilge pump in the keel bolt sump will come on. There is an override switch on the electrical panel should you wish to activate it the pump manually. In the even more unlikely event the automatic pump isn't sufficient, there is an emergency pump mounted on the aft sidewall of the starboard helm. The handle is clipped to the underneath side of the LPG locker lid.

11. DINGHY AND OUTBOARD:

QUICK NOTES

- **Tow dinghy without motor, short painter, tie off twice, away from exhausts.**
- **Tie painter to only the cleats, not the rungs on the swim step; they are not strong enough. The painter has a loop for towing the proper distance behind the boat.**
- **Watch in high winds in case it flips being towed.**
- **Dinghy air pump is in lazarette along with a blue bilge pump.**
- **Motor stored on the port side rail. Padlock combination is in the Charter Guest Packet.**
- **Honda outboard is four-stroke, so you do not add oil to the gas.**
- **To remove oars from jam knobs on dinghy, unscrew plastic cap below the oar lock and slide oar forward.**

DETAILS

Dinghy: SAGE has a 9'-6" aluminum bottomed dinghy. It is stable, rows well, and tows with the least drag if brought close to the boat, to a sweet spot marked with a loop in the painter for cleating. This lifts the dinghy bow, reduces drag, and almost guarantees that you won't accidentally wrap the painter around the propeller when you back up! Tie the painter off twice: aft cleat and the bitter end tied onto the stern rail. Be aware that tying the painter to a swim step rung is not wise as it isn't strong enough. Use the cleats. Others have lost the dinghy when their cleat knot slipped loose. Tie her so she will not interfere with the engine exhaust, BBQ, and Webasto heater vent. We would appreciate your special care when beaching the dinghy. Ours are not all gentle sandy beaches. Most often they are rocky, covered by barnacles equipped with extra sharp cutters. Here's what works best: (see "Land Ashore Like a Pro" San Juan Sailing Handout) Just before touching shore: 1. Shift crew aft toward stern - this helps boat go further ashore, and avoids dings in bottom from sharp rocks and barnacles. 2. Turn off outboard, close fuel vent on gas cap and raise the motor - this protects propeller from dings on rocks. Have one person slowly move forward and put weight on the bow of the boat. You should be close enough to step ashore onto dry land. Do not jump or you will force the dinghy backwards into the water. Then offload everyone over the bow. Now the team lifts the dinghy above barnacle height and deposits it gently on the beach. Secure the painter above high water level to a tree, log or rock. Don't forget...a rising tide can leave you high and dry and dinghy-less! Some beaches it is not possible to land a dinghy and keep your shoes dry. I would recommend wearing waterproof footwear and change into street shoes after the dinghy is secured.



Dinghy Air Pump: The air pump to add air to the dinghy is stored in the lazarette.

Dinghy Oars: If you chose to use the oars strapped to the tubes of the dinghy you will have to unscrew the plastic retainer cap on the backside of the oar lock. Slide the oar forward out from under the Jam knob and re-tighten the cap. When towing the dinghy, please replace the blades back under the jam knobs to keep the oars from being ripped from the boat.

Unscrew retainer and slide oar forward.



Outboard: SAGE is equipped with a 4-stroke Honda 2 horsepower outboard positioned on the port stern rail. We have found this brand and size has proven to be a practical and very reliable dinghy outboard. As a courtesy we have additional gasoline in a red container tied into the dinghy. Warning -

Gasoline fumes are explosive and a very dangerous fire hazard if stored on a boat. Never store the spare gasoline container in a locker, lazarette, or any other storage area on the vessel. Store it in the dinghy only. Do not add any oil to the gasoline mixture – it uses just straight gasoline. The fill cap is located at the top of the engine. The outboard is easy to transfer from the stern rail outboard mount to the dinghy transom and vice versa and this where the swim platform becomes very handy. Attach the security line to the motor before moving it. Please do not cruise with the outboard on the dinghy. It will not work after saltwater gets into or even near the intake of the carburetor. We also recommend taking the outboard off the dinghy at night. We have had dinghies deflate in the cool of the night and had wind waves or powerboat wakes flip the dinghy over.

TO START THE OUTBOARD : Honda 2-hp, 4-stroke

1. Turn on fuel tank (lever on starboard aft quarter of engine). Push the fuel valve lever aft to open the fuel valve.
2. Pull out the choke switch (starboard forward corner of the outboard)...usually need it for the first start of the day. Push in after 5-10 seconds.
3. Turn the tiny vent cap on top of the fuel cap to halfway between open and closed to vent the internal gasoline tank. This is discussed in the Skipper's Safety Briefing.
4. Make sure the U-shaped kill clip with the coiled red lanyard is clipped into the red shutoff knob, port forward corner of the outboard.
5. Twist the handle throttle $\frac{1}{4}$ turn to start position.
6. Pull the rip cord to start.

WHILE RUNNING

1. Push the choke back in shortly after engine starts – about 10 seconds.
2. There is no transmission – just throttle up to go forward and throttle down to stop. If you want to go in reverse, swivel the outboard around 180 degrees.

TO STOP:

1. Shut the outboard off by pushing in the red shut-off knob where the kill clip is located or just pop the clip off.
2. 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. To put the outboard shaft back in the water, release the stainless-steel lever on the starboard side of the shaft.
3. Close the fuel lever and the air vent.

WHEN NOT IN USE:

1. Put the outboard back on the outboard mount on the stern rail and tighten both clamps.
2. Push the fuel valve lever forward to close (starboard aft corner of the outboard).
3. Close the air vent on top of the fuel cap.
4. Secure the outboard further by tying the safety lanyard to the stern rail.

12. DODGER AND BIMINI AND COMPANIONWAY PANEL:

QUICK NOTES

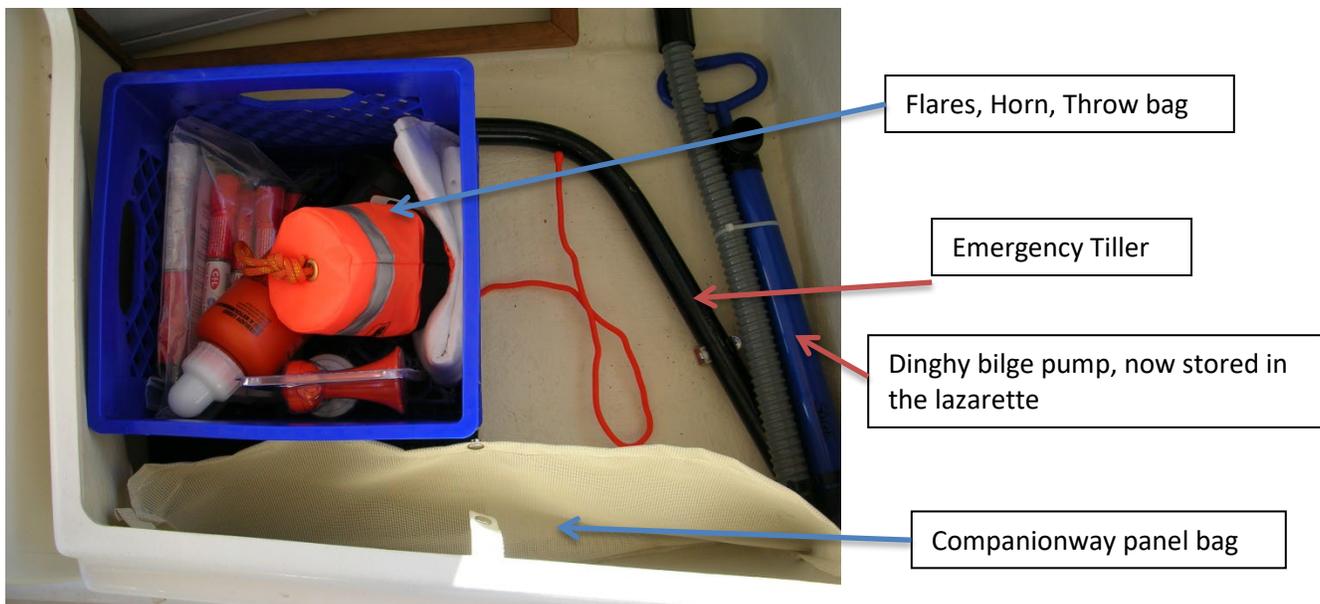
- Not designed to be lowered.

- **Great weather protection.**
- **Plastic panels in the overhead canvas provide comprehensive view of the sails.**
- **Protect the plastic windows. They scratch easily. Microfiber rags ONLY. No sponges. No sunscreen.**
- **The companionway locking removable plastic 'washboard' panel stores daily in the mesh bag in the front of the port cockpit locker.**
- **Store seven canvas dodger and bimini window covers in the red duffel bag located below the forward starboard salon seat. This bag also holds the other four cockpit covers.**

DETAILS

The Dodger and Bimini protect the crew from the weather when in the cockpit and have stainless steel supports to grab for safety. Although the center glass panel can be unzipped for increased ventilation, we ask you currently not to do so. Please be aware that they are a tight fit and re-zipping may be most difficult. The dodger is not designed to be lowered. The dodger's plastic "glass" is vulnerable to scratching from salt crystals, especially after sailing into a challenging breeze. The salt spray on the glass dries in the wind, leaving behind tiny salt deposits that obscure your vision. Please avoid directly touching the glass with a rag or sponge. Salt does dissolve in water, but not as fast as you might think. The salt crystals remain undissolved for several seconds. It's like rubbing the glass with sandpaper! To clean, please use generous amounts of fresh water from a pan from the galley or from the stern shower head to "flood" the glass and dissolve the salt crystals away. (Better yet, wait until you are at a dock where you can hose off the salt crystals.) This same procedure applies to the plastic sight panels in the dodger and Bimini. If the glass is really clear, you can thank previous guests for their diligence. And we thank you too! Caution: Spray sunscreens have been found to react chemically with the dodger glass, ruining it. So, to protect your wallet along with your skin, please apply spray sunscreen in the head before coming on deck, or downwind of the dodger/bimini glass. And although we feel that it is almost unnecessary to mention this, please don't lean back on the dodger plastic if sunbathing on the deck; it just isn't built for that stress. Thanks again.

The companionway keyed panel (washboard) when removed from its slots closing off SAGE's cabin, should be stored in its bag in the port cockpit locker. This will maintain its clarity, keep it out of your way and keep it from falling in the ocean!



13. ELECTRICAL PANELS:

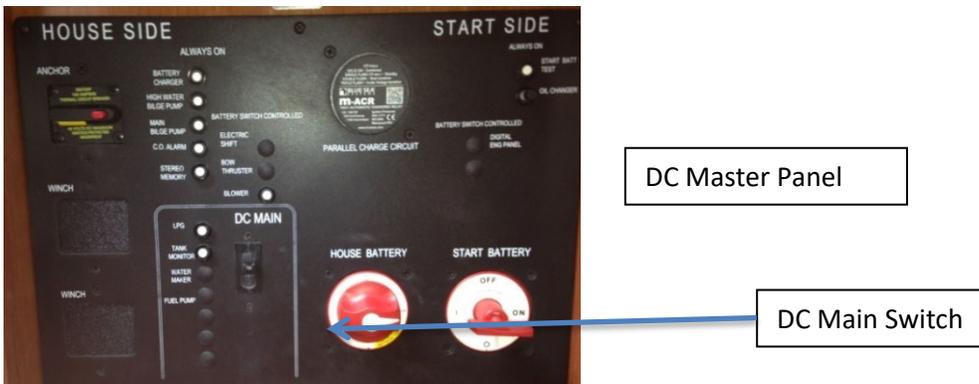
QUICK NOTES

- AC master breaker in port aft stateroom at aft end on outboard wall (see photo on right).
- DC master panel is under the side of the Nav seat, behind a wood cover.
- AC and secondary DC panel above the Nav station.
- DC master House Side battery switch should remain ON.
- DC master Start Side battery should be turned OFF only when leaving SAGE for a length of time.



DETAILS

SAGE has three sets of electrical panels, one below the Nav seat and two above the Nav seat. The DC master panel is behind a cover on the side of the Nav seat:



Under ordinary circumstances we have found that you don't change the settings on this panel. The white buttons are pop-out breakers that are ON until something happens that would trip them OFF. If one is popped out, then simply reset it by pushing it back in. If it keeps popping, then investigate further as there is a recurring fault in the system.

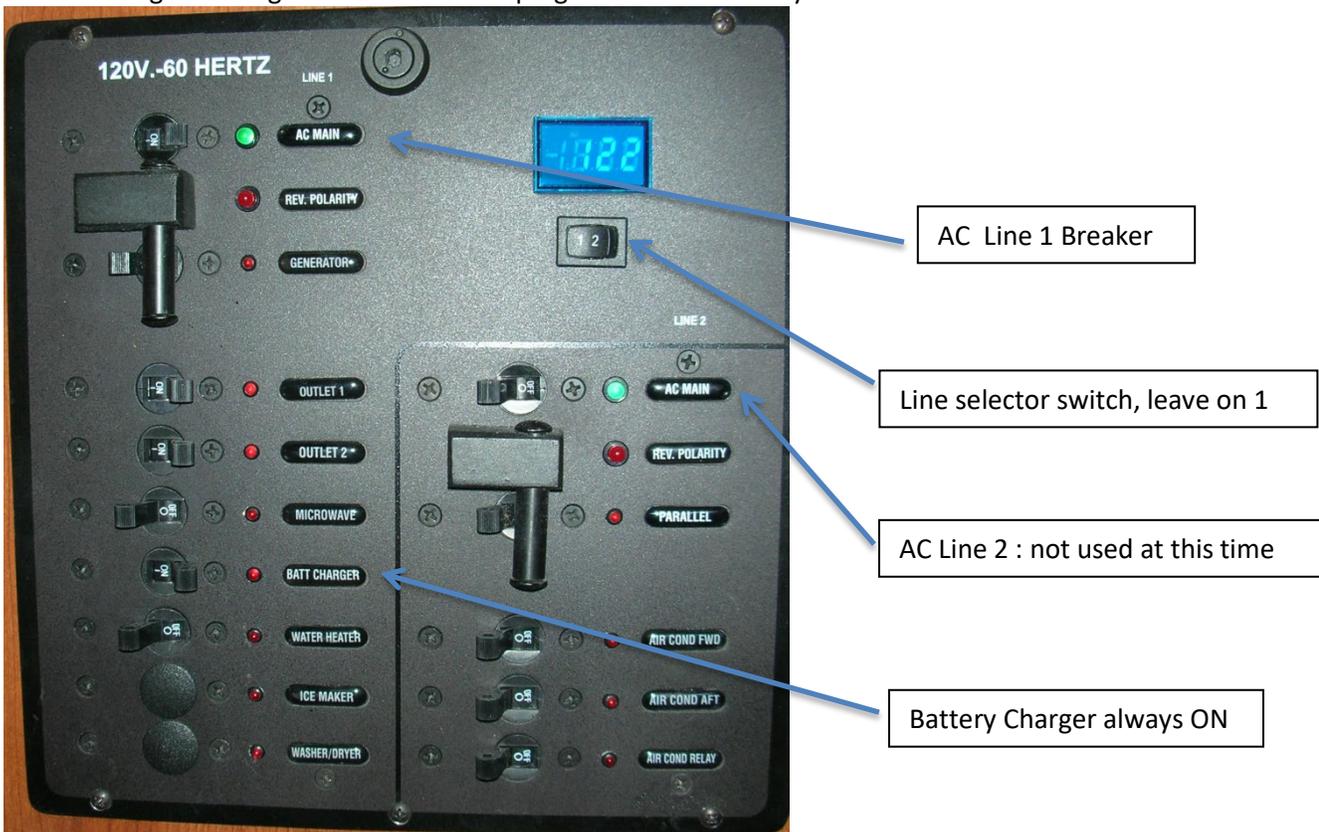
The 120V AC panel and the 12V DC Accessory panels are above the Nav station



120V AC Panel

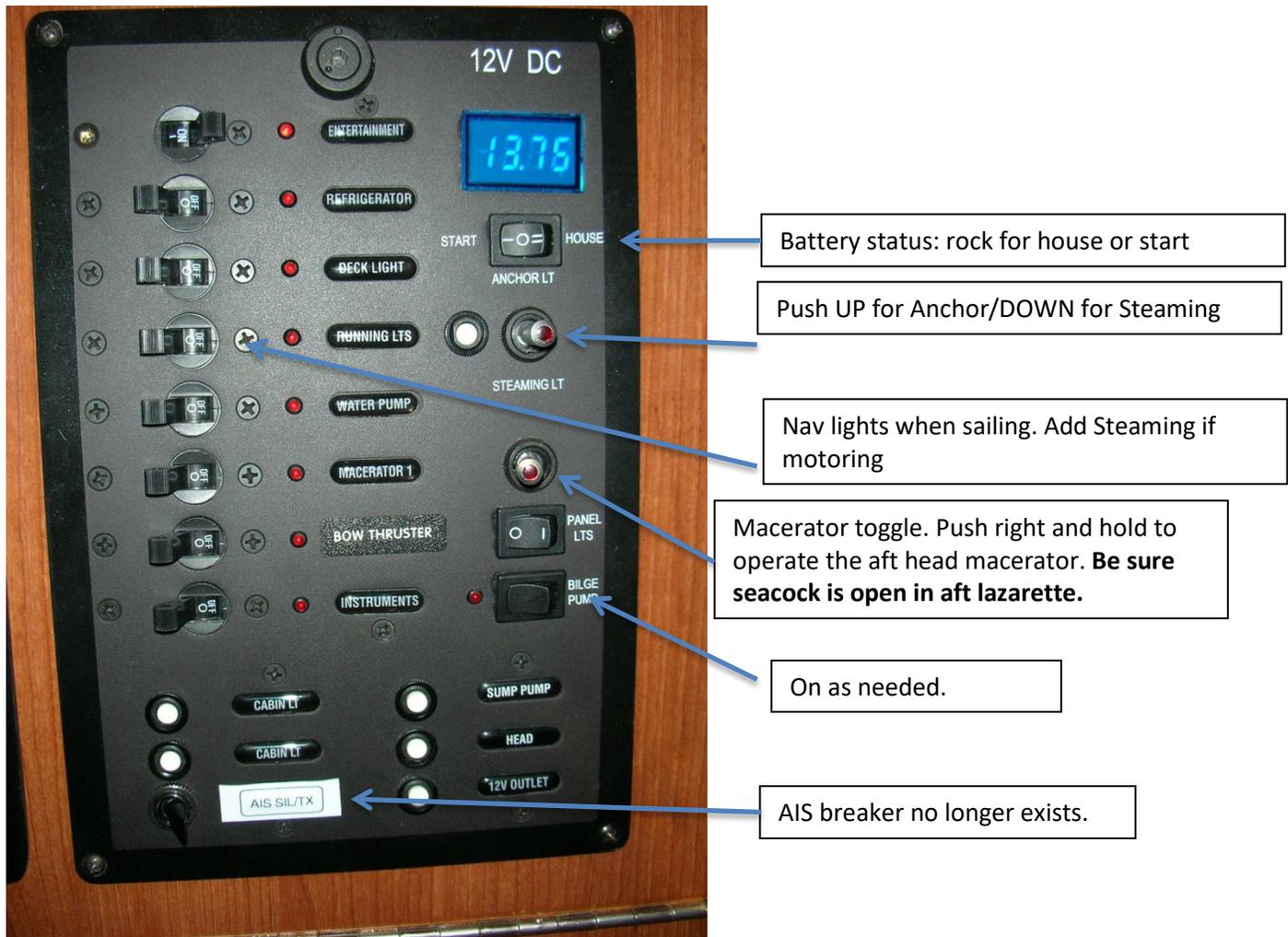
12V DC Accessory Panel

All AC functions are controlled from this panel. The shore power breaker and reverse polarity breakers are on the top left. The incoming AC voltage meter is on the top right. Line 1 is the only line used at this time.



The 12V DC Accessory Panel controls the normally operating electrical instruments and appliances used on the boat. These breakers are ON/OFF switches [except for the white pop-out buttons which are always ON unless they aren't. Push these in to re-set.] The voltage gauge duplicates the Blue Sea Systems gauge.

Breakers are mostly self-explanatory. The Running Lts breaker turns ON only the lights required for sailing in reduced visibility, if SAGE is motoring, then the steaming toggle must be turned ON also.



Salon Lighting. Two Salon and Galley area light switches are located just under the lip of the galley countertop between the sink and the large refrigerator. These are dimmer switches. There is also a single red ceiling light just above the foot of the companionway steps. The lamp is red to preserve night vision and operates with a toggle switch on the fixture itself.

14. ELECTRONICS:

QUICK NOTES

- Instruments breaker, then Power button on plotter.
- Touch Screen controls.
- HOME pad displays choice of functions (radar, plotter, split screen).
- Setting are optimal for San Juan's, please do not change them.
- VHF remote mic screws into side of the starboard binnacle.
- Consider depth shown is at water level; subtract 7 feet for water below keel.
- Bow thruster is always energized, just turn it ON at the helm.
- Auto pilot at port helm.

DETAILS

Chart Plotter: SAGE has a state-of-the-art touch screen chart plotter (new in 2019) which incorporates Charts, Radar, depth, and a split screen showing two functions at the same time. It is easy to operate.

Commonly Used Chart Plotter Selections:

Finding the Navigational Chart

- Turn on 'instrument' breaker on DC panel. (Be sure to turn breaker OFF after docking/anchoring. Instruments use considerable power.)
- Remove cover from chart plotter and stow on shelf below companionway stairs.
- Sometimes plotter will automatically come on, if it doesn't, press Power button.
- AXIOM logo will appear as plotter warms up.
- Screen will resolve with a box you must check to 'agree'.
- Screen will now present all the choices. We always choose upper-left box 'Chart'. But, notice the various options including 'Chart/Radar', or just 'Radar'. SAGE has no fishfinder. The Dashboard options are interesting, but redundant. We don't use.
- Back to the 'Chart' screen.

Zooming IN and OUT – Use - and + buttons at bottom of screen, or use two fingers like you would on an I-Pad.

Return Screen to Vessel Location – If you don't see the 'ship' (which is SAGE) and it is off the screen, touch the Menu Tab, far to right corner of plotter above the round knob, then select 'Find Ship' – top of list. Otherwise, after about 30 seconds, the system automatically reverts to 'Find Ship' mode and brings SAGE back on the screen.

Clearing Existing Waypoints, Routes and Tracks

- Touch Menu button:
- Choose 'Waypoints, Routes and Tracks'.
- Choose whichever you want to delete.
- List will show prior recordings.
- Select what you want to delete.
- Please don't worry about deleting everything. We don't save any of this data.

Chart Orientation

- Select Menu.
- Select 'Settings' (three gears icon at bottom of list).
- Select 'View and Motion'.
- Select from 'North/Up', 'Course Up' or 'Heading Up' under 'Chart Orientation'.

Display Brightness – Short press Power button once, quickly. A screen will pop up from bottom. Bottom of that screen is a slide. With your finger, slide left for darker.

Course Over Ground (COG) Vector Line – This is the blue line that appears coming from the front of the 'Ship' on the screen. It represents the course the boat is making over the ground, not where the bow is pointed. The boat doesn't necessarily go where it's pointed due to the influences of the wind and currents. The Chart plotter accommodates for and shows these effects.

Display and Use Split Screen – Press Home button. Select one of the split screen options.

Radar Overlay

- Press Home button.
- Select 'Half or Full Screen Radar'.

AIS Overlay and Targets – PLEASE DO NOT CHANGE ANY AIS SETTINGS.

To use AIS feature:

- Touch the vessel on the screen you are interested in.
- An information box will pop up showing vessel name, course, speed and MMSI number for about 10 seconds.
- To see more info, while box is still on screen, tap the middle of the round knob.

Determining Distance and Bearing to Selected Destinations

- Touch screen on the location, holding for one second.
- A 'Chart' tab will open. It shows latitude/longitude, range (distance away) and bearing (compass heading to get there).
- There are also selections for setting the spot as a waypoint and to build a route. We do not use these features.

Radar: Radar is integrated with the plotter and is accessed by HOME, then RADAR on the touch screen. Follow the screen prompts. You can also select the split screen icon and get both chart and radar side-by-side. Please remember that SJS contracts do not permit night or restricted visibility sailing. However, you can watch the radar screen and also what's actually happening around you to develop a familiarity with what is showing on the screen and what it looks like in real life. Radar uses significant power. On clear days you can toggle the power button to bring up an option menu that will enable you to turn off the radar when it is not needed. Unless there is a chance of fog, we keep the radar off.

AIS: SAGE is equipped with AIS (Automatic Identification System). This broadcasts and receives VHF signals from all similarly equipped vessels and puts an icon on your plotter that shows their position, speed, direction of travel and most importantly their closest point of approach and the time to that point. It shows more, but the above is what you should be looking for.

Wind/Depth/Speed: There are three instruments over the companionway stairs that give wind speed and direction, depth of water, and speed through the water (and a reflection of the photographer). These instruments are turned ON with the Instruments breaker. Occasionally, the depth gauge will blink or show a fixed low depth reading when actually you are out in obviously deep charted waters. This seems to occur in VERY deep water and the sounder gets confused. This 'stuck' reading will clear in time as depths get less than 500' or so.



VHF Radios: The iCom Marine VHF radio is above the Nav station with a remote microphone that plugs into the port side of the starboard binnacle. All functions can be operated from either station. The calling channel is 16, and San Juan Sailing monitors channel 80, however land masses in the Islands limit reception by SJS in many locations. By cell phone

you can call SJS at 800-677-7245. Remember that to stay on the good side of the Coast Guard, and your fellow boaters, as soon as you establish contact with your intended party, switch to a working channel (66, 68, 72, 78, 09, etc).



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

Turning On and Off the radios – Turn on at either the cockpit handset or the main radio at the nav desk by pushing on the volume button. Both units will come on. Both units operate in sync, including volume. Same to turn off; just hold the button longer.

Changing from High to Low transmit power – Bottom of the screen shows various selections for operations. Scroll through these laterally by using left or right arrows. Selections include but are not limited to 'high/low'. Press the button directly below. Transmit strength toggles from 25W to 1W and is shown in upper left corner of screen.

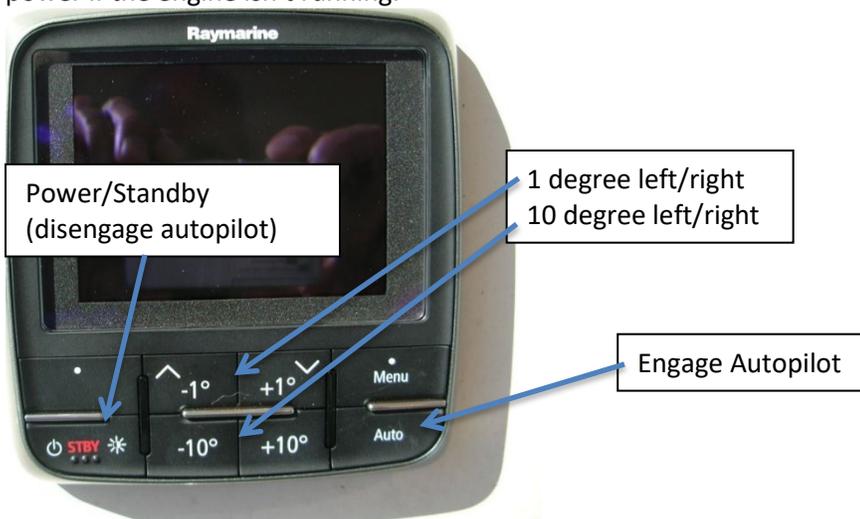
To quickly get to channel 16 – Press the blue 16/C button.

Accessing the weather channels (WX) – Again, on the menu bar scroll to CH/WX and tap the button below. This takes you to 9 channels of various weather stations. Scroll up and down with channel buttons. 4 and 8 seem to be best reception, but try all of them. You should listen for the "Northern Inland Waters".

Adjusting Volume and Squelch – Press down quickly on power/volume button. This toggles between volume and squelch on the screen. Adjust up or down by turning the knob.

How to set up and use Channel Scanning – Radio should normally be set on 16, but you can have it continuously scan all channels by pressing the key below 'scan' on the menu – bottom of screen.

Autopilot: The autopilot takes much of the strain out of a long tack or downwind sail; obviously, it does not however, relieve the need for a helmsman and due diligence. When the AUTOPILOT button is ON, the helm has no control of the rudder. To regain rudder control, push the STANDBY button. Remember that the autopilot uses considerable battery power if the engine isn't running.



Entertainment System: The Fusion unit is one of the best marine music and entertainment units on the market. It is bluetooth compatible. We love music and can attest to the quality of the Bose speakers and sound quality in the salon. There are speakers also in the cockpit. These can be isolated and turned off by toggling the volume dial and turning the volume back there to ZERO. Please double check that no sound is coming out in marinas and quiet anchorages. We must admit, we watch almost no TV. Sage has no subscriptions to XM, Netflix, Satellite, etc. The DVD works well, and the DVD's slip in through the front of the Fusion unit, as shown. Take it from there! Check to be sure the cockpit speakers are turned off while watching a movie. Turn the Fusion off by tapping the red power button two times, quickly. Note: the USB socket next to the VHF is for input from an external device to the Fusion unit. It will not charge a phone if the Fusion unit is OFF.



Front panel of the Fusion open for a DVD

15. ENGINE:

QUICK NOTES

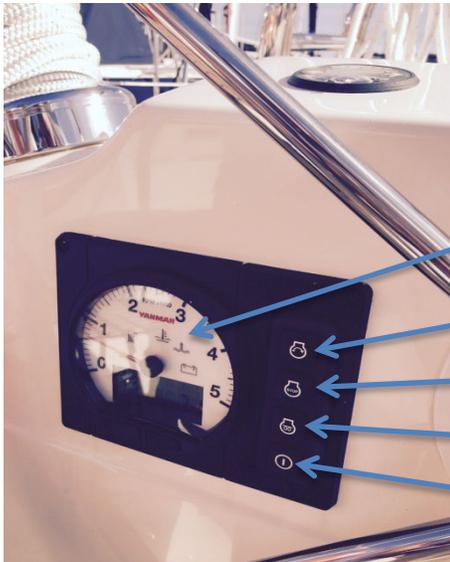
- Throttle/Shift lever's neutral position is angled 45° forward.
- No key used to start the engine.
- **CAUTION:** The engine will start in forward, neutral, and reverse. Be sure you are in Neutral.
- Start Battery switch on the 12V main panel below Nav seat must be ON (horizontal).
- When sailing, shift must be in neutral or reverse NOT forward. Forward will damage sail drive.
- Optimal RPM is 2000 to 2400, maximum RPM is 2600.
- There is minor, normal rudder vibration from prop wash between 2200 and 2600 RPM.

DETAILS

SAGE has a powerful 56 HP Yanmar engine and sail drive. She has an economical engine RPM range between 2000 and 2400. Yanmar has stated that there is nothing to be gained and potential engine damage if you exceed 2600 RPM.

To START SAGE's engine, check to be sure you or someone else has not turned OFF the start battery switch on the main DC panel below the Nav seat. Make sure you are in neutral, then push the power-on button (lowest) on the engine module on the port binnacle; wait 4-5 seconds and push the start (engine icon with a rotating arrow) button (pre-heating is not usually needed). As soon as the engine starts check for cooling water out the exhaust.

SAGE has been fitted with a raw water intake sensor and alarm. The sensor is located between the engine's water pump and the raw water strainer. If water ceases to flow due to blockage, an alarm will sound and a light will come on at the port helm station. Upon alarm, stop the engine and clear the blockage.



Tachometer and warning lights

Start button

Stop button

Diesel pre-heat, not normally used

Power button

To STOP the engine, **FIRST**, push and hold the **STOP** button until the RPMs drop to zero and you can no longer hear the engine. **THEN** push the **power** button to de-energize the module and stop the alarm noise.

Doing this in reverse order can cause alternator and electrical system damage. San Juan Sailing maintenance Pros check the engine oil and coolant before each charter, so you do not have to do so. However, if you do desire to check the oil level, the dipstick is accessed through either the top of the engine box or the starboard side of the engine compartment. Be sure to push the dipstick in all the way when checking. The coolant overflow reservoir is in port forward corner of the engine compartment. The Yanmar engine and sail drive are very reliable and in the unlikely event of an engine stoppage, check the sea strainer for an obstruction. It is about even with the waterline, so it helps to close the raw water intake seacock located on base of the sail drive to clean the strainer.



Sea Strainer.



Raw Water Intake Valve feeding Sea Strainer (shown open). Access From side panel of engine compartment.

16. FUEL TANK:**QUICK NOTES**

- Fuel gauge is in the cockpit, not on the tank monitor panel.
- Refuel when the gauge reads no less than 1/2 full. It is a 50 gallon tank, but the gauge is very bias to reading as if there is more fuel.
- Diesel fill is opened by hand.
- Diesel fill is located on the port side deck next to the port binnacle.

DETAILS

The diesel fuel tank holds 50 gallons and we recommend that you re-fuel at no less than ½ tank. That precludes sucking anything from the bottom of the tank or sucking air into the fuel system; neither of which aren't any fun. The gauge reads as if there is more in the tank than there really is, due to the shape of the tank; narrow at the bottom. As a general rule the engine uses 1.3 gallons/hour at 2200 rpm (about half that at 1800 rpm) and the furnace ½ gallon/hour. The **fill pipe** is on the port side deck next to the port binnacle. It says DIESEL on the cap. The cap opens with hand pressure, no tools are necessary. Sage takes fuel VERY slowly due to venting restrictions. Be very careful when filling to avoid a spill which is illegal with a hefty fine. Put spill pads in place around the pump and filler tube area. Protect the teak. Listen to the fill sound to hear the gurgle as the fuel nears the top.

17. HEAD AND HOLDING TANK:**QUICK NOTES**

- SAGE has two electric MasterFlush heads; fresh water flush.
- Water pump breaker must be on to use toilets, sink or shower.
- Holding tanks are 20 gallons each, total 40 gallons.
- Macerator seacock for aft head is located in the lazarette under the swim step.
- Forward head is gravity drain, seacock is under salon floor near the dinette table post.
- Disposal of toilet paper is requested to follow San Juan Sailing procedures. Materials are provided in each head vanity cabinet.
- Please flush two bowls of fresh water down each head before de-boarding at the end of the charter to clear the piping.

DETAILS

Head: SAGE is equipped with two heads, each with a shower and sink. The forward head is ensuite with the stateroom. The aft head is on the port side across from the galley. Both toilets use fresh water to flush and are operated with two switches; to flush with fresh water (left switch), and to simply fill and empty the bowl (right switch up and down, respectively). Both switched actuate the macerator. There are no 'Y' valves. All waste goes to the holding tanks.

Left button introduces fresh water into bowl while flushing. Good to clear line.



Holding Tanks: SAGE has two 20 gallon holding tanks. Depending upon usage, you may have to discharge daily, or every other day. 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 vents and hoses. We have used baggies as a repository for toilet paper and then place them in a garbage bag and have never had an odor or visual mess on the boat. San Juan Sailing will address the issue of discharge in the Skippers Briefing. We encourage flushing with ample time on the left switch which combines fresh water with the flush to help clear the discharge line to the holding tank. There are two ways to empty the holding tanks; pump-out and overboard discharge.

Pump-out: The deck fittings for the holding tanks are on the aft deck next to the starboard binnacle for the aft head and forward on the starboard deck adjacent to the mast for the forward head. Remember to check carefully what the fill says on top...the waste and water fills are next to each other near the mast.

Overboard Discharge: The procedure is different for each holding tank.

Forward Head: The forward holding tank is located high on the hull behind the v-berth head. The tank holds 20 gallons and it simply empties by gravity. There is no macerator. The discharge seacock is just forward and to the right of the base of the post holding up the dinette table. Turn the valve to the open position and you will hear the contents flow as the tank empties. Close the valve. (The second, smaller thru hull was for the sea water intake for the old original forward toilet. It is now plugged.)



Prior water intake, now plugged. (it was for the old pump type head).

Forward head holding tank seacock, in CLOSED position. Open only to drain.

Aft Head: The aft holding tank is in the aft transom locker (lazarette), accessible only with the swim platform down. Photo below. It also holds 20 gallons. This tank requires the macerator to empty. The yellow discharge valve is normally in the open position (handle vertical). The red valve is normally closed and must be opened to evacuate the tank. **DO NOT TRY TO RUN THE MACERATOR PUMP WITHOUT OPENING THE RED VALVE.** Check both valve positions upon boarding and check-out and before you use the macerator the first time. A closed seacock versus a macerator pump is a contest you don't want to witness, nor clean up.



Aft Holding Tank

Macerator seacock in normally OPEN position. The yellow handle is vertical (in line with the flow).

Waste tank valve leading to the macerator pump. RED. Normally closed (as shown). **MUST BE TURNED 90 degrees, in line with hose, to open before operating macerator pump to empty the tank.**

The macerator pump switch is on the DC panel. Turn the breaker switch to ON and push and hold to the right the toggle switch next to the breaker [see a photo in paragraph 12]. You will hear the pump working; emptying the tank overboard. Listen for the noise level to change a bit higher to tell when the tank is empty. Shouldn't take more than a minute or two, max. Release the toggle switch and turn the macerator breaker OFF. The aft tank is translucent, and you can see the level. In addition, the tank level gauge, so far, indicates content level, but these are known to be a bit unreliable.

18. HEATER:

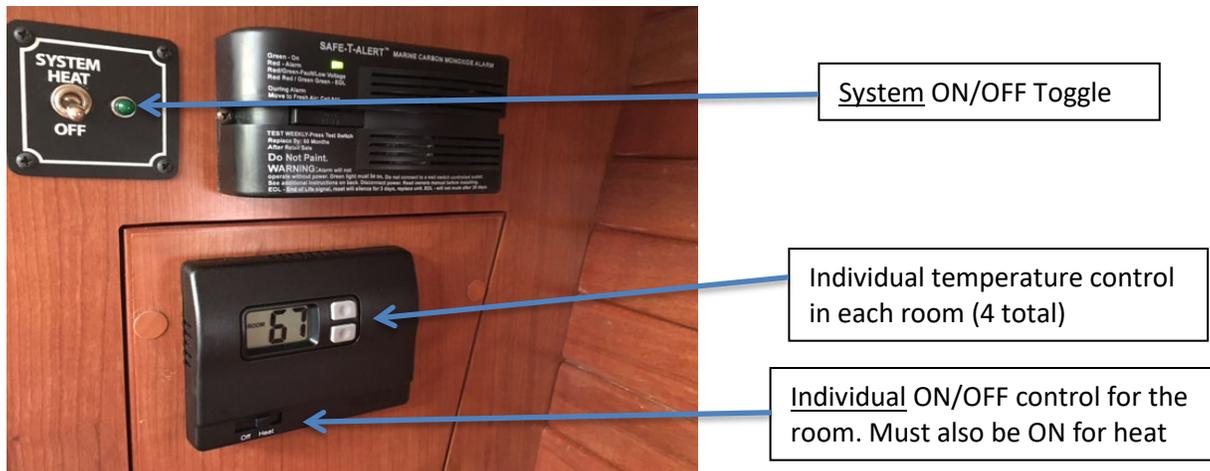
QUICK NOTES

- **Webasto heater controls are in every room.**
- **Turn ON the heater and adjust each room's temp control. Slide T-stat switch to HEAT.**
- **An AC portable heater is stored in the aft port hanging locker. Shore power only.**

DETAILS

The Webasto furnace provides warm and dry heat throughout the boat. Running it in the morning and in the evening, will take the edge off any chill and definitely increase the pleasure of your charter. We have found that running it all night is not necessary and a waste of both fuel and voltage. To turn it ON, just flip the System Heat toggle at the Nav station and set the desired temperature on each thermostat. The furnace takes a few minutes to cycle up before the fans in each room start. The pump also runs a bit to cool down before it shuts totally down.

If you are on shore power, there is a portable electric heater stored in the aft stateroom hanging locker that can take the chill off a northwest evening.



System ON/OFF Toggle

Individual temperature control
in each room (4 total)

Individual ON/OFF control for the
room. Must also be ON for heat

19. REFRIDGERATOR AND FREEZER:

• QUICK NOTES

- Refrigerator and Freezer settings about mid-point.
- Refrigerator is 2.75 cu ft.
- Freezer is 1.6 cu ft.

DETAILS

SAGE has both an electric refrigerator and second refrigerator/freezer. The refrigerator is an under counter front opening unit that keeps food and drinks well chilled. It measures 2.75 cu ft [14" deep, 17" wide, and 20" high.] Most charter guests find setting the temperature gauge inside the unit about mid-point provides a good chill.

The Refrigerator/freezer is smaller at 1.6 cu ft, [14" deep, 12" wide, and 16" high]. It changes from a refrigerator to a freezer depending upon what temperature you set. (Freezing is good at a setting of 6) . Running both all night depends on the level of charge of the batteries when you go to bed. If during the day you have run the engine only for anchoring, then turning one of them OFF at night and the other a little warmer temperature might be prudent. If on shore power, leave them both running.

20. SAILS AND RIGGING:

QUICK NOTES

- Head sail is roller furling.
- Main sail is in-mast furling with a ratchet furling sheeve.
- Deploy and furl jib first then mainsail. This straightens the mast. Furler works better AND a bit of pressure on the mainsail by the jib helps keep wrinkles out of the main while being furled up.
- Reef early for efficiency and comfort.
- Keep pressure on opposing line when adjusting sails.
- Let boom free-float when adjusting sail area.
- Best to deploy and retrieve mainsail while on a starboard tack (wind coming over starboard rail, boom on port side of boat).

DETAILS

SAGE is equipped with a really efficient and easily managed sail plan. That is one of the main reasons we bought her. We are sure you will agree after just a few minutes of sailing. Let's explore the sails and their operation. And remember, furling, as the wind increases, reduces your heel angle and yet has little effect on your overall speed; and most important, it will reduce any possible crew anxiety. Additionally, most of the owners in SJS have found that with in-mast furling, deploying and retracting the headsail first then the main is the most efficient. This straightens the mast for efficient mast furler operation and give a bit of back pressure on the main to minimize wrinkles as it is retracted.

Lines and Clutches: All running rigging that you will be adjusting is run back to the cockpit. Thus, unless something out of the ordinary happens, no one has to go forward. You will notice that although both halyards (jib and main) are on clutches on the cabin top, we ask you not to adjust them, and have put knots in the lines to remind you. Release of either of these halyards will make subsequent sail adjustments difficult if not impossible.

Here are the lines on the port side of the cabin top:



Colors: Black , solid Blue, Blue, White, White (loop)

Spin Hlyd: Sage does not have a spinnaker.

Genoa Hlyd: Used to haul up the jib furler and sail. **Please do not release.**

Lazy Inhaul: Used in conjunction with the Inhaul to keep tension on the main furling ratchet.

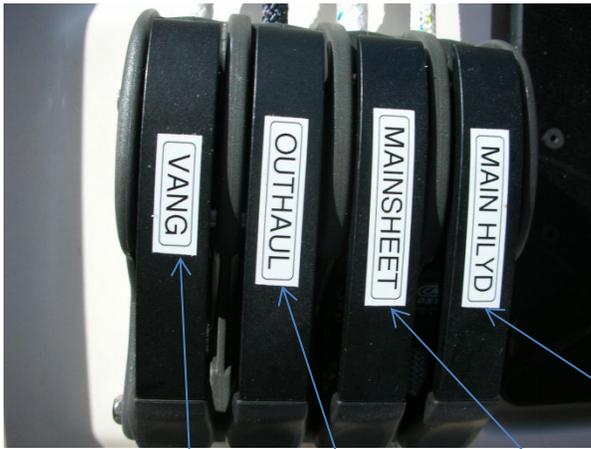
Inhaul: Used to furl the mainsail with the furling ratchet. Again, the ratchet lets the main go in (furling), but not out. Good for reefing. Just don't forget to go forward to set the ratchet to FREE mode to get the mainsail out again.

Furling Ratchet:



Ratchet lever should be in the FREE position except when pulling in the mainsail for reefing. For reefing, move the lever to the RATCHET position to keep the main from coming back out. If you leave it in RATCHET, the main can be pulled in, but it cannot be pulled out, **so be sure to put the lever into FREE to re-deploy the main.** In the photo, the lever is FREE.

These are the clutches on the Starboard side of the cabin top:



Colors: White/colors, Dark Blue/colors, White/colors, White/blue-yellow stripes

Vang: Tensions the boom vang.

Outhaul: Pulls out the mainsail. See the note on the RACHET above.

Mainsheet: One end of the mainsheet, [there are two ends, each able to control all mainsheet functions. The other end is on the Cockpit Arch beside the port helm station].

Main Hlyd: Raise the mainsail inside the mast. It is knotted...**please do not release it.**

Jib Furler: The furling line for the headsail leads aft through line guides on the stanchions on the starboard rail and turns through a turning block to a cleat on the cockpit coaming.

Headsail:

To deploy the headsail uncleat the furling line on the starboard side of the cockpit coaming and while keeping tension on it to prevent a 'birds nest' on the furling drum, pull out the jib sheets and winch the sail tight.

To furl the headsail Release the jib sheet and pull on the jib furling line, again keeping tension on the jib sheet for a tight wrap. When you have the desired amount of sail furled, cleat off the furling line and tighten the appropriate jib sheet.

Mainsail:

To deploy the main, loosen the vang and mainsheet to allow the boom to somewhat free float. Running on a starboard tack (the boom on the left side of the boat) will ease the movement of the sail as it provides a straighter angle to the

furling mandrel. Remember to have the ratchet in the FREE position and keeping slight tension on the Inhaul to prevent a runaway sail, pull the outhaul until the sail is out by the black line on the end of the boom. The last few feet may require the use of the winch.

Tighten the vang and mainsheet as desired and have fun!

To furl or reef the main the ratchet must be in the RATCHET position. Ease off to a slight starboard tack if possible, ease the vang and mainsheet a bit and release the outhaul clutch while pulling on the inhaul line. It is best if some tension can also be put on the Lazy Inhaul line to keep the line across the ratchet drum tight. The ratchet will only allow the furling line to go one way (in), so it will hold the main in whatever position you choose. As a quick reference, we find it easy to use the marks on the foot of the sail as reef points. There are three dots, each side of the sail, to gauge the extend of the sail taken in on the furler. To shake out a furl, loosen the appropriate line, put the ratchet in the FREE position and pull out the outhaul while keeping some pressure on the inhaul.

To retract the main just furl it totally. We have found by keeping a bit of pressure on the outhaul, along with keeping the main sail on a starboard tack (wind coming over the starboard side of the boat), the vang loose and mainsheet free we can get a wrinkle free and tight wrap inside the mast.

Dock lines and dock line locker:

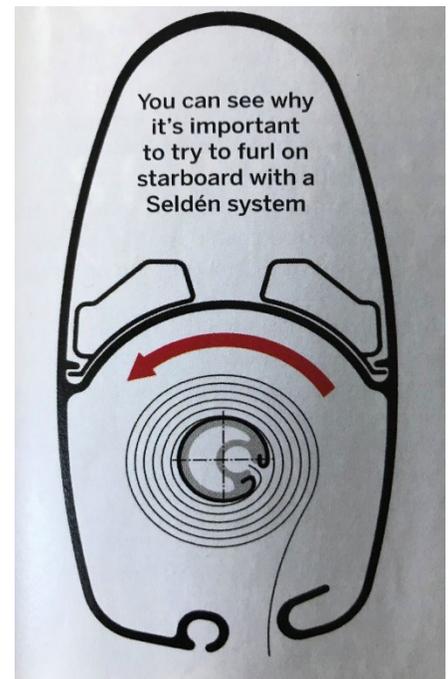
All dock lines on Sage are black in color except the two stern lines which are blue. The blue lines are shorter than the other black docklines so they won't reach the prop in the event one is trailing in the water when reversing. Most of the dock lines will stow on hooks in the aft port cockpit locker or up under the dodger while underway. There is also an 88' beige colored tow line hanging in this locker.

Main Sheet: SAGE has a German Mainsheet System which permits mainsheet control from either the coach roof top or from the port helm via a jam cleat and winch. The nice thing about this is the helmsman can adjust the main without leaving the helm (great for single handing) and does not have to wade through guests to get to the mainsheet on the coach roof top. Through trial and error, we find that you must however, keep track of how much sheet you have used and keep the sheet lengths somewhat even. While we would ask you not to remove the canvas between the dodger and bimini, if you do so, be aware that downwind, if the main is loosened at the coach roof clutch, and a loop develops in the sheet end alongside the helmsman, an accidental gybe can pull that loop tight and it won't care if anyone is in the way. The canvas prevents this loop from entering the cockpit...and keeping slack out of both ends will also preclude the situation.

21. SHOWER AND SUMP:

QUICK NOTES

- **Showers use hand held nozzles. The forward shower is the easiest and most convenient.**
- **Water can be VERY hot.**
- **Both engine and shore power heat water.**
- **Sump pumps are automatic.**
- **Water pump breaker must be ON.**
- **Transom shower is available for rising off after returning from the beach.**



DETAILS

The showers on SAGE are relaxing, efficient, and most of all...enjoyable. The water is heated by either the engine while it's running or electrically by shore power. The hot water tank holds 11.5 gallons which is extra-large, but as usual on sailboats, it's best to take a 'sailors shower' [get wet/turn water off/soap-up/turn water on/rinse off/]. The shower water drains through the deck into a sump which, because it is below waterline, has to pump it overboard. The sump pump is run by a float switch and is thus automatic and requires no action on your part.

The forward head has the larger of the showers and the easiest to use. We recommend using it and saving the aft shower unless needed.

We would really appreciate your crew taking the time to squeegee off the shower area when they finish. That keeps the entire head area looking clean and fresh for your charter and for those following you.

Transom Shower. There is a hand-held shower head and hot/cold fresh water valve at the transom for taking a delightful outdoor shower on the swim platform. As stated above, Sage has an oversized hot water tank, in part, for enjoying this feature. The shower is also a good source of fresh water to clean up the cockpit area, and filling a bucket for rinsing off the dodger windows. The forward flapper cover in the aft shower compartment is the pull-out shower head, next to it is the water flow control [hot/cold/On/OFF] and furthest aft is the hose connection for making a connection to dock side fresh water. This makes it possible to have unlimited water and be able to turn the water pump off, running water with no noise, and keep the tanks full! Remember to turn the pressure off at the temperature control valve when finished with the shower.



Forward head shower



Shower head

Water temperature controls

Shore side water connection

22. GALLEY, STOVE AND OVEN AND MICROWAVE:

QUICK NOTES

- Open LPG tank valve and then the LP Gas Solenoid control.
- Lite burner with the electric ignitor on the stove.
- Turn OFF the burner and the solenoid control when finished.
- Lift up on oven handle to open the oven.
- Lite the oven with the stove ignitor.
- Check to be sure the oven has flame.
- In case you want to cook crabs, the trap is stored in the transom lazarette.
- Galley and Salon light switches are located just under the lip of the countertop between the sink and the large refrigerator. These two switches are dimmable, by pressing and holding several times. There is also a red light in the ceiling directly above the foot of the companionway, operated with a toggle at the light.

DETAILS

Stove. The stove and oven, LPG models are easy and convenient to use. They operate off of LPG tanks located in a closed and vented compartment under the starboard aft cockpit locker. Under normal usage the tank will last longer than the duration of your charter. There is a spare tank in the locker. To operate:

- Open the valve on the LPG tank in the LPG locker. [It can remain ON if you desire].
- Turn ON the LPG solenoid control in the galley near the sink (below the counter lip).
- Push in and turn the desired burner knob while pushing the electric ignitor button. When lit keep pushing the knob for a few seconds for the thermocouple to warm up, then release and set the desired temperature.
- To stop, turn off the burner and turn the LPG solenoid control OFF. (the solenoid draws power)
- Close the tank valve if desired.



Oven.

- Follow the same procedures as above; turn on tank if it's off.
- Open the oven door by lifting the chrome handle up.
- To light the burner the same procedures apply: turn the oven temp knob while pushing the electric ignitor button.
- Check to be sure you have a flame and close the oven door slowly so you don't blow out the flame.
- You can use one of the long necked butane lighters supplied on the boat if the ignitor is not working.

Microwave. The microwave operates on shore power only. Runs just like the one at home, except the time of day will certainly be wrong.

A rechargeable 12-volt **vacuum cleaner** is stored in a mesh bag under the forward port salon seat.



Crab Trap. A crab trap, float and leaded line are stored in the transom lazarette. Crab tools are in the galley utensil drawer.



23. SWIM PLATFORM:

QUICK NOTES

- Platform must be in the raised position whenever moving.
- Damage is probable if docking with the platform down. Keep up in marinas until docked.
- Support the platform when it passes vertical in either direction.
- Red line multi-part tackle is used to raise/lower the platform. Keep a firm grip on this line when lowering.
- One person will find it taxing to pull up the platform, two people are recommended.
- Support the starboard side of the lowered platform with the red line tackle in the jam cleat.

Cam cleat to secure platform lifting line. Keep line secured and tight when platform is up OR down.

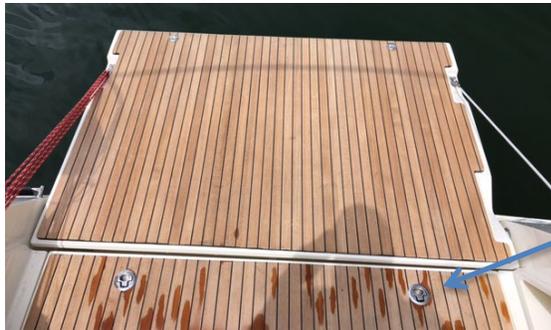


DETAILS

The swim platform could also be called a 'dinghy launch' or a 'stern boarding plank' or a great place to have a hot, freshwater shower. It really is a wonderful convenience. It is simple to operate, and we have found these simple guidelines to be very helpful in the safe operation of the platform:

1. The platform is, understandably, very heavy. Please practice lowering and raising with two people at first. You will feel how it has a 'pivot point' which occurs when it is near vertical, at which point it will gain momentum, if not controlled, in whatever direction it is moving, and wants to slam shut forward or fall backwards.
2. The red control line with its block and tackle is the primary tool for lowering and raising, aided by perhaps a helper pulling up on the white cable on the port side, to bring it up. The platform can be brought up with just the red line, although it does take a good grip and considerable effort.
3. While the platform is down, keep a bit of tension on the red line, and have it firmly cleated. This supports the aft starboard corner of the platform to handle any load, as in people.
4. In bringing the platform up, use your hand to ease it up against the transom; don't let it slam. Then, pull all the red line through all the pulleys, keeping the platform tight into the transom for being underway. Stow the line in the bag.

- The platform is attached to the hull by only two hinges. Backing into a dock with the platform down is inviting damage and a heavy expense. The momentum of the boat is massive in relation to the strength of the hinges, so to even 'nudge' the dock in a reverse docking would have a catastrophic effect on the hinges and the hull. Best rule is, never have the platform in the down position when the boat is moving, especially in docking maneuvers.



Lazarette where macerator valve is located.

Swim platform in the DOWN position. Note both supports, the fixed cable on the port side and the **tight** red line lifting/lowering tackle on the starboard

24. WATER:

QUICK NOTES

- 90 gallons combined in two tanks.; one port, one starboard.
- Water pump breaker must be ON.
- Recommend that breaker is OFF when motoring or when no one is aboard.
- Fills are located on both port and starboard decks.
- Water manifold is located on the lower left side of the cupboard below the galley sink.
- Fills are opened by hand.
- SAGE is now equipped with a water maker. It can be made available for extended cruises (over a few weeks in length) for an extra charge.

DETAILS

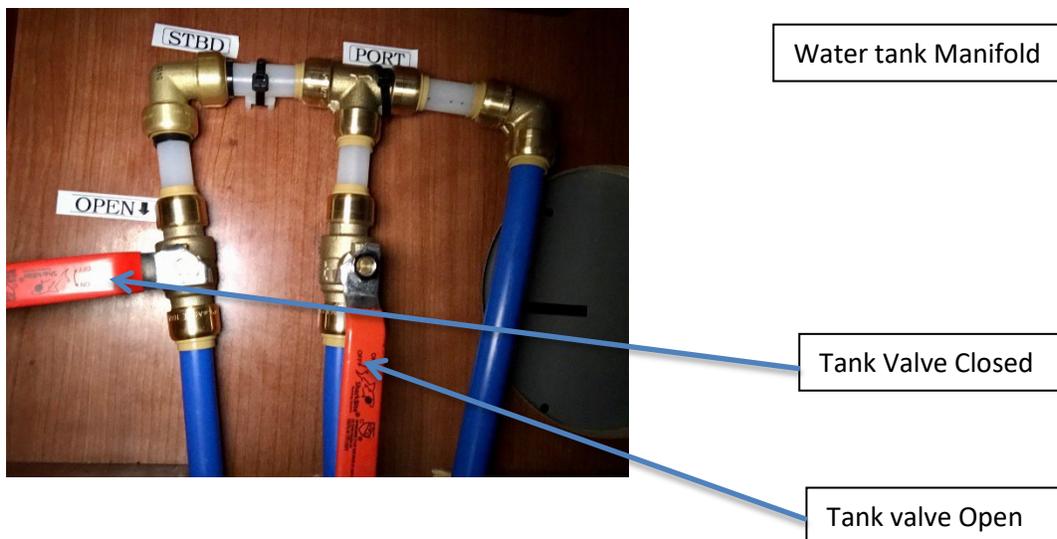
There are 90 gallons of fresh water stored between two tanks. The water pump breaker needs to be ON for the system to work .



Water and holding tank gauge. **Press a single button, 3,4,5 or 6, ONCE, QUICKLY** (holding button down for more than a second will require re-programing of gauge) and needle will move to indicate fluid level in that respective tank. (Holding tanks must be at least half full before needle will move. Don't ask why!!!) Also, ignore the little fuel gauge logo. This gauge is for water and wastewater levels only.

Water is available throughout the Islands for re-filling. The fill fitting for the starboard tank is on the starboard side deck outboard of the mast. It is one nearest the rail of the two fill fittings in this location. Be sure to get the correct fill, the other is waste. The fitting for the port tank is on the port side deck also outboard of the mast. The fill caps open by hand. White garden hoses are in the cockpit seat locker for use in filling the tanks as opposed to hoses found on docks.

The manifold to change tanks is on the left side of the cupboard under the galley sink. The starboard valve controls the starboard tank and the port valve controls the port tank. It is not advisable to have both tanks open at the same time, as you have no reserve when you run out. When the first tank runs dry, the water pump will run continuously. Switch to the full tank at valve manifold; close dry tank, open full tank. Pump will still be running. Open galley sink faucet to full on (both hot and cold evenly) and then open the faucet in the forward head. This is the fastest way to purge air from the water lines and get the pump to turn off.



Water Maker. You will see the control touch screen at the nav station for the Spectra Ventura water maker, and find many related components in boat; filters and valves in the bilge, control module and flush valve in the aft salon settee, and the actual pump in in the starboard salon settee. The system requires flushing after each use and 'pickling' and filter changes periodically. It is currently 'pickled' with food-grade antifreeze. It was installed in anticipation of an Alaska trip that has been postponed. Servicing is done only by the Maintenance Professionals. **Use of the water maker may be considered for long distance charters only, with assumption of the added costs of start-up materials, labor and use.**

25. PHOTO SEQUENCE SHOWING THE SALON TABLE CONVERSION:

The following photos show the steps to take to convert the salon table into a large and comfortable berth. We have put them here at the end of the Owners Notes because once you have done the conversion you probably won't refer to these again, and it saves space in the body of the notes.



Table in normal position



Showing the long leg in place [normal position]



Long leg and short leg



Short leg installed in base. Note the supports along the edges of the settee benches.



Table top installed on the short leg and sitting on the bench supports. Table cover not shown, but would be placed before the cushions.



Cushions replaced and conversion ready for a good night's sleep