

2011

***Weak Moment* Owner's Notes** **Table of Contents**

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INTRODUCTION

Welcome Aboard!

Weak Moment is a 2000 Nordic Tug 37, powered by a Cummins diesel engine, with a HP rating of 330 @ 2800 RPM. It can carry 350 gallons of fuel and 150 gallons of water. At a time when we are all concerned about high fuel prices, the Nordic Tug provides a real bargain. Actual Weak Moment data indicates that this 37 Nordic Tug can provide hours of cruising fun at reasonable speeds with very limited fuel consumption.

RPM	SPEED (kts)	Gallons/hour
1200	7.2	1.7
1400 Economy Cruise	8.0	2.5
1600	8.6	3.5
1800 Fast Cruise	9.4	4.9
2000	9.9	6.8
2400	12.3	10.2

We hope you enjoy cruising with Weak Moment. Please let us know if you find anything missing or in need of improvement.

While using or reviewing these notes, please feel free to mark corrections, and make suggestions and improvements. Your constructive criticism will be appreciated.

Thank you.

Judy & John

These notes are prepared for Quick Reference. Nordic Tugs, Inc. did not provide an operation manual with the 2000 models. Much of the information is taken from the Tug Operator's Manual for the 2006 model year, and from the component manufacturers' installation/operation manuals that came with the boat. The Owner's Notes assume that the charter guest/operator is experienced and competent in the safe operation of a 21,000 pound, 39 foot power boat, and knowledgeable of boating rules and regulations. These notes do not attempt to anticipate every situation or occasion that may arise, and are not a substitute for reading the Owner's Manuals and other informational materials which are located on the boat, or for exercising reasonable care and good judgment in the handling and operation of the boat. NO WARRANTY IS EXPRESSED OR IMPLIED.

1. ANCHORING SYSTEM

The primary anchor is a Bruce-style weighing 44 pounds. The anchor holding line with the galvanized chain hook is stowed in the step at the starboard helm door. A spare anchor with 15' chain and 250' rode is located in the stern locker. A 600' braided 3/8" polypropylene line for stern tying is located at the stern on a reel mounted on the upper deck. Weak Moment's **draft is 4 feet**. The depth displayed in the electronics is the water depth under the keel. (If measuring water depth using the hand-held sonar located next to the helm station, hold the hand-held head ½ inch under the water, press and release the button, remove the hand-held from the water and read the digitally displayed depth. The depth below the keel is 4 feet less.)

Chain Markings

The anchor chain is 410' in length with about 15' of nylon line at the "bitter end". The nylon line is used in case of emergency to release the anchor by cutting the line. The chain is marked with **white paint at 25' intervals, and red paint at 100' intervals**.

Windlass

The anchor windlass has foot controls (Up/down) at the forward end of the deck. There is also a switch on the helm panel, so the anchor can be deployed or lifted at either location. If there is no power to the Windlass, check the circuit breaker for the windlass which is located in the master stateroom on the starboard side of the berth —push the red button to reset.

Scope and Tide Swing

Scope is the relationship of length of rode (chain, line, cable) to the depth of the water. San Juan Sailing recommends a 4:1 scope.

- Check the tide tables to know at what point in the range you are anchoring, and measure the scope for the high tide.
- Check for depth and rocks within the proposed "swing" area.

Setting the Anchor

The boat should be idling facing into the wind.

Ensure that the "Windlass" breaker on the DC panel is ON.

At the bow, take the pin out of the Windlass.

Retract the pin on the ¼" tag line holding the anchor to the anchor roller.

Depress the down arrow foot switch to lower the anchor. Push the anchor past the anchor roller carefully so the anchor does not swing back and strike the bow of the boat.

Let out the proper amount of rode based on scope desired. Moving the throttle in and out of reverse will provide adequate astern momentum to lay out the chain on the seabed.

Put the engine astern momentarily to put a strain on the anchor.

Verify the anchor is set by seeing the boat move forward and seeing slack in the chain.

Using the anchor holding line with the galvanized chain hook (stowed in the step at the starboard helm door), secure the chain in front of the anchor roller with the chain hook and secure the other end of the line to the Sampson post creating a slack loop in the chain between the anchor roller and the place where the chain hook grabs the anchor chain.

Do an "anchor watch" for the first 30 minutes, observing how the boat swings and how close it gets to other boats and objects.

On the Raymarine monitor, turn the Radar to standby mode.

Retrieving the Anchor

The engine should always be idling when you are retrieving the anchor, in case it is necessary to move the boat forward momentarily by moving the throttle in and out of gear.

At the circuit breaker panels next to the helm:

- Turn ON the WINDLASS breaker.
- Turn ON the WASHDOWN PUMP.

At the bow:

- Connect the blue coiled hose with the black nozzle to the faucet at the bow near the anchor.
- Release the line from the Sampson post to the anchor chain and remove the chain hook from the chain.
- Depress the UP ARROW to bring up the anchor.
- Wash the chain with plenty of sea water before it comes over the roller to keep the mud off the boat.
- As the chain tightens and starts to bog down the Windlass, wait until the boat catches up, then continue. Don't drag the boat by the anchor chain thru the water.
- When the anchor is clear of the water make sure it is clean of mud. A boat brush and hose may be used to assist this.
- Be careful for the last couple feet to **make sure the anchor is facing the proper direction**.
- Reinsert the pin to secure the anchor in the bow roller.
- Release the tension on the chain slightly to take the strain off the Windlass.

2. BARBEQUE GRILL

The stainless steel Stow N' Go propane barbeque grill is mounted on the aft railing. It is for *outdoor use only*. The propane tank which serves the grill is located inside the molded step to the upper deck, which step is in front of the grill on the starboard side of the cockpit.

To light the grill:

- a. Make sure the regulator knob on the grill is in the OFF position.
- b. Inside the molded step to the upper deck, turn the black lever marked "BBQ" to the horizontal position so that it is parallel with the supply hose leading to the propane tank.
- c. Open the lid to the grill.
- d. Push and turn the regulator knob counter-clockwise to the high setting.
- e. Light the BBQ with a Butane lighter using the lighting holes located either on the right hand side of the heat plate within the BBQ, or on the left side of the BBQ. If the burner does not light after 10 seconds, turn valve to OFF position and wait 5 minutes before repeating.
- f. Confirm that the burner is lit by looking through the front vents of the BBQ.

Grilling

- a. Adjust the regulator knob on the grill to the desired heat setting.
- b. The BBQ does not require pre-heating. Do not overheat.
- c. Do not cook on the high setting with the lid closed.

To shut off the grill:

- a. Turn the regulator knob on the grill clockwise to the LOCK-OFF position.
- b. Inside the molded step, turn the yellow "BBQ" lever to the vertical position so it is perpendicular to the supply hose to the propane tank.

Cleaning the grill: The grill should be cleaned on a regular basis. Stainless steel exposed to high heat will change color over time. Discoloration of components does not affect the operation or performance of the BBQ.

- a. On the left outside of the BBQ, move the 2 legs down and slide out the grease tray for cleaning.
- b. Lift out the cooking grill and the heat plate for cleaning.
- c. The exterior of the BBQ can be cleaned with soapy water.

When the grill is not in use

- a. Make sure the yellow “BBQ” lever inside the molded step is in the OFF/ vertical position so that it is perpendicular to the supply hose from the propane tank.
- b. Lock the lid of the grill securely with the latches.
- c. Cover the grill with the canvas cover between uses.

3. BATTERIES

Weak Moment is equipped with 6 house batteries in addition to an engine start battery and a combination thruster/windlass battery. The house batteries are located in the engine room below the helm station. The total amp hour capacity is 610, of which 300 are usable. The start battery is also located in the engine room. The combination thruster/windlass battery is under the sole in the master stateroom at the foot of the bed.

The DC/BATTERY POWER distribution panel is located at the side of the helm station. The **DC POWER circuit breaker should be left ON** *if the boat is in the water, whether you are on or off the boat, and regardless of whether you are connected to shore power or running the generator.* If you have been plugged into shore power for 3 or more hours, the batteries should be charged. Away from shore, as long as you are cruising a couple hours a day, the batteries are recharging, and you should have adequate power without the aid of shore power.

At the top of the DC/BATTERY POWER panel is a gauge which indicates the level of battery power. A 4-position switch, located below the DC/BATTERY POWER panel, allows checking the 3 battery banks with voltage readings displayed on the digital gauge at the top. Monitor the house bank and occasionally check the start bank and bow thruster /windless bank. If the DC volts get down to 12, you will need to plug into shore power or **run the generator to recharge the batteries.**

All batteries are charged automatically from the main engine when running or from shore power or generator power when selected. When the main engine is running at cruise speed above 1000 RPM, the batteries are charged automatically by the alternator on the engine through combiners which connect to and charge the 3 battery banks. The output charge from the alternator is connected to the house battery bank directly and then to the start bank and bow thruster/windless bank through the combiners. When on shore power or generator power, the inverter/charger reverts to the charging mode and takes over for the output load of the main engine alternator.

When away from shore power with the main engine off (e.g. at anchor or on a mooring buoy), the XANTREX LINK 1000 controller and display monitors the condition of the house battery bank and how much battery capacity has been used. The house battery bank has a capacity of 600+ amp hours of which 300 amp hours are available to use before the battery bank is depleted. Prudent use and longer battery life require that recharging be commenced before the amp hour usage exceeds 250 amp hours. The LINK 1000 displays the amp hours used by a negative number when the symbol “Ah” is selected (e.g. -110). Pushing the SEL button will step the display through “V,” “A,” “Ah,” and “T.”

“V” *flashing* is the start battery voltage.

“V” *solid* is house battery bank voltage.

“A” is net number of amps being charged or depleted for the house battery bank.

“Ah” is the number of amp hours depleted from the house battery bank.

“T” is not used in our configuration.

All electrical use, when not on shore power and not running the generator, is depleting amp hours from the house battery bank. All lights, TV, appliances, radios, hair dryers, computers, coffee pots, etc. are depleting the house battery bank. Remember to **charge the battery banks before the amp hours (“Ah”) reading is -250.**

4. BERTHS

The forward stateroom has a “boat queen” berth, which is really a “wide” double, approximately 6 feet in length, 5 feet in width at the top, 4’4” in width in the middle, and 4 feet at the bottom. The second stateroom has two bunk beds, one approximately 6’2” in length and 3’6” in width, and the other approximately 6’2” in length and 2’ 4” in width. The dinette settee converts to a double bed approximately 7 feet long and 3’8” wide.

To convert the settee, lift the bottom seat cushions and remove the 2 pins. Slide the bed extension to its maximum width and re-insert the pins to hold it in place. Use the back seat cushion to fill the bed extension.

5. BILGE PUMPS

Weak Moment has 3 bilge pumps. They are located below the passage way between the head and 2nd stateroom, below the salon/galley, and in the Lazarette. The bilge pumps should be in the automatic position on the helm control panel.

6. DECK WASH

There is a wash down connection at the forward end of the deck and also in the cockpit. Salt water is pumped through the hose which you can use to clean the anchor and chain, or wash dirt overboard through the deck drains called scuppers. To utilize the system:

- Turn ON the WASHDOWN PUMP circuit breaker located on the BATTERY/DC SUPP distribution panel next to the helm.
- If there is no water flow, check to see that the sea water sea cock, located in the compartment below the passageway between the head and the second stateroom, is OPEN.
- The blue coiled hose has a quick disconnect and can be used at either the bow washdown or the one located on the vertical face of the propane locker in the cockpit.

7. DINGHY

Weak Moment has a hard-bottom inflatable dinghy with a 5 hp Mercury outboard motor. The dinghy is accessible from the swim step. It is mounted to a davit at the stern and is lowered into the water with a davit motor. The Mercury Outboard Motor manual is located in the Nordic Tug Notebook in the cabinet next to the helm seat.

Launching the dinghy

Caution: Never raise or lower the dinghy with occupants (adults or children).

- a. Turn ON the circuit breaker for the “dinghy” at the bottom of the BATTERY/DC SUPP distribution panel next to the helm.
- b. Put the plug in the transom of the dinghy.
- c. Pull the pin from the bracket mounted to the stern rail, directing the stainless steel brace towards the dinghy.
- d. Unhook the 2 fasteners on the outside of the dinghy, that attach the dinghy to the side of the arms of the davit.
- e. Using the round davit motor control located on the end of the motor under the black metal cover on the

- davit, lower the dinghy into the water.
- f. Create enough slack to be able to pull the dinghy to the swim step; then carefully climb into the dinghy. It is probably safer to sit on the swim step and slide into the dinghy.
- g. Unsnap the two (2) cable bridals while inside the dinghy from the stainless steel davit, leaving the cable bridals attached to the bow and stern of the dinghy.
- h. Raise the davit by the motor control to get it out of the way of boarding guests.

Operating the dinghy

- a. Make sure all occupants are wearing appropriate **life jackets**, and that the **oars** are in the dinghy.
- b. **Never let minors start or operate the dinghy.**
- c. Check to make sure the tubes are inflated as hard as possible. There is a foot pump located in the Lazarette when additional inflation is needed.
- d. **Check the gas level** by removing the lid and looking into the red 3 gallon plastic gas container located under the seat in the dinghy.
- e. **Open the vent on the gas tank** and connect the fuel line to the outboard motor.
- f. **Squeeze the primer bulb** several times until it is firm to prime the line and the motor.
- g. Start the motor:
 - Set gear selector to **neutral** position. **NEVER START THE MOTOR IN GEAR!**
 - Pull the choke knob out when starting a cold motor.
 - Pull recoil starter cord slowly until you feel the starter engage, then pull rapidly to crank the engine. Repeat until the engine starts. *If the engine is flooded, wait 30 seconds, then continue.*
 - After engine start check for a steady stream of water flowing out of the water pump indicator hole.
 - **If no water is coming out, stop the engine** and check the cooling water intake for obstruction. If there is no obstruction, there may be a water pump failure or blockage in the cooling system, which will cause the engine to overheat--*do not operate the engine.*
 - Allow the motor to warm up for a few moments, then push in the choke knob half way.
 - After several minutes, push choke control in all the way.
- h. Operate the dinghy with the shift lever (forward, neutral, and reverse), steering with the handle that has the twist throttle.
- i. To stop, push in the red engine stop button, or pull out the end of the red lanyard (the kill switch).

Fastening the dinghy to the davit at the stern

- a. Disconnect the fuel line from the outboard motor, and close the vent on the fuel tank.
- b. Turn ON the “dinghy” circuit breaker at the bottom of the BATTERY/DC SUPP distribution panel.
- c. Lower the dinghy davit until you can clip the cable lifting bridals to each end of the davit.
- d. **ALL OCCUPANTS MUST BE OUT OF THE DINGHY BEFORE RAISING IT.**
- e. Use the round control knob under the black metal cover of the davit to raise the dinghy out of the water.
- f. Open the plug in the bottom of the dinghy so water does not accumulate in the dinghy.
- g. Attach the bracing member to the stern rail bracket and re-insert the pin.
- h. Attach the 2 side fasteners from the dinghy to the sides of the davit arms.

Fueling the dinghy motor

Always stop the motor before refilling the tank.

- a. The outboard motor **gas is mixed** at 4 ounces of 2-cycle Outboard oil /gallon of unleaded gas. Additional **pre-mixed gas** is located in a red plastic 2 gallon container in the molded step to the upper level of the boat, and can be poured into the plastic tank under the seat in the dinghy.
- b. If additional *unleaded* gas is purchased for the outboard motor, don't forget to mix it with 4 ounces of 2-cycle Outboard oil/gallon of unleaded gas—extra 2 cycle Outboard oil for the outboard motor is located in the molded step to the upper level of the boat.
- c. Remove the gas container from the dinghy by releasing the clip to disconnect the gas hose at the motor,

then release the plastic container from the straps that secure it.

d. Store the gas container with the hose in the dinghy, and store the extra fuel container in the propane locker. NEVER STORE GAS OR OTHER FLAMABLE LIQUIDS IN THE LAZARETTE.

8. ELECTRICAL PANEL

The electrical distribution panel is located next to the helm station. There are 3 sections:

- a. DC/BATTERY POWER distribution panel. The **DC POWER circuit breaker should be left ON if the boat is in the water, whether you are on or off the boat, and regardless of whether you are connected to shore power or running the generator.** At the top of the BATTERY POWER panel is a digital meter that indicates the level of battery power.
- b. SHOREPOWER OR GENERATOR distribution panel
- c. Supplementary panel with a circuit breaker for the dinghy, stove, wash-down pump and passage way nightlights.

9. ELECTRONICS

RayMarine

Weak Moment is equipped with the latest Raymarine electronic equipment, and with the Navionics Platinum Multi-Dimensional Charts for the area. The E-Series Display includes navigational charts, 3-D displays, Fishfinder, Radar, Data, Video, Course Deviation Indicator and Waypoints capabilities. Please refer to the QuickStart Card, Operating Guide and Reference Manual which is on-board.

Upper Electronics Panel

Turn ON the Upper Electronics circuit breaker at the Battery Power distribution panel next to the helm station, and then turn on the specific electronic device.

Kenwood AM/FM Radio

- Press and hold the blue triangular button to turn on.
- Press and hold again to go through the menu (OFF, TUNE or DISC) until you come to "Tune."
- Select the frequency by the right or left arrow.

CD Player holds 6 CDs and plays through the Kenwood radio.

- Remove the CD carrier case from the Kenwood CD player, load and push back in.
- Turn ON the AM/FM radio by pushing the blue triangular button; you may need to push again until it displays "DISC." Adjust volume on the radio.

XM Satellite Radio plays through the Kenwood AM/FM radio.

- Turn on the Kenwood radio at the blue triangular button; set the radio on FM 88.7
- Turn on the XM satellite radio at the power button.
- Select the XM station by use of the pre-set buttons, or by the dial on the upper right corner.

VHF radio is located in the overhead panel at the Helm station.

- Turn on the VHF radio by pressing IN on the volume control knob.

A second VHF radio is located at the Helm station.

- Turn on the VHF radio by pressing the power 16/9 button.

An AIS receiver allows the Raymarine displays to show the location of commercial vessels in the vicinity even when radar does not show them. The information displayed for the target includes course over ground, speed over ground, size, type and name of vessel, proposed track, closest point of approach and time to closest point of approach.

Cell Phone Signal Amplifier

There is a cell phone signal amplifier installed on the boat which is supposed to work with all cell phone service providers except Nextel. It is activated by turning ON the upper electronics circuit breaker.

You can re-charge your cell phones at the 12 volt receptacles located at the helm station and at the chart table.

10. EMERGENCY/SAFETY

Adult inflatable vest-type life preservers (4) are located in the staterooms, plus 4 additional life vests are in a storage bag under the salon. Instructions for use are in the mesh bag in the hanging locker of the forward stateroom.

Portable water-activated emergency locator is mounted at the salon door, and should be taken with you if you abandon ship. (Read instructions before use.)

Abandon Ship Bag is located on top of hanging locker in second stateroom.

Life sling is mounted on the rail at the stern.

Throwable EZ docker mooring line is located in Lazarette.

There are five (5) fire extinguishers:

- affixed to the wall of the Galley next to the stern door;
- affixed to the port-side helm station wall next to the door;
- affixed to the wall in the head
- under the helm seat
- attached to the forward bulkhead of the engine room

Horn at helm station.

Flare kit under the seat at the helm station

Flashlights (2) in holders; one located at the helm and one in the engine room next to the paper towel holder.

Hard plastic label mounted near VHF stating Yacht Name.

Bilge pumps (3) located in the engine room, below the salon/galley, and in the Lazarette (The bilge pumps should be in automatic position on the helm control panel.)

Wooden seacock plugs attached with nylon line to each seacock

First Aid Kit located under the seat at the helm station.

Portable hand-held sonar located next to helm station, to be used in an emergency if the electronic depth indicator isn't working.

11. ENGINE

Weak Moment is powered by a 330 HP CUMMINS DIESEL ENGINE. A checklist for pre-departure engine procedures is located in the engine room below the helm station.

12. FUEL

Weak Moment has two (2) 175 gallon diesel fuel tanks located aft of the engine room, under the galley and salon. The fuel manifold is located in the engine room on the aft bulkhead port side.

Checking the Fuel Level

- a. At the "Tank Tender" gauge at the helm, *push and hold* the Tank 1 button. Then pull out the PUMP knob to the right and slowly pump once or twice.

- b. Read the outer scale where the needle falls. The gauge will indicate in inches the amount of fuel in Tank 1. The table to the left of the gauge translates the inches into gallons.
- c. Repeat the procedure for Tank 2.

Filling the Fuel Tanks

The fill valves for the diesel fuel tanks are located starboard and port of the helm station doors. Fill on BOTH sides. *On the port side, the WASTE valve is next to the DIESEL valve—DON'T mix them up!* They are marked.

Before you start to fuel:

- a. Make sure the engine is shut down, the stove is off, all ignition materials have been extinguished, and everyone else is off the boat.
- b. Depending on the length of the fuel hose, you may need to pull it through the helm doors to reach the fill valve on the opposite side of the boat. **BEFORE YOU DO THAT, please place old throw rugs (stored in the engine room) through the helm, including over the thresholds, to protect the surfaces—those fuel hoses can be very dirty.**
- c. There is a fuel tank vent located just below the fuel tank fill. Usually the fuel attendant has an **overflow device** to attach below the vent to catch any spillage—but if the attendant doesn't, there is one in the engine room. Fuel spills are the responsibility of the person operating the fueling hose.
- d. Fueling can be messy: take an absorbent pad, rag, and/or paper towels from the engine room to have at the ready. Clean any fuel spill off the deck--- it is slippery and hazardous.
- e. Open the DIESEL plate with the spanner wrench/key located in the drawer in the helm.
- f. Insert the nozzle into the fill valve, then start the flow. As the tank fills, LISTEN for the sputters and WATCH the fuel vent. Your goal is to STOP pumping BEFORE liquid fuel spurts out of the vent.
- g. After the flow stops completely, remove the nozzle from the fill tube, put the hose back on the dock, screw the fill cap back in place, and return the key to the drawer in the helm.

Servicing the Fuel Filters

Few things you do are as important to your safety on the water as having uncontaminated fuel going to the engine! Weak Moment is equipped with two RACOR fuel filters which are located in the engine room. There is a yellow handle RACOR valve control which allows each filter to operate separately. A vacuum/pressure gauge is read at the helm station.

- a. **Check the two fuel filters for contaminants or water as part of the pre-cruising engine room check.** If there are contaminants or a separation of fluid in the bottom of the glass collection containers, they should be drained of the contaminants:
 - Turn the **short pointed end** of the yellow selector lever **AWAY** from the filter with contaminants, and towards the other filter that will remain active while you are servicing the contaminated filter.
 - With a collection container in place, open the black drain at the bottom of the glass container by partially turning the valve; *quickly retighten* the valve when the water or contaminants have been drained.

- b. **Replace the RACOR fuel filter if the vacuum gauge reads between 7 and 10.**

The dual RACOR fuel filters located in the engine room have a vacuum gauge which is read at the helm station when the engine is running at cruising speeds. The RACOR Company instructions say when the needle on the vacuum gauge reads between 7 to 10 inches (of vacuum) it is time to replace the filter element. The elements are changed routinely, but you never know when water or contaminants will get into the fuel tank, so be prepared to change out the filter if the vacuum gauge is reading between 7 and 10 inches! The **replacement RACOR 2-micron filters** are located in the plastic bin in the engine room marked CUMMINS MAIN ENGINE SPARE PARTS, RACOR FUEL FILTERS.

- The filter to be changed is the one in use at the time the vacuum gauge at the helm was reading above

7. In the engine room, move the yellow RACOR handle **pointed end AWAY** from the filter to be replaced.
 - Remove the lid of the filter to be replaced by turning/loosening the brass T handle located at the top of the filter unit. Remove the filter element by holding the molded handles on the filter element and slowly pulling upward with a twisting motion.
 - Replace the black lid gasket with a new black lid gasket supplied with the new filter. Apply a coating of clean fuel or motor oil to this gasket seal prior to reassembly. Insert the new filter (with labeled end up) with a slow downward twisting motion.
 - Fill the filter unit with clean diesel fuel by pouring it on top of the filter element. Clean diesel fuel is located in a blue gallon jug in the engine room marked “Diesel Fuel”.
 - Replace the red O ring on the brass T handle shaft under the lid with the new red O ring provided with the new filter element.
 - Then put the lid back on the unit and snugly tighten the brass T-handle by hand ONLY.
 - Start the engine and check for leaks. Correct any leaks with the engine off.
 - *Remember to replenish the jug of clean diesel fuel at the earliest opportunity.*

13. GENERATOR

Weak Moment comes with a Northern Lights generator. If the DC panel gets down to 12 volts, run the generator to recharge the batteries. The Generator Panel is located in the center of the upper (overhead) electronics panel in the pilot house.

Starting the Generator

- a. There are 2 rocker switches on the right side of the panel used to start the generator engine. Hold the top switch DOWN in the ON position for approximately 10 to 20 seconds to preheat the engine.
- b. While holding the *upper* switch in the *down* position, *lift up on the bottom switch* to start the engine. As soon as the engine starts, release both switches. If the engine fails to start with the first attempt, be sure that it has stopped completely before re-engaging. *Do not crank the starter for more than 20 seconds consecutively. If the engine fails to start, consult the Operator’s Manual.*
- c. Let the engine run for 3-5 minutes to warm-up before adding an electrical load.
- d. After the warm-up period, turn ON the generator circuit breaker at the SHORE POWER OR GENERATOR distribution panel at the side of the helm station by sliding the blocking panel up, then moving the generator circuit breaker to the ON position.
- e. Select the desired circuits which you want the generator to operate and move them to the ON position.

Monitor the generator panel

- The oil pressure must be above 15 PSI.
- The DC voltmeter should read between 11 and 15 volts.
- The water temperature must be below 180 F.

If the gauges deviate from normal levels, shut down the generator and investigate, referring to the Owner’s Manual.

To Shut Down the Generator

- a. Remove the electrical load –Turn OFF the generator circuit breakers at the SHOREPOWER OR GENERATOR distribution panel at the side of the helm.
- b. Continue to run the generator 3 to 5 minutes to cool down.
- c. At the Generator Panel, move the lower rocker switch down to the STOP position momentarily and release.

14. GALLEY

The galley has a NovaKool refrigerator/freezer, and a three-burner propane stove with oven. At the sink is a water filtration system. See REFRIGERATOR and STOVE sections below.

Non stick cookware

Weak Moment is equipped with non stick cookware. *Do not use nonstick cooking sprays* on the nonstick cookware- an invisible buildup will impair the nonstick release system and food will stick in the pan. The nonstick cookware *does not need oil*. If you prefer oil for flavor, olive oil or peanut oil is recommended.

Use *low to medium heat* only. Excessive use of heat will cause pan warping and permanent nonstick coating damage. The non-stick cookware is *oven safe to 350 degrees F*—but never in the broiler.

Do not use metal or sharp-edged utensils.

Clean using mild dishwashing detergent and warm water. Use only nonabrasive plastic mesh pads to dislodge food particles.

15. HEAD & HOLDING TANK

The head has a VACUFLUSH freshwater toilet. Unlike other systems which have Y valves allowing the option of flushing directly overboard, the VACUFLUSH system does not have a Y valve and ONLY flushes into the holding tank.

Using the Head

- a. At the BATTERY POWER distribution panel located at the side of the helm station, make sure the following circuits are in the ON position:
 - DC POWER circuit breaker in ON position
 - HEAD circuit breaker in ON position
 - FRESH WATER circuit breaker in ON position
- b. In the head, there are 2 panels on the lower cabinet:
 - Check the VACUFLUSH panel to make sure the *green light is ON*—under normal operating conditions the red lamp will light for 1 minute after each flush until the pump recharges the vacuum to proper operating level, then the green lamp will light.
 - Check the TANKWATCH panel to make sure the holding tank light is NOT “red” or full.
- c. Lift up on the foot-operated lever of the toilet to “Pre-Fill” the bowl if there is not already some water in it. It typically uses one pint of water per flush, but more water can be added if desired by lifting up on the foot lever.
- d. Use the head. In conformity with San Juan Yachting’s policy, **DO NOT PUT ANYTHING DOWN THE HEAD THAT HAS NOT BEEN EATEN FIRST**. Please, NO tampons or other feminine products, no hair, no Kleenex, and no toilet paper!! Use the waste basket and the plastic bags located in the cabinet under the sink to dispose of these items.
- e. Step down on the flush lever for 3 seconds to empty the bowl. **SNAP your foot off** the flush lever. If the flush lever is accidentally released before waste clears the bowl, do not attempt to flush the toilet again until the vacuum pump stops running (about 1 minute) and the red light goes out.

Cleaning the Head

There is a toilet brush in the cabinet under the sink. Use liquid dish washing soap and water for everyday cleaning of the toilet bowl. Never use chlorine based cleaners, caustic cleaners, chemicals, drain openers, alcohol, solvents, etc. in the system.

Monitoring the Holding Tank

The holding tank should be monitored daily. The TANKWATCH monitor panel is located on the front of the sink cabinet in the head. The gauge will register the level of the contents of the tank: green for empty, yellow means low, amber indicates mid level, and **red says the tank is full—DO NOT ADD MORE.**

Discharging the Holding Tank

The WASTE fitting is located just outside the port helm door. Therefore, you will want a *port-side* pump out, if at all possible. If you must empty the holding tank from starboard, taking the waste hose through the helm station, please place throw rugs through the helm, including over the thresholds, to protect the surfaces from the dirty pump-out hose and any potential spills.

This can be a messy job—there is a box of disposable rubber gloves and clean-up rags in the engine room.

To empty the holding tank at a pump-out station or at a portable holding cart

- a. Locate the deck fitting labeled “WASTE” just outside the port helm door.
- b. Open the deck fitting with the key located in the helm drawer.
- c. Push the pump-out nozzle into the WASTE deck fitting and hold the nozzle securely to create an airtight connection to allow the contents of the waste tank to be vacuumed out of the holding tank.
- d. Follow the instructions at the pump out station to pump out the holding tank.
- e. Rinse the waste holding tank after emptying:
 - Add a few gallons of fresh water through the WASTE deck fitting with the available fresh water hose from the dock. (DO NOT USE WEAK MOMENT’S WHITE FRESH WATER HOSE.)
 - Reinsert the pump-out nozzle into the boat’s WASTE deck fitting and pump some more liquid out of the waste holding tank.
 - Repeat this procedure.
- f. When the tank has been pumped, check the Tank Level Monitor in the head to confirm your success; it should show a green light.
- g. Carefully remove the pump-out nozzle and place it back on the portable holding cart or the pump-out station.
- h. Replace the deck fitting and tighten it down with the key.
- i. Return the key to the helm drawer.
- j. *Wipe up* any spills on the deck and *throw away* the used disposable gloves and wipe up rags.
- k. *Wash down* the fill area on the boat with the fresh water hose.

Discharging the Holding Tank Overboard

This method of discharging the holding tank should only be used in strict compliance with the law. A thorough understanding of the laws and regulations of overboard discharge is mandatory before discharging waste overboard.

Confirm that the SEACOCK IS OPEN BEFORE OPERATING DISCHARGE PUMP

- a. Open the hatch in the sole of the salon and crawl in.
- b. Facing forward, to the RIGHT and DOWN is a **blue lever** to open the Seacock. Confirm that the lever is in the **vertical position** to open the Seacock.
- c. Back at the helm, flip the MACERATOR switch to the UP position. The red light will come on.
- d. Check the tank level monitor in the head to confirm that the tank is empty (green light).
- e. When finished, flip the macerator switch at the helm to the off or DOWN position.

16. HEATING SYSTEM

There are three sources of heat on Weak Moment: heat produced as a by-product of the engine, the Wabasto forced air diesel fueled furnace and Auxiliary electric heat located under the cabinet at the aft port salon.

Engine Heat (used while cruising)

Heat from the engine can be utilized to heat the pilot house, passageway, and head when the engine is running.

- At the helm, in the center of the control panel is a HEATER switch, with 3 speeds for the blower: high, medium or low. Select the desired speed.

Primary Heating System is a Wabasto forced air diesel fueled furnace. The digital thermostat is in the salon, just behind the port helm seat. To its immediate left is the SYSTEM HEAT switch.

- Turn the SYSTEM HEAT toggle switch to the UP position; the green light will indicate power.
- Adjust the temperature on the thermostat with the up and down arrow. (Make sure the switch on the thermostat is in the “heat” position.)
- To turn the heat off, move the SYSTEM HEAT toggle switch to the OFF position.

Auxiliary Electric Heat (used with shore power or the generator to heat the galley/salon area) The auxiliary electric heater is located at floor level below the lower cabinet next to the settee/aft door, and is designed to heat the galley and salon area. It requires shore power or the generator. ***Do not run the auxiliary electric heater and the hot water heater at the same time when connected to shore power, or you will trip the circuit breaker.*** To turn on the auxiliary electric heater:

- Turn ON the circuit breaker labeled HEATER at the SHOREPOWER OR GENERATOR distribution panel located at the side of the helm.
- Adjust the thermostat at the electric heater to the desired temperature.

17. INVERTER/CHARGER

The inverter is intended to provide 110 volt AC power to small appliances when you are away from shore power, or do not want to use the generator. The inverter converts 12 volt battery power into 110 volt AC power. The rectangular black “**Xantrex**” Link 1000 INVERTER/CHARGER control panel is located above and to the left of the BATTERY POWER distribution panel at the side of the helm station.

While away from shore power, if you want 110 AC power:

- Turn the Inverter ON at the Xantrex panel (above and to the left of the Battery Power Panel) by pushing where it says INVERT and a green light will come on.
- Confirm that the following three circuits on the AC panel at the helm station are ON:
 - Microwave
 - Outlets Aft (all the outlets from the helm station aft)
 - Outlets Forward (Both staterooms and the Head)
- **If you don’t appear to have power** (e.g. the appliance won’t work at the outlets in the galley or salon, push the red reset button at the GFCI behind the wine glasses in the salon. This should restore the circuit. If you don’t appear to have power forward of the helm station, push the red reset button at the GFCI in the head to restore power.
- **Monitor your usage.** If too many appliances are on at the same time, you may trip a breaker. If this happens, unplug one or more appliances and reset (turn on) the MICROWAVE and/or OUTLETS AFT circuits at the AC/SHOREPOWER panel next to the helm.

When AC power is available from shore power or from the generator, the inverter/charger automatically charges the house batteries. However, **when leaving the boat, turn OFF the Inverter at the Xantrex Link 1000 control panel**, so if shore power should fail, an onboard appliance (e.g. a coffee maker) will not draw down the batteries. The real danger is that the bilge pumps depend on battery power, and if they die, the bilge pumps die with them.

18. REFRIGERATOR/FREEZER

The Galley has a NovaKool refrigerator/freezer. When connected to Shore Power, make sure the REFRIG is ON at the SHOREPOWER/GENERATOR distribution panel next to the helm station. The thermostat control is located inside on the right side panel of the refrigerator, and controls both. Water from a defrosting cycle will collect in the tray under the freezer compartment and must be disposed of manually.

19. SHOWER

Using the shower

At the BATTERY POWER PANEL:

- Turn ON the Fresh water pump.
- Turn ON the Shower pump.

Hot water

Hot water is provided by a 6 gallon tank heated electrically and by a heat exchanger from the engine.

You automatically have hot water if the engine is running, and it will stay hot for quite awhile even after the engine is turned off. So if you have been cruising for a couple hours, you should have abundant hot water after the engine is off.

When connected to shore power or using the generator, make sure the WATER HEATER circuit breaker on the SHOREPOWER OR GENERATOR distribution panel is in the ON position.

20. SPARES

Weak Moment carries an extensive collection of spare and replacement parts. See the Inventory for their description and location.

21. STOVE

Weak Moment has a three-burner propane stove with oven.

To operate the stove:

1. At the BATTERY POWER distribution panel at the side of the helm:
 - a. Make sure the DC POWER circuit breaker is in the “ON” position.
 - b. Make sure the STOVE circuit breaker located in the *lower* BATTERY/DC SUPP distribution panel is in the ON position.
2. At the circular control panel to the right of the stove:
 - a. The “power on” light should be green, confirming that you turned the STOVE circuit breaker in the distribution panel to the ON position.
 - b. Press the “valve on/off” indicator, which should activate the “green valve on” light. (This valve on/off indicator should be pressed to turn off the stove when the stove is not in use.)
3. Each burner on the cook top needs to be lit separately. Instruction for lighting the burners are on the inside of the oven door.

To operate the oven:

In order to use the oven, the pilot light must be lit. Instructions for lighting the pilot are on the inside of the oven door.

22. WATER

There is a 150 gallon fresh water tank on Weak Moment. The tank and shutoff are located below the salon.

Checking the Water Level

The gauges for checking the fresh water level are located at the helm. Refer to the HELM CHECKLIST in the PREPARING FOR DEPARTURE section below for instructions on reading the water level gauges.

Filling the Water Tank

- a. Locate the deck plate marked “WATER” at the starboard aft. The deck plate key to open the plate is located in the chart drawer in the helm.
- b. Connect the WHITE with BLUE STRIPE fresh water hose (located in the lazarette in the cockpit) to the domestic water supply at the pier. Let the water run through the hose (overboard) for a minute or two to wash any contaminated water from the hose. **DO NOT USE THE HOSE AT THE DOCK TO FILL THE WATER TANK—YOU DON’T KNOW WHERE IT HAS BEEN!**
- c. Fill until water comes out the vent/overflow on the hull just below the deck fill.
- d. Tighten the deck plate.
- e. Return the deck plate key to the chart drawer in the helm.

Hot Water

Hot water is provided by a 6 gallon tank heated electrically and by a heat exchanger from the engine. You automatically have hot water if the engine is running. When connected to shore power or using the generator, make sure the WATER HEATER circuit breaker on the SHORE POWER OR GENERATOR distribution panel is in the ON position.

PREPARING FOR DEPARTURE

1. ENGINE ROOM CHECKS should be performed daily, before cruising.

At the helm station, turn ON the Engine Room Lights. Enter the *engine room* below the helm station. The easiest location to perform the engine room checks is to sit on the port side of the engine, with your back against the generator.

- a. **Check the oil level in the engine.** The dip stick is on the port side of the engine. The oil level on the dip stick should be between the hash marks. ***If the oil level is low:***
 - Add oil from the **blue plastic jug marked Delo 400 15/40 SAE**, using the **funnel** from the basket marked Replacement Fluids.
 - **DO NOT OVERFILL THE OIL CAPACITY** of the engine. It only takes 2 quarts to fill the oil supply from the lower line to the upper line on the dipstick.
- b. **Check the coolant level** of the white plastic recovery reservoir (aka “plastic jug”) mounted on the bulkhead just below the step used to enter the engine room. The jug should be *half full*. ***If the coolant level is low:***
 - Add some pre-mixed engine coolant to the recovery reservoir.
 - The pre-mixed engine coolant marked **CAT 50/50 DIESEL ENGINE COOLANT** is located in a basket marked “Replacement Fluids.”

- c. **Check the oil level in the generator.** The generator has a diesel engine requiring the same care as the main engine. Open the *circular panel* on the FRONT SIDE of the generator to access the dip stick. The oil level on the dip stick should be within the hatch-marked area on the stick. ***If the oil level in the generator is low:***
- Open the OIL FILL to the side of the dip stick.
 - Add oil from the blue plastic jug marked Delo 400 15/40 SAE, using the *funnel* from the basket marked “Replacement Fluids.” Be careful not to overfill.
- d. **Check the coolant level in the generator.** The generator’s diesel engine uses coolant just like the main engine. A plastic coolant recovery reservoir (aka “plastic jug”) is mounted above and behind the generator. Visually check that the coolant level is approximately *half full* when the engine is cold. ***If the coolant level in the generator is low:***
- Add coolant to the recovery reservoir to about the half-full level, being careful not to overfill—the coolant needs an opportunity to expand.
 - Use the pre-mixed CAT 50/50 DIESEL ENGINE COOLANT located in the basket marked “Replacement Fluids.”
- e. **Check the RACOR fuel filters for water or contamination.** *Few things you do are as important to your safety on the water as having uncontaminated fuel going to the engine!* As you sit with your back to the generator, look right/aft at the RACOR dual fuel filters.
- Make sure only one filter is in use at a time-- the **yellow selector lever** should be directed to one filter or the other. The **short pointed red end** of the yellow RACOR selector lever indicates which filter is collecting contaminants; the other filter is the back-up when the active filter is dirty or being serviced. (If the pointed end is DOWN, both filters will be active; if UP, all fuel flow is shut off.)
 - Make sure both filters are free of contaminants or water. Look through the glass at the liquid in the bottom of each filter. You don’t want to see contaminants or a separation of fluid in the bottom. (Water is heavier than diesel fuel, and will collect at the bottom of the glass bowl if there is water in the fuel.) IF YOU SEE CONTAMINANTS OR LIQUID SEPARATION, you want to remove them *without* removing all the fuel in the glass bowl:
 - i. Turn the **short pointed red end** of the yellow RACOR selector lever **AWAY** from the filter with contaminants, and towards the other filter that will remain active while you are servicing the contaminated filter.
 - ii. With a collection container (eg empty plastic milk jug) in place, open the black drain (partially unscrew the valve) at the bottom of the glass unit to evacuate just the water or contaminants; then *quickly* re-tighten the drain.
- f. **Check the fuel filter of the GENERATOR for water or contaminants.** The generator’s fuel filter is mounted on the bulkhead next to the RACOR fuel filters for the engine. Look through the glass at the liquid in the bottom of the filter. IF you see liquid separation or other contaminants, you need to remove them. (You don’t want to drain all the fuel in the glass bowl—just the contaminants.) With a collection container in place just below the glass bowl of the filter, partially unscrew the black drain valve at the bottom of the filter bowl to evacuate the contaminants; then quickly retighten the drain.
- g. **Complete a visual check of the engine room** for leaking oil, fuel, or coolant, loose items that should be secured, or anything unusual.
- h. As you sit with your back against the generator, look aft (left) below the Racor filters and confirm that the stubby black **MAIN ENGINE FUEL SUPPLY feed valve is in the vertical/open position and GEN FUEL SUPPLY feed valve is parallel/horizontal to the supply line in the open position.**

- i. As you sit with your back against the generator, look to your left. Verify that the blue handle of the **main engine cooling seacock is in the open/vertical position.**
- j. Make sure that the **MAIN SEA STRAINER for the engine is free of seaweed or debris.** The sea strainer is mounted on the forward bulkhead, and is attached by a large black hose to the seacock. It is a large bronze unit with a glass-enclosed section.
 - Using the flashlight which is mounted to the forward bulkhead, check to see if the strainer is clear and not plugged with seaweed or debris *before every start.*
 - To clean the strainer, close the seacock (lever horizontal), unscrew the top with the *spanner wrench* hanging next to the strainer, lift out the basket, swish it back and forth in a bucket of clean water, and then reinstall it.
 - **REOPEN THE SEACOCK!!**
- k. As you sit with your back against the generator, next to your right foot is the generator cooling seacock. Make sure that the blue handle of the **generator cooling seacock is in the open/vertical position.**
- l. Make sure that the **seawater strainer for the generator is free of seaweed or debris.** The strainer is attached by a large black hose to the seacock.
 - Using the flashlight, check to see if the strainer is clear and not plugged with seaweed or debris.
 - To clean the strainer, close the seacock (lever horizontal), unscrew the top with the *spanner wrench* (which is hanging next to the seawater strainer *for the engine*), lift out the basket, swish it back and forth in a bucket of clean water, and then reinstall it.
 - **REOPEN THE SEACOCK!!**
- m. When you have completed the engine room checks, **turn off the engine room lights at the helm station.**

2. DISCONNECT SHORE POWER

- a. At the SHOREPOWER OR GENERATOR helm station breaker panel, turn OFF the double SHORE circuit breakers. Leave ON the 2 Inverter circuits on this circuit breaker panel.
- b. On the dock, first turn OFF the shore power circuit breaker at the pedestal on the dock, then disconnect the yellow electrical cord from the dock power.
- c. On the boat, disconnect the yellow electrical cord and store the cord coiled in the round blue basket in the Lazarette.
Caution: Always DISCONNECT from the SHORE-END and ---CONNECT from the BOAT-END---to avoid moving a LIVE cord!

3. TURN ON DC/BATTERY POWER

Review the power usage on the BATTERY POWER distribution panel to make sure you have the appropriate circuits in the ON position, including

- DC POWER in the ON position
 - UPPER ELECTRONICS in the ON position
 - LOWER ELECTRONIC in the ON position
 - REFRIG in the ON position
 - Other circuit breakers on as you desire.
4. **CLOSE ALL PORT HOLES AND HATCHES** which might permit water to enter the interior, except those deliberately left open for ventilation.
 5. **CONFIRM THAT THE DINGHY** is securely attached to the davit and that the hole in the bottom of the dinghy is open so as not to accumulate water in rough seas.

6. CHECK AROUND THE BOAT

Review the exterior area around the hull to confirm that there are no obstacles in the water or loose items that should be secured.

7. HELM CHECKLIST

- **Check the fuel level** at the “Tank Tender” gauge at the helm.
 - *Push and hold* the button marked “Tank 1”, then pull out the PUMP knob to the right and slowly pump once or twice. Read the *outer scale* where the *needle comes to rest*. The gauge will indicate in inches the amount of fuel in tank 1.
 - The table to the left translates inches into gallons.
 - Repeat the procedure for tank 2.
 - See fueling instructions below if fuel is needed.
 - Record fuel quantity, engine hours, and date in the log book.
- a. **Check the water level** at the “Tank Tender”—Tank 3, in the same manner as you checked the fuel.
- Read the *inner scale* where the *needle comes to rest*; then convert it to gallons using the table to the *right*.
 - You can also check the water level on the separate gauge above the ignition key. Turn the key in the ignition to the ON position. Note the water level on the gauge, then **TURN THE KEY OFF**, or the noise will drive you crazy!
 - See instructions below for adding water, if necessary.
- b. **Start up the LARGER Raymarine E120 multifunctional display** by *pressing* the red button in the lower left hand corner of the unit. Follow the prompt on the screen. The E-series Display has many functions, navigational and safety, including radar. *Study the Raymarine Operating Guides in the magazine rack behind the Helm station* to set up the display in the manner most useful to you.
- c. **Then start up the SMALLER Raymarine E80 multifunctional display** by *pressing* the red button in the lower left hand corner of the unit.
- d. **Turn on the overhead VHF radio** by pressing IN on the volume control knob.
- **Check the weather channel (3rd button from the left marked CH/WX).**
 - **Select Channel 16 (1st button on left).**
- e. Turn on the **Raymarine VHF radio** located on the left-hand side of the helm station by pressing the power 16/9 button.

GETTING UNDERWAY

1. Make sure that the **shift lever is in the neutral position**.
2. **Turn the ignition key ON**. Wait a minute as the VOLT METER at the helm panel rises to or near the 12 volt level (the red marker.) as the preheat operation is completed. (The oil light may come on, but should go out once you start the engine.)
3. When preheating is complete, **push the START button while the key is in the ON position** to start the engine. *Note: “Do not crank engine for more than 30 seconds, wait 2 minutes to allow the starter motor to cool down before restart attempt.”*
4. **Check that cooling water is coming out the engine exhaust**. (Look down at the water from the starboard side of the cockpit for a little water coming out with the exhaust . If no water flow is visible, check in the engine room to see that the seawater intake seacock is open!)
5. **Let the engine idle** for about 5 minutes or until the engine coolant temperature gauge reads above 100. *Note: During warm-up at idle, the volt meter will register between 10.5 and 12 volts as the preheater cycles. The*

temperature indicator will not show any indication of heat until the engine has been running for several minutes. Keep the engine below 1000 RPMs for five minutes, as the preheater cycles on and off as needed during this time period. RPMs over 1000 block the preheating function.

6. Turn on the bow thruster by pushing the 2 ON buttons simultaneously. The yellow light between the buttons will come on. Toggle the joy stick momentarily in both directions to ascertain that the thruster is functioning properly. (If it is not functioning, check the breaker on the starboard side of the bed in the forward stateroom.)

- The bow thruster is used primarily in maneuvering at or near the dock. In open water while underway, the thruster is not effective.
- The bow thruster will turn off automatically after a period of non-use. Restart in the same manner.
- The thruster may overheat and stop after 3 minutes of continuous running. After a brief cool-down period, it resets itself.

Use the bow thruster to control the movement of the bow while operating the throttle *in short bursts* of forward or reverse, pausing in neutral, as you maneuver in the marina.

7. Check wind and current directions.

Note: when using reverse, the *STERN WALKS TO STARBOARD.*

CRUISING

1. When clear of the marina, make sure **all mooring lines, fenders and anything loose are stowed.**
2. Operate the engine no faster than 1000 rpm until the coolant temperature reaches 140 degrees.
3. Monitor the engine instruments at the helm station while cruising.
 - Volts should read between 13 and 14 at normal cruising.
 - Water temperature should be between 180 and 190 degrees.
 - Oil pressure should range between 45 and 70 depending on RPMs.
 - Vacuum gauge for the RACOR fuel filters should read below 7 while cruising.

Radar: If you want the Radar on:

- Press the red power button at the bottom left of the Raymarine E120 multifunctional display.
- The bottom of the screen will show:
 - Radar “TX” (transmit) or “STDBY” (standby). Select TX.

Windshield Defroster

- At the battery power panel, turn ON the “defroster” circuit breaker.
- At the helm station, turn the “defroster” toggle switch up.
- Make sure the vents under the windshield are clear.

Windshield wipers

- Turn ON the wiper circuit breaker at the Battery Power Panel.
- There is an ON/OFF knob for each wiper at the helm station.

Engine Heat can be used to heat the pilot house, passageway and head while underway.

- At the helm, in the center of the control panel, is a HEATER switch with 3 speeds for the blower: high, medium or low. Select the desired speed.

RETURNING TO DOCK

1. Fenders out and
 - a. On docking side of the boat
 - b. At appropriate level for the dock
2. The engine cool down period (the last 5 minutes) should be at idle to allow the engine to cool down before shut off.
3. Once docked and the mooring lines are secure, turn off the engine.
4. *The SMALLER Raymarine multifunctional display should be shut down before the larger one. Press and hold the red power button in the lower left corner for the countdown on the screen. Please re-place the screen cover over the screen.*
5. Shut down the LARGER Raymarine multifunctional display by *pressing and holding* the red power button in the lower left corner for the countdown on the screen. Please re-place the screen cover over the screen.
6. At the BATTERY POWER breaker panel next to the helm station
 - a. Turn OFF the UPPER ELECTRONICS and LOWER ELECTRONICS.
 - b. Leave ON the DC Power circuit breaker.

CONNECTING TO SHORE POWER

1. At the SHORE POWER OR GENERATOR distribution panel at the side of the helm, make sure the circuit breaker marked SHORE is in the OFF position.
2. Take the bright yellow electrical cord located in the Lazarette and connect it to the receptacle located forward of the starboard helm door. Line up the prongs, insert the plug, turn, and tighten.
3. Locate the power supply on the dock, making sure that the breaker on the dock is in the OFF position. The yellow electrical cord is 30 amps. Check the amps for the shore power pedestal on the dock, and use an appropriate adapter, if necessary. Connect the electrical cord to the dock power source, matching prongs, twisting, and tightening. Then turn the dock power source ON.
4. Return to Weak Moment and turn the SHORE circuit breaker to the ON position.
5. Verify that you have power to the main electrical distribution panel by looking at the AC voltage gauge on the SHORE POWER OR GENERATOR distribution panel. The digital gauge should display voltage above 117 to be receiving adequate voltage.
6. Turn ON the desired AC circuit breakers, including REFRIG.
7. Do not run the AUX Heater and the HOT WATER HEATER at the same time on shore power.

CLOSING THE BOAT

1. Close windows and hatches, unless you want to leave some open for ventilation.
2. At the BATTERY POWER distribution panel next to the helm
 - a. Turn OFF the FRESHWATER and HEAD circuit breakers.
 - b. Leave ON the DC POWER circuit breaker.
3. At the INVERTER/CHARGER panel above the circuit breaker panels next to the helm
 - a. Turn OFF the Inverter, so if shore power should fail, an onboard appliance will not draw down the house batteries.
4. Lock the doors.
5. On the dock, check the position of all fenders and see that mooring lines are secure.

