

ANTELOPE POINT MARINA



The Point

Houseboat Operations Manual



*Set your course
for adventure!*





Antelope Point Marina

To Contact the Boat Rental Office:

Via VHF Radio 8am-5pm on Channel 16

Boat Rental Office 8am-5pm

928-645-5900 ext 5056/5059

If you cannot reach the Marina on channel 16 you may call National Park and ask them to relay a message to the Marina

24 Hour Emergency Contacts:

National Park Service 24 hours a day

911 via Phone

VHF Radio Channel 16

Glen Canyon National Recreational Area

Phone: 800-582-4351

Weather Forecast can be found on:

Channel 01 or (WX) on VHF Radio



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Introduction

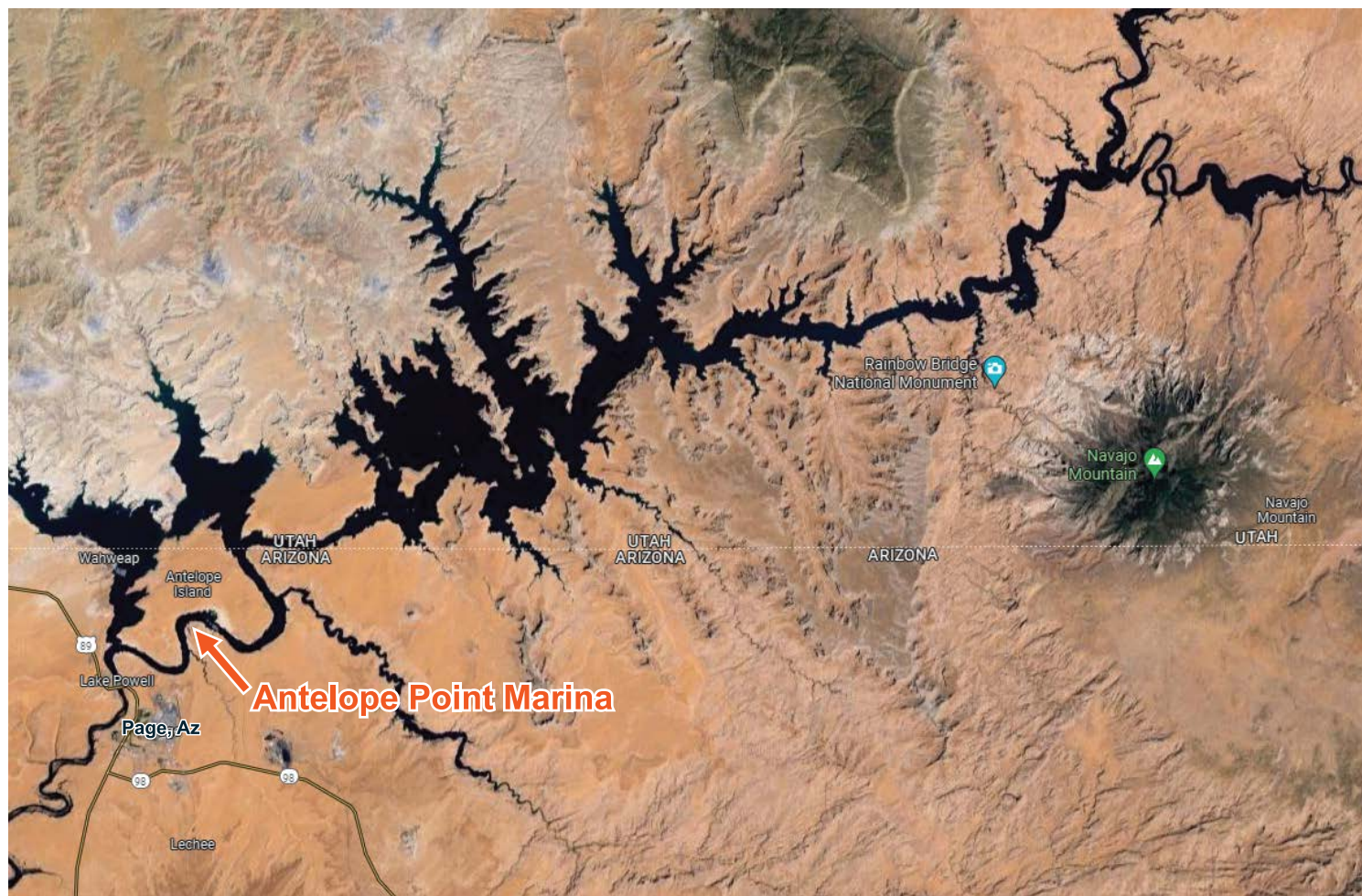
Welcome to our family! You are the begin a wonderful adventure with one of the premier Houseboat companies in America. This manual is intended as a guide to assist you in the operation of your houseboat.

There are many systems and amenities onboard and we will try to guide you through each one.

This manual will give you an overview of each amenity and system. Also, procedures for use are detailed step by step. Safety tips, equipment tips, and statistics such as capacities or consumption rates are also included. We have also included some easy troubleshooting tips. And there is a glossary on nautical terms listed in the back of the manual for terms you may not be familiar with.

Remember you are not just families and friends when boating, you are a Captain and crew.

Try to let everyone in on this idea and how things are different now that you are on the water. Have fun but most importantly; BE SAFE! Welcome Aboard!





Houseboat Instruction Manual

- The various sections are boarded in different colors, based on the different systems on board
- Each chapter begins with an **OVERVIEW** that gives a general explanation of that chapter and gives basic information on systems covered.
- The subsequent pages will explain the individual systems and will guide you through their purpose, proper use, troubleshooting and maintenance.
- Whenever possible, photographs & diagrams are used to aid in familiarity.
- Icons are used to aid in ease of finding the appropriate information.



Getting Started

- Basic Information on that system or function.



User Tips and Guides, and Equipment Tips:

- More detailed information and steps to operate that system or function.



Safety Tips & Warnings!:



- Inform you when you need to take caution or special care when operating that specific:
 1. System
 2. Function
 3. Appliance
 4. Equipment
 5. Or performing that procedure



Troubleshooting Tips:

1. Probable causes of malfunction
2. Step by step procedure to correct situation
3. Alternative solutions when applicable



The phone icon is used as an aid to let you know that you might need to contact the marina. Refer to the “Contact information” page as needed.



Starting Motors

Quick Reference Troubleshooting Guide



1. Throttle in Neutral

Solid green light will show when in neutral



2-3. Turn keys on & crank



4. Watch needles - idles at 1000 RPM



ALWAYS do a visual and make sure nobody is swimming behind the boat.

Step 1. Make sure trim/motors are completely down and in neutral (binnacle).

Step 2. Turn keys to ON position, beeping sound will come from throttle handle.

Step 3. Turn keys to the right to start.

Step 4. Listen to see if you hear the motors running.

Step 5. Watch needle on tachometer, when needle jumps, STOP cranking.

*****When motos are running, tachometer needles will idle around 1000 RPM's.**



Starting Motors

Quick Reference Troubleshooting Guide



ALWAYS do a visual and make sure nobody is swimming behind the boat.

Step 1. Go to helm you want to make active.

Step 2. Press the “TRANSFER” button one time.

Step 3. “TRANSFER” and “NEUTRAL” light will come on and beep will sound.

Step 4. Press the “TRANSFER” button a second time to complete transfer.

Step 5. “TRANSFER” light will turn off and beep.

*****You have 10 seconds to complete the transfer or will have to repeat steps. If levers are not neutral position the neutral light will continue to flash until levers are neutral.**



Quick Reference Troubleshooting Guide



Navigation/Anchor - These are exterior lights that help other boaters determine where you are located on the water

Bilge Blower - Used to ventilate any gasoline fumes in the generator compartment. Recommended to run at least 5 minutes before starting generator. You may also open up the rear generator compartment to ventilate fumes.

Emergency Shut-off Switch - The "RUN/OFF" switch located in the center of the helm. If you are unable to start your motors check this safety switch and make sure it is in the right position.

Tachometer Gauges - Shows RPM's for engines when running.

Check Engine Light - If the motors died and will not start or there is no response with the throttle, trim motors up at the back of boat. Look for any ropes that may be wrapped around the propeller. If there is then cut with a knife and remove all or any other obstructions. ***If it still won't start call APM to have a mechanic take a look at it***

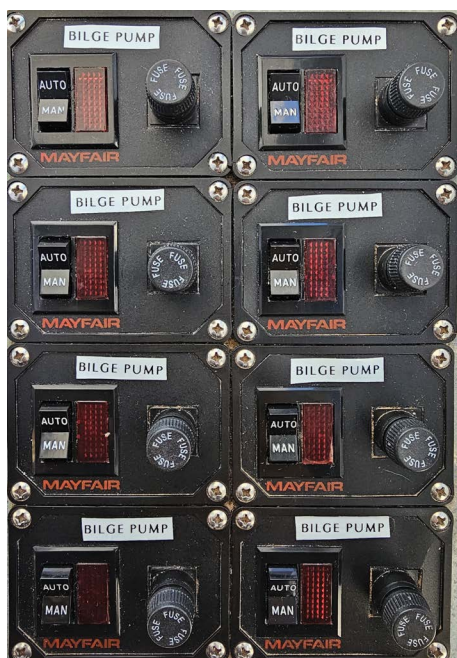
Fuel Gauge - Reads in percentage - 100% is full - To access fuel gauge turn on key and press the "MODE" button on the tachometer gauge. Keep pressing until you see a fuel percentage.

REMEMBER to always do a visual check if you feel the gauge may be off.

Trim Gauge - To access trim gauge turn on key, and press "MODE". Keep pressing until you can find the trim gauge. We recommend to ONLY trim up to 10. To trim up the motors the button is located on the throttle.



Quick Reference Troubleshooting Guide



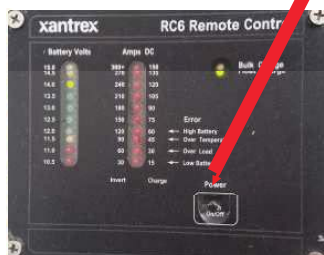
Bilge Pump Panel

Located on the front helm; automatic pumps. These will pump out water in the lower bilge area of houseboat. There are two pumps located in the front bilge, four in the center bilge, and two in the back bilge. Two bulkheads separate the front and back from the center bilge area. If at any time, more than one red light comes on, look down the side of houseboat. If water is pumping out of the bilge area and does not stop, then pilot the houseboat to the nearest beach, and safely anchor down. Call Antelope Point Boat Rentals, so we can come out and inspect the houseboat.



****IMPORTANT****

The inverter control is set properly when you board the houseboat. You only need to check the on/off button, inverter should always be ON.





Quick Reference Troubleshooting Guide



Shore Breakers

These only need to be on when houseboat is at the dock and shore power cords are plugged into pedestal.



Generator Power Breaker

Always have OFF until the generator is started, then turn this main breaker on. ALSO, When you turn the generator off, always turn this main breaker off before.



At anytime the houseboat leaves the dock, the power switch needs to be turned in the "OFF" position. Once beached and you start the generator then you can turn the knob to the "GEN" position.

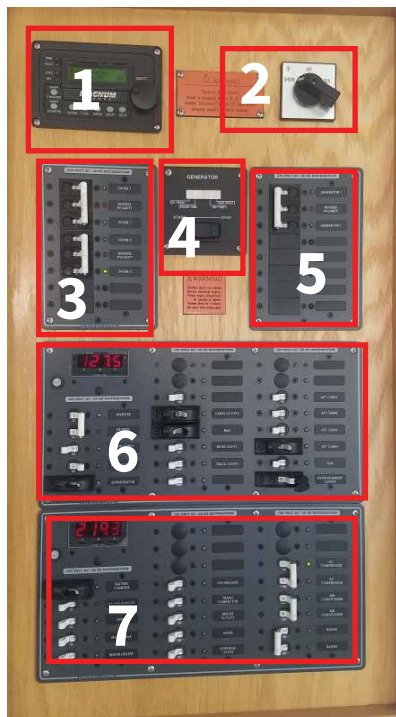


*****When generator is not in use then turn knob in the "OFF" position.*****



Quick Reference Troubleshooting Guide

*****ANY covered breakers must stay on at all times*****



One: Inverter Control

Two: Shore & Generator Power On/ Off Switch

Three: Shore Power Breaker

Four: Generator Start/Stop Control

Five: Generator Power Breaker

Six: 110 Volt Breakers

Seven: 220 Volt Breakers



*****Some houseboat panels may look different but all operate the same*****



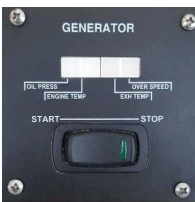


Quick Reference Troubleshooting Guide



Step 1. Turn on BILGE BLOWER for a minimum of 5 minutes to clear out any gasoline fumes in the bilge.

**if bilge blower does not turn on check the 12 volt breaker labeled "blower" in the Generator Compartment. See page 64, 65 & 21.*



Step 2. Start the generator. Push STOP button for 5 seconds to prime generator then press START.

Let generator run for at least 5 minutes before adding load



Step 3. Turn the knob right from OFF to GEN.
(SHORE is only when on dock at the marina)



Step 4. Turn on GENERATOR BREAKER.

(SHORE power breaker will remain off when your not on the dock)



Step 5. Now you can turn on breakers on your 220 volt panel. For example your AC & AC Compressor or Range etc.



Step 6. After turning on your AIR CONDITIONER and AC COMPRESSOR breaker you can turn on your thermostat and set your AC temp.

Remember not to go lower than 70 degrees

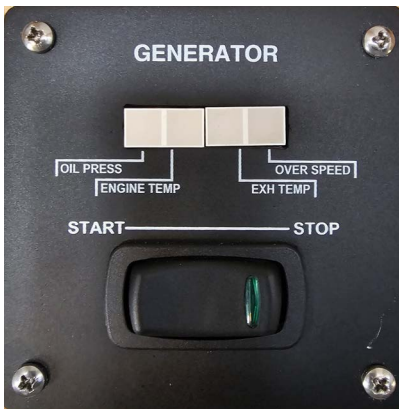


*****REVERSE these steps BEFORE shutting down the generator!*****



Quick Reference Troubleshooting Guide

Start generator ONLY when houseboat is anchored and NOT in motion



Generator Start/Stop Switch - To start generator, push stop button in for 5 seconds, this will prime generator. Then you will push start button, this will crank generator to start up. When generator is running, the green light will stay on at the start/stop switch. If the generator dies while starting, a red light will stay on just above the switch. If this happens, you must reset generator to start back up.



Generator Reset - To start generator, push stop button in for 5 seconds, this will prime generator. Then you will push start button, this will crank generator to start up. When generator is running, the green light will stay on at the start/stop switch. If the generator dies while starting, a red light will stay on just above the switch. If this happens, you must reset generator to start back up.



Quick Reference Troubleshooting Guide

12 Volt System Panel



Decklights: 12 volt lights on front deck of houseboat.

Galley Light: 12 volt LED light above kitchen sink.

AFT Cabin Lights: 12 volt lights on back deck of houseboat and reading lights in back bedroom.

FWD Cabin Lights: 12 volt lights above windows in front cabin of houseboat.

Stereo: CD and radio player on fly bridge top deck of houseboat.

VHF: Marine radio on front helm of houseboat.

GPS: Global position system on front helm of houseboat.



Quick Reference Troubleshooting Guide

Inverter Breaker

This needs to be on at all times, for the rest of the 110 volt breakers to have power.



****Inverter Panel Runs off Inverter Batteries****

110 volt panel - INVERTER BREAKER: Needs to stay on at all times, this allows 110 volt power from inverter batteries. If off, nothing will work on this panel, even with generator running.

Main Cabin Lights - All 110 volt lights in forward half of houseboat.

Head Outlets - All electrical outlets in the bathrooms, forward and aft.

Refrigerator - Lower refrigerator on houseboat; Stays on at all times. *To insure your refrigerator works efficiently, do not overload it with your grocery items.*

Cabin Outlets - All electrical outlets in front half of houseboat.

Bar - All of bar area outlets on top of houseboat will have power, including small refrigerator.

Bilge Lights - Lower lights underneath main cabin floor.

Track Lights - Power for dimmer lights in forward cabin.

AFT Cabin - All electrical outlets in back half of houseboat.

AFT Cabin Lights - All lights in back half of houseboat.

Fan - Ceiling fans.

Entertainment Center - TV's and all associated equipment.

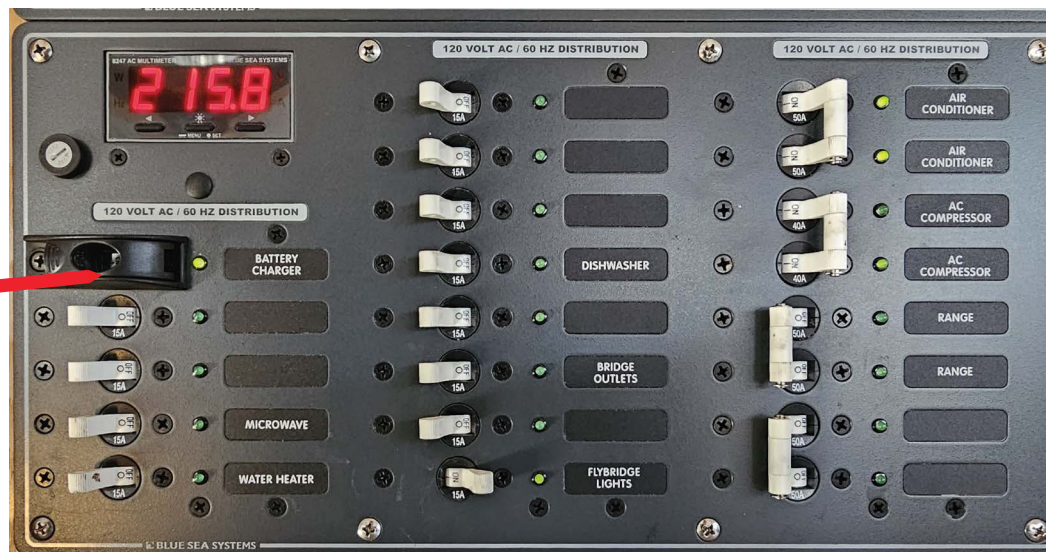
UV Filter - This pumps lake water throughout boat to the sinks and showers.



Quick Reference Troubleshooting Guide

Battery Charger

Stays on at all times.
Charges inverter batteries.



****Generator needs to be running for any of the switches on this panel to work****

220 and 110 Volt Panel - BATTERY CHARGER: Stays on at all times, charges inverter batteries.

Inverter batteries need to be charged at least 8 hours every day.

Galley Outlets - All 110 volt outlets around stove area.

Microwave - Operates the microwave (The clock may need to be set before using).

Water Heater - 16 gallons will take 30 minutes to heat up. Make sure "UV WATER" breaker is on before you turn on the "WATER HEATER".

Dishwasher - Turn on "UV WATER" breaker and "DISHWASHER" breaker for operation.

Flybridge Lights - Lights on the top deck.

Air Compressor & Air Conditioner - Both of these breakers need to be ON for heating or cooling the houseboat.

Bridge Outlets - 110 volt outlets around top front helm.

Range - Stove in kitchen area. This breaker should only be on when you are cooking. Turn the breaker OFF when the stove is not being used.



*****You cannot run "RANGE" and "AC Compressor" at the same time. Running both at the same time will overload generator and may cause breakers to trip*****



Quick Reference Troubleshooting Guide

110 Volt Panel



****Inverter Panel Runs off Inverter Batteries****

Main Cabin Lights - 110 volt lights in forward half of houseboat.

AFT Cabin Lights - All 110 volt lights in back of houseboat.

Track Lights - Dimmer lights in forward cabin.

Cabin Outlets - All electrical outlets in front half of houseboat.

AFT Cabin - All electrical outlets in back half of houseboat.

Head Outlets - All electrical outlets in bathrooms, forward and aft.

Refrigerator - Lower refrigerator on houseboat, this stays on at all times. To insure your refrigerator works efficiently, do not overload it with your grocery items.

Bar - All of the bar area on top deck of houseboat will have power, stays on at all times.

Fan - Ceiling fans in houseboat.

UV Filter - Pumps water from lake into houseboat sinks & showers.



Quick Reference Troubleshooting Guide

110 Volt Panel



****Will only work with Generator Running****

Battery Charger - Stays on at all times, charges inverter batteries.

Galley Outlets - All 110 volt outlets around stove oven.

Water Heater - 16 gallons, will take 30 minutes to heat up. Make sure "UV WATER / FILTER" breaker is on before you turn on the "WATER HEATER".

Microwave - Operates microwave. The clock may need to be set before operating the microwave.

Flybridge Lights - Lights on the top deck.

Bridge Outlets - 110 volt outlets on the top deck, around the helm.



Quick Reference Troubleshooting Guide

220 Volt Panel



The Generator must be run at least 8 hours every day to charge inverter batteries.

Air Compressor & Air Conditioner - Both of the breakers need to be ON for heating or cooling the houseboat.

Range - Stove in kitchen area. This breaker should only be on when you are cooking. Turn the breaker OFF when the stove is not being used.

Inverter Breaker - Needs to stay on at all times, this allows 110 volt power from inverter batteries.



You cannot run "Range" and "AC Compressor" and the same time. Running both at the same time will overload generator and may cause breakers to trip.



Quick Reference Troubleshooting Guide

If any of the power (lights, outlets, etc.) is not working properly, the power may have tripped. Check the following: **First**, check the main volt breakers. **Second**, check the GFCI outlets and reset if you need to. **Third**, check fuse box to see if any circuit breakers have popped. **Lastly**, check the main generator breaker.



GFCI Outlet

These are located in random/different areas of the houseboat; Around the living room, kitchen, and bathrooms. If outlets are not working, find the nearest GFCI and push the reset button. If this does not work, check breakers on the 110 volt panel.



Fuse Box

There are 3 small fuses located on top of the Generator manual start/stop switch (Located on the generator itself). These fuses will pop out if any of the breakers on the houseboat are tripped. Simply push the fuse back in, if any of them popped out.



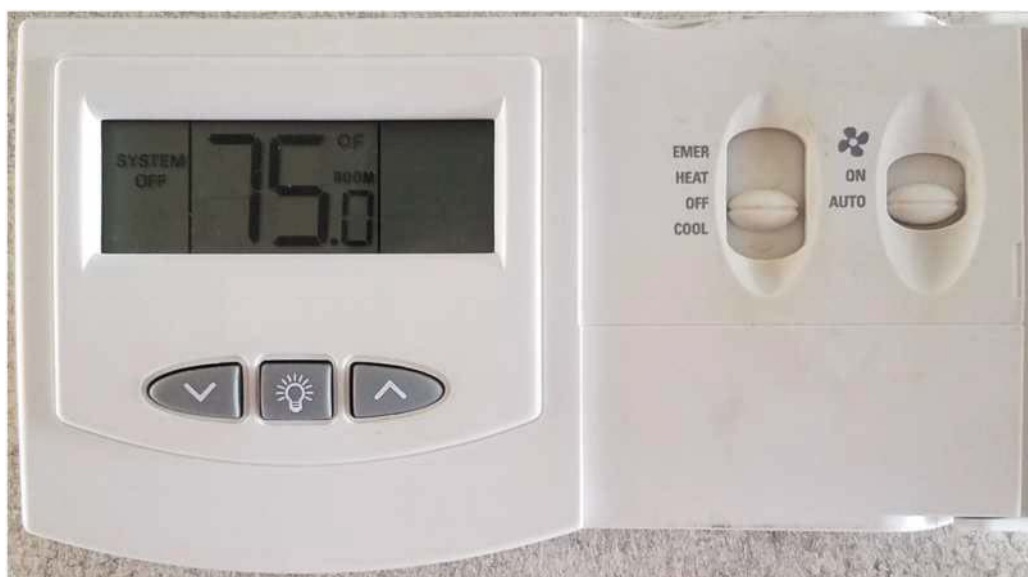
Main Generator Breaker

This is located on the generator itself. Lift the hatch at the back of the houseboat. If the generator is running and breakers on the main volt panels are not working, this main breaker has probably tripped. Reset by turning breaker off, then back on. Panel breakers should then be working.



Quick Reference Troubleshooting Guide

Thermostat



Thermostat - This is your control of the heating and cooling on the houseboat. ***VERY IMPORTANT REMINDER*** - Never start or shut off generator with thermostat on.

Step 1. The thermostat should always be turned OFF before you start or shut off generator.

Step 2. Start the generator; when running, turn your generator breaker on, and then turn on the “air compressor”, and “air conditioner” breakers.

Step 3. Turn switch ON to heat or cool, whichever is needed.

Step 4. Thermostat should be set to ‘Auto’, and then by pushing arrow up or down, to desired temperature. It is important to set temperature increments only 5 degrees at a time, until room temperature is reached. If room temperature is 90 degrees and you would like 70 degrees, set at 85, 80, 75, and then 70. If you try to set temperature all at one time, unit will freeze up and not work, until unfrozen.

Turning Off - Turn thermostat OFF, Turn “air compressor”, “air conditioner” breakers off, turn off main generator breaker, and then turn off generator in that order.



Quick Reference Troubleshooting Guide

Toilet Operation



Quick Flush - Push to run water & grind at the same time.

Lower/Left Switch - Push to left to side to fill toilet with water. Push right side to run water & grind at the same time.



*****Do Not flush wipes or feminine products in toilet. Use only marine grade toilet paper*****

Toilets on houseboats are macerators, which is a grinder that can be easily become clogged if not used properly. When a person has to take a bowel movement, fill bowl up with water, once done grind all waste down. Fill bowl back up with water, wipe with the least amount of toilet paper as possible, grind paper down, repeat this process until finished.

Helpful Hints: Marine grade toilet paper is recommended to use. There is some provided on houseboat. Thick toilet paper, paper towels, handy wipes, napkins, and all female products, will clogged / damage the macerator. Small children will use a lot of toilet paper, parents need to supervise them so this does not happen. When grinding waste or toilet paper down, hold button down long enough that the macerator will be clean for the next person. If toilet plugs up, this will probably trip breaker on panel underneath back right generator hatch. Reset breaker, fill bowl with water and let sit for a period of time then try again.



Toilet Breaker



Quick Reference Troubleshooting Guide

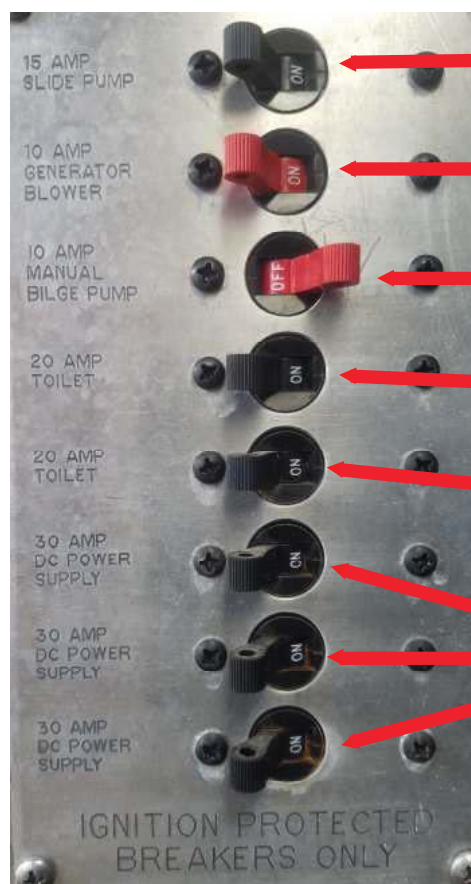


Toy Tank Breaker

If toy tank pump does not turn on, this breaker has probably tripped. *It is located under the generator hatch*. A little black arm bar will drop to the lower left of the red trip button. You just need to push arm bar back in to reset.



These breakers are located in the generator compartment of the houseboat



Slide Pump Breaker - For the water slide.

Generator Blower

Manual Bilge Pump - Pumps out water in the rear bilge.

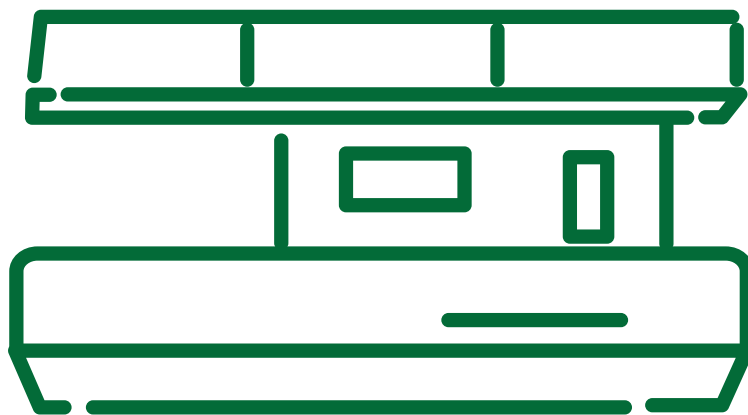
Front Toilet Breaker

Rear Toilet Breaker

3 Breakers - 12 volt system.



Houseboat Safety Systems





Houseboat Safety Systems

Overview - Your Houseboat is equipped with several safety systems. It is important to become familiar with them, understand their proper use, and their locations. Some systems are automatic such as your CO detectors & smoke detectors, Bilge Fire Suppression System, and Gas Fume Detector. Others require you and your crew to operate such as the fire extinguisher or wearing personal flotation devices (PFD's). Following is a list and description of each system or aid. (Some systems such as the water filtration system are explained in the appropriate chapter).

- Smoke Detectors
- Carbon Monoxide (CO) Detectors
- Fire Extinguishers
- Automatic Engine Compartment Fire Suppression
- Marine Band Radio
- Throw Rings
- Orange Flag (SOS)
- GPS
- Lifejacket (PDF)
- First Aid Kit
- Bilge Pumps
- Gasoline Fume Detector
- Water Filtration System
- Beaching/Anchoring the Boat



Gas Fume Detector



Fire Suppression



Orange SOS Flag



Smoke Detector



GPS Device



Marine Band Radio



CO Detector



Lifejacket



Bilge Pumps Control Panel



Fire Extinguisher



First Aid Kit



Throw Ring & Rope



Anchors & Ropes



Houseboat Safety Systems

Critical Safety Awareness



*****Before Starting Motors, Post a lookout on the rear deck, check for anyone near the motors or rear of the boat, check that there are NO swimmers in the water*****

Helm Notice:



Propeller Notice:



*****Before Starting Motors, Post a lookout on the rear deck, check for anyone near the motors or rear of the boat, check that there are NO swimmers in the water*****



Houseboat Safety Systems

Important Safety Messages



- To prevent any accidents, remove keys when motors are not in use.
- Never swim or use the waterslide while the motors or generators are running!
- No jumping or diving from top deck! (There are some rocks and shallow water that can be hidden underwater)
- Non swimmer and children 12 years of age and under must wear a lifejacket (PFD) at all times while boat is underway.
- Passengers must stay inside the railings when boat is underway or while anchoring. DO NOT climb up or hang over the bow.
- Antelope Point Marina Policy requires that you turn off the generator and motors before using the waterslide or swim from the houseboat.
- Anyone using the slide must wear a lifejacket during use.
- Prior to starting the motors, always verify that there are no swimmers in the water and post a lookout on the rear deck.
- The blower must be turned on for 5 minutes prior to starting the generator.
- Never leave a burning barbeque unattended.
- All rental boats are to be moored before sunset. NO operation at night!
- Keep ropes on deck neat to prevent any ropes getting caught in the propellers.
- Please familiarize yourself with this manual before leaving the Marina.
- Other safety messages are found throughout the manual and are highlighted in RED.



Houseboat Safety Systems

Smoke Detectors



- There are three smoke detectors on board. One in the main salon, one in the hallway near the Captains quarters, and one downstairs between the lower bedroom staterooms.
- Never ignore any alarm.

- If the alarm sounds and you are NOT ABLE TO SAFELY control the source of smoke:

Step 1. Remain Calm.

Step 2. Contact National Park Service.

Step 3. Contact Marina by phone, **928-645-5900** not your band radio.

Step 4. Get everyone off the houseboat immediately.



- Exit the houseboat immediately through the front of the boat, if accessible, every second counts.
- Do not waste time getting dressed or picking up valuables.
- Do not open hot doors.
- Stay close to the floor if the air is smokey. Take short shallow breaths.
- Once outside, do a head count to make sure everyone is there.
- Do not go back inside the boat.



*****If underway grab lifejackets from safety cabinet. Children must ALL be wearing lifejacket when boat is in motion*****



*****Antelope Point Marina Phone Number 928-645-5900*****



Houseboat Safety Systems

Carbon Monoxide (CO) Detectors & Vertical Exhaust



- There are CO Detectors in all cabins, hallways, and living areas.
- Carbon Monoxide is a potentially deadly gas produced anytime a carbon based fuel, such as gasoline, propane, charcoal, or oil burns. Possible sources on your boat include motors and the generator.

- Carbon Monoxide is colorless, odorless, tasteless, and mixes evenly with air. It enters your blood stream through the lungs and displaces oxygen your body needs. Early symptoms of carbon monoxide poisoning including: irritated eyes, headaches, nausea, weakness, and dizziness, are often confused with sea sickness, prolonged exposure can lead to death.
- Carbon monoxide can collect within a boat in a variety of ways. Poorly vented exhaust can re-enter a boat if it is moored too close to another boat, or if the exhaust is pushed back by prevailing winds. Exhaust can also re-enter through open windows.



CO Alarm - Steady RED light and 4 “beeps” then off for 5 seconds: indicates that the CO level is over 100ppm (parts per million). Then the RED light will stay on until the CO has cleared, or the alarm will reactivate in approximately 6 minutes in the event carbon monoxide is still present.

Low CO Alarm - Flashing RED light and 4 “beep” then off for 5 seconds: indicates the presence of 70 ppm or more of CO. This cycle will continue until reset switch has been activated. Then the RED light will continue to flash until the CO has cleared, or the alarm will reactivate in approximately 6 minutes in the event carbon monoxide is still present.

- These alarms have an indicator light that displays a specific color for each monitored condition.
- In both cases described above:

- Step 1.** Operate the rest/silence button.
- Step 2.** Turn off the generator and engines, if running.
- Step 3.** Move everyone to the outside decks for fresh air.
- Step 4.** Do a head count to check that all persons are accounted for.
- Step 5.** Open the doors and let the cabin air out.
- Step 6.** Check to make sure the alarm is in its normal operating position.
- Step 7.** After following the above steps and your alarm reactivates within a 24 hour period, call the marina assistance. (Add Marina assistance #)

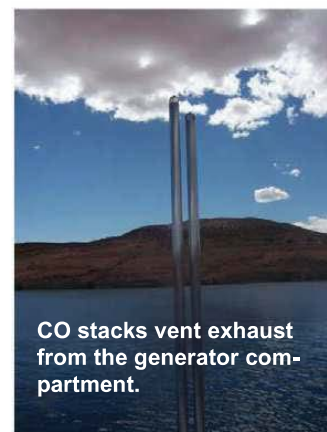


Low Battery Alarm Red/Green light

- If your 12V battery system gets low the “low battery” warning will go off on all of your CO detectors. (One beep every five seconds).
- This alarm is easily confused with the CO alarm.
- If you are sure that this is the case you need to run your generator until the system is re-charged.

Vertical Exhaust

- CO is vented upwards through the “stacks” on the top deck.
- There is still a possibility though that CO could stay near the boat and be a hazard.



CO stacks vent exhaust from the generator compartment.



Houseboat Safety Systems

Fire Extinguishers



There are three different Fire Extinguishers on board

1. One on the front deck wall near the sliding glass doors.
2. One in the gallery near the sink window.
3. One on the AFT deck near the cabinet on the starboard side.



“PASS” method of use

- (P) PULL the pin.
- (A) AIM at the base of the fire.
- (S) SQUEEZE the trigger.
- (S) SPRAY in a sweeping motion across the base of the fire.



P_{ULL}



Step 1. Pull the pin at the top to break the tamper seal.

A_{IM}



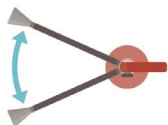
Step 2. Aim the extinguisher low, pointing the nozzle at the base of the fire. Do not aim at the flames themselves.

S_{QUEEZE}



Step 3. Squeeze the handle to release the extinguishing agent.

S_{WEEP}



Step 4. Sweep the extinguisher from side to side, continuing to at the base of the fire until it appears to be out.

Different Types of Combustibles



Ordinary Combustibles
(wood, paper, cloth, etc)



Flammable Liquids
(grease, oil, paint, solvents)



Live Electrical Equipment
(electrical panel, motor, wiring, etc)



Combustible Metal
(magnesium, aluminum, etc)



Commercial Cooking Equipment
(cooking oils, animal fats, vegetable oils)



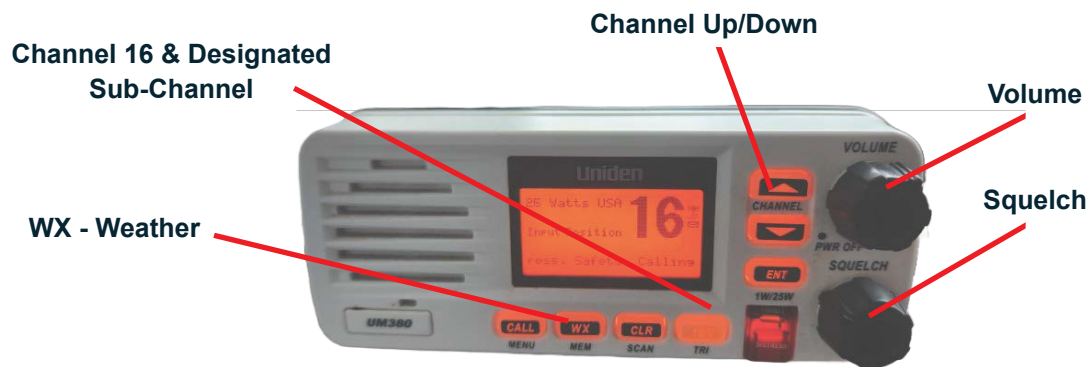
Houseboat Safety Systems

Marine Band Radio



Operating Instructions

- Make sure the “VHF” switch on the 12 Volt panel is “ON”.
- To turn the radio on, turn the volume switch to the right (clockwise). The radio will automatically be on Channel 16.
- Rotate the squelch knob to the left (counter clockwise) until you hear the scratching noise, to determine the volume level. Adjust the volume as needed.
- Turn squelch control to the right until all background noise disappears. For best operating results, leave the control in this position. Turning the control further will result in diminished sensitivity.
- Channel selectors are located on the face of the radio.
- As stated above CHANNEL 16 is the emergency and/or hailing channel. This channel is to contact the party you wish to speak with, then switch to another channel for conversation except in an emergency.
- You may need to relay through the National Park Service or other boaters to reach the marina.
- When communications are completed return your radio to channel 16.
- If you cannot reach the marina on channel 16, you may call National Park Service and relay a message through them.



*****Marine Band frequencies will only work in line of sight due to high canyon walls which may interfere with signals*****



Radio Protocols

- Your Marina Band Radio is your main source of communication with facilities and services while on the lake.
- All marinas and the National Park Service monitor Channel 16.
- When communicating on the radio, general protocol requires that you establish contact on channel 16 and then switch to a mutually agreeable channel for further communication. (Unless in an EMERGENCY, which you will stay on Channel 16)
- When using the radio always use the protocols listed on the next page under “Communication Instructions”
- Your radio may have a “WX” button which will give you weather information from the National Weather Service. Switch to channel “WX 1” to check updated weather conditions



Houseboat Safety Systems

Marine Band Radio



Communication Instructions

- Before transmitting, monitor your radio channel to ensure that it is not in use.
- To transmit, press the "Talk" switch on the side of the microphone and hold it in while you transmit your message. Release the switch when your message is finished.
- In hailing another party, always use their call signs first (e.g. Antelope Point Marina Boat Rentals, National Park Service, etc.) and identify your vessel (e.g. Houseboat # 450). You may have to repeat this hail several times. Allow time between each hail.
- When you receive a response, you may be directed to a particular channel.
- Once you have reached the proper channel, you may converse freely.
- When your conversation has been completed, and a reply has been made, always return to CHANNEL 16 and hang up the microphone.
- As stated earlier, if reception is poor try adjusting the squelch, if that fails you may ask another boater, or a nearby marina to act as a relay.



- **UNNECESSARY COMMUNICATION, INTERFERENCE, PROFANE AND OBSCENE LANGUAGE IS STRICTLY PROHIBITED BY FCC REGULATIONS! VIOLATORS CAN BE PROSECUTED.**
- **Never swim or use the waterslide while the motors or generators are running!**
- **CAUTION! Operation on channels not designated for use by your classification of craft, or on international channels when within the United States Territorial Waters, is a violation of Federal Law.**
- **Communication Commission rules and regulations and may result in severe penalties.**
- **DO NOT LET CHILDREN PLAY ON THE RADIO.**
- **MAYDAY, MAYDAY - is only used when a person, or boat is threatened by grave or imminent danger, and requires assistance.**



Equipment Tips!

- Make your call brief - as a courtesy to others, DO NOT tie up the channel with unnecessary dialogue.
- It is a Federal offense to use profane language while transmitting.
- Decide what you want to say before you call.
- Talk clearly and slowly and keep the handset several inches away from your mouth.
- Be sure to hold the microphone button down while you are speaking and release when finished speaking.
- Hold the talk button a at least 2 second before talking for a full transmission.
- You may have to use a cell phone to contact the marina if radio communication fails.



Houseboat Safety Systems

Marine Band Radio





Houseboat Safety Systems

GPS System



Overview

- GPS can be used as an aid to navigation.
- Requires “GPS” switch on the 12 volt panel to be “ON” to power the unit.
- GPS has the Lake Powell Ship installed.
- We suggest leaving the unit on whenever you are underway to aid your return.
- Use the unit in conjunction with the map provided.
- The GPS shows Lake Powell at Full Pool (at its full capacity)



Operating Instructions

- Verify the GPS switch mentioned above is “ON”.
- The unit may have a dark setting on the screen. To lighten the screen press the “light” icon again. Using the arrows adjust the light and contrast.
- GPS has the Lake Powell Ship installed.
- Press the “Enter Mark” button to accept the changes.
- The unit will find its own signal and track while you are underway.
- Refer to the quick reference guide for more details on adjusting your GPS unit.



Safety Tips!

- Use only for general navigation in conjunction with your paper maps.
- There is no depth finder.
- The GPS does not show submerged features. USE AT OWN RISK.
- Shoreline not always accurate.
- One of the features on your GPS is displaying your latitude and longitude. This information is important if you need to contact the National Park Service in an emergency. Please have these numbers at the ready along with your other emergency information.



The GPS shows Lake Powell at full pool (at its full capacity)



Houseboat Safety Systems

Life Jackets / Throw Rings / First Aid Kit & safety flag

Life Jackets (PFD's)

- Adult life jackets (PFD's) are kept in the front port safety cabinet along with a first aid kit, throw cushion, and orange SOS flag.
- Should your party need more, contact the marina staff prior to departure. You will be shown the proper way to secure lifejackets prior to your departure.
- Children's life jackets (PFD's) are available from the marina. Contact the marina staff to help fit your child with the proper size lifejacket.
- All children 12 years of age and under and non-swimmers must wear a U.S. Coast Guard approved life jacket at all times while the houseboat is underway.



Throw Rings & Throw Cushion

- A "throwable" flotation device is also located in the front port safety cabinet.
- There are also two throw rings, one on the forward deck and another on the AFT deck. They have floating nylon lines attached to them to help retrieve someone having trouble in the water.
- A staff member can show you the proper use of these floatation devices if needed.
- These devices are intended for emergency use only. They are not toys.



First Aid Kit & Orange Safety Flag

- Located in the front port safety cabinets are a first aid kit and orange SOS flag.
- SOS flag is a visual distress signal. Use this ONLY in an emergency to display a visual distress signal.
- First aid kit is provided on board. This kit is sealed for security and safety purposes.



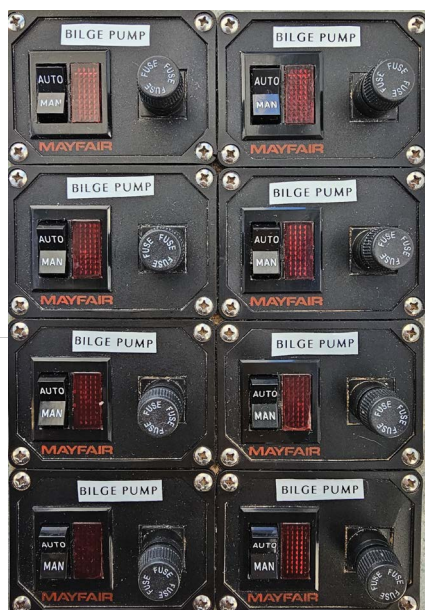
Equipment Tips!

- Have everyone in the party / on board get familiar with where the safety cabinet or supplies are located on the houseboat.
- Allow easy access for safety equipment. DO NOT crowd safety cabinet areas.



Houseboat Safety Systems

Bilge Pumps



Overview

- There are eight bilge pumps located throughout the bilge of the boat. The switches are located on the top left side of the helm (see above) and should be left on “AUTO” (automatic) unless otherwise directed. When “ON” the light next to each pump switch indicates the bilge is running.
- From time to time water may get into the bilge from rain and other external sources. The bilge pump will come on automatically and go off when the water is pumped out.
- Should a bilge pump light stay on, check the outside of the hull for any discharge.



Safety Tips!

- Should this discharge continue for more than 15 minutes, turn the bilge pumps to “MAN” (manual) and contact the marina as soon as possible. Beach the houseboat and wait for Marina staff.



Equipment Tips!

- If there is no discharge, the float switch may be stuck and you can contact the marina at a convenient time to have them service the float switch.
- ***Do not confuse the generator discharge, located on the AFT starboard side, with the bilge pumps.***



Houseboat Safety Systems

Gas Fume Detector / Automatic Engine Compartment Fire Suppression



Gas Fume Detector

- The gasoline fume detector is labeled and located on the helm. The sensor for this device is located in the generator and battery bilge compartment.
- The display panel on the detector contains three windows.
 - The left window is a green power “on” indicator.
 - The center window is the red warning indicator.
 - Ignore the right window.
- The green “Power On” indicator light should be on at all times. The red warning indicator and blower control may light up momentarily to indicate the warm up period for the sensor.
- Should the red warning light begin to glow softly or intermittently, it is an indication that gasoline vapor is beginning to occur. You will need to turn on the bilge blower to clear out any fumes.
- Should this condition last for longer than 10 to 15 seconds, you can anticipate a full alarm momentarily. This alarm will continue as long as vapors are present. Pressing the “Mute” button may silence the alarm, but the red warning indicator will remain on until the vapor problem has been corrected.
- Contact the marina staff if this condition occurs. Fumes other than gasoline vapors can also trigger this condition.



Automatic Engine Compartment Fire Suppression

- Your houseboat is equipped with an automatically activated “Temperature Sensor Valve”. Discharge will occur when the sensor valve temperature rises to the activation point.
- The monitoring switch has a green light that is on while underway. If the light should go out while you are underway, it is an indication of a fire in the bilge area and the “Temperature Sensor Valve” has discharged the extinguishing agent to put out the fire.
- If it should go off at any time you may hear a loud report and hissing sound. Smoke may also be present.
- In case of extinguisher discharge, do not open the protected compartment.
- Avoid breathing in the vapors from the extinguisher.
- Turn off the motors. Make sure the generator, and blower is off.
- Use the contact protocol provided to you by the marina.

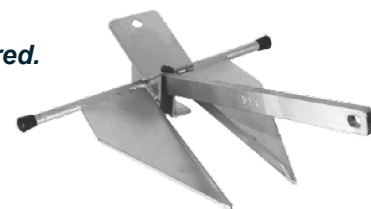




Houseboat Safety Systems

Beach / Anchoring the Boat

- Anchors are stored in the front deck hatches, and the ropes are pre-tied to the aft cleats.
- We recommend avoiding areas of heavy boat traffic or where prevailing winds could build up waves.
- Ease up to a nice wide sandy beach and have someone scouting the water for underwater hazards as you approach the beach. **REMINDER: Stay inside railings. DO NOT hang over railings of bow.**
- **Generator should be off when underway and before beaching to avoid overheating or sucking anything up into the generator intake.**
- When you are approaching the beach you need to be at the helm, not the flying bridge. Ease your boat to the beach at about 800-1000 RPM's.
- As you meet the beach keep your motors running until the boat is secure.
- Always be sure an operator stays at the helm until the boat is securely anchored.
- **It is safest to make sure nobody is swimming around the boat, until the boat is secured.**
- Move the anchors to the beach after throwing the ropes to the beach.
- There are shovels provided to dig your holes.
- The anchors need to be set at 45 & 90 degree angels from the boat.
- If it is windy, always start from the side the wind is coming from.
- Always do one side of the boat at a time.
- Stretch your ropes out at 45 & 90 degree angles.
- The 90 degree ropes should be further away from the boat than the 45 degree ropes. (See diagram, next page.)
- Dig a deep hole, (2-3 feet) tie the rope to the anchor and bury the anchor with the points down and toward the houseboat. Cover the anchor with a large mound of sand. You can even pour water over the sand to help set them into place. After the rope is set, you need to tighten up the rope as tight as possible.
- With the 30 degree anchor set closer to the boat pull the rope through the shackle and back to the forward cleat and secure it to the cleat. This way if the winds blow your ropes are six-pointed instead of four, and as the wind is blowing the back of the ropes up front are also being tightened.
- Repeat the process on the other side of the boat.
- When you are ready to tie these ropes, use the motors to swing the boat in that direction so when you ease up on the throttle and the boat moves back to its neutral position the ropes will be tighter.
- Only after ALL the ropes are secure should you turn the motors off.



Equipment Tips!

- If it becomes windy and you are worried about the boat coming loose, you can use the motors to power against the winds by turning them so they resist the wind. Also be aware that fluctuating lake levels may necessitate moving the boat in either in or out and adjusting the ropes accordingly.
- We are in the desert- mice, lizards, ants, bats, coyotes, etc. are residents of the desert - we are the guests. As such, these animals feel they have the right to join you on your boat. So, therefore, always raise your boarding ladder at night!
- **We recommend putting a paper plate at the end of your anchor rope to help keep small animals from boarding the houseboat via anchor ropes.**

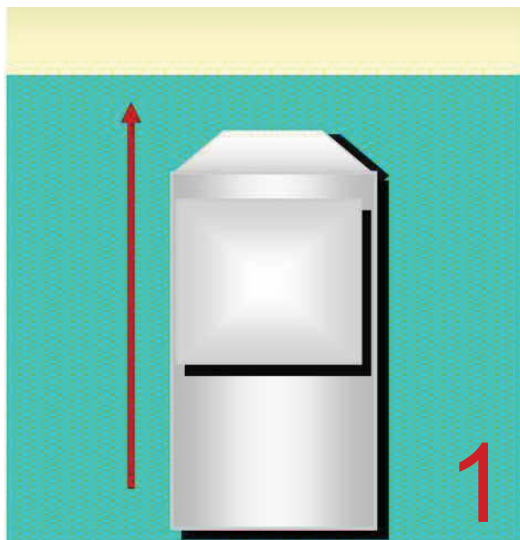




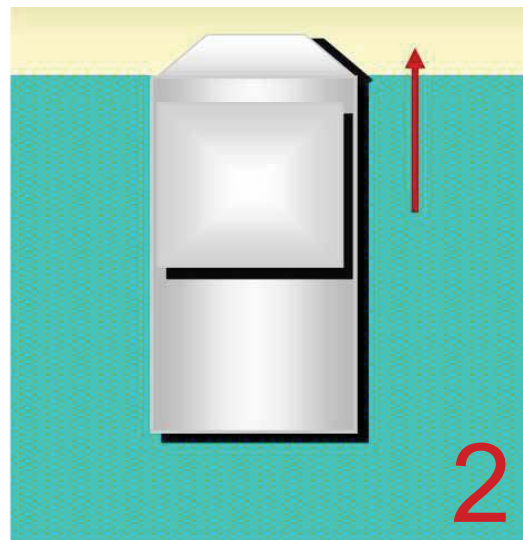
Houseboat Safety Systems

Beach / Anchoring the Boat

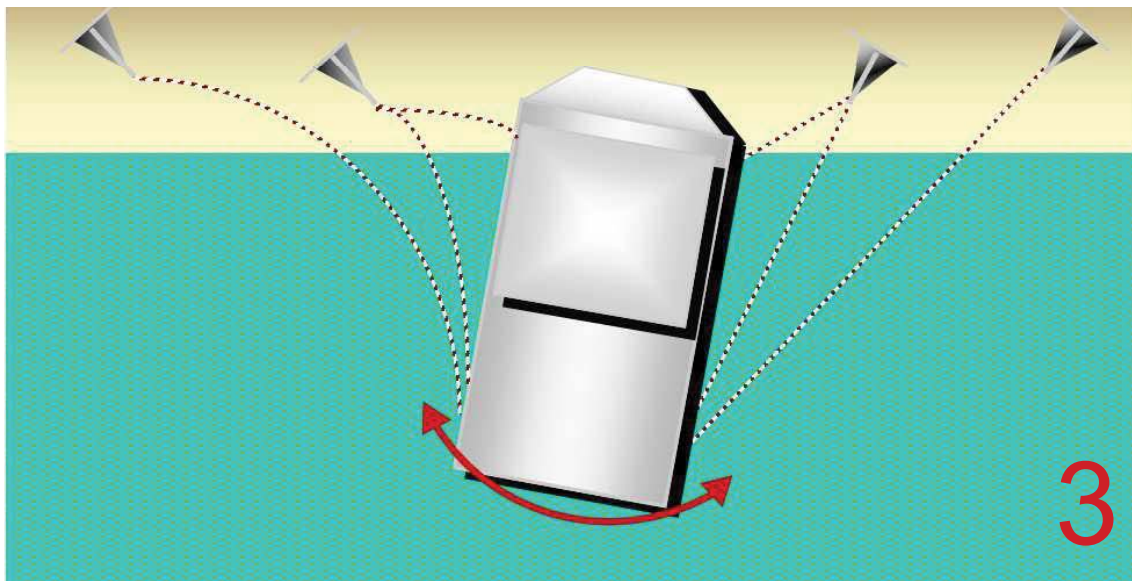
1. Approach the beach **SLOWLY**
(no more than **800-1000 RPM's**)
Have your crew ready to set your
anchors AND watch for obstacles.



2. Hold your RPM's steady to keep
boat stable and in place whilst setting
your anchors.
(Especially on windy days)



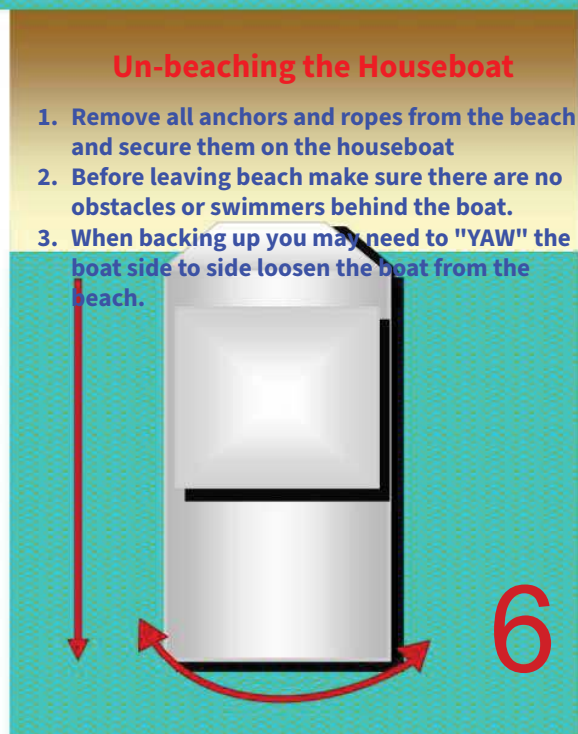
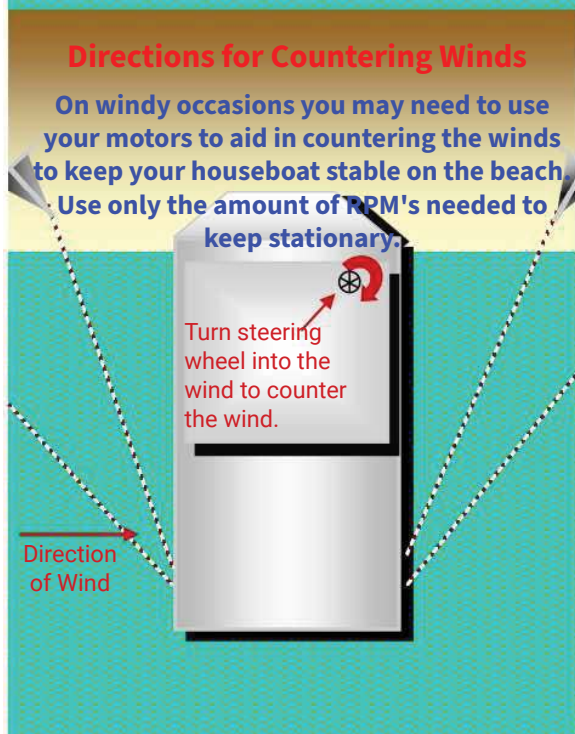
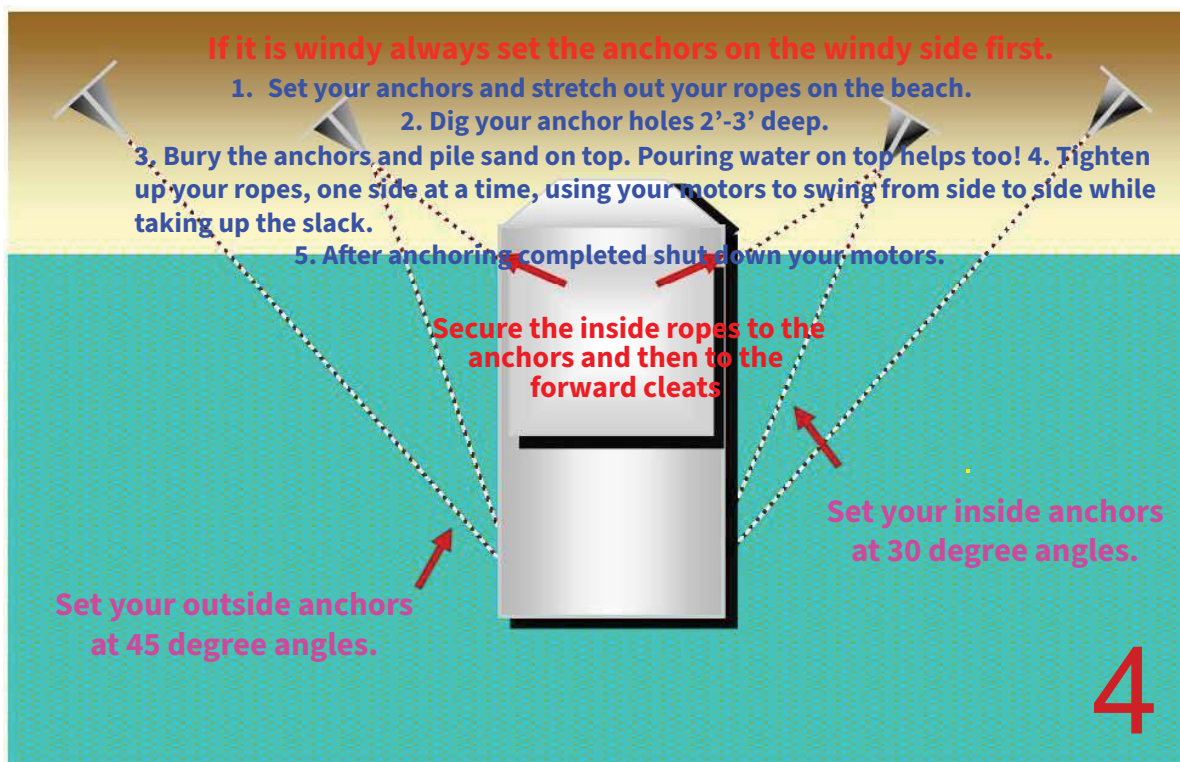
3. After setting your anchors and ropes. Use your motors to swing from side to
side while tightening your ropes to aid in securing the houseboat.





Houseboat Safety Systems

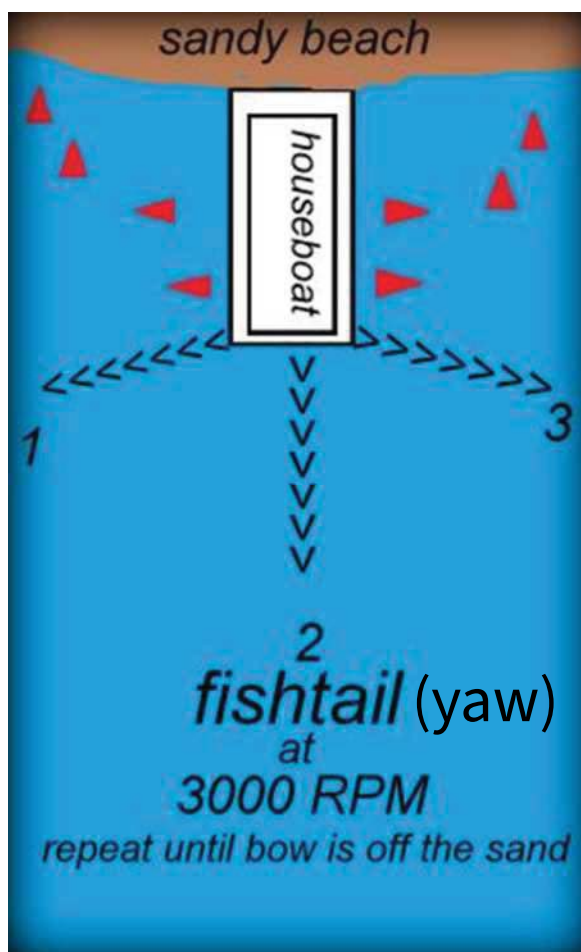
Beach / Anchoring the Boat





Houseboat Safety Systems

Beach / Anchoring the Boat



Leaving the Beach:

Water levels will depend on houseboat backing off easily, or having a difficult time. When water level drops, sand will accumulate around the bow of houseboat not allowing you to back off the beach. Here are some helpful hints that will help you.

Step 1. PROP WASH, with motor in center position reverse throttles to 2500 RPM'S. Prop wash the sand from underneath houseboat, this process might take up to 30 minutes or longer. Be careful not to overheat the engines.

Step 2. "FISH TAIL" (YAW), turn steering wheel all the way to left, allowing houseboat to swing as far as possible without propellers hitting shore. Turn steering wheel to right, allowing houseboat to swing as far as possible without hitting propellers. Motors should be at 3000 RPM'S in reverse, repeat process until loose.



If the houseboat does not move at all, try the above process with motors in forward gear at 4000 RPM'S to help the boat get more maneuverability, then repeat all steps above.



Systems & Amenities





Systems & Amenities

Outboard Motor



Overview

- Your houseboat is equipped with two Mercury Sea Pro Outboard motors.
- The outboard motors use regular unleaded gas, found at any marina.
- ***Always check for swimmers and other obstacles, especially at the rear, before starting motors.***
- Make sure that you have at least 6 feet of water at the back of the boat when moored.
- You and your instructor will check the props for damage both before and after your voyage
- Make sure that motors / drives are down before starting.

Shifter diagram see page 43



Starting Procedures

Step 1. Put shift lever in neutral (center position).

Step 2. Turn both ignition keys to "ON" position

Step 3. Make sure your trim is all the way down at "0.0". Then turn keys to the right to crank.

Step 4. Turn keys (one at a time) until the motor starts. Rely on your tachometers to verify the motors are running.

Step 5. Allow motors to warm up for approximately 5 - 10 minutes.

Step 6. For difficult starting motors call the marina.

For best fuel economy and efficiency of the motors, optimum cruising speed is 2500 - 3800 RPM's, but in no case to exceed 4500 RPM's.



Warnings Lights / Alarm

- **Anytime you are having issues with your motors call the Marina so a mechanic can come take a look at the motors.**
- **There are warning indicator on the tachometers. If they go off they will display a message call the Marina and let them know.**

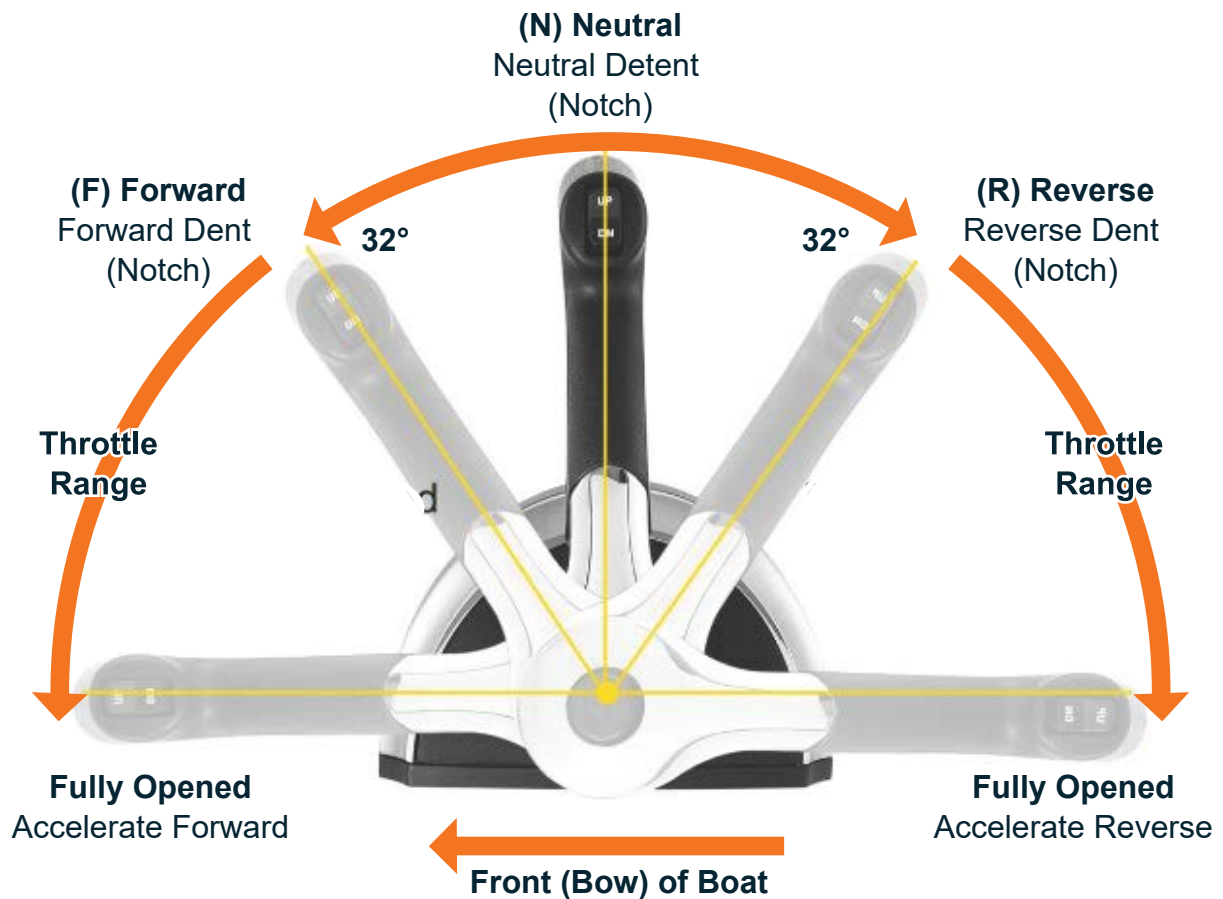


Systems & Amenities

Binnicle Diagram (Shift Lever/Throttle)



Built-in 5 second delay between forward & reverse
 Recommended: 2500-3800 RPM for speed & fuel efficiency





Systems & Amenities

Outboard Throttles & Transferring Control



Outboard Throttles

- After following the procedures to start your engines you are ready to "Take Control".
- The neutral position in the throttle is perpendicular to the base, (the center notch)
- To go forward slowly push forward on the throttles and watch tachometers to monitor your RPM's.
- To go reverse slowly pull back on the throttles from the neutral position. (Never exceed 2500 RPM's in reverse)
- There is an approximate 5 second delay when shifting from forward to reverse. Always pause in neutral before changing direction.

Transferring Controls

- To transfer control from the helm to the flying bridge (Top Deck) and vice-versa simply place your throttles in the neutral position (while the boat is not moving), and go to the helm you want active. Press the "Transfer" button one time and "Transfer" and "Neutral" light will come on and a beep will sound. Press the "Transfer" button a second time to complete transfer. "Transfer" light will turn off and beep (the transfer is complete.) You are now in control.
- Repeat steps to transfer to other helm



Steering & Maneuvering

- Think of driving a houseboat as a matter of course correcting rather than just steering. Generally speaking, turn the houseboat in the direction you want and then straighten out the wheel. (Houseboats respond slowly to directional changes).
- There are two methods of steering: by turning the wheel and by using your throttles.
- We suggest combining the two. For example, if you want to go left, first turn the wheel that direction and then throttle up on the opposite motor. This will cause the boat to pivot in the desired direction. It will also help to offset the motors by 500 RPM. For example, run one motor at 2500 RPM and the other at 3000 RPM. This will help you steer your boat straight and have to make less corrections.
- Center your houseboat before you start driving - To center your houseboat steering, turn the wheel all the way to one side. Then count how many times it takes to get to the other side. Divide that number in half and thats how to find your center.
- This houseboat is equipped with hydraulic steering, and it takes approximately FIVE turns from hard LEFT to go RIGHT.



THE MORE EYES THE BETTER. ALWAYS HAVE A SPOTTER ON THE AFT END OF THE HOUSEBOAT TO BE YOUR GUIDE WHEN REVERSING DIRECTION OR BACKING THE BOAT OFF OF THE BEACH OR OUT OF A MARINA.



Systems & Amenities

Steering & Maneuvering (continued)



Safety Tips!

- Be on the lookout for logs and debris in the water. If a collision appears unavoidable please follow these instructions:
 1. Place the shift lever in neutral to prevent damage to the propellers and drives.
 2. Coast past the obstacle.
 1. After passing the obstacle, when it's safe, you should inspect the propellers and outdrives for any damage (with the motors turned off!)



If you run the propeller(s) into the sand, rocks, or any debris: As stated above, when safe, please turn off the motors and inspect the propellers and outdrives. If there is any damage, please contact the marina to replace the propeller(s) and inspect the outdrives.



Good Prop!



Bad Prop! (YOU BUY)



Damage Lower

Continuing to drive the houseboat with a bent or broken propeller will result in further damage to the outdrive(s) of the motors. Remember! You are responsible for damages to the outdrives and propellers! *Fees apply to any damages*



Equipment Tips!

- Remember to distribute the weight as you load the houseboat to keep the boat "level" at all times.
- If the houseboat is being pushed around by the wind and you feel a loss of control, do not be afraid to use your throttle to "Power Out" of the situation.



Systems & Amenities

Fuel System



Overview

- There is one main gas tank on board, that fuels your motors and generator. Fuel tank size depends on the type of boat you rented.
- There is also ONE 47 gallon toy tank (extra fuel for small vessels or your houseboat)
- The filler necks are on the aft deck, one on each side of the outside wall of the cabin that fill ONE tank.
- Fueling a boat is very different than fueling your car. For one thing, it's common for fuel to splash out of the tank during fueling. (This is why you will need to fuel the tank slowly)



Safety Tips!

- REMEMBER: Turn off motors, electronics and extinguish all open flames at least 15 minutes prior to fueling or returning to the marina.
- Do not smoke while fueling.
- Make sure all doors, windows, hatches and ports are closed during fueling.
- Remove all passengers from boat.
- DO NOT leave nozzle unattended while fueling.
- Hold on to the nozzle when refueling, don't use a hands free clip.
- Maintain contact between nozzle and deck fill.
- Fill slowly and listen for a change in the tone as the tank gets full. DO NOT OVERFILL!
- Operate bilge blower for 5 minutes before starting the generator or engines. DO NOT run motors or generator at any time you are fueling.
- Check and sniff the generator compartment for fumes. If any turn on the bilge blower.
- DO NOT siphon gas from tank for any reason!



Equipment Tips!

- NOTE ON FUEL CONSUMPTION: EACH engine burns approximately 7-10 gallons of fuel per hour for a total of 14-20 gallons combined when cruising at 2500-3800 R.P.M.'s.
- Fuel consumption can vary due to wind, throttle usage, weight distribution, and altitude.
- The generator burns approximately 2-4 gallons per hour, depending on the load.





Systems & Amenities

Air Conditioner / Heater (Heat Pump)



Overview

- The air conditioner (AC Compressor) operates similar to home Central Air & Heating Units.
- The generator must be running to activate the AC unit.
- There are two sets of switches on the 220V panel that provide power to the AC unit that must be in the "ON" position.
- Once running, use the thermostat control in the hallway on the wall to control temp, AC, heat, and fan.
- Simply move the switch to desired function, either COOL or HEAT and set the thermostat to the desired temperature.



Equipment Tips!

- Keep the fan switch in "AUTO" position.
- Keeping the drapes closed to the sun will enhance the cooling ability of the A/C unit.
- Keep doors and windows closed while running the unit.
- Never place any obstacles in front or top of the AC unit.



Troubleshooting Tips!

- Unit keeps tripping the breaker: There is too much of a load on the generator. Turn off other breakers such as the Range/Oven.



Thermostat



AC Unit



Systems & Amenities

Propane Barbeque



Overview

- The propane barbeque is located on the front deck of your Houseboat. The barbeque is equipped with its own 5 gallon propane tank. The valve for this tank must remain in the closed position at all times that the barbeque is not in use. Only use your barbeque when your boat is anchored on the beach, Never while underway. The proper use of the barbeque is as follows.



Starting the Barbeque

- Step 1.** Open the lid of the barbeque. Never attempt to light the barbeque with the lid closed!
- Step 2.** Open the valve on the propane tank located on the backside of the barbeque.
- Step 3.** Push in and turn the control knobs on the face of the barbeque to the "HIGH" position.
- Step 4.** Immediately light the barbeque using the automatic striker located on the face of the barbeque.
- Step 5.** If automatic striker fails there are holes on each side for a barbeque lighter.
- Step 6.** Use the control valves to adjust flame to desired cooking temperature.
- Step 7.** Close the lid until desired temperature reached.
- Step 8.** When you are done cooking, turn the control knobs to "OFF". Close the valve on the propane tank after grill has cooled.



Safety Tips!

- Never leave a lit barbeque unattended.
- Cook on lower temperatures to avoid flame-ups.
- Keep children away from lit barbeque as it is extremely hot.
- Close valve on propane tank. Turn controls to "OFF" when not in use.



Propane Grill



Propane Tank



Systems & Amenities

Kitchen Appliances



GE APPLIANCES



Overview

- Your Houseboat has the same appliances found in most homes. They are all regularly serviced and maintained or replaced as needed. Some appliances such as the Refrigerator are powered by the inverter. Others such as the Range & Microwave require the generator to be running. Following is a list of your appliances and how they are powered:
 - Electric Range with 4 burners and Oven - **Generator**
 - Microwave - **Generator**
 - Dishwasher - **Generator**
 - 2- Full sized Refrigerator with ice maker - **Inverter**
 - Coffee Maker & Filters - **Inverter**
 - Toaster - **Inverter**
 - Blender - **Inverter**



Safety Tips!

- Keep the fan switch in "AUTO" position.
- Keeping the drapes closed to the sun will enhance the cooling ability of the A/C unit.
- Keep doors and windows closed while running the unit.
- Never place any obstacles in front or top of the AC unit.



To ensure your refrigerator works efficiently, do not overload it with your grocery items.

*****Keep space in your refrigerator to allow circulation on the inside*****



Systems & Amenities

Sun Deck



Overview

- If you are like most houseboaters you will be spending a lot of time on top of your boat.
- The Sun Deck has the wet bar, and flying bridge on it.
- A FM / AM CD players is mounted on the fly bridge.
- The mini-fridge is powered by the Inverter. Make sure the "BAR" switch is turned on at the helm. If your fridge is not working you may need to check your GFI breaker and reset it.
- The water at the wet bar is lake water.

See page 6 & 44 for information on controlling the boat from the flying bridge.

See page 56 for information on your wet slide.



Equipment Tips!

- There are ON / OFF switches and temp controls on the mini fridge and ice maker. Something to check if you loose power to them, after checking the Inverter and GFCI.



Safety Tips!

- No jumping or diving from the top deck!
- No one is allowed to sit on or go past the Flying Bridge.
- PLEASE! No cliff diving. It is against NPS rules on Lake Powell and is illegal to jump or dive from more than 15 feet.

Do Not Forget!

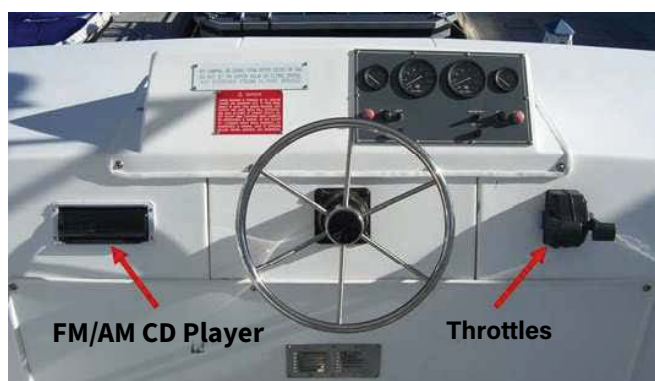




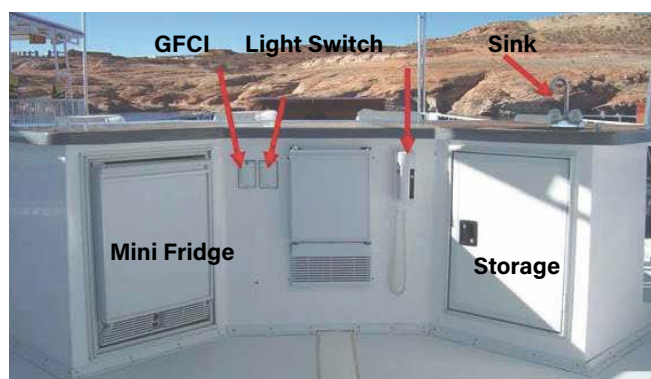
Systems & Amenities

Sun Deck Photographs with Explanations

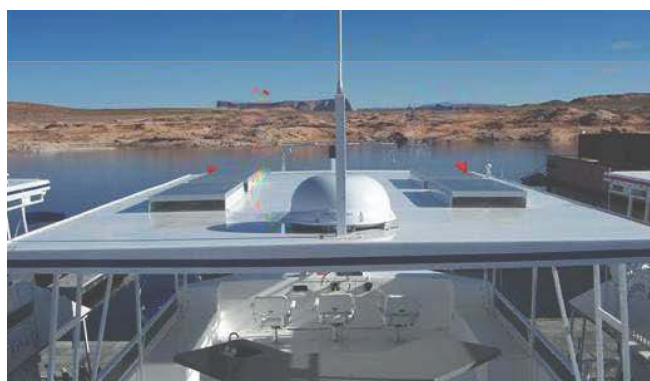
Flying Bridge



Wet Bar

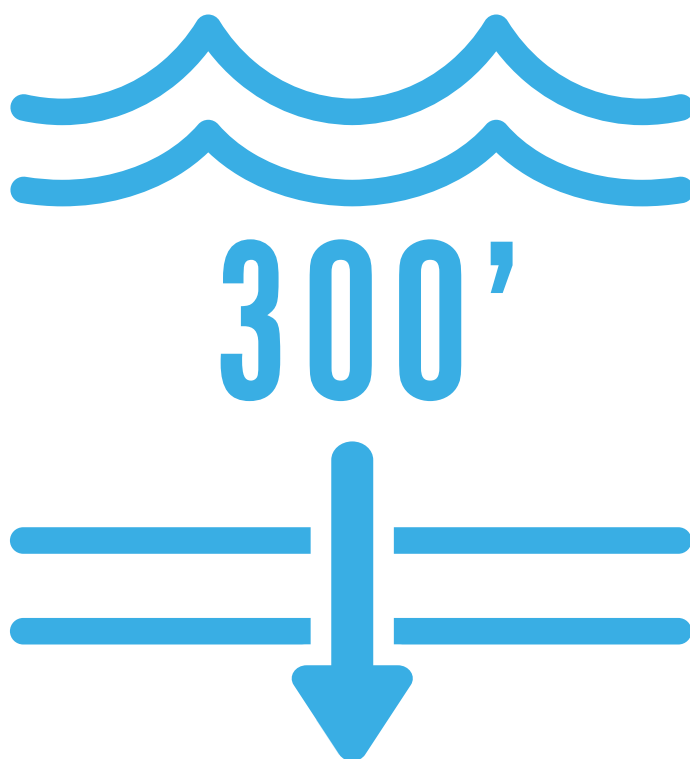


Sun Roof





Water Systems





Water Systems

UV Water System



Overview

- UV Water System: lake water to sinks, showers and toilets
- Hot Water Heater: 16 Gallons (Generator power).
- Marine Toilets: (12 volt system) On lake water.
- Wet slide: (12 volt system) On lake water.
- Waste tank: 400 gallon capacity. All sinks & marine toilets drain into this tank.

UV Water System

- Provides lake water for all sinks, showers, ice maker and toilets.
- The water is filtered through an ultraviolet system and set throughout the houseboat. There is also a filter in the refrigerator.
- The UV breaker must be turned on in order to send water throughout boat.
- **ALWAYS make sure the UV breaker is off when the boat is underway to avoid air build up in the water lines. If this happens you will need to call the marina to have the pump primed.**



Troubleshooting Tips!

- If you have no water: Verify the UV switch at the helm are on.
- If you still dont have water call the Marina.



Waste Holding Tank

- As stated before, all of the sinks and toilets drain into a common tank.
- Showers drain into lake. It is recommended to use biodegradable soap.
- Conservation is very important to avoid filling up your tank too quickly. Emphasize to everyone the need to conserve.
- A red indicator light will come on when your tank is starting to gets fill



Conservation Tips!

- Do not leave the water running when you are washing, brushing your teeth, and shaving.
- When showering, turn the water off while lathering up.
- Use the dishwasher with a full load as opposed to washing dishes in the sink.
- There are two ways of knowing your tank is full: One is a "Tank Full" warning light at the helm, the other is your shower! If you over fill the tank you will have waste coming up into it!



Water Systems

Marine Toilets



Overview

- 12 volt power
- Draws water from the lake.
- Discharges into a 300 gal. black water tank.
- Each "head" uses a macerator to grind up waste and send it to the holding tank.

To use the Head:

Step 1. Keep lids closed when not in use.

Step 2. Controls are located near the head (toilet). One adds water to the bowl and the other flushes toilet as it macerates (grinds the waste up like a garbage disposal.)

Step 3. Always add water to solids to aid flushing. Flush for at least 15 seconds.

Step 4. Liquid waste does not need water to flush.

Step 5. Use marine grade toilet paper. Feminine products, paper towels and flushable wipes will clog toilets and will require marine crew come out and unclog it.



Safety Tips!

- Be very careful of what you put into the bowl. You do not want to clog or damage the macerator.

*****Fees apply to unclog each toilet*****



Equipment Tip!

- Advise EVERYONE that they need to be very conservative with water use.



Troubleshooting Tip!

- If the head becomes clogged the obstruction must be removed. You can try to move it with needle nose pliers. Otherwise you will need to call the Marina.
- If you loose power and water to the head, the 12 volt circuit breaker located in the generator compartment may have tripped and will need to be reset. (See picture below on the right)





Water Systems

Sinks & Showers



Overview

- Uses water from the lake.
- 16 gallon hot water heater. **(Be sure a 'UV' breaker is ON before you turn on the 'water heater' breaker).**
- Shower water drains into the lake. Biodegradeable soaps are recommended to be used.
- Sinks, dishwasher and toilets drain into the same 400 gallon holding tank.
- Limited water pressure. Do not try to use too many faucets at once.



Safety Tips!

- Never pour chemicals down the drains.



Equipment Tips!

- Use a full dishwasher cycle or disposable products to limit waste in tank.
- Use biodegradable soaps in the showers.
- **If you overfill the holding tank you will have waste coming up in the shower!**
- Turn the water off while washing hands, brushing teeth or while lathering when showering.



Troubleshooting Tips!

- **No water coming out of faucets:** Verify the UV switch is on the 120V inverter panel labeled 'UV' and make sure they are in the 'ON' position. Call the Marina if you still are unable to get it working.
- Always make sure UV breaker is off when underway see page 53.
- **Low Water Pressure:** Check and make sure you are limiting how many faucets or showers are on at the same time.
- **No Hot Water:** The generator must be running to heat the hot water tank. It takes approximately 30 minutes to heat the 16 gallon tank.
- **Waste coming into your shower:** You have overfilled the holding tank. Get to the nearest pump out station and empty the waste tank.



Water Systems Slide



Overview

- 12V power, lake water.
- Draws water from the lake by pushing button at top of the slide. Water stops when button is released.



Safety Tips!

- **Make sure motors and generator are off.**
- Before using slide always check around the slide to make sure there are no hazards hidden in the water.
- Always have adult supervision when using the slide. Never slide alone or head first.
- Make sure slide area is clear of boats, people & obstacles before using.
- Always secure the slide gate when not in use. Watch for nearby children not using slide anytime the gate is open.
- Antelope Point Marina policy requires that you wear a life jacket when using slide.



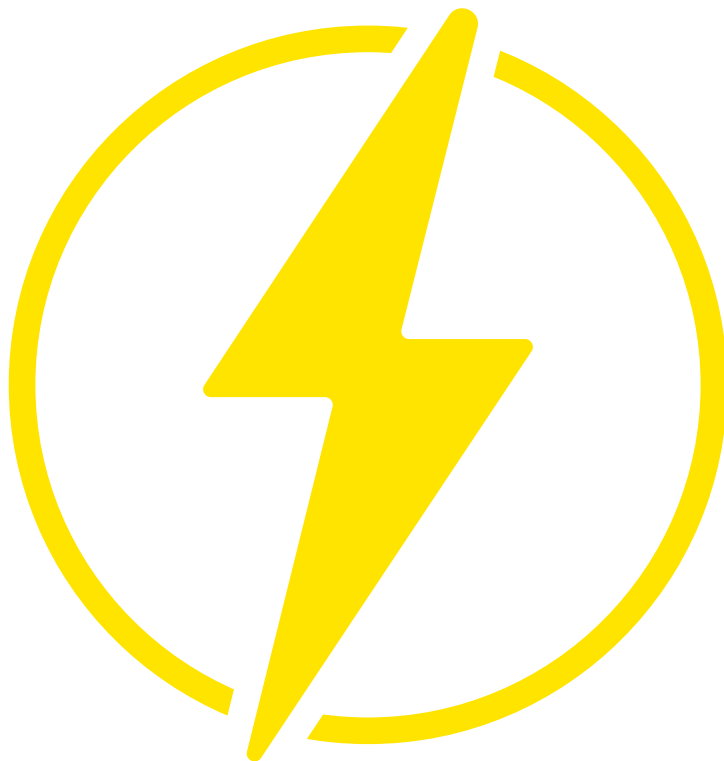
Troubleshooting Tips!

- **No water coming out of slide:** Check the 12 Volt panel in the Generator compartment and reset the switch labeled "Slide Pump".





Electrical Systems





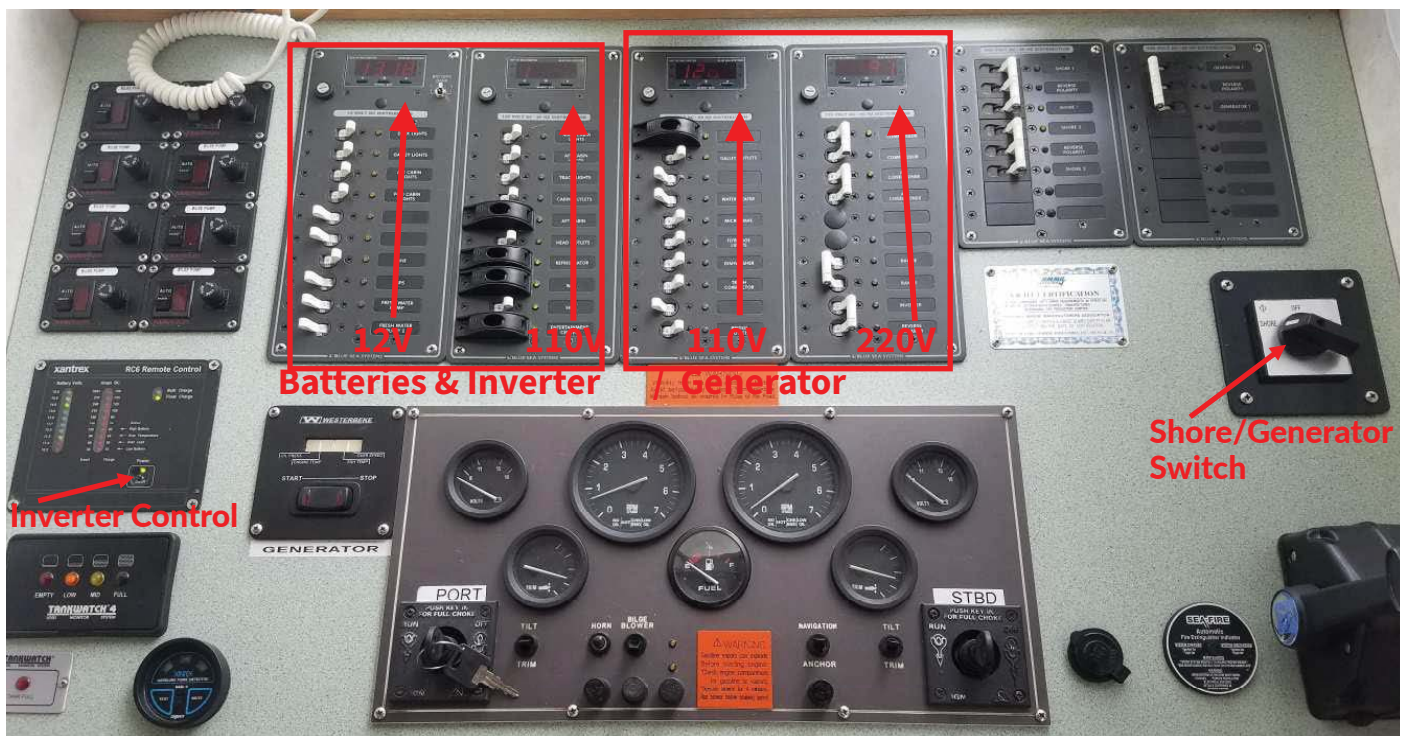
Electrical Systems



Overview

- Your Houseboat is equipped with several electrical systems. It is important to become familiar with them and how they are used.
- The four basic systems are:
 - 1. 12 Volt Start System:** Dedicated batteries for starting & running your motors & generator.
 - 2. 110 Inverter System:** Provides your basic electrical needs. Charged by the generator but functions as a stand alone system.
 - 3. 12 Volt Start System:** Dedicated batteries for the 12 volt system such as radios, water pumps, smoke / CO detectors and 12 volt lights.
 - 4. 110 / 220 Volt System:** Powers your big systems such as the Range, AC / Heater, Microwave, etc and also charges your inverter. Requires the generator to be running.

Helm of Houseboat (Controls for Electrical System)



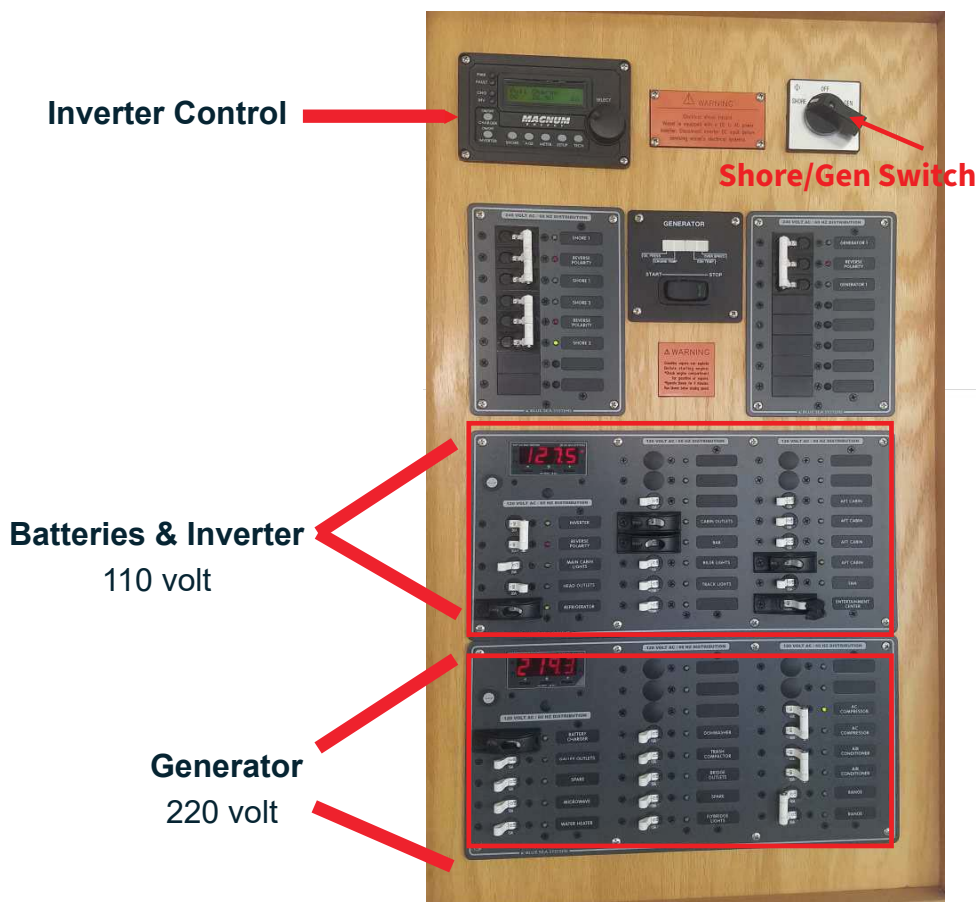


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Electrical Systems

Inverter & 12 Volt System



Overview (Inverter)

- The Inverter System is a bank of 6 volt batteries that inverts electricity to 110 volts.
- It is a dedicated system that provides your basic 110 volt needs without running the generator.
- This system is charged by the generator and requires the generator to run 8 hours a day to charge.
- The “Inverter” switch on the helm must be “ON” for the inverter to function or charge.
- There is a control panel on the left side of the helm or breaker panel that displays information about the inverter.

For houseboat power to be on and charge, the inverter control needs to be on.



Overview (12 Volt Battery System)

- There are dedicated batteries in the generator compartment that power the 12 volt systems located on the left electrical panel at the helm or on breaker panel.
 - There is a “Battery Charger” switch on the circuit breaker panel that must be left “ON” to charge the batteries.
 - In the Generator Compartment there are additional 12 volt switches that may “trip”.
- See picture on page 65, lower left. In the Generator Compartment there are additional 12 volt switches that may “trip”.**



Electrical Systems

Inverter & 12 Volt System

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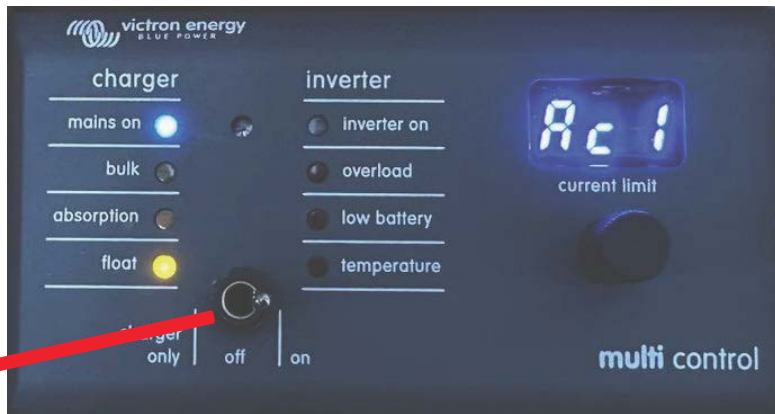
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See picture on page 65, lower left. In the Generator Compartment there are additional 12 volt switches that may “trip”.



Electrical Systems

Generator & Generator Compartment



Overview (Generator)

- The houseboat has a 20KW Westerbeke gas powered generator to supply your electrical needs.
- The controls for the generator are at the helm. Back-up controls are on the generator.



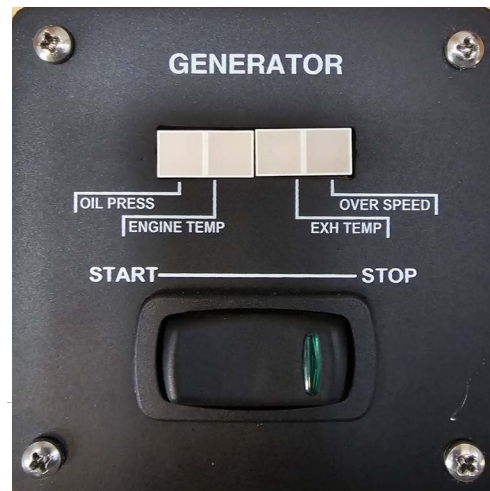
Safety Tips! (Generator Compartment Blower)

- Before starting the generator, the bilge blower must be run for 5 minutes to clear any explosive vapors from the generator compartment. ****If you cannot hear the blower do visual check and make sure the blower breaker is in the on position. See page 65.****
- Carbon Monoxide is produced by the generator and is vented up the exhaust stacks on the sundeck.



Starting the Generator

Use the following photos as a reference to the type of start/stop switches on the boat:



- Make sure switches for Shore/Generator power, the power switches for the generator, and switches on the 220V panel are in the "OFF" position. (Never start the generator under load).
- To start the generator, push the "STOP" button for 5 seconds to prime the generator, then push "START".
- If the generator fails to start, reset it by pushing the "STOP" switch and then push the "START" again.
- After the generator warms up (at least 5 minutes) you can "power up" the system by turning on the switches listed below in the following order:

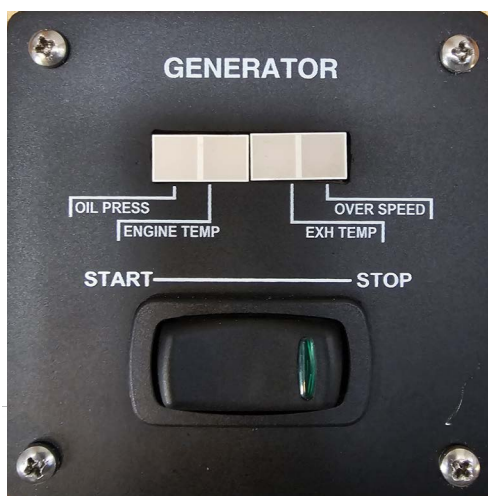
1. The "Shore/Generator" switch to "GEN".
2. The "Generator" power switch.
3. Now you can power up systems such as the AC/Heater and Range.

- To turn off the generator, reverse the order listed above when powering down the systems.
- Press the "STOP" switch and the generator should stop running.



Electrical Systems

Generator & Generator Compartment



Equipment Tips!

- The less noise, the better when starting up the generator, because it is difficult to hear.



Troubleshooting Tips!

- Step 1.** If you cannot start your generator from the helm or breaker panel, check the switches in the generator compartment that are shown on page 65 and make sure they are in the 'ON' position. You may start the generator, manually from this location. It also has the same switches that are at the helm or breaker panel on the generator.
- Step 2.** If the generator is running but no power to the panels, check the switches near your volt panels, and make sure they are in the correct position. There is also a reset switch on the generator itself, that needs to be in the 'ON' position. See page 65.
- Step 3.** If problems persist, please call the marina.



Electrical Systems

Generator & Generator Compartment



Overview (Generator Compartment)

The Generator Compartment contains the following:

- 20KW Westerbeke Generator.
- All of your 12 volt batteries; two dedicated engine start batteries, two dedicated generator batteries, and three dedicated house batteries.
- 12 volt circuit breakers that power the following: slide pump, bilge blower, manual bilge pump, toilet breaker, 12 volt system. (see page 21)
- Your bilge blower
- The fire suppression system.

Generator “ON” switch and starter



Power switch that activates electricity



12 Volt circuit breakers



Generator Compartment



Fire Suppression System





General Boating Information





General Boating Information

This section contains information generally not covered in other chapters. Some of the information here is touched on in other parts of the manual but if so, it doesn't hurt to review it again.

Loading your Boat

- Please be conscious of where you place your supplies and belongings in the boat. Extra weight on the front deck will make the bow ride low in the water, causing water to splash on to the front deck of the boat. Try to distribute the weight evenly front and back, and side to side. Put all heavy objects on the rear of the houseboat.

Hailing for Help

- There are several ways to call for help:
- Always be aware of your position on the map and GPS coordinates.
- Make sure all passengers know how to put on the lifejackets (PFD's) or have someone assist them.
- Contact help using the VHF radio.
 - In a true emergency you need to contact the National Park Service.
 - Use the emergency channel (16).
 - Hail: NPS this is Houseboat (your number), we have an emergency.
 - State the nature of your problem and your location.
 - Leave the VHF radio on the emergency channel unless instructed otherwise.
- Some areas may have poor reception, so using other vessels to relay messages may help.
- Hang the distress flag on the back of the houseboat (located in the bathroom cabinets along with your lifejackets (PFD's)).
- Make noise with the bell or horn.

US Coast Guard Information



IMPORTANT U.S. COAST GUARD REGULATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- Children 12 years of age and under must wear a US Coast Guard approved lifejacket (PFD) at all times while the boat is underway.
- Negligent or grossly negligent operation of vessel which endangers life, limb, or property is a criminal offense and is punishable by law.
- Operating in swimming areas is prohibited.
- Operating while under the influence of drugs or exceeding the legal limit of alcohol is prohibited.
- Excessive speed in the vicinity of other boats, or in dangerous waters is prohibited.
- Riding outside of railed areas is prohibited.
- There must be a US COAST GUARD APPROVED LIFEJACKET (PFD) onboard for each person while underway.
- The "Refuse Act" prohibits throwing trash of any kind into the water or on land.
- The "Clean Water Act" prohibits discharge of water or liquids into the lake.



General Boating Information (cont.)

Navigation Rules

- The navigation rules are much like the rules of the road on the highway. They establish a consistent way to navigate safely and avoid collisions when two boats are crossing paths, are on course to meet head-on, or when one boat wishes to overtake another.
- Sailboats (under sail) have the right of way over powerboats except when overtaking.
- When crossing another power boat, the boat to the starboard (right) has the right of way and must hold course speed.
- When approaching another boat head on, go to your right and pass with the other boat on your port side (left).
- When overtaking another boat, give way to the boat ahead.
- Four or more short blast on the horn indicates "DANGER".

Enforced Rental Regulations

- You may not drive your houseboat after dark.
- You must be back to the Marina with the boat cleaned and inspected by the Marina staff by 2 PM.
- Dirty houseboats will be charged a cleaning fee.
- Late returns risk additional late fee charges.
- It is your responsibility to have the proper amount and size life jackets for all passengers on board.
- Children 12 years of age and under must wear US Coast Guard approved life jackets (PFD) when the boat is underway.
- Do not tie boats to the railings. All towing must be done from the aft cleats, and you may not side tie any boats to your houseboat.
- Loud music and offensive noise is not permitted. Please respect the right of others.
- Driving a houseboat while intoxicated is illegal and is enforced by law enforcement.
- Bring all garbage and bottles back to the Marina.
- Do not throw anything overboard.
- If you plan to fish you need a fishing license.
- Houseboat races are not permitted.
- Water bombs or balloons are strictly prohibited on any Antelope Point Houseboat, by Federal law, as are BB guns and paint ball guns.
- Tying houseboats together side by side is not permitted.
- Fireworks are prohibited on Antelope Point Houseboats and are regulated by Federal and State laws.

Housekeeping

- Always remember to keep the mooring ropes coiled neatly on the deck and tied, ready for action if an emergency situation should occur. This will also keep them from getting caught in propellers.
- Keep trash in covered trash cans to reduce attracting animals on board houseboat.

Preparing your Houseboat for Return

- CHECK IN TIME: The check in time is 2 PM. You must be refueled, pumped out, unloaded, cleaned and inspected by a member of our staff by 2 PM.
- This means: all trash removed, counter tops wiped and floors mopped, any spills cleaned up, refrigerators wiped out, carpets vacuumed.
- A cleaning fee may be charged if the above is not done prior to 2 PM.



Boating Basics Nautical Glossary

Aboard - On or within the boat.

Above Deck - On the deck (not over it - See ALOFT)

Abreast - Side by side: by the side of.

Adrift - Loose, not on moorings or towline.

AFT - Toward the stern of the boat.

Aground - Touching of fast to the bottom.

Ahead - In a forward direction.

Aids to Navigation - Artificial objects to supplement natural landmarks indicating safe and unsafe waters.

Alee - Away from the direction of the wind. Opposite of windward.

Aloft - Above the deck of the boat.

Anchorage - A place suitable for anchoring in relation to the wind, sea and bottom.

Astern - In the back of the boat, opposite of ahead.

Aweigh - The position of the anchor as it is raised clear of the bottom.



Batten Down - Secure hatches and loose objects both within the hull and on deck.

Beam - The greatest width of the boat.

Bearing - The direction of an object expressed either as a true bearing as shown on the chart, or as a bearing relative to the heading of the boat.

Below - Beneath the deck.

Bilge - The interior of the hull below the floor boards.

Black Water - The waste water discharged by your toilets into the waste holding tank.



Boating Basics Nautical Glossary

Boat - A fairly indefinite term. A waterborne vehicle smaller than a ship. One definition is a small craft carried aboard a ship.

Boat Hook - A short shaft with a fitting at one end shaped to facilitate use in putting a line over a piling, recovering an object dropped overboard, or in pushing or fending off.

Bow - The forward part of a boat.

Bow Line - A docking line leading from the bow.

Bowline - A knot used to form a temporary loop in the end of a line.

Bridge - The location from which a vessel is steered and its speed controlled. "Control Station" is really a more appropriate term for small craft.

Bulkhead - A vertical partition separating compartments.

Buoy - An anchored float used for marking a position on water or a hazard or a shoal and for mooring.

Burden Vessel - That vessel which, according to the applicable Navigation Rules, must give way to the privileged vessel. The term has been superseded by the term "give-way".



Cabin - A compartment for passengers or crew.

Capsize - To turn over.

Cast Off - To let go.

Chart - A map for use by navigators.

Cleat - A fitting to which lines are made fast. The classic cleat to which lines are belayed is approximately anvil-shaped.

Clove Hitch - A knot for temporarily fastening a line to a spar or piling.

CO - Carbon Monoxide, a colorless, odorless deadly gas produced by all fossil fuel burning motors & generators.



Boating Basics Nautical Glossary

Cock Pit - An opening in the deck from which the boat is handled.

Course - The direction in which a boat is steered.

Current - The horizontal movement of water.



Dead Ahead - Directly ahead.

Dead Astern - Directly AFT.

Deck - A permanent covering over a compartment, hull or any part thereof.

Dinghy - A small open boat. A dinghy is often used as a tender for a larger craft.

Displacement - The weight of water displaced by a floating vessel, thus, a boat's weight.

Dock - A protected water area in which vessels are moored. The term is often used to denote a pier or a wharf.

Draft - The depth of water a boat draws.



EBB - A receding current.



Fathom - Six feet.

Fender - A cushion, placed between boats, or between a boat and a pier, to prevent damage.

Flood - An incoming current.

Floorboards - The surface of the cockpit on which the crew stand.

Flying Bridge/Fly Bridge - The top deck helm from which you can pilot the houseboat.

Fore-and-AFT - In a line parallel to the keel.



Boating Basics Nautical Glossary

Forward - Toward the bow of the boat.

Freeboard - The minimum vertical distance from the surface of the water to the gunwale.



Galley - The kitchen area of a boat.

Gangway - The area of a ship's side where people board and disembark.

Gear - A general term for ropes, blocks, tables and other equipment.

Give-way Vessel - A term used to describe the vessel which must yield in meeting, crossing, or overtaking situations.

GFCI (Ground Fault Circuit Interrupt) - Built in circuit breaker in some electrical outlets. It will trip if there is a change in power flow.

GPS (Global Positioning System) - A U.S. Government Satellite system created as an aid to navigation

Grey Water - The waste water produced from your sinks and showers.



Hatch - An opening in a boat's deck fitted with a watertight cover.

Head - A marine toilet. Also the upper corner of a triangular sail.

Heading - The direction in which a vessel's bow points at any given time.

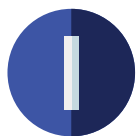
Headway - The forward motion of a boat. Opposite of sternway.

Helm - The wheel or tiller controlling the rudder. **HELMSPERSON** - The person who steers the boat.

Hitch - A knot used to secure a rope to another object or to another rope, or to form a loop or a noose in a rope.

Hold - A compartment below deck in a large vessel, used solely for carrying cargo.

Hull - The main body of a vessel.



Boating Basics Nautical Glossary

Inboard - More toward the center of a vessel; inside; a motor fitted inside a boat.



Jacobs Ladder - A rope ladder, lowered from the deck, as when pilots or passengers come aboard.

Jetty - A structure, usually masonry, projecting out from the shore; a jetty may protect a harbor entrance.



Keel - The centerline of a boat running fore an aft; the backbone of a vessel.

Knot - A measure of speed equal to one nautical mile (6076 feet) per hour.

Knot - A fastening made by interweaving rope to form a stopper, to enclose or bind an object, to form a loop or a noose, to tie a small rope to an object, or to tie the ends of two small ropes together.



Latitude - The distance north or south of the equator measured and expressed in degrees.

Lee - The side sheltered from the wind.

Leeward - The direction away from the wind. Opposite of windward.

Leeway - The sideways movement of the boat caused by either wind or current.

Lifejacket (PFD) - Personal Floatation Device

Line - Rope and cordage used aboard a vessel.

Log - A record of courses or operation. Also, a device to measure speed.

Longitude - The distance in degrees east or west of the meridian at Greenwich, England.



Boating Basics Nautical Glossary

MMC (Mathers Micro Commander) - Multi-station throttle and shift control device used in navigating.

Midship - Approximately in the location equally distant from the bow and stern.

Mooring - An arrangement for securing a boat to a mooring buoy or a pier.



Nautical Mile - One minute of latitude; approximately 6076 feet - about 1/8 longer than the statute mile of 5280 feet.

Navigation - The art and science of conducting a boat safely from one point to another.

Navigation Rules - The regulations governing the movement of vessels in relation to each other, generally called steering and sailing rules.



Outboard - Toward or beyond the boat's sides. A detachable engine mounted on a boat's stern.

Overboard - Over the side or out of the boat.



Piloting - Navigation by use of visible references, the depth of the water, etc.

Planing - A boat is said to be planing when it is essentially moving over the top of the water rather than through the water.

Potable - Drinkable.

Port - The left side of a boat looking forward. A harbor.

Privileged Vessel - A vessel which, according to the applicable Navigation Rule, has right-of-way (this term has been superseded by the term "Stand-on").



Boating Basics Nautical Glossary

Quarter - The side of a boat aft of amidships.



Rope - In general, cordage as it is purchased at the store. When it comes aboard a vessel and is put to use, it becomes line.

Rudder - A vertical plate or board for steering a boat.

Run - To allow a line to feed freely.

Running Lights - Lights required to be shown on boats underway between sundown and sun up.



Satellite Navigation - A form of position finding using radio transmission from satellites with sophisticated on-board automatic equipment.

Screw - A boat's propeller.

Seamanship - All the arts and skills of boat handling, ranging from maintenance and repairs to piloting, sail handling, marlinespike work, and rigging.

Seaworthy - A boat or a boat's gear able to meet the usual sea conditions.

Secure - To make fast.

Set - Direction toward which the current is flowing.

Ship - A larger vessel usually thought of as being used for ocean travel. A vessel able to carry a "boat" on board.

Slack - Not fastened; loose. Also, to loosen.

Sounding - A measurement of the depth of water.



Boating Basics Nautical Glossary

Spring Line - A pivot line used in docking, undocking, or to prevent the boat from moving forward or astern while made fast to a dock.

Squall - A sudden, violent wind often accompanied by rain.

Square Knot - A knot used to join two lines of similar size. Also called a reef knot.

Stand-on Vessel - That vessel which has right-of-way during a meeting, crossing or overtaking situations.

Starboard - The right side of a boat when looking forward.

Stem - The forward most part of the bow.

Stern - The after part of the boat.

Stern Line - A docking line leading from the stern.

Stow - To put an item in its proper place.

Swamp - To fill with water, but not settle to the bottom.



Tide - The periodic rise and fall of water level in the oceans.

Tiller - A bar or handle for turning a boat's rudder or an outboard motor.

Topsides - The sides of a vessel between the waterline and the deck; sometimes referring to onto or above the deck.

Tow Line - A rope used for towing vessels behind another boat.

Transom - The stern cross-section of a square sterned boat.

Trim - Fore and AFT balance of a boat.



Underway - Vessel in motion i.e. when not moored, at anchor, or aground.

Under Load - Term for describing electrical power running through your generator.



Boating Basics Nautical Glossary

V Bottom - A hull with the bottom section in the shape of a "V".



Wake - Moving waves, track or path that a boat leaves behind it, when moving across the waters.

Waterline - A line painted on a hull which shows the point to which a boat sinks when it is properly trimmed.

Way - Movement of a vessel through the water such as headway, sternway or leeway.

Windward - Toward the direction from which the wind is coming.



Yacht - A pleasure vessel, a pleasure boat; in American usage the idea of size and luxury is conveyed, either sail or power.

Yaw - To swing or steer off course, as when running with quartering sea.