

**OPERATION MANUAL**  
*Leap of Faith*  
2008 Moorings Beneteau 352

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## OWNERS/HOSTS

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**Welcome aboard our Leap of Faith!** We are happy you have chosen Leap of Faith for your sailing vacation. Leap of Faith is a Moorings Beneteau 352. She was built at Beneteau USA Inc. in Marion, South Carolina in 2008 and later moved to Anacortes in the spring of 2008.

Designed by Berret/Racoupeau and built by Beneteau, the new Moorings 35.2 is a sophisticated, comfortable cruiser, incorporating good overall performance with spacious living accommodations. The Moorings 35.2 features 2 double cabins and a large head with separate stall shower. The raised deck over the salon incorporating extra large panoramic overhead deck lights offers incredible light below. The large cockpit offers an innovative pivoting steering wheel which rotates ninety degrees, allowing easy access from the helm to the companionway. A deck layout for easy single handling, a roomy, well-lit salon and a galley with ample storage, are just a few of the well thought out details included with comfort and ease of handling in mind.

The information summarized in this manual is intended to assist all skippers, crew and guests aboard in feeling more comfortable with the basic systems and how they work. **If something isn't familiar to you, please check these notes.** If the information is unclear, incomplete, confusing, or otherwise less than helpful, please help us to add, change, or restate the information so that it conveys the desired results. Please feel free to add your suggestions for other information or clarifications at the end of this manual, or simply add a comment or two in the margin as appropriate. Your suggestions will be incorporated into future revisions.

In addition to the information contained in this manual; you will find a “Moorings Beneteau” pouch aboard. This pouch contains information from manufacturers on various systems and items aboard Leap of Faith. There is also a manual for the Yanmar auxiliary engine located in the back of the blue Beneteau owner’s manual. Feel free to consult these manuals if the need arises.

You will see this is posted as a **no smoking and no pets** vessel. We ask that you restrict smoking to the cockpit or decks and/or dockside in order to maintain a pleasant sailing environment for all guests. Your co-operation is appreciated.

There is a logbook stored by the navigation station. Please feel free to use the logbook to document your adventures if you wish. You may also use this logbook to make any comments and/or suggestions about improving Leap of Faith for future charters. Please feel to email us if you would like to make any other comments or suggestions as well. We are interested in ensuring Leap of Faith is not only well maintained, but also improved over time. We look forward to hearing from you.

We are sure you will enjoy sailing the beautiful islands of the Pacific Northwest aboard Leap of Faith. If you have questions about the boat or about places to visit, please do not hesitate to ask the AYC staff. Have a great sailing adventure, and again thanks for choosing Leap of Faith!

# Leap of Faith

2008 Moorings Beneteau 35.2

Max Passengers	6
Cabins	2
Heads	1
Showers	2
L.O.A.	35', 6"
L.W.L.	30', 10"
Beam	11', 5"
Draft	5' 11"
Engine	Yanmar 3YM-30
Fuel	19 Gal.
Water	73 Gal.
Sail	586 Sq Ft.

BOAT OPERATON ..... 5

ENGINE ..... 5

Engine Inspection ..... 5

    Engine Coolant: ..... 5

    Engine Oil: ..... 5

    Gearbox Oil Inspection: ..... 6

    Bilges: ..... 6

    Belts: ..... 6

    Sea Strainer: ..... 6

    Startup ..... 6

    Shifting ..... 7

    Shutdown ..... 7

    Fueling Up ..... 7

Trouble Shooting Engine Problems ..... 8

    Engine Overheating: ..... 8

    Low Oil Pressure: ..... 8

Alternator Failure: .....	8
Engine Dies And Won't Restart:.....	8
GETTING UNDERWAY.....	9
Steering Wheel .....	9
SAILS AND RIGGING .....	9
Troubleshooting Sails and Rigging.....	10
DINGHY.....	10
DOCKING.....	10
MOORING CANS (BUOYS) .....	10
ANCHORING .....	11
Setting the anchor:.....	11
Raising the anchor: .....	11
BOAT SYSTEMS .....	11
ELECTRICAL SYSTEMS.....	11
110-Volt AC System .....	12
12 Volt DC System.....	12
Troubleshooting Electrical Systems.....	13
SANITATION SYSTEM .....	13
Marine Head (toilet).....	13
Holding Tank (80 liters) .....	14
WATER SYSTEM.....	14
Fresh Water Tank .....	14
Fresh Water Pump.....	15
Water Heater.....	15
Shower.....	15
GALLEY SYSTEMS.....	16
Propane Stove/Oven .....	16
Refrigeration .....	16
Barbeque.....	17
HEATING SYSTEMS.....	17
Forced Air Diesel Furnace.....	17
Space Heater (110 Volt AC).....	17
ELECTRONICS SYSTEMS .....	17
VHF Radio.....	18
Depth Sounder/Knot Meter/Wind Speed .....	18
Global Positioning System (GPS) .....	18
Autopilot.....	18
AM/FM Stereo Radio – CD Player .....	18
BILGE PUMPS .....	19
THRU-HULL SEA COCKS.....	19
DODGER AND BIMINI.....	19
SAFETY EQUIPMENT .....	19
First Aid Kit.....	19
Fire Extinguishers .....	19
Signaling Flares .....	19
Life Jackets .....	20

Steering Gear Failure.....	20
Engine Spares/Tools.....	20

## **BOAT OPERATON**

### ***ENGINE***

**Leap of Faith** has a Yanmar 30 horsepower auxiliary engine (Model – 3YM-30). The engine drives a two-blade propeller forward and reverse. There is a single control lever that operates both the throttle and transmission. On the engine control panel there are gages for RPM, fuel, ammeter, oil pressure, engine hour counter and water temperature.

A sound alarm is provided to indicate high fresh water temperature and low oil pressure. The engine will propel Leap of Faith at about 6.5 knots in calm water at 2800 RPM. We ask that you maintain engine RPM between 2600 and 3000 for cruising. Higher throttle settings will only minimally increase speed, but will greatly increase fuel consumption and wear on the engine. Please limit higher throttle settings for emergency situations.

**Leap of Faith** has noticeable prop-walk to port in reverse. When in reverse, be careful to keep a firm grip on the wheel and use only low RPMs.

### ***Engine Inspection***

Each day you are planning to use the engine, you should check the COOLANT, OIL, BILGES, BELTS, and SEA STRAINER by remembering your **“WOBBS”**: **Water (Coolant), Oil, Bilges (Inspect and Pump-out), Belts and Sea Strainer**

#### **Engine Coolant:**

Check the level of coolant in the expansion tank. Engine coolant is a mixture of 50% antifreeze and 50% water. There is coolant kept on board and should be located during your orientation.

#### **Engine Oil:**

Check the oil level in the engine with the dipstick located on the starboard side of the engine. The oil level should be anywhere between the high and low marks. Spare oil is kept on board, and should be located during your orientation.

The companionway ladder must be lifted to access the engine to add oil. If you need to add oil, please use great care not to overfill. Running the engine with too much oil will cause damage.



## Gearbox Oil Inspection:

Remove the gearbox oil dipstick and ensure the oil is at or near the oil level line on the dipstick. The aft engine cover is in the main berth and held in place with Velcro® strips. Simply pull on the top and set the cover aside to gain access to the gearbox.



## Bilges:

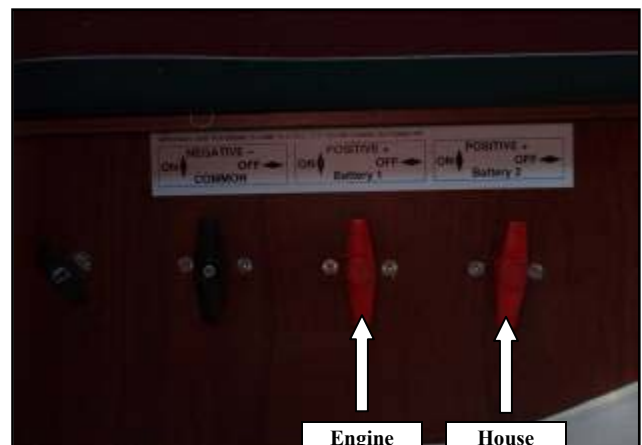
Remove the largest cabin sole panel under the dinette table to check the bilges. There is normally a small amount of water in the bilge. Check for debris, oil, or anything unusual. The Yanmar engine is cooled by a heat exchanger. The engine pumps sea water through a sea water strainer, then through a heat exchanger that cools the coolant fluid, thus cooling the engine. The sea water is then pumped overboard.

## Belts:

Check the general condition of the belts, hoses, and fuel lines.

## Sea Strainer:

The sea water strainer is located aft of the engine under the companionway ladder. It should be checked daily, as it can clog with seaweed and other debris. To check the strainer, shine a flashlight through the plastic bulb. If debris is visible it will have to be removed. To clear debris from the strainer, close the thru-hull valve located aft of the strainer. Unscrew the plastic bulb holding the strainer. Be careful not to lose the rubber O-ring. Rinse the strainer and plastic bulb and replace them with the O-ring in place. Do not fully tighten initially because the air needs to be removed. Slowly open the thru-hull valve and allow the air in the plastic bulb to escape. When the air has escaped, tighten the plastic bulb by hand and observe for leaks. The continued supply of seawater is critical to the operation of the engine.



## Startup

Set both battery selector switches to the **ON** position. (See battery section for additional information related to the battery selector switch). The battery selector switch is located



in the aft cabin. Place the throttle/shift lever in low/neutral (straight up and centered). Push in the red button located on the throttle lever to disengage the linkage to the transmission, then move the throttle forward about one third. There is a natural stop at this setting. Turn the key to the ON position. You will hear the audible alarm sound. Turn the key to the start position until engine starts. When starting cold, **allow the engine to warm up at an idle for TEN MINUTES** prior to applying a load. If load is applied before the engine warms it may seize. Normal idle speed is 800 to 1000 RPM. Be sure the audible alarm is not sounding. It should stop when the engine starts. **NOTE:** Do not hold the start key for more that FIFTEEN SECONDS at a time. If the engine does not start the first time, wait a few seconds before trying again. Please remember NEVER TURN THE KEY OFF WHILE THE ENGINE IS RUNNING! You will do serious alternator damage. It should always remain on. Engine alarms will not work when the key is off. While the engine is warming, check for water exiting the exhaust. You may not be able to see the water, but you should be able to hear it exit with the exhaust.

### **Shifting**

To engage the transmission, move the throttle/shift lever to the low/neutral (straight up) position until the red button pops back out. Push throttle forward for forward propulsion, or back for backward propulsion.

### **Shutdown**

Place the throttle/shift lever in neutral and allow the engine to cool down for several minutes. Usually this is about the amount of time it takes to secure your lines and plug into shore Power. Push the STOP button until the engine stops. The audible alarm will sound until the key is switched off.

### **Fueling Up**

You will need to fuel up before returning to the slip at the end of your charter. The fuel tank holds 19 gallons of diesel fuel. Before refueling, have an “oil/fuel sorbs” handy to soak up spilled fuel. You should have a rough idea of the number of gallons you will need by the fuel gauge and by the hour meter. Leap of Faith uses approximately ½ gallon per hour. The fuel filler cap is located on the starboard deck aft. **CHECK THAT YOU HAVE THE CORRECT DECK OPENING!** Do not add water or pump-out at the same time you are fueling. Use only DIESEL FUEL! Place the diesel fuel nozzle into the tank opening, pump slowly and evenly, and note the sound of the fuel flow. Pumping too fast may not allow enough time for air to escape, which may result in spouting from the tank opening. As the tank fills, the sound will rise in pitch or gurgle. Pay attention to the tank overflow vent. The sound may indicate that the tank is nearly full. Top off carefully, and be prepared to catch spilled fuel. **Spillage may result in a fine from law enforcement.** Replace deck cap. *Caution – Clean up splatter and spillage immediately for environmental and health reasons. Wash hands with soap and water thoroughly.*

## ***Trouble Shooting Engine Problems***

### **Engine Overheating:**

1. **Immediately shut engine down.** The most likely cause is clogging of the sea water strainer. This condition may be preceded by black smoke from the exhaust. Follow procedure above to clear the strainer. Check to be sure water is exiting with the exhaust. If water is not exiting with the exhaust, then check the sea strainer. If it is full



of sea weed or eel grass, close the raw water intake then open the sea



strainer and clean out, replace cover and open

the raw water intake valve.

2. If seawater is getting to the engine, the next likely cause is low coolant level. Check the coolant level by observing the expansion tank. If coolant level is low, add coolant from the pre-mixed jug. Never open the radiator cap when the engine is hot, as this could cause severe burns.

### **Low Oil Pressure:**

1. **Immediately shut engine down.**

2. Check oil level. Add oil if necessary. Use care not to overfill oil.

3. If the engine oil level is not low, **DO NOT RESTART**. Contact AYC or other personnel listed on the emergency contact list in the gray manual.

### **Alternator Failure:**

You may keep running the engine, but be aware the batteries are not being charged. Conserve on engine and battery use. Contact AYC immediately.

### **Engine Dies And Won't Restart:**

Contact AYC immediately.

## **GETTING UNDERWAY**

Close the portholes, windows, and forward hatch. Disconnect shore power and store cord. Once outside the marina, idle the engine while the crew brings in fenders and lines. Assign one crew member to be in charge of securing ports and assign one crew member to be in charge of the dinghy, if towing. Shorten the line on all close quartering maneuvers.

### **Steering Wheel**

The steering wheel can be rotated on the pedestal to make it easy to move back and forth in the cockpit when **NOT** underway. To rotate the wheel pull the large knob on the side of the pedestal out and move the wheel to the left out of the way or right to use.

### **SAILS AND RIGGING**

The fully battened, mainsail is the main driver under sail in this sloop rig sail plan. It is this feature that allows for great sailing in light air. This sail plan however requires early reefing in stronger winds. 15 knots would not be too early for the first reef. This rig has swept back spreaders and a double backstay. This allows free access to the swim platform. It also means that dead downwind sailing places the sail on the spreaders. A broad reach, with close attention to keeping the sail off the spreaders, is recommended. As there is no “preventer,” take care with jibing – for your sake, and for the protection of the gear. The jib is furled. The furling line is led aft to the cockpit. To unfurl the headsail, (a) uncleat the furling line, (b) wrap the sheet around the appropriate winch, (c) pull the sheet aft while maintaining tension on the furling line, (d) cleat when desired reefing level has been achieved. To furl the jib, apply slight tension on the jib sheet while pulling on the furling line until it is fully furled. Place three or so wraps of the jib sheets to hold the sail.

Jib sheets are led to the cockpit to the winches. Use the jib sheet cleats as little as possible as they tend to fray the lines. Adjust fairleads forward in heavy wind, aft in light wind. The jiffy reefing has two reefs. To apply a reef, go head to windward, lower the mainsail halyard, hook the tack cringle for the chosen reef over the reefing hook at the forward end of boom, snug the associated reef line, then raise the mainsail halyard and resume sailing. Jib sheets, mainsheet, halyards, and traveler are all operated from the cockpit. There is a soft boomvang. A lazyjack type system with sail cover on the boom simplifies sail handling. There is no whisker pole, and no spinnaker. There is a topping lift, which needs to be released after raising the mainsail. Reset the topping lift upon lowering the mainsail.



## ***Troubleshooting Sails and Rigging***

1. **Mainsail resists being raised:** Check all lines. Both reefing lines should be loose and flopping. The boomvang should be loose. The battens should not be stuck on the lazyjack. If they are, lower the sail and be sure to be head to wind on raising the sail again.
2. **Furling line gets stuck partway through the furling process:** This is usually due to not applying proper tension on lines in furling and unfurling process. Try letting the jib out and repeating the process. Be sure you are headed into the wind to reduce pressure on the rig. If this fails you could have an over-ride in the furling drum that needs to be fixed.
3. **Unable to point with reef in place:** Probably have not snugged the reef line sufficiently. Repeat process and be sure lines are snug before raising the halyard.

## ***DINGHY***

When towing the dinghy, pull the painter up tight to the boat when maneuvering in the marina to avoid getting the line wrapped around the propeller. The line may be lengthened when underway. Consider assigning one of your crew “dinghy duty” to monitor the status of the dinghy. In rough weather, lift the dinghy with a halyard onto the foredeck and tie down upside down or deflate and compress into bag. If dinghy is tied onto the foredeck, please place a cockpit throw cushion under the dinghy transom to prevent scratching of the forward hatch or cabin top.

Be sure when towing your dinghy, that someone is always keeping an eye on the painter when slowing down or stopping. When rowing your dinghy to shore, use EXTREME CAUTION. Choose an area free of any large rocks that might cause harm in beaching. Lift up on and carry the dinghy to bring it up to higher ground. Please never drag it. Secure it when leaving as the tides come up quickly. The foot pump for the dinghy is stored in the starboard cockpit lazarette. There is a patch kit onboard if the dinghy is ruptured.

## ***DOCKING***

Have your crew make ready the lines and fenders, and give clear instructions on how you will be docking. Have bow, stern, and spring lines ready. Often times it is best to lead dock lines to the mid section of the boat where your crew member can easily step off and secure either line. As you are coming in to dock, have your best communicator midships to give you distances from the dock. It is often hard to judge how close the dock is. Calling out distances (i.e. 20 feet, 10 feet, 4 feet, etc.) will only add to a successful docking. If you find you are too far off the dock, BACK OFF and re-approach. It is better to re-approach than to lose crew over the side...

## ***MOORING CANS (BUOYS)***

The Washington State Parks sticker on ***Leap of Faith*** allows you to use the mooring cans in the marine parks for free. You only need to register at the kiosk, usually located at the head of the docks. Mooring cans have a metal triangle at the top, upon which is a

metal ring. The metal ring is attached to the chain which secures your boat. IT IS VERY HEAVY. The strongest member of your crew should be chosen for this job. Come up to the mooring can into the wind as you would for anchoring. Have crew members on the bow, one with a boat hook and one with a mooring line secured like a bow line. As you are coming slowly up to the can, have the crew holding the boat hook point at the can with the hook so the skipper always knows where it is. Hook the can and bring the ring up to the boat to allow the second crew member to thread the ring with the line. Release the boat hook. If your mooring line is led out the starboard cleat, bring the end of the line back to the port side cleat. You will essentially create a bridle with about 10 feet of slack from the cleats to the can.

## **ANCHORING**

**Leap of Faith** carries a plow type anchor on the bow attached to 50 feet of chain and 200 feet of 5/8-inch rode. There is a windlass which is controlled by a pendant in the forward cabin.

### **Setting the anchor:**

Let out sufficient anchor rode (chain and line) before setting the anchor. Color markers are placed every 30 feet on the chain and nylon rode. If the anchorage is crowded, put down at least a 3 to 1 scope (60 feet of rode for 20 feet of water at highest tide). Back the anchor in with a short burst in reverse from the engine. Then let out additional scope dependent upon conditions. If the anchorage is less crowded, more scope is always a better option. The holding power of the anchor increases greatly as more scope is added. There is a second anchor in the starboard cockpit lazarette. This can be set off the bow or the stern as needed. Be sure to secure the bitter end, as it is not secured in the lazarette.

### **Raising the anchor:**

Coordinate the maneuver with the helmsperson to remain steady above the anchor as it is raised. As the anchor rises, be careful not to allow it to swing against the hull.

## **BOAT SYSTEMS**

### **ELECTRICAL SYSTEMS**

**Leap of Faith** has two electrical systems, 110 volts AC and 12 volts DC. It is important to understand these two systems are completely separate and isolated from one another. There is no inverter. Both AC and DC systems are controlled at the electrical panel at the navigation station.



## 110-Volt AC System

**Leap of Faith** is equipped with the capacity to plug into dockside shore power (110 volt AC) using the heavy yellow shore power cord. This system powers everything on the AC circuit breaker panel:

- 110 volt AC wall outlets
- Battery charger
- Water heater

### Connecting to shore power:

Check the power rating/plug size of the nearest dock receptacle (that is 30 amps, 20 amps, or 15 amps). If necessary, add a shore power cord adapter located in the compartment forward of the navigation station. The procedure to hook up to shore power is as follows:

1. Make sure the “AC Main” circuit breaker is off.
2. Turn off the circuit breaker located at the shore side outlet on the dock.
3. Connect the plug to the shore side outlet. Give the plug a small twist clockwise to lock.
4. Turn on the circuit breaker at the dock.
5. Turn on the “AC Main” circuit breaker and any of the circuit breakers for the 110 volt AC systems desired.

The shore power cords coming off the bow can be wrapped loosely around the bowline.

On shore power, the electrical outlets will be functional under the 110 volt AC system. They will not work under the 12-volt DC system.

## 12 Volt DC System

This system is powered by the marine batteries aboard **Leap of Faith** and powers everything onboard not powered by the 110 volt AC system.

The House battery is Battery #2 and is located in the starboard cockpit lazarette. The engine start battery is Battery #1 and is in the engine compartment just forward of the engine. Make sure “BOTH” batteries are ON when under power, or when connected to shore power for recharging. When at anchor and/or not on shore power, turn Battery #1 off. This way even if the House battery is low you will still have power to start the engine.

**Note -- Do not change the position of the battery switches while the engine is running, or the alternator diodes will be damaged. Change positions with the engine off.**

The running, steaming, and anchor lights are all controlled from the electrical panel above the navigation table. Interior lights are also powered from a circuit breaker on this panel. Each interior light also has an individual switch at each fixture. There are two 12 volt auxiliary plugs (cigarette lighter plugs). One located on the electrical panel, and the other on the binnacle in the cockpit.



When not connected to shore power, the house battery is providing all power. Avoid draining the batteries by using power sparingly at anchor:

- Turn the refrigerator off at night, as it will still stay cold.
- Use only one or two lights at a time.
- Turn off systems not in use such as instruments, VHF, autopilot, running lights, steaming lights, tank indicators, stereo, etc.

If you do not need the diesel forced air heater, it may be turned off as well. Monitor the use of onboard electricity carefully with your voltmeter located at the navigation station.

### **Voltage (Wet Cell Battery)**

#### **Battery State**

- 12.65 volts 100%
- 12.47 volts 75%
- 12.25 volts 50%
- 11.95 volts 25%
- 11.70 volts 0%.- 11 -

### **Troubleshooting Electrical Systems**

1. Battery running low. Signs of this are lights dimming, stereo not working. Immediately start engine and run for a period of time at 1600 RPM with the battery switch turned to “BOTH” batteries.
2. Unable to start the engine due to low battery. Place the battery master switch on “BOTH” and retry. If engine starts, recharge as above. If it does not work, see engine troubleshooting or contact AYC for instructions.

## **SANITATION SYSTEM**

### **Marine Head (toilet)**

The head contains a vanity with sink, a showerhead, and a marine toilet with hand operated pump for flushing. Heads are easily plugged by 2-ply tissue, Kleenex, hair, tampons, or paper towels. **The only things that go into the head are body waste and a small amount of special marine toilet paper. The person who plugs a head is responsible for unplugging it.**

To operate the head:

1. Move the lever to the “wet” position and pump to wet the bowl.
2. Use the head – minimal or no toilet paper (marine only).
3. Pump the bowl again in the “wet” position until the bowl is clear.



After the bowl is clear pump several more times to clear the lines.

4. Move the lever to “dry” and pump the bowl empty.

5. **WARNING!:** Always leave the lever on “dry” when not in use to prevent water from flooding back into the boat. Should the toilet pump handle squeak or stick, it needs to be lubricated. Put a couple of squirts of ‘pump lube’ into the toilet. Pump the toilet dry slowly, to draw the lube into the handle unit.

### ***Holding Tank (80 liters)***

Head contents go to the holding tank. The holding tank needs to be emptied frequently as it has a capacity of only 20 gallons. Figure about 1 gallon per use. **When in a marina consider using marina facilities to conserve holding tank space.** With an overfilled tank, it is possible to break a hose, clog a vent, or burst the tank. The result will be indescribable catastrophe and an expensive fix. Monitor the holding tank closely and pump out/empty the tank when it reaches about 75% full (check via inspection port in the bathroom on the wall behind the head) to avoid this problem.

#### **Pumping out:**

1. Locate the nearest pumpout station and consult the directions there.
2. The holding tank cap is located on the starboard deck.
3. Apply tight seal with the pump nozzle and remove effluent.
4. Rinse the tank with hose water and repeat the pumpout.
5. Flush the pumpout hose with sea water and replace.
6. Place ½ cup of holding tank deodorant in the toilet bowl and flush through.
7. Tighten the holding tank cap on the boat.

**WARNING! DO NOT CONFUSE THE HOLDING TANK CAP AND THE DIESEL FUEL TANK FILLER CAP. BOTH ARE LABELLED. READ BEFORE USING EVERY TIME.**

#### **Overboard Discharge:**

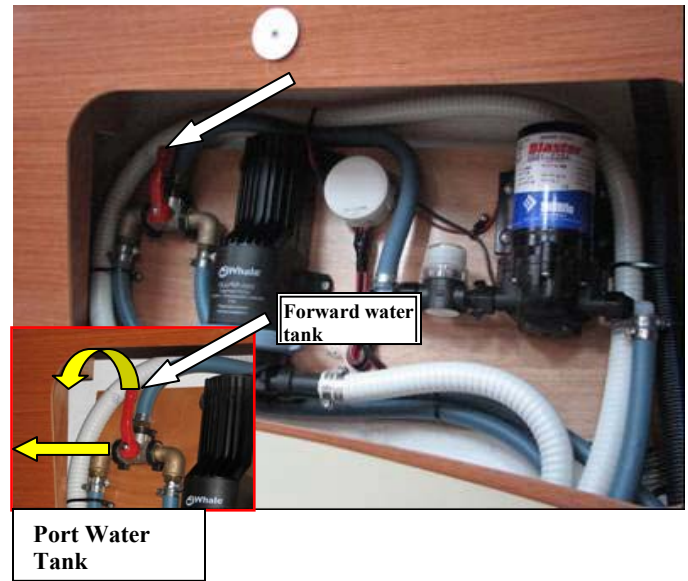
The holding tank is above the water line and may also be emptied overboard when NOT in U.S. Waters. **By law, NO overboard pumpout into sea water is allowed within U.S. Waters.** To empty the holding tank open the thru-hull valve located in the lazarette. It is important that every member of the crew be informed on the proper use of the marine toilet. The valves, openings, and pumps are small and may clog easily. **If the toilet clogs, it is YOUR RESPONSIBILITY!** Always pump the head for children, so you can make sure nothing foreign is being flushed. **Caution** – Never put paper towels, tampons, Kleenex, sanitary napkins, household toilet paper, or food into the marine toilet. Use only the special dissolving marine toilet tissue provided by AYC.

## **WATER SYSTEM**

### ***Fresh Water Tank***

**Leap of Faith** has two water tanks with a valve to switch from one to the other located with the water pump which is behind the forward port settee. With the valve in the vertical position water is drawn from the forward water tank, when the valve

handle is down and aft it draws water from the port water tank. The forward tank is under the forward V-berth and holds about 42 gallons the second tank is under the port settee and holds about 25 gallons for total useable fresh water of about 67 gallons. Be mindful of the amount of water you use while washing dishes and taking showers. To refill the tank, remove the filler caps located on the port and starboard side forward. Attach the hose to the dock spigot and let run for a minute before inserting into deck fitting. Avoid flushing debris from the deck into the tank opening. Please **DO NOT** fill water and diesel at the same time!



Waste water from the sinks drains overboard through various thru-hulls located under the sinks. The shower drains are pumped overboard by individual 12 volt pumps with in-line fine mesh strainers.

### ***Fresh Water Pump***

The fresh water pump is located under the starboard settee. Activate the pump at the electrical panel by turning on the circuit breaker. If the water pump continues to run for more than a few seconds, you are either out of water or might have an air lock and need to bleed the system by opening a faucet. **If you run out of water, SHUT OFF THE WATER HEATER on the electrical panel, as serious damage can occur!**

### ***Water Heater***

The water heater has a 6 gallon capacity tank, and heats when connected to shore power or from the heat exchanger when the engine is running. To use in the AC mode, turn on the water heater circuit breaker on the electrical panel. The water will heat automatically when the engine is running. **Do not use the water heater if the water tank level is very low.**

### ***Shower***

To conserve water, consider using marina showers if available, or take only very short “boat” showers by turning off water between soaping and rinsing. To keep shower tidy and the boat dry, wipe down the shower stall and floor when finished. Check for accumulation of hair in the shower and sink drains. An additional fresh water shower is located in the swim step area. Ensure that the faucets and nozzle are completely off after use.

## **GALLEY SYSTEMS**

### ***Propane Stove/Oven***

The galley has a two burner gimbaled propane stove with oven. It is fueled from a propane tank located aft of the port lazarette. The manual valve on the top of the tank should be kept closed whenever the stove is not in use. When opening the valve, turn until it is all the way open and just snug, otherwise gas may seep around the valve stem. Propane is heavier than air, so the gas will collect in the bilge. Therefore, the tank valve should be turned off prior to retiring for the evening, while cruising, and upon returning the boat at the end of your charter.

To turn the propane on:

1. Check to see burners and oven are turned off.
2. Turn on the propane tank valve.
3. Turn on the circuit breaker switch marked "Gas Valve" on the electrical panel.

To light the burners:

1. Turn burner knob on and continue to hold the knob in while pushing the spark button or clicking the handheld butane lighter to light the burner. (Should the burner not light, be certain that you push the knob in as you turn it back off).
2. Continue to hold the knob in for 10 to 15 seconds, as it needs to warm the thermo-coupler before it will stay lit to avoid gas leakage.

To light the oven or broiler:

1. Push and turn the oven/broiler knob to the desired position. Hold the button in while clicking the handheld butane lighter to light the broiler or oven. Hold the button in for 10 to 15 seconds, as it needs to warm the thermo-coupler before it will stay lit to avoid gas leakage. Should the broiler or oven not light, be certain that you push the knob in as you turn it back off.

For cooking underway, the stove is gimbaled. Un-latch the base of the stove to allow it to swing freely. Re-latch upon returning to dock.

After using the stove or oven:

1. Turn the propane solenoid switch off.
2. Turn the "Gas Valve" switch off on the electrical panel.
3. Close the valve on the propane tank before retiring for the evening, and at the end of your charter.

A full tank of propane ***normally*** lasts a little more than two weeks.

### ***Refrigeration***

Turn on refrigeration circuit breaker at the electrical panel and set the desired temperature inside the refrigerator. Tupperware containers are left aboard for help in organizing supplies. Ice cube trays are also aboard. They can be left in the freezer area, or that area can be used to keep meat frozen until use. There is a deep cold storage

space in the bottom. This area is hard to get to, so plan ahead. For the most efficient use of the refrigerator, place two bags of ice or a block of ice in the base of the refrigerator. This will allow turning off the refrigerator at night to conserve batteries. Turn the refrigerator on while motoring, or when connected to shore power.

## ***Barbeque***

The barbecue is mounted on the aft starboard railing. Attach a propane bottle to the regulator. Carefully light the unit with its ignition switch. The barbecue generates a lot of heat and cooks hot and fast. Please clean up the BBQ when finished using it to prevent grease and dirt from soiling the boat. *Note: Propane bottles are not stocked by AYC. You will need to purchase one if extras are not found on board.*

Caution -- For safety reasons, do not store an opened propane bottle within the salon or engine compartment. Chances are these will leak slightly once opened and propane gas could settle into low spaces. Store these bottles in the lazarette. Ensure flammable materials are not near the barbecue.

## **HEATING SYSTEMS**

### **Forced Air Diesel Furnace**

***Leap of Faith*** is equipped with a Webasto diesel forced air furnace. The furnace provides heat in the same way as a household furnace. The air outlet vents are in the aft stateroom and salon. The forced air furnace operates on the 12 volt DC system.

#### **To turn on furnace:**

Turn on the toggle switch located at the navigation station. Set the thermostat to the desired temperature. Check the furnace exhaust located on starboard side of the transom for any obstructions such as fenders or lines. Do not block this opening when operating the furnace, as the exhaust heat will damage fiberglass or rubber.

When using the forced air furnace, you may hear a slight clicking sound from under the mattress in the aft stateroom. This is a small fuel pump. Monitor fuel level and battery charge more often if forced air furnace is being used. Turn the forced air furnace off by turning the switch off.

### **Space Heater (110 Volt AC)**

A 110 volt AC space heater can be used when connected to shore power. Be sure to place this heater away from flammable materials when it is turned on.

## **ELECTRONICS SYSTEMS**

All electronics manuals are located above the navigation station.

## **VHF Radio**

**Leap of Faith** is equipped with an “icom” marine VHF radio. The Federal Communications Commission (FCC) licenses it as a ship station. This radio can be an extremely valuable source of information, such as weather and tides. In an emergency, it is a vital source of assistance. It can also provide telephone contact with people on shore through the marine operator. The operation of this station is strictly controlled by Part 80 of the FCC rules and regulations, and the Communications Act of 1934. You should review the communications section of Chapman’s Piloting to familiarize yourself with these rules before using the transmitter.

## **Depth Sounder/Knot Meter**

These instruments are Raymarine ST60 series mounted on the binnacle. Each has a cover which should be in place when not in use. When removed, store them below in the locker forward of the navigation table.

The depth sounder should provide reliable readings in shallow waters. If in doubt, switch it off. Then turn it back on to reset. If your reading is blinking, it is a false reading. False readings can occur in depths of more than 200 feet, or in areas of strong currents or tides.

## **Global Positioning System (GPS)**

A fixed mount Raymarine GPS is also mounted on the binnacle. Refer to the onboard Raymarine manual for operating instruction. The GPS does integrate with the Raymarine autopilot.



## **Autopilot**

**Leap of Faith** is equipped with a Raymarine ST4000+ Autopilot. Refer to the onboard Raymarine manual for operating instructions.

**GPS is considered a navigation aid. Do not rely on it. Compasses, charts, and dividers are the tools to plot position, course, and speed.**

## **AM/FM Stereo Radio – CD Player**

The Sony brand AM/FM stereo radio CD player is located at the navigation station. It operates like a normal car radio. Turn the stereo on and off at the electrical panel with the “Instruments” switch.

## ***BILGE PUMPS***

***Leap of Faith*** is equipped with a 33 GPM bilge pump with a separate automatic float switch. The pump master switch located on the electrical panel will turn the pump on for testing. However the pump is permanently wired for automatic operation. You may occasionally hear the pump operate due to condensation. An auxiliary, hand operated, bilge pump is operated in the cockpit using the handle provided for that purpose. The handle is stored under to lid of the starboard cockpit lazarette. This is used only in emergency situations.

## ***THRU-HULL SEA COCKS***

Sea cocks are open when their handles are in line with plumbing (typically vertical), and closed when perpendicular to plumbing (typically horizontal). All sea cocks (except as noted herein) are normally left open while cruising. Please leave all open when returning the boat.

Below water line sea cock locations (also refer to thru-hull diagram):

- Raw water engine intake (under aft stateroom mattress)
- Galley sink drain (under sink)
- Head sink drain (under head sink)
- Head seawater intake (under head sink)
- Depth sounder (V berth sole)
- Holding Tank overboard discharge (stdbd. lazarette)

## ***DODGER AND BIMINI***

***Leap of Faith*** is equipped with a dodger and bimini .The dodger windshields may be cleaned with “Mirror Glaze Clear Plastic Cleaner 17,” and a soft cloth found aboard.

**Please do not use regular window cleaner and/or paper towels**, as they will scratch the windshield material.

## ***SAFETY EQUIPMENT***

### ***First Aid Kit***

The ship’s first aid kit is located in the head behind the mirror. Please notify AYC of any items used from this kit during your trip so they may be replaced.

### ***Fire Extinguishers***

There are three fire extinguishers aboard. One is located in the V-Berth. The second is located in the aft stateroom locker on the bulkhead that adjoins the galley, the third is on the forward support of the navigation table.

### ***Signaling Flares***

The emergency flares are in the compartment forward of the Navigation table.

## ***Life Jackets***

Personal flotation devices (PFD – life jackets) are stored in the yellow lifejacket bag in the starboard lazarette.

## ***Steering Gear Failure***

In the event of steering gear failure, remove the round cover located under the helm seat and insert the emergency tiller. The emergency tiller is stowed in the starboard cockpit lazarette.

## ***Engine Spares/Tools***

The engine spares box is stowed under the starboard settee. This includes oil filter, raw water impeller, pump parts, and other small parts. There are various tools stored in the starboard settee along with extra oil and coolant.

***Please have a wonderful time aboard Leap of Faith, be safe and join us again when you want to sail the great Northwest***

