Welcome

Rob and Jen welcome you aboard our Seawind 1260, Zephyr. The Seawind 1260 was first introduced in 2017 and was voted Cruising World's Best under 50' in 2019. Our long-term plans for the boat is to take her cruising around the world in 5-10 years. Until then, what better place than the San Juan Islands to put her into charter! Zephyr is a fun boat to sail and well laid out. She has twin helms, a self-tacking jib, and for more experienced sailors, a screecher can be outfitted for your cruise.

Index

1. Specifications & Vessel Information

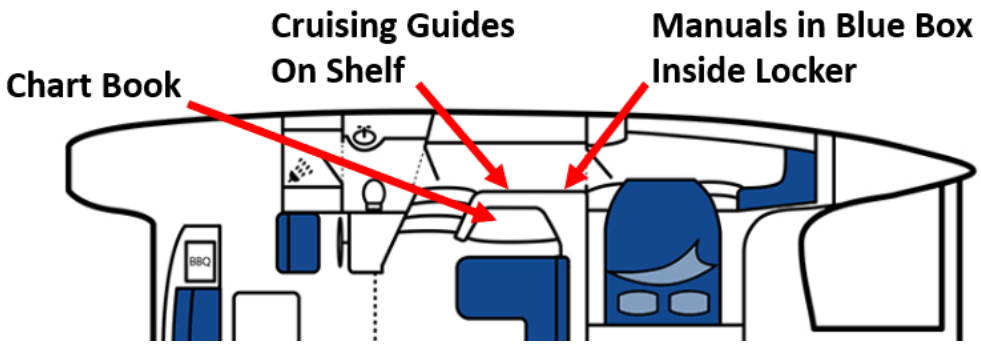
Beam:	22' 4"
Designer:	Seawind Catamarans
Dinghy Capacity:	6 persons / 1215 lbs.
Displacement:	18,165 lbs
Documentation # (USCG):	1327884
Draft (Hull)	3' 8"
Engine Starting Battery Capacity	AGM 700 CCA
Engine:	29 Hp Yanmar with Saildrives
Freezer Volume:	37 gal
Fuel Tanks:	127 gal in 2 tanks (63.5 gal ea)
Holding Tanks:	63 gal total (34 gal port, 29 gal starboard)
Hot Water Tank:	11 gal
House Battery Capacity:	800 A-hr Lithium
Hull Number:	VN-CSR0583YA222
Jib Sail Area	258 ft^2
LOA:	41' 0"
LWL:	39' 3"
Make & Model:	Seawind 1260
Mast Height Above the Waterline:	61' 6"
Mainsail Sail Area:	656 ft^2
Number of Cabins:	3
Number of Heads:	2
Propellers:	3 Blade Gori Folding
Refrigerator Volume:	34 gal
Rudder Draft	3' 7"
Screecher Sail Area:	710 ft^2
Shore Power	30A 110V, 60 Hz
Solar Panels:	1060 W
Stateroom Berth Size - Port	80" x 60" (Queen)
Stateroom Berth Size – Stbd Fwd	80" x 60" (Queen)
Stateroom Berth Size – Stbd Aft	78" x 48" (Double)
Stateroom Headroom - Port	6' 4"
Water Tanks:	Single Tank, 185 gal
Year Built:	2022

USCG Documents

USCG Documentation, running papers, and registration are located in the 3-ring binder labelled "Zephyr" on the book shelf in the port hull.

Operating Manuals

Operating manuals for the vessel and its accessories are located in a plastic bin inside the large locker in the Port hallway (to the left of the bookshelf).



Cruising Guides and Charts

Cruising Guides for the San Juan Islands, and for the Gulf Islands are located on the shelf next to the locker, also down in the Port hallway. There's also a reference guide for local scuba (or snorkel) dive sites. There are also chart books and a current atlas for the area which will be left on top of the chart table on the port side of the saloon.

2. Nuances

Port Shower Door

The glass shower door in the Port head (stern) is latched in the upper corner of the free side. Due to the color of the latch it is easy to not notice.

Helm Visibility

Visibility from the helm with the saloon windows and tri-fold door closed can be challenging due to glare and the fact you will be looking through two panes of glass. The windows directly in front of both helms can be fully lowered (operated by a switch next to the window inside the saloon). Glare from the tri-fold doors can be eliminated by raising the doors. It's also possible to improve visibility by sitting on the side of the cockpit coaming next to the winches and looking along the top of the hull adjacent to the saloon windows.

Propellers

The boat is equipped with Gori folding propellers that have 2 forward pitch positions, "Normal" and "Overdrive". The Normal position should be used when motoring in rough water at high rpm when maximum horsepower is required. Overdrive is used in calmer waters when maximum speed is desired. To switch the props to Normal mode, make sure the boat is moving forward, then set the throttles to neutral for 10 seconds. Moving the throttles to forward while the boat is moving forward will set the props to Normal pitch. To set the props to Overdrive, bring the boat to a full stop, or moving backwards, switch the throttle to neutral for 10 seconds, and then to forward.

Tri-Fold Cockpit Doors

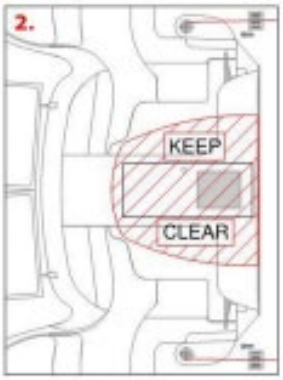
One of the Seawind 1260's most popular features are its tri-fold cockpit doors which allows the cockpit and saloon to be joined into one large open area. The doors fold and can be raised to next in the cockpit roof, stowed neatly and safely out of the way. To raise the doors:

SEAWIND CATAMARANS

SAFE TRIFOLD DOOR OPERATION

TO OPEN:

1) Open, fold back and bungee the two outboard doors.
2) Make people aware that the doorway area is to be kept clear during the door raising procedure.
3) Raise the middle door floor barrel-bolts and attach stainless lifting bracket to the fwd face of the door.
4) Ensure that the lifting bracket pin is pushed down to hold the bracket securely in position.
5) Lock the rope jammer into the CLOSED position.
6) With 4 wraps around the winch and 1 on the self-tailer, wind the door up into the targa roof.
7) Once raised, slide the safety bar down over the foot of the door.
8) With the safety bar down and the rope still on the winch and held, momentarily release the jammer to ensure the load is on the safety bar, keeping it in position.
9) Ensuring the jammer is closed, you can now release the rope from the winch.
10) WHILE- EVER THE DOOR IS OPEN, THE SAFETY BAR MUST BE DOWN & HOLDING THE DOOR WITH THE ROPE JAMMER ON.



TO CLOSE:

1) Make people aware that the doorway area is to be kept clear.
2) Check that the rope jammer is in the **CLOSED** position.
3) Place 4 wraps around the winch and finish in the winch jammer.
4) Check that the stainless bracket is secured at the foot of the door.
5) Release safety bar.
6) Take lowering line in one hand and open the rope jammer.
7) Whilst holding the load, take 3 wraps off the winch and then slowly lower the door with 1 or 2 wraps remaining.
8) Once in the lowered position, release the line and remove the stainless bracket.
9) Secure the middle door by lowering the floor barrel-bolts.
10) Secure stainless bracket into its storage receiver in the Targa roof and pull in excess rope. Close off rope jammer.

Heaving-To

Heaving To on Zephyr is a bit unusual because of the self-tacking jib (prevents the jib from being backed easily). The following procedure is used to heave-to:

- Furl the jib (and screecher)
- Turn the boat into a reach
- Move the traveler all the way to the windward side
- Haul in the mainsheet tight
- Turn the helm all the way towards windward

In this configuration, the boat will oscillate from between 20 degrees off of the wind to 60 degrees off of the wind as it zig-sags downwind.

Tilting the Dingy Motor

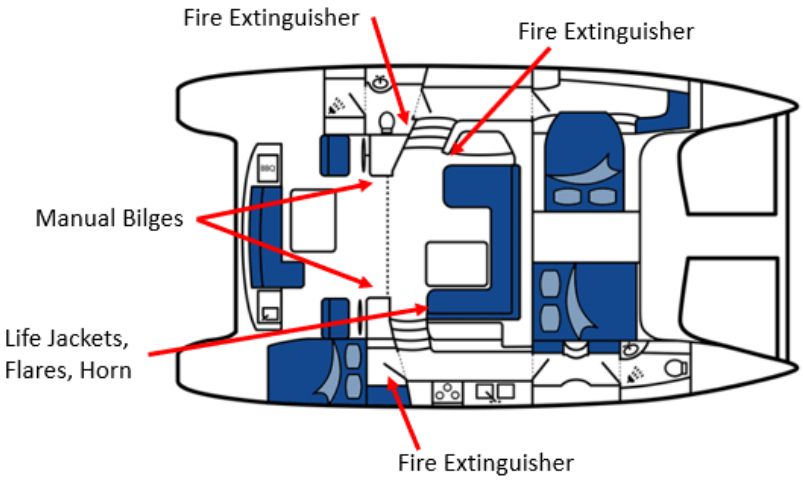
The dinghy motor will not tilt up unless it is in FORWARD gear. Make sure you turn off the motor first, but then put the motor into forward to unlock the tilt feature. You can then push down on the tiller (throttle) arm to tilt the motor up while beaching.

3. Emergency/Safety Equipment

Fire Extinguishers

There are three type ABC fire extinguishers on board in the following locations:

- In the port head just inside the door to the left by the head
- In the starboard stern cabin just inside the door (to the right looking into the cabin)
- In the saloon under the chart table



Flares & Signal Horn

There is a white mesh bag containing the following emergency equipment in the movable seat in the saloon.

- 3 parashute rocket flares
- 3 Night signal flares
- Hand-held horn and spare gas canister
- Orange day flag
- Portable beacon locator

Note that there is no horn integrated to the vessel, so the hand-held horn should be removed from the bag and kept at the helm if visibility is restricted by fog. Remember the sound signals:

- Motoring: one prolonged blast every 2 minutes
- Sailing: One long blast followed by 2 short blasts every 2 minutes

Life Jackets

There are adult and child life jackets aboard, located in the saloon under the seat closest to the starboard stairwell. There are also offshore life jackets located in the bow locker of the port berth. In the event an offshore lifejacket is inflated, there are spare re-arm kits in the chart table of the saloon. Note that the blue offshore jackets and red offshore jackets use a different re-arm kit:

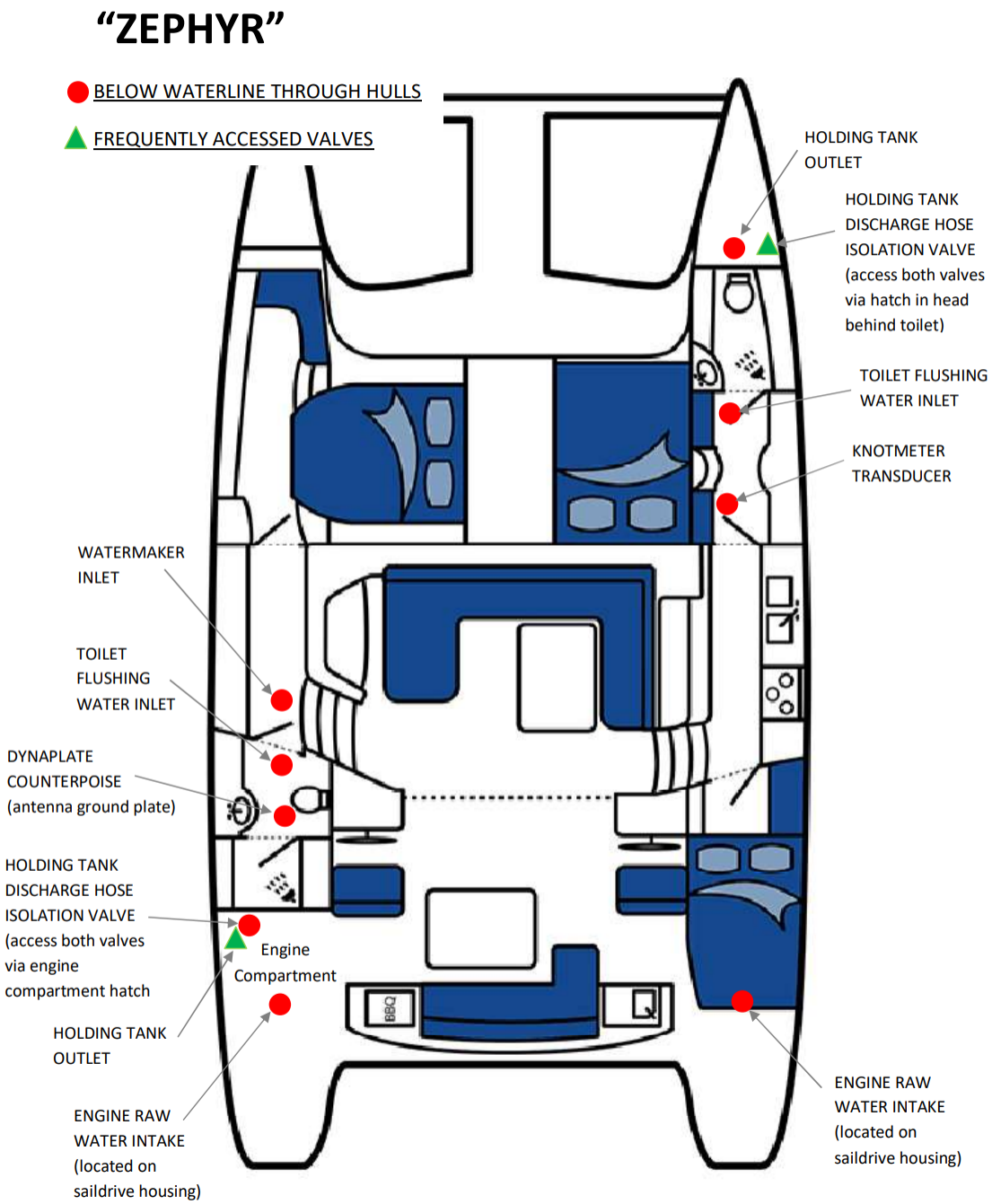
- Blue Offshore life jacket re-arm kit: Leland Type O2
- Red Offshore life jacket re-arm kit: Leland Type A

Steering Failure

In the event of steering unresponsiveness, the first course of action is to attempt steering with the other helm wheel. Both wheel's cabling systems are independent, so a cable slipping or breaking should only effect one of the two wheels.

If the rudders are not responding to either wheel, drop the sails, turn on both engines and use engine differential power to steer the boat. If the rudders are jammed or stuck off of the neutral position, the boat will tend to veer one way or the other. In order to control the boat, you may need to reduce boat speed considerably in order to reduce rudder pressure to the point where the engines can provide effective steerage.

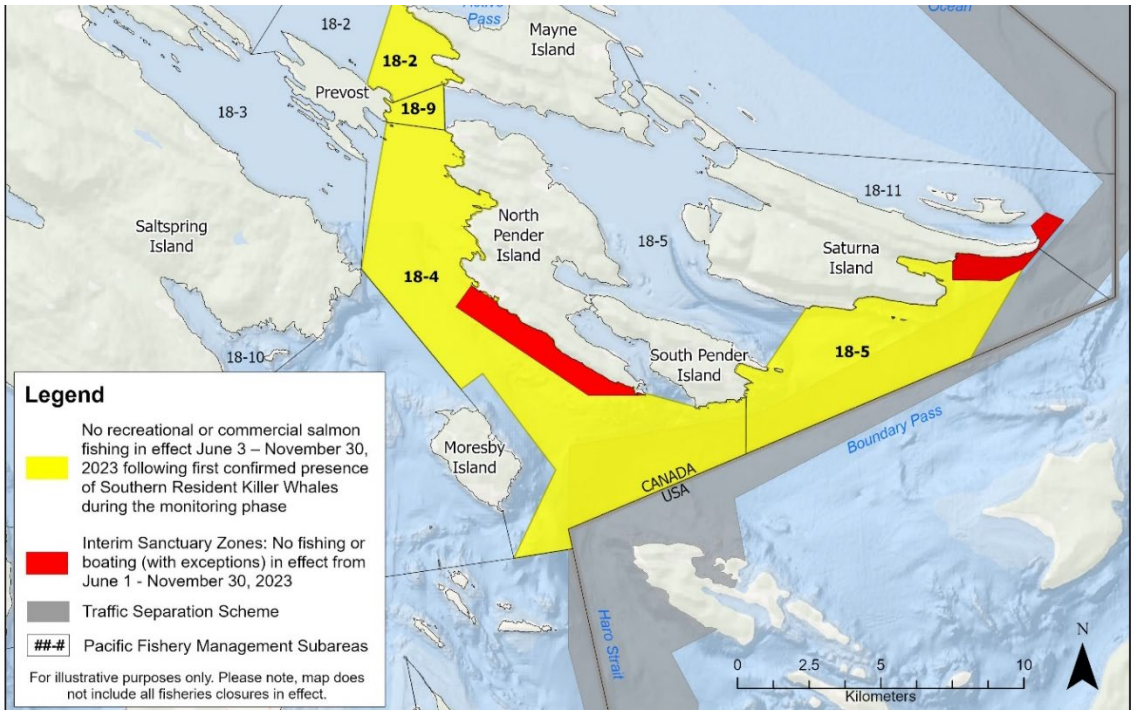
Through-Hull Locations



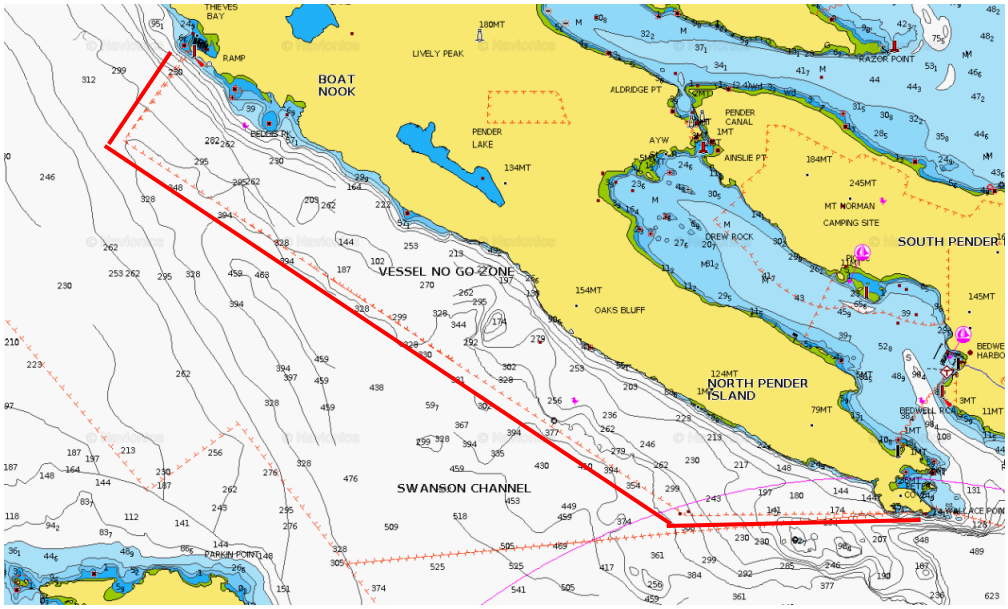
4. Being Whale Wise

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 Zephyr. 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 Zephyr's chart plotter. 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.

5. Anchors and Windlass

<u>Highights</u>

Zephyr is equipped with:

- 45 lb. primary anchor and 180 feet of chain plus 100 feed of nylon rode connected to the windlass
- Bridle
- The windlass breaker is located under the chart table in the saloon (below the red/yellow battery switches)
- Danforth secondary anchor with 30 feet of chain and 150 feet of nylon rode located in the middle foredeck locker
- A raw water washdown connection is located on the starboard bow just above the trampoline. The pump is turned on and off with the push-pull knob mounted next to the hose connection. The washdown hose will either be mounted to a bag hanging from the lifeline or in the bow locker closest to the washdown pump connection. The washdown is useful in the many muddy bottom anchorages in the Salish Sea.
- The washdown pump's breaker is located under the seat just in front of the chart table where the other 12V breakers and distribution box is. The washdown pump breaker is on the small box mounted to the aft side of the cabinet (the one with just 2 breakers).

Details

Mooring

Many of the anchorages in the San Jan Islands have state-operated mooring buoys. Locations for moorage in the San Juans can be located at: Washington State Northern Mooring Sites (https://www.parks.wa.gov/651/Northern-Moorage-Sites). Zephyr has onboard an annual WA State Marine Parks pass, located in the chart table. With this, you may use the state-operated mooring buoys free of charge.

Primary Anchor & Windlass

The primary anchor is a 45 pound CQR anchor connected to 180 feet of 8mm (5/16") chain and 100 feet of ¾" nylon rode. The windlass is located on the foredeck in the 2nd locker from the mast. The locker also contains the windlass controls and a winch handle should it become necessary to operate the windlass manually. The vessel is also equipped with an anchor chain counter located at the Port helm just outboard of the throttle controls. In addition to the anchor chain counter, the chain is marked every 25 feet with a 2 foot length of nylon rope, and every 100 feet with two 2-foot lengths of rope. The final 100 feet of rode is marked every 25 feet with a piece of yellow nylon rope.

Secondary Anchor

An additional Danforth anchor is located in the middle locker on the foredeck just in front of the primary anchor locker. This anchor is paired with 30 feet of 5/16" chain and 150 feet of ¾" nylon rode.

Stern Line

600 feet of floating poly line is stored in a spool in the large foredeck locker closest to the mast.

6. Barbeque

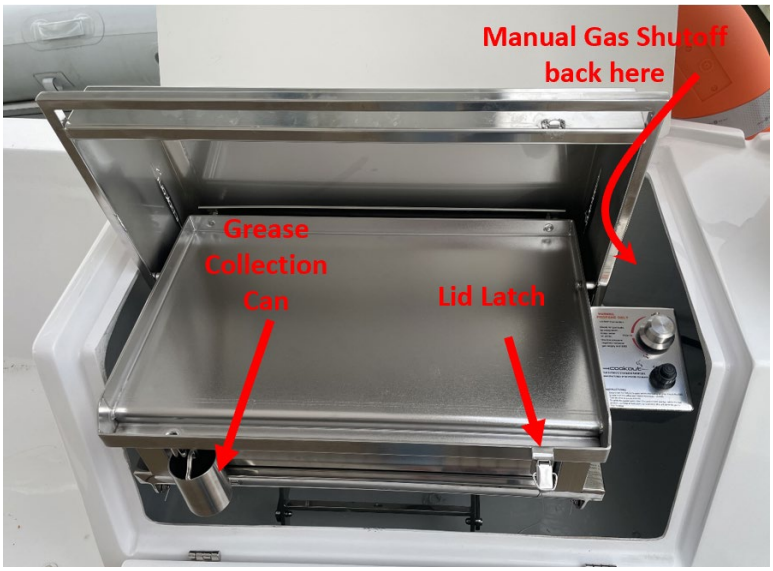
Highlights

The griddle-style BBQ is located in the cockpit locker behind the port helm seat.

- The propane solenoid (controls in the galley next to the refrigerator) must be on for propane to flow to the BBQ as it is hard plumbed to the main propane supply
- There is a separate manual propane supply valve inside the BBQ locker behind the BBQ on the port side
- The BBQ is on a frame with gas struts so it can be raised partially out of the locker for safe use

Details

Operation



The BBQ is located in the locker behind the port helm in the cockpit. Open the lid all the way, and then fold down the portion of the lid that hinges on the bottom of the opening. The BBQ is mounted to a frame that raises it out of the locker for safe and more comfortable cooking. The frame is held in the down position with a latch located in the front center of the frame (it looks like a household door latch). Open the latch to release the BBQ and then gently lift and pull forward on the BBQ lid handle. Gas struts on the frame will assist in raising it to the upright position and will hold it in place.

The BBQ is plumbed to the main boat propane line, so the propane solenoid in the galley must be turned on in order to operate the BBQ. There is a second, manual propane valve with a yellow handle in the back port side of the BBQ locker.

To light the BBQ, open the lid (there is a single lid latch on the right side of the lid), then push down and rotate the gas control valve to the High position and hold it down. After 2-3 seconds, press the lighter to ignite the grill. After ignition, keep the knob pressed for 5-10 seconds and then rotate to the desired setting.

Cleaning

After cooking the griddle plate should be scraped free of food and grease. The surface of the griddle can be sponge washed with slightly soapy water (dish soap), and then should be rinsed thoroughly. Make sure the fat collection can on the front left of the BBQ is empty before rinsing to avoid an overflow.

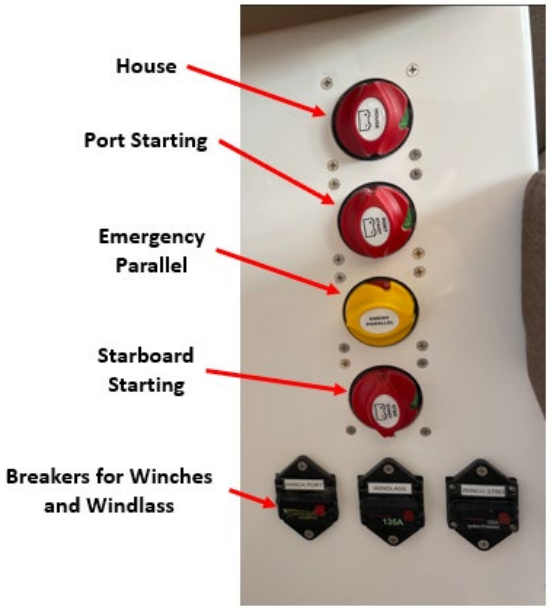
7. Batteres/Charging/Inverter

Details

Batteries

Zephyr has 3 batteries; port and starboard AGM starting batteries and an 800 A-hr Lithium house battery. The battery main connect/disconnect switches are located under the chart table.

Normally, the house and both starter batteries should be in the ON position (indicated by green showing in the slot on the rim of the knob). The Emergency Parallel switch will tie the house and starter batteries together – allowing you to overcome a dead battery. This should normally be kept in the OFF position (red showing in the knob slot). If the parallel switch is left ON and the batteries are drained – there's no backup.



Just below the battery connect is also the location of the high-current breakers for the powered winches on the port and starboard helms as well as the windlass breaker.

Gauges

There are two gauge displays that display the levels of the port and starboard starter batteries, the house battery, the port and starboard fuel tanks, and the port and starboard fresh water tanks. There is no gauge for the blackwater tanks.

The display for the starter batteries, fuel tanks, and fresh water tank is nested in the main switch panel in the port stairwell. Use the up/down arrows to toggle among gauges.

The house battery voltage and solar panel currents are displayed on the multi-function display to the right of the switch panel in the port stairwell. Shown in the image here is the house battery level. Swiping the touchscreen left or right will switch through other screens showing additional information.

Inverter

Details of the inverter system and operation can be found in Section 11.

8. Berths

Highlights

There are 3 cabins aboard Zephyr that can accommodate up to 6 passengers, and 2 additional people in the saloon.

Details

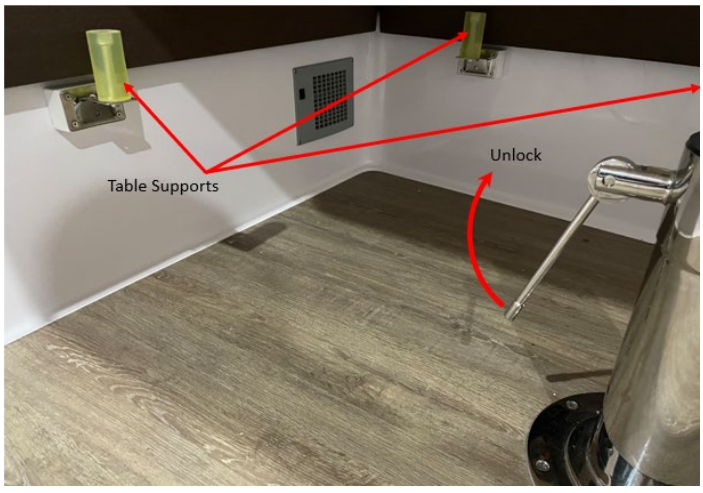
The master suite is located in the port hull with a queen size mattress. The cabin also has USB chargers, a 12V auto-style outlet, and a portable inverter which can be plugged into the 12V outlet to provide 120V AC power for CPAPs or other devices. The inverter is rated to 100W continuous power, 175W peak. The port cabin also has a dedicated fan for the diesel heater.

The forward cabin in the starboard hull also has a queen mattress. The starboard head is in the bow, so the door can be closed between the cabin and galley to create a private suite. The cabin has a dedicated heater fan for the diesel heater and USB chargers.

The starboard aft cabin has a double mattress. There are no outlets in the aft cabin, and no dedicated heater fan in the starboard aft cabin.

Up to 2 people can be slept in the saloon, though realistically, this may only be comfortable for children. The saloon table is mounted on a gas strut, so it can be lowered, and a cushion in the large locker in the port hallway placed atop the table to make a double bed. Bedding is located in the large locker in the port hall where the cushion is located.

To set up the saloon table as a berth, do the following:

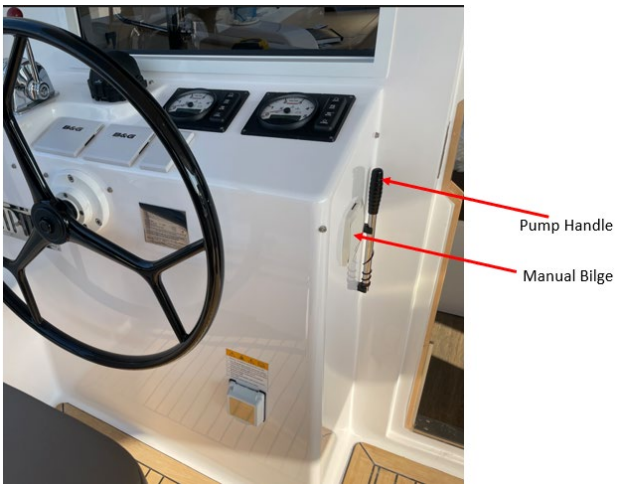


- There are 3 orange cylindrical bumpers about the size of a salt shaker in the chart table. Install these on the 3 tabs that extend from the front of the seating closest to the saloon table. They clip into place.
- Lift the lever on the strut that supports the table. NOTE, lift the lever just enough to un-clamp the strut. Leave the handle loosely dangling down. If you rotate the handle all the way up, it will hit the bottom of the table as you lower it and prevent it from resting on the rubber bumpers.
- Rotate the table so that it will drop down onto the bumpers, and push down directly over the strut. It helps to "bounce" a bit to get it moving.
- Once the table is down, lower the lever on the strut to lock the table in place.

9. Bilge Pumps

Details

Bilge pumps are located in each hull in the middle of the boat – under the sole access in the middle of the port hallway and under the sole access in the galley. The bilges are automatic, but can be manually switched on via the switches on the main breaker panel in the port stairwell. Manual pumps are located on the inside walls of the help stations along with the pump handles.



10.Dinghy/Outboard/Davit

Highlights

- Please raise the dinghy in the davits when travelling rather than towing it behind the vessel
- The outboard must be in "Forward" gear in order to raise the motor (cut the motor first)
- When raising the dinghy, it helps to center the fuel tank port-to-starboard and also make sure the snap shackle on the aft dinghy bridle is centered. Otherwise the dinghy has a tendency to lift out of the water with one side raised up and it's very difficult to re-center the lift point once the davit lines are under load.

Details

Dinghy

Zephyr is equipped with a 11' 2" Highfield dinghy with an aluminum hull and Hypalon pontoons. The dinghy is rated for no more than 6 persons / 1215 lbs. Care must be taken when taking the dinghy ashore. Many of the beaches in the area are rock, often coated with barnacles, and can easily damage the hull. When approaching a beach, slow down and move the crew aft to raise the bow of the boat. Unload passengers over the bow onto the beach, and then secure the dinghy. If you attempt to haul it up the beach, raise and lock the motor in place first, and if possible have multiple people lift and carry the dinghy, or pull the dinghy up over smooth, small rocks only.

Remember that the tidal range in the San Juans is significant, so keep this in mind when beaching. A few hours is long enough for the waterline to move 10 feet or more on some beaches.

Dinghy Davits

Starboard Davit Cleats

Port Davit Cleats

The dinghy should be kept in the davits when Zephyr is under sail. Please do not tow the dinghy behind the boat. Also, please do not remove the motor from the dinghy. The davit lines are manually operated and run through a cam cleat and then tied off to a cleat on the underside of the arch. Cleating the line after raising the dinghy can be tricky since the cam is overhead. The two davit lines cross, so with the outboard of the dinghy on the starboard side fo the stern, the port lines will be used to raise it. I find it easiest to stand on the port stairs so the line is at chest level when engaging the cam cleats. I then place a foot on the arch next to the traveler winch. This makes raising the heavy side of the dinghy much less of a struggle.

Port Arch

Once the dinghy bow and stern lines are fully pulled in and cleated off, I use the engine lift line attached to the dingy's aft starboard D-ring to lift the starboard side of the dinghy snug against the davits. This helps prevent it from swinging around while under sail.

Outboard Lift Connected to D-Ring

Outboard

The dinghy is equipped with a 9.9 hp 4-stroke gas engine, so there is no need to mix oil into the gas as you would a 2-stroke motor. Use regular gasoline with no additives.

To start the motor,

- Open the vent on the fuel tank
- Make sure the red safety tab on the lanyard is in place on the motor

- Make sure the motor is in neutral
- Pull out the choke
- Pull the starting cord until the motor turns over
- Push the choke back in
- Pull the cord. The engine should start within 3 pulls. If it does not start readily, stop trying to start and wait 10 minutes to avoid flooding the engine.

To stop the motor,

- Make sure the motor is in neutral
- Press the red stop button and hold it down, or pull out the red safety tab connected to the lanyard
- Once the motor has stalled out, close the vent on the gas tank

To tilt the motor when beaching,

- Turn off the engine
- Put the engine into forward gear. The tilt feature locks out in Neutral.
- Push down on the tiller arm to tilt the motor up
- To lower back into the water, pull the motor up all the way to release the catch and then lower into the water

11. Cockpit Enclosure

Details

The cockpit enclosure is comprised of several canvass panels which are connected through a series of magnetic snaps (vs. a zipper). The side and aft center panels can be rolled up and held up with the buckles attached to the top of the panels. There are separate front side panels that may be located under the seat in the saloon (corner closest to the starboard stairs). We've found the side panels to be very difficult to fully install in cooler weather as they were manufactured in the tropics and the side clears shrink quite a bit as it cools.

The side panels are narrow enough to remove and stow under the seats in the saloon if desired, as are the side panels in the saloon. The center saloon panel is fairly wide, so finding appropriate stowage may be difficult. Because of it's size, it's also a bit difficult to remove and re-install, so we recommend you roll and buckle it but don't try to remove it.

12.Electrical

Highlights

- The main 12V DC breaker panel is located under the seat by the chart table.
- The main 120V AC breaker panel is located behind the door under the bookshelf in the port hallway

Details

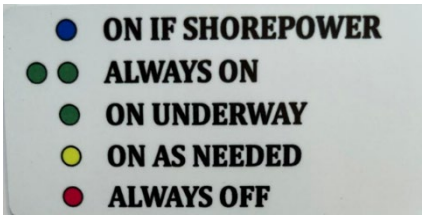
12V DC System

Once battery power is connected, the 12V distribution system will be powered up. 12V house power flows to 2 separate breaker panels. Loads that are intended to be on whenever the battery is connected are fed through a breaker and distribution panel mounted inside of the chartplotter seat. This provides overcurrent protection for the following load circuits:

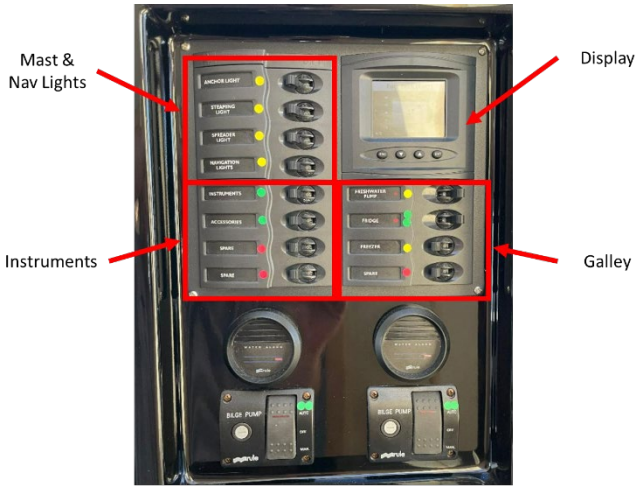
- Forward and Aft Solar Panel Input
- Port and Starboard Starting Batteries
- Port and Starboard Cabin Lights
- 12V DC Outlets
- Port and Starboard Shower Pump
- BEP Panel
- Radar
- Diesel Heater
- Propane Gas Alarm/Solenoid
- Port and Starboard Helm Windows
- Navigation Lights
- Compasses
- Z-Brane Watermaker
- Bilge Pumps
- Bilge Alarms
- AM/FM Radio

12V DC Breaker Panel

Breakers on the DC and AC panels are labelled with red, yellow, and green stickers to indicate when they should be turned in the ON position. The label legend is located next to the DC BEP Panel in the port stairwell, but this legend applies to both the BEP panel and the AC panel.



The BEP Panel, located in the Port stairwell, is used to switch on/off DC loads that are not normally always on. The panel above the bilge switches and alarms is roughly divided into 4 quadrants. One contains the display. The other 3 contain switches for the external lighting (anchor light, deck light, steaming light, and navigation lights), the instruments (chart plotter, anemometer, GPS, and depth gauge), and galley loads (freshwater pump, refrigerator, and freezer).



BEP Panel

Inverter & AC System

The AC panel is located behind the lower cabinet under the bookshelf in the port hull hallway. The AC Voltage display will indicate AC Voltage. If there is a problem with the AC system, check this first. The boat is able to power the AC panel either through a battery/inverter or through shorepower, each controlled through different switches on the panel. If both are ON, shorepower will be used to charge the batteries.

AC Power to the outlets requires that either shorepower OR the battery/inverter switch be in the ON position. Also, each individual AC outlet has an on/off switch at the outlet. ON is with the switch in the down position (showing the orange stripe at the top of the switch).

The shorepower port is located on the front of the port hull station. When connecting to shorepower it is safer to connect the boat first, and then plug the other end into the post on shore.

13.Electronics/Instruments

Chartplotter

Highlights

- Zephyr is equipped with a B&G Zeus-3 chartplotter located at the port helm.
- The port helm window can be lowered to access the chartplotter while underway
- To turn on the instrument electronics, flip both the "Instruments" and "Accessories" breakers to the on position on the BEP panel located in the port stairwell. Then, press the on/off button on the chartplotter to turn it on.
- Please refrain from changing settings beyond the typical functions like chart orientation, radar overlay, AIS overlay, and range
- Commonly used chartplotter selections are detailed below. For a more complete orientation of how to operate and get the most from the chartplotter, we recommend downloading the user manual from B&G: Zeus3 Operating Manual.

Details

Finding the Navigational Chart

To find the Navigational chart from any screen, press the Application Select icon (either the physical button in the upper right corner cluster, or the digital icon which is often displayed in the upper left corner of the display. The Application Select icon is the 3 by 3 grid of dots.

Zooming in and out

On the navigational screen, the zoom in/out icons are located at the bottom of the touchscreen.

Returning the screen to the vessel's current location

The touchscreen can be used to pan the center of the display off of the vessel's location. The vessel lock is also lost when poking the cursor over another AIS-enabled vessel displayed. To reset the display to bring Zephyr's position back to the screen center, poke the "CLEAR CURSOR" icon that will appear at the lower right of the navigational pane when the vessel location is not locked in.

Clearing Pre-existing Waypoints, Routes, and Tracks:

1) *On the Navigation view, press the Menu Select"hamburger" icon (physical button or touchscreen icon).*
2) *Select "Find"*
3) *Select "Tracks", "Routes", or "Waypoints" depending on which item you wish to clear.*
4) *Select the "Delete All" button, then confirm.*

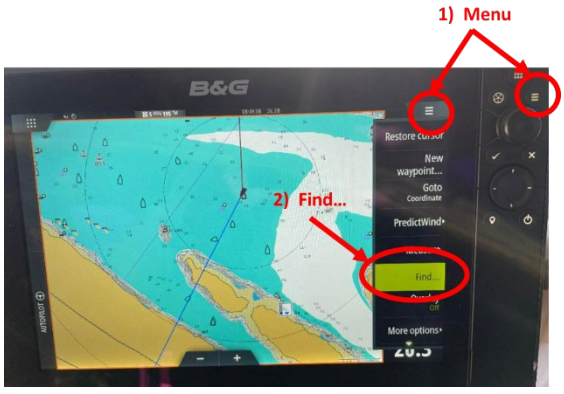
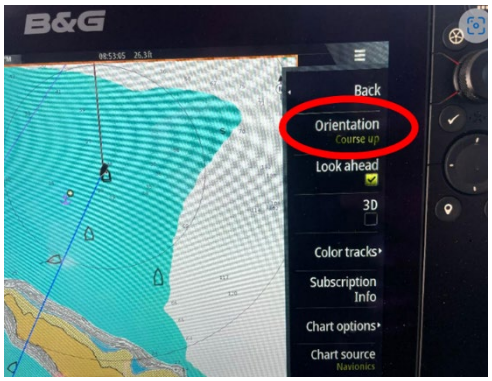


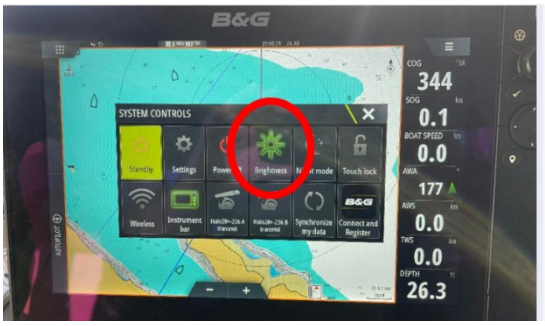
Chart Orientation

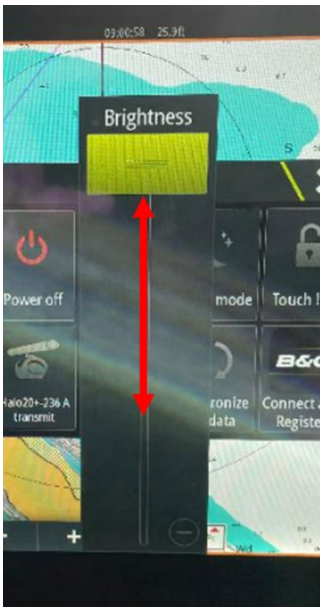
1) *On the Navigation view, press the Menu Select"hamburger" icon (physical button or touchscreen icon).*
2) *Select "More Options"*
3) *Select "Orientation" as North up or Course over Ground (COG) up.*



Display Brightness

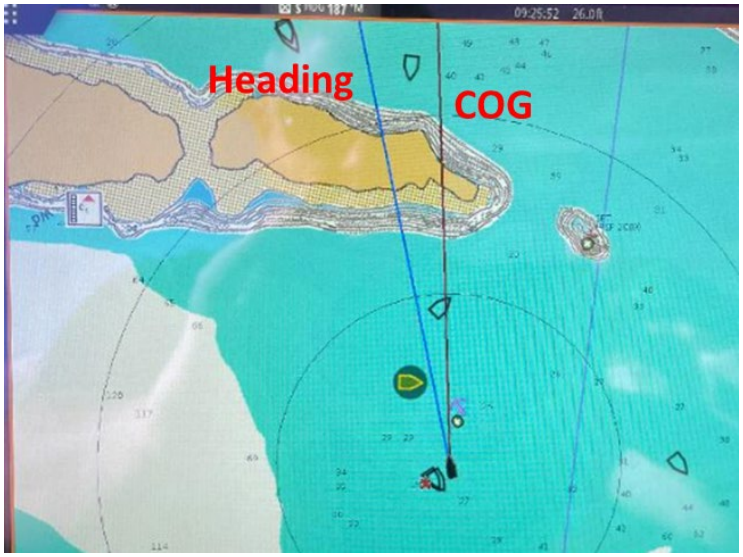
1. *Short-tap the On/Off button to bring up an additional menu.*
2. *Select "Brightness"*
3. *Use the Slider to adjust brightness as desired*





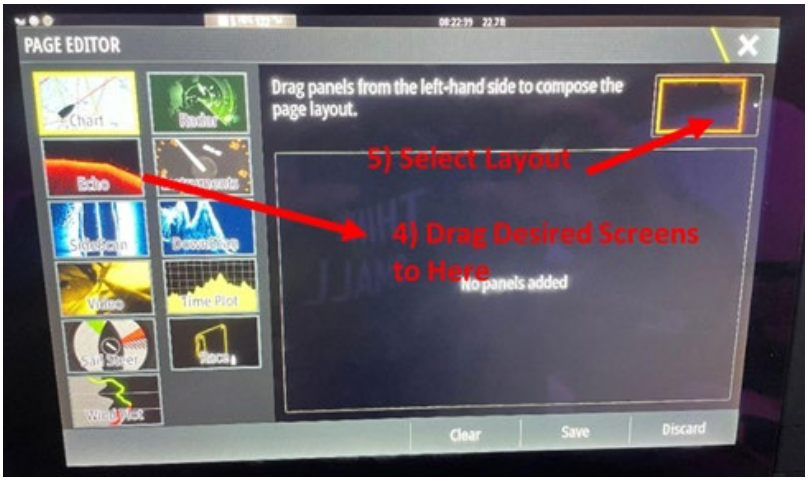
Course over Ground (COG_ Vector/Line

The Navigation view will display the vessels Course over Ground line as a solid Black line. The solid Blue line is the vessel's current heading.



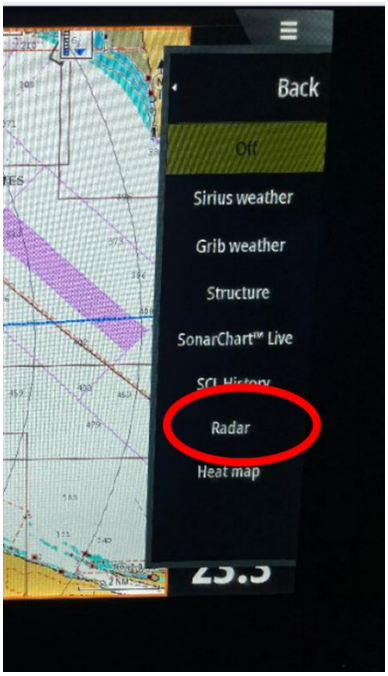
Displaying and Using a Split Screen

1. Press the Application Select button (3 x 3 grid of dots) – either the physical button or the touchscreen icon.
2. Pre-defined split screen options will be displayed on the right side.
3. You can define a custom split screen by selecting "+" at the bottom of the list of pre-defined options.
4. Drag and drop screens to build the custom display
5. Select the layout desired.



Radar Overlay

1) *On the Navigation view, press the Menu Select"hamburger" icon (physical button or touchscreen icon).*
2) *Select "Overlay"*
3) *Select "Radar"*



AIS Overlay & Targets

AIS-enabled vessels will be displayed as black outlined ships on the Navigation screen when the VHF radio is on. More detail on AIS is provided below. Note that a vessel that is potentially on a collision course will have a green solid circle overlaid upon the black ship symbol. To see a listing of all AIS-enabled vessels in the area:

1. Press the Application Select button (3 x 3 grid of dots) – either the physical button or the touchscreen icon.
2. Select "Vessels" to see the listing

AIS (Automatic Identification System)

Highlights

- Zephyr transmits her position and data via an AIS signal as well as receives AIS signals from other vessels equipped with AIS transmitters (Commercial vessels are required to have AIS, recreational vessels are optional). Zephyr is transmitting her position whenever the VHF radio is turned on.
- The AIS information is automatically displayed on the chart plotter.
- AIS information suppliments marine radar, which continues to be the priary method of collision avoidance for water transport.
- AIS requires each vessel to have a 9 digit MMSI (Maritime Mobile Service identify) number to transmt position and data. Zephyr's MMSI number is 368288260.

Details

The VHF radio will broadcast information about Zephyr to other AIS-equipped vessels in the area to alert them of her presence, size, heading, and speed. Likewise, other AIS-equipped vessels will broadcast information to Zephyr's radio which will display on the chartplotter. To see another vessel's information, poke the boat symbol where the other vessel is. A label will appear with either the vessel's name or MMSI number. Poke that, then poke the name/MMSI number again on the screen that follows. You can then see the vessel's broadcast information.

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

Autopilot

Autopilot can be entered in one of several ways:

1. Press the red "Auto" button on the autopilot control located at the port helm
2. Press the "Autopilot" verticle label on chartplotter touchscreen (lower left corner)
3. Press the button resembling a steering wheel in the upper right cluster of the chartplotter

Radar

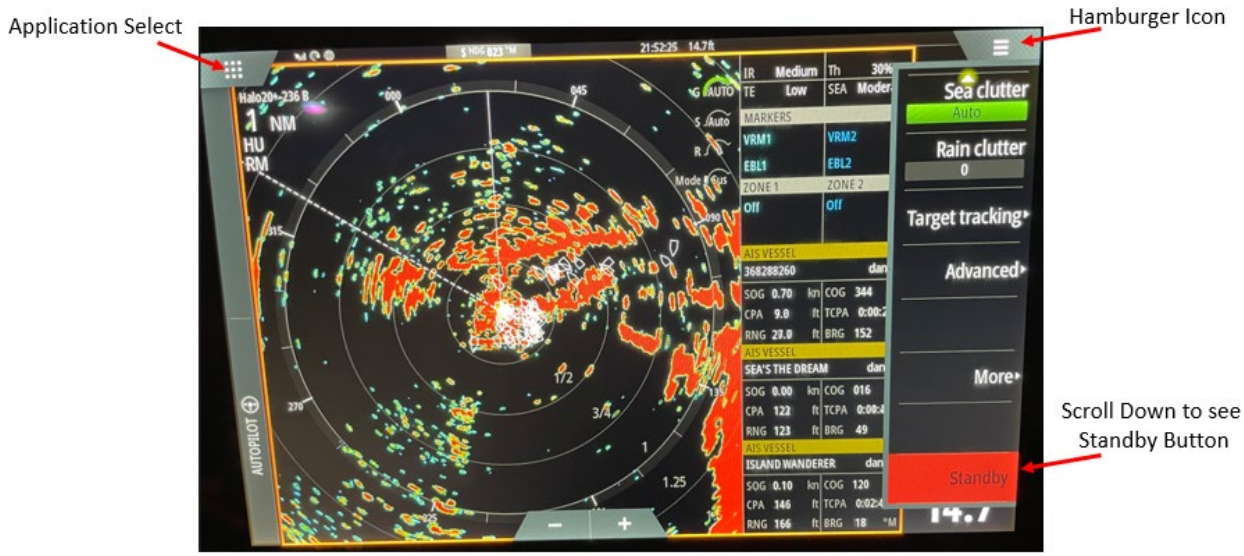
Highlights

- Radar adds safety under all weather conditions, especially where visibility is restricted by fog or other weather
- The chartplotter has a radar overlay feature so radar returns can be either viewed side-by-side or overlaid upon the chart
- The radar does not automatically enable or move to standby. Control of it is through the chartplotter menus
- The standby setting for the chartplotter is at the bottom of the menu list (scrolled off-screen initially) so you will need to scroll down to see it

Details

To use the radar, first select the application select button or icon on the chartplotter screen. The application select button is the icon showing a 3 x 3 grid of little squares (upper left of the screen and uppermost button in the cluster on the upper right of the plotter). Then, select the Radar application. Once launched, click on the hamburger icon (3 horizontal lines button in the upper right corner of the screen or the rightmost button on the upper right button cluster). Then select Transmit to turn on the Radar. Once on, you can view the radar alone in the radar application, or you can choose a multi-function display and overlay radar onto the GPS map.

NOTE: the radar will not automatically stop transmitting when you turn off the chartplotter. You must first put it into Standby. To do this, navigate back to the radar application, and select the hamburger icon. Then, scroll to the bottom of the list. The Standby (red) selection is at the very bottom of the menu and isn't visible until you scroll down.



VHF Radio

Highlights

- The VHF radio is located next to the chart plotter just inside the helm window on the port side.
- The radio automatically powers up when the boat is turned on (house battery switched on). It can be turned on and off by holding down the power button on the lower left corner of the display.
- When under sail, the radio should be on and set to Channel 16. NOTE: Radio Check is Channel 22 in the US and Channel 83 in Canada
- The VHF radio must be on in order for Zephyr to send/receive AIS (Automatic Identification System) information.
- The radio is a B&G V60-B VHF radio with AIS receive and transmit.

Details

Turning the Radio On and Off

The radio will receive power whenever the house battery is in the ON position. To turn the radio itself on, press the on/off button on the lower left corner of the radio. To turn it off, press and hold the on/off button until the radio powers off.

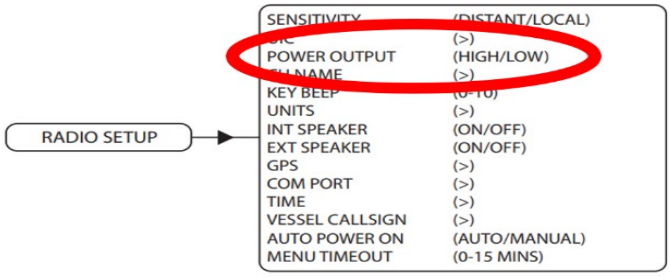
Silencing a DSC Alarm

Open the Menu by long-holding down the DSC/MENU button. Once the menu comes up, use the knob immediately to the left of the DSC/MENU button to navigate to "ALARMS", then to "DSC Alarm". Select items within the menu by short-pressing the selection knob.

Changing from High to Low Transmit Power

Press the "H/L" button on the handheld receiver. This will toggle between "LO" and "HI" power mode – which will be displayed on the center screen.

Alternatively, open the Menu by long-holding down the DSC/MENU button. Once the menu comes up, use the knob immediately to the left of the DSC/MENU button to navigate to "RADIO SETUP", then to "POWER OUTPUT". Select items within the menu by short-pressing the selection knob.



Quick Switch to Channel 16

Press the button with a red font "16/9" on either the handheld microphone and on the face of the radio. To quickly return to channel 16.

Accessing Weather Channel (WX)

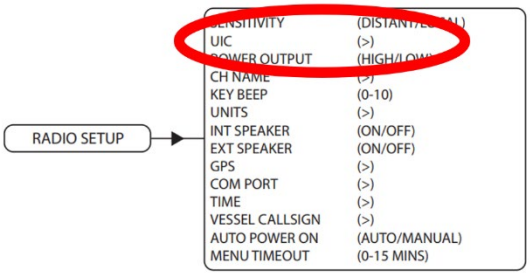
Press the weather icon on the radio to switch to weather (WX) bands.

Adjusting Volume & Squelch

To adjust volume or squelch, first short-press the knob indicated in the figure and labelled "VOL/SQL". The short press will toggle between volume control and squelch. Turn the knob to adjust.

Changing between International & US

Open the Menu by long-holding down the DSC/MENU button. Once the menu comes up, use the knob immediately to the left of the DSC/MENU button to navigate to "RADIO SETUP", then to "UIC". Select items within the menu by short-pressing the selection knob. Note that the UIC button will select among US, International, and Canada.



How to Set Up and Use Channel Scanning

To access the Scan Setup menus, open the Menu by long-holding down the DSC/MENU button. Once the menu comes up, use the knob immediately to the left of the DSC/MENU button to navigate to "SCAN". Select items within the menu. Select "EDIT MY CHANNELS" to set up channels to scan through.

Using Watch Mode

The radio can also be set up in either Dual or TRI watch mode. In DUAL mode, the radio will toggle every 3 seconds between Channel 16 and the currently selected channel. In TRI mode, a 3rd watch channel is added to the cycle. This 3rd Watch channel is selected through the "WATCH" menu.

To select among single, DUAL, or TRI watch modes, short press the "TRI" button on the bottom of the radio. You can also select the mode through the "WATCH" menu. To access the menu, long-press the DSC/MENU button on the top of the radio, then use the selector knob to the left of the DSC/MENU button to scroll to the "WATCH" menu. Press the selector knob to select items in the menu.

14.Emergency/Safety Equipment: Please see Section 3 in these Notes

15.Engines and Operating Under Power

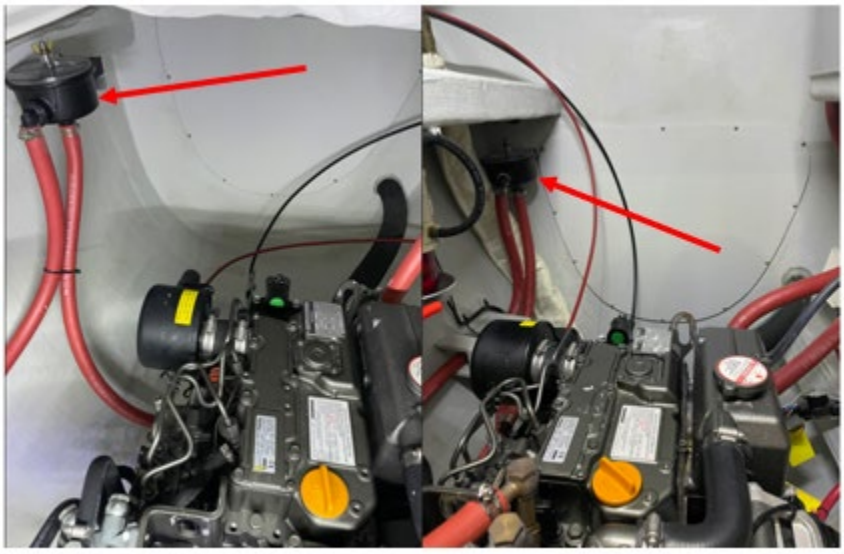
Highlights

- No need to check oil unless charter exceeds 1 week as this will be done prior to your charter
- We request that you do a daily look over for water or oil in the bilge, belt powder, or loose belts
- Request that engines be started just prior to casting off to avoid warming up or idling while in harbors as extended idling can cause carbon buildup within the engine
- We request also that the strainer be checked daily

Details

The vessel is equipped with twin 29 hp Yanmar diesel motors (one in each hull). You should not need to check engine, saildrive, or coolant levels during your charter as this will have been taken care of prior to your departure. They will also have checked the raw water strainer, however if raw water is not ejecting out of the exhaust while the engines are running, or if the high temperature alarm trips while motoring, shut down the motors and check the strainers. It's best to check the strainer daily during the engine lookover.

Access to the port motor is through the door at the back of the shower. Note that there is a light in the engine bay on the inside right above the door opening. Access to the starboard motor is under the starboard aft berth. The light switch for the engine bay is located on the forward bulkhead of the engine compartment.



STARBOARD PORT

The engines will warm up quickly after being turned on and should not be left idling since this will result in buildup of deposits. Optimal engine speed is between 1500 and 2500 rpm. Do not exceed 2500 rpm for more than a few seconds during an emergency maneuver. When motoring, running a single engine at 2500 rpm will move the boat at near top speed with far less fuel usage than running both engines.

The boat is equipped with a folding propeller that has 2 forward pitch positions, "Normal" and "Overdrive". The Normal position should be used when motoring in rough water at high rpm when maximum horsepower is required. Overdrive is used in calmer waters when maximum speed is desired. To switch the props to Normal mode, make sure the boat is moving forward, then set the throttles to neutral for 10 seconds. Moving the throttles to forward while the boat is moving forward will set the props to Normal pitch. To set the props to Overdrive, bring the boat to a full stop, or moving backwards, switch the throttle to neutral for 10 seconds, and then to forward.

16.Entertainment Systems

Highlights

- The entertainment radio is located adjacent to the VHF radio and can accept input via Bluetooth connection or USB
- The USB port is located next to the radio (circular USB port mounted to the radio cabinet)

Details

AM/FM Radio

The AM/FM radio is located in the saloon next to the chart plotter and VHF radio. Next to the radio (to the side next to the 12V DC outlet) there is a jack for an Aux cable or USB input. These can be used to provide audio input to the radio. The radio will also accept an input via Bluetooth.

To connect your Bluetooth device, first download the Fusion Link app. Once the app is installed, turn on the radio by pressing the on/off button on the lower left corner. Note that the radio has a touchscreen as well as a large knob which is used to scroll through menus by turning and selecting by pressing. The large knob also controls the radio volume. The following steps will link your device to the radio.

1. Select the hamburger icon (3 horizontal lines) on the radio and then navigate the menu to BT>CONNECTIONS>DISCOVERABLE to make the radio visible to your device. Note that this auto-disables after 2 minutes.
2. Enable Bluetooth on your device
3. On your device, search for other Bluetooth devices and select "MS-RA770"
4. Follow your devices instructions to complete pairing
5. If your device asks to confirm a code, just select "CONFIRM" – the radio won't display a code, but will connect if confirm.

The radio is set up with 2 zones. Zone 1 controls the Saloon speakers. Zone 2 controls the cockpit speakers mounted to the helms.

17. Fuel

Highlights

- There are two 63.5 gallon diesel fuel tanks – one in each hull
- Deck plates are located on each of the sugar scoops.
- Tank vents are integrated into the stanchions near the helms

Details

There are two 63.5 gallon (240L) diesel fuel tanks – one located in each hull. The deck plates are located on the sugar scoop steps. When filling up, be ready with a rag to catch any overflow, and FILL SLOWLY. The fill tubes are long and can foam and back-flow if the fill rate is too high. The fuel vent is integrated

into the stanchions near the helms (look for the down-ward facing vents at the top of the shrouds). Listen to the pitch of the fuel as it fills the tank and be ready to shut off the pump when the pitch begins to increase. You can also have someone monitor the fuel level gauge inside the saloon and call out as you are approaching 49 gallons in each tank.

18.Heads and Holding Tanks

Highlights

- There is a head with a toilet and shower in each hull.
- The port head is a dry head
- The starboard head is a wet head
- The port head toilet is electric. The flush button is mounted behind and just above the toilet (near the toilet paper roll). The waste line to the tank is fairly long, so hold the flush button for about 10 seconds to fully clear the line of waste.
- The electric head's breaker is located under the seat just in front of the chart table where the other 12V breakers and distribution box is. The electric head breaker is on the small box mounted to the aft side of the cabinet (the one with just 2 breakers).

Details

Please do not put toilet paper or other foreign objects into the toilets. Use the trash can for used toilet paper, feminine products as these objects will clog the line to the holding tank.

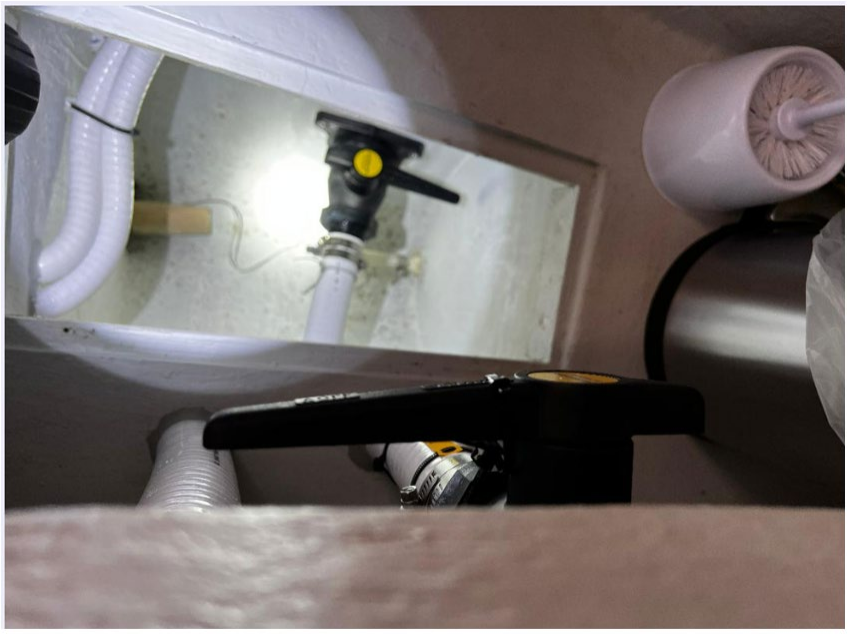
Port Head & Holding Tank

The port head holding tank is located in the port engine compartment on the outboard side. This is accessed through the door at the back of the port shower. The holding tank is translucent, so the level of the liquid in the tank is visible through the sides of the tank. The valve at the bottom of the tank should be left in the shut position and opened only when regulations allow dumping. Pump out stations at the various marinas should be used to empty tanks if needed.

Starboard Head & Holding Tank

The starboard head holding tank is located in the starboard bow on the outboard side. This is accessed through the bow locker door from the starboard head. The holding tank is translucent, so the level of the liquid in the tank is visible through the sides of the tank. The valve at the bottom of the tank should be left in the shut position and opened only when regulations allow dumping. There is a second, seacock valve, at the through-hull location, below the access panel on the sole of the bow compartment. The seacock valve should be left open at all times to prevent the line between the valves from solidifying and becoming blocked. Pump out stations at the various marinas should be used to empty tanks if needed.

Starboard Blackwater Holding Tank



Starboard Holding Tank Lower Seacock Valve

19. Heaters (Cabin)

Zephyr is equipped with a Wabasto heater system. The system is comprised of two parts – a diesel-fueled heating element and fluid heat distribution circuit, and 3 fan-driven heat exchangers – one in the saloon and one each in the port berth and in the starboard mid-ship berth. The controller for the system is located at the chart table next to the outlets. To operate the heater:

1. Press the on/off button on the controller. If the on/off light is white, press it again until the light is green. This will turn on the heater.
2. Rotate the selector knob to select the timer (clock face icon).
3. Press the selector knob to open the timer setting
4. Rotate the selector knob to set the amount of time to run the heater. The timer can be set from 10 minutes to 1 hour, or to infinity (∞). If set to infinite time, the heater will only turn off manually by pressing the on/off button again (the light will go from green to white)
5. Once the heater is ON, turn on the heat exchanger fans to heat the areas desired.
6. To turn the heater off at any time, turn off the heat exchanger fans (setting toggle switch to the center position) and press the on/off button on the controller. The light will turn white, but you will hear the heater circulator still on. This is normal. The circulator will run for a few minutes and then shut off. The heater controller light will turn off as well automatically after a few minutes.

The heat exchangers are controlled individually by the 3-position toggle switch on the left side of the unit. The middle toggle position is OFF. The upper position will turn on the fan LOW and the lower position will turn on the fan HIGH.

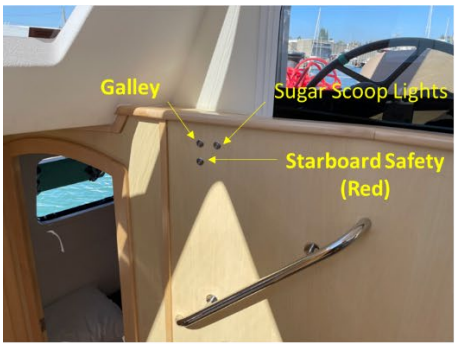
20. Lighting

Highlihgts

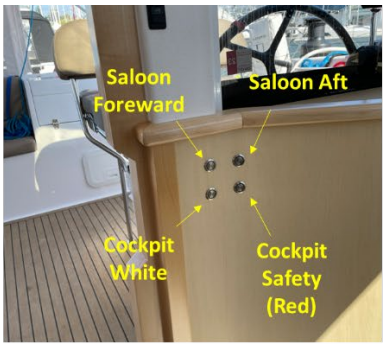
- Lights are controlled by the buttons located above both stairwells as well as in each of the 3 cabins
- The light switch for the port head is located in the stairwell
- The light switch for the starboard head is located in the starboard mid-ship berth

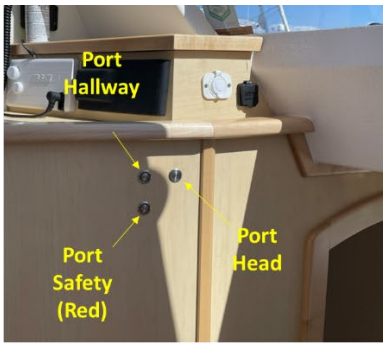
Details

Light switch locations are shown in the following diagrams. Note that there is also lighting inside each of the engine compartments as described in Section 14.

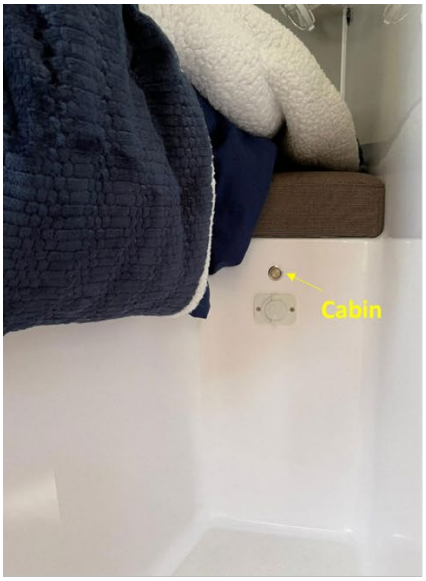


Starboard Stairwell





Port Stairwell



Port Cabin

Starboard Mid-ship Cabin

Starboard Aft Cabin

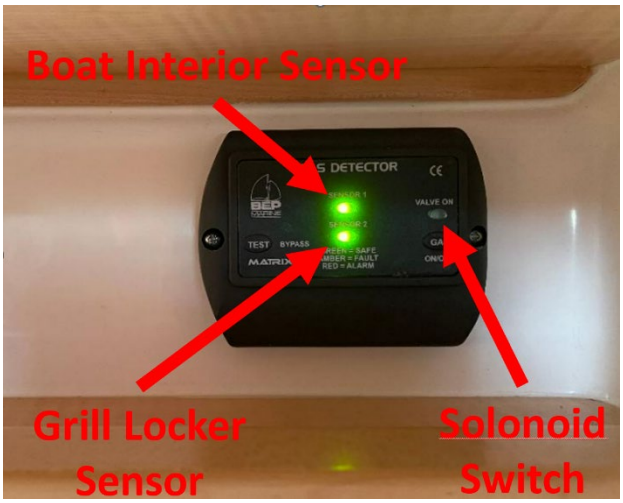
21.Propane

Hightlights

- There is a main propane tank located in the large foredeck locker (in front of the mast)
- The locker houses a separate propane locker in the foreward/starboard corner
- The solenoid control is located in the galley – between the cabinets over the counter just adjacent to the refrigerator
- The solenoid control panel is also the propane leak detector. There are two sensors. Sensor 1 (top) detects propane inside the boat cabin. Sensor 2 is located in the BBQ locker in the cockpit.
- Propane bottles are located in the aft cockpit (portside) locker where the portable grill is located.

Details

A full propane tank will be put aboard prior to your charter. The tank valve should also be open for you. To turn on the propane solenoid, press the "GAS" on/off button on the lower right side of the Gas Detector which is located adjacent to the refrigerator between the two rows of cabinets in the galley (above the counter). Note that if the house battery switch is cycled off and then on again, the propane detector alarm will sound as the unit goes through its power-on sequence. This is normal and will clear by itself after a minute or two.



22. Refrigerator/Freezer

There is a 34 gallon refrigerator and 37 gallon freezer in the galley. They are independently switched at the BEP panel in the port stairwell. Note that the refrigerator and freezer will consume most of your power, so when not hooked up to shorepower, monitor the house batteries and re-charge them by running either engine at 1500 rpm for an hour or so if the battery gets below 30% or so. Zephyr was upgraded with additional solar panels and a high-capacity Li-ion battery, so in the summer months, re-charging with the engines may not be necessary.

The 34 gallon refrigerator is located forward in the galley down in the starboard hull. There is a temperature control knob inside the refrigerator to adjust temperature as needed. The freezer is a top-loading type unit mounted into the galley counter next to the refrigerator. The temperature control for the freezer is located inside the freezer on the right wall.

23. Sails & Rigging

Reefing Schedule

Note that catamarans do not provide tactile and visual cues of being overpowered. Below is the recommended reefing schedule, but you should reef earlier whenever the boat feels hard to handle or overpowered. The boat sails inefficiently when overpowered, so you may actually gain some boat speed when reefing. Wind speeds are apparent wind.

Screecher:

- Furl at 15 kts
- Take down at 25 kts

Main:

- 1st Reef: 20 kts
- 2nd Reef: 24 kts
- 3rd Reef: 28 kts

Mainsail

The main sail is equipped with 3 reefing points. The 1st and 3rd reefing lines are run to the Port helm station and the 2nd reefing line is run to the Starboard helm station. Hoisting the main is straight-forward, however, the battened square-top main does have a tendency to snag the lazy jack lines if you're not heading directly into the wind. Make sure someone's monitoring the leach of the sail during the hoist. Make sure you release the topping lift after the main is fully raised.

Mainsheet Traveler

The mainsheet traveler on Zephyr runs the entire length of the arch. It is controlled with a winch embedded into the port side of the arch itself. For most points of sail, the mainsheet should be trimmed to shape the sail, and the traveler to set the sail's angle of attack to the wind for best performance. When sailing downwind, make sure to keep enough tension in the mainsheet to prevent the sail from contacting the shrouds as this will wear the sail at the battons very quickly.

Catamarans sail best in a broad reach. So much so that you will make faster headway tacking downwind than sailing wing on wing with the wind directly over the stern.

Jib

Zephyr is equipped with a self-tacking jib. While this is convenient when changing tacks, it presents some limitations to be aware of.

Backing the jib requires a bit of extra planning. The jib track has 2 stop blocks (one on each side of the jib car). In order to back the jib, the jib stop on the windward side of the track must be moved across to butt against the jib car. This will prevent the car from moving across when the boat is tacked. Due to the inherent difficulty of this operation, when heaving-to, the jib is best furled out of the way and the boat controlled with just the main trimmed for a broad reach and the helm held hard to windward.

Trimming the twist in the jib is limited since the jib car fore-aft location cannot be adjusted.

Screecher (Advanced Sailors Only)

A screecher is available upon advanced request, and to sailors experienced using one. Make sure the screecher halyard is tight before unfurling the sail since furling is difficult if the halyard is loose. Also, when initially unfurling the screecher, check that the foot of the sail clears the lifelines. If the sail is contacting lifelines, raise the bowsprit. You may also need to re-tension the halyard after adjusting the bowsprit.

The screecher should be unfurled on a beam or broad reach and furled on a broad reach – using the mainsail to shadow it. DO NOT fly the screecher in over 15 kts of wind as it will be difficult to furl and easy to damage. Also, the sail should be completely lowered in winds above 25 kts. to prevent it from accidentially unfurling and hourglassing. This will often shred the sail.

The screecher is best used between 60 and 140 degrees off the wind.

24. Showers and Sumps

Port

The port head contains a dry shower. The shower door is normally latched open. To close the door, ENSURE the latch in the upper corner of the door is open. After using the shower, pull the shower sole pump knob near the faucet to activate the pump and drain water overboard. When the pump runs dry, push the pump back in.

Starboard

The starboard head is a wet head. The pump knob is located next to the lower right corner of the medicine cabinet. .

Starboard Shower Pump

25. Spares and Tools

Tools and spare parts are located in the outboard cabinets in the port hull (closest to the port head at the bottom of the stairs).

In the tool bag you will find:

- Adjustable Wrenches
- Allen Keys
- Channel Locks
- Duct Tape
- Hacksaw
- Multimeter
- Painter's Tape
- Pliers & Side Cutters
- Screwdrivers
- Soldering iron (also useful for melting ends of cut synthetic lines)
- Tape Measure
- Tool Kit for the dinghy outboard
- Wire Brush
- Zip Ties

There is also a tool kit with assorted wrenches and sockets located in the lower cabinet on the inboard side of the port hull next to the forward berth door.

In the plastic bin labelled "Hardware Nuts & Bolts Sail Repair" can be found:

- Cotter Pins
- Cotter Rings
- Fids (for splicing line)
- Nuts, Bolts, and Screws of various sizes
- Patch Kit for dinghy
- Sail tape
- Sail Sewing Kit
- Sailkote Lubricant
- Seizing Wire
- Various spare pieces of hardware

Engine spares are located in the bin labelled "Engine Spares" which contains:

- Alternator belts
- Fuel filters
- Universal plug
- Water pump belts
- Water pump impeller kits

Bin labelled "Misc. Spares" containing the following items:

- Shackles
- Spare Cam Cleats
- Hose Clamps

Bin labelled "Electrical" containing the following items you will unlikely need:

- Extra electronics cables
- Extra wire
- Wire connectors
- Zip ties & adhesive wiring anchors

26. Storage

Highlights

- There is storage for wet items (watersports gear) in the lockers under the seats located by the trampolines
- Each cabin has several storage cabinets for personal items/clothing
- The starboard aft cabin has a large storage area under the mattress which can store suitcases or other bulky items

- There are two cabinets for food items in the starboard galley, and additional food storage in the upper cabinets above the galley counter.
- Additional dry goods may be stored in the movable seat in the saloon.
- There is a large cooler under both helm stations which can be used to store cold items.

27. Stove/Oven/Microwave

Oven and Stove

The oven and stovetop in the galley operate on propane gas. The propane tanks are located in the large aft-most center locker on the foredeck (within this large locker is a smaller propane locker). Make sure the propane valve is open. The propane solenoid control is in the galley on the inboard wall between the upper and lower shelves above the counter (next to the refrigerator). The valve is opened by pressing the button on the right side of the display labelled "GAS". When open, a red light will illuminate. Note that this display is also the gas detector/alarm.

To light the oven and range burners once the propane is on, rotate the knob to the Light position and hold down wile pressing the electric starter. Keep the knob pressed for 5 seconds after the flame is lit to heat up the thermocouple safety cutoff.

To turn off the oven/range, make sure the burner is lit before pressing the on/off button on the propane solenoid valve to ensure gas is bled from the lines. When the flame goes out, the gas valve on the range/oven can be rotated to the off position.

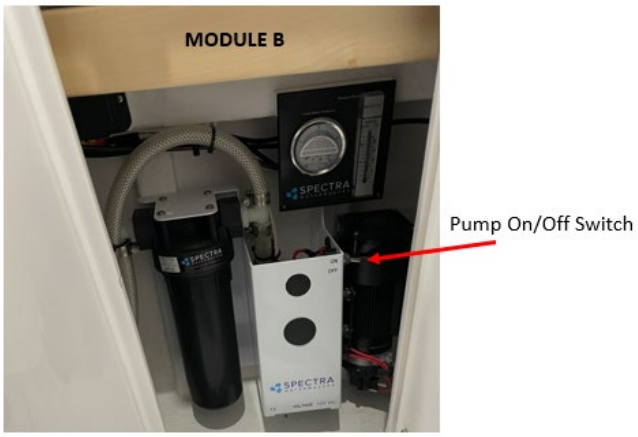
Microwave

N/A. Zephyr does not have a microwave.

28.Water (Potable)

Freshwater is stored in a single 185 gallon freshwater tank. The tank fill deckplate is located adjacent to the base of the mast on the starboard side.

Zephyr is also equipped with a watermaker, however this is only available by advanced request and is reserved for charters longer than 14 days. For shorter charters, the watermaker will be pickled, so should not be used. For charters where the watermaker is set up, it will be powered on and ready to go when you start your charter.



The watermaker is mounted below the counter in the port head. Module A is mounted under the sink. Module B is mounted adjacent to Module A under the counter. To turn on the watermaker, first make sure that on Module A, the gray flush valve is in the Run position (handle vertical) and that the yellow run valve is also in the Run position (vertical). Then turn the on/off switch on Module A to ON, and then turn the on/off switch on Module B to ON. To turn off the unit, turn both pump on/off switches to "OFF". Do not change the position of the flush valve or the run valve.