

**OPERATIONS MANUAL**  
**for**  
**m/v Annecole**



**Navigator Motoryacht - Rival 5700**

# Welcome aboard!

We are happy you have chosen “ANNECOLE” for your vacation. We are sure you will enjoy cruising the enchanted islands of the Pacific Northwest. The stunning geography, birdlife, and incomparable marine life make this one of the premier vacation destinations in the world.



We trust this manual will help you become familiar with the boat. If you have questions about the boat or about places to visit, please do not hesitate to ask the AYC staff.

We invite you to share our dream and realize the breathtaking beauty of the Pacific Northwest including Desolation Sound...

**Enjoy!**

## Getting Started

Welcome to the Annecole. This section is meant to include some important items when getting started with the Annecole.

### Downloads

To make efficient use of the Annecole and maximize your experience, there are a number of free apps that will improve your experience. The following are recommended apps to be downloaded from the App Store on your smartphone:

App	Purpose
<b>RayRemote</b>	Allows for connectivity to the Multi Function Displays (MFDs) via smartphone or iPad. Once connected, functions on the MFDs can be done via the iPad or phone. This is best done on an iPad as the touchscreen from the iPad is duplicated on the MFDs. Smart phone interface is a little different and not nearly as intuitive.
<b>FusionLINK</b>	Connects to Fusion stereo system – I don't really recommend this, but it can be fun – but since the MFDs are already connected to the Fusion system (flybridge stereo system) there is really limited need for this app...

Other favorite apps include the following:

<b>Navionics Boating</b>	Navionics App. Great app for assisting with routing and navigation – has great routing and go-to features that I like and are easy to use and is simple to use on an iPhone or iPad – costs around \$25 for the US/Canada version... I renew on my phone every year...
<b>Tides Near Me</b>	Shows current tides at selectable locations and nearest location
<b>The Weather Channel</b>	Good for forecasting out future weather by time – seeing how clouds/rain will move
<b>Dockwa</b>	Shows some marinas in Washington including location, prices / ft and more info about the marinas – some popular marinas are not included.... (Roche, Friday, etc)
<b>Fish Washington</b>	Updated fishing regulations in Washington
<b>Ship Info</b>	Shows vessel identification info
<b>Windy.app</b>	Shows current and <b>forecast</b> winds for selected areas

## **Stereo/Video Entertainment**

Once you understand how the stereo/DVD/smartTVs are integrated, the connections of the stereo are simple to understand. Basically, ROKU and DVDs go directly to TV. The Salon TV input should be set to the desired HDMI input (Roku is either HDMI1 or ROKU). If DVD watching is desired – change the TV input to COMP and the Yamaha input to Audio1/DVD. The DVD player sound will only play through the Yamaha receiver.

If you want to listen to music – the most popular/favorite way is to use Bluetooth to connect to the receiver then stream the desired music from a smartphone.

Note: The Salon TV is not responding to remote control signals so the TV will need to be manually turned on/off and the input selected manually (ie. no remote). The buttons for the TV are on the rear left side of the TV when facing it – you will need to reach around the TV to access the buttons and no moving of the TV is necessary; the top button on the back of the TV is power and the bottom button is the input selector. If listening to TV through TV – the volume are the 3 and 4 buttons from the top on the back of the TV.

## **Electrical**

The Annecole has three chargers for separate battery banks. Most of the lighting is LED so it takes very little power for the interior lights. The bigger drains of power are the refrigerators (main and flybridge) and the ice maker. They are all powered by 120V AC through the inverter. If on the anchor and needing to conserve power – it is common to place ice from the icemaker in the freezer and turn off the icemaker if it won't be needed. If you do turn off the icemaker, make sure the ice box in the icemaker has been emptied as it will all turn to water over time and spill. When on anchor – the genset will generally recharge the battery banks by running for an hour or two in the morning and an hour or two in the evening. For certain items – it is required or recommended that the genset be operating when on anchor – including electric BBQ, washer/dryer, stove, toaster, microwave, and the hot water heater. All of the chargers and batteries are new in the past couple of years.

## **Tender**

Loading and unloading the tender for the Annecole is controlled by a remote control davit system. There is a black handheld wired remote control on the seats near the davit. To operate the remote control – the Davit switch on the main switch panel (in the Salon) should be turned on.

## **Autopilot Wireless Remote**

The Annecole has a wireless remote for the autopilot system located in the pilothouse and a wired remote on the flybridge. The wireless remote is a very convenient way to control the boat and is a favorite of many charterers. The wireless remote, located on the starboard side of the pilothouse steering wheel needs to be charged periodically. There is a charger cord below the remote wall storage and the remote should be plugged in and charged periodically. Note: the brilliant Raymarine design of the remote does not allow it to be turned off when it is plugged in, so once charged – unplug the remote and it can be turned off.

## Communications/Networks

The Annecole has recently been outfitted with Raymarine Axion + MFDs/electronics. They are integrated with the radar, stereo, GPS and certain other functions within the boat. If you are interested in wirelessly connecting to the MFDs from an iPad – using the RayRemote or RayView apps (these don't allow access to the internet) passwords for the MFDs are "ronius22".

## Transmission – electronic ZF transmission

When the transmission is powered on from the Main panel in the Salon – a beeping can be heard from the pilothouse and flybridge transmission levers – simply push the button on the front of the lever controls – this tells the electronic ZF transmission control system that those control levers are active. Pushing the front button on the flybridge control levers will activate those control levers – only one set of control levers can be active and can be switched from the pilothouse to flybridge and vice-versa.

## Shorepower Cablemaster

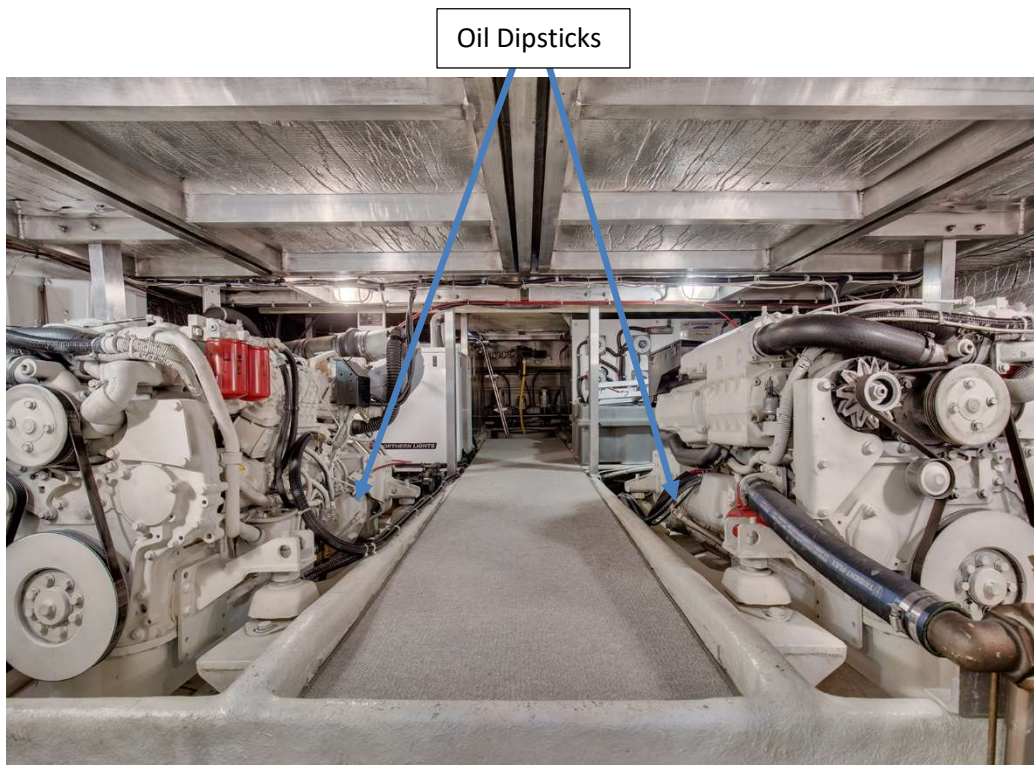
The Annecole has an electric cable reel system that automatically reels in or feeds out the shore power cable. This is generally a two-person job – one to help feed the cable straight into the Annecole and one person to **FEED the cable into the circular holding bin below deck** – always feed the cable into the bin – **don't let the cable feed into the aft bilge area or it may get tangled in the steering gear**. **IMPORTANT:** Make sure to **close the stainless steel hatch to the shorepower cable** when it is reeled in as seawater can and does come up over the swim platform and will get into the aft bilge.

## BOAT OPERATION

### Engine Inspection

ANNECOLE's engine room can be accessed via the rear hatch located in the aft cockpit or through the lift-up stairway between the salon and the galley. When lowering the lift-up stairs even though they hydraulic arms on both sides to aid in lifting – let them down slowly – don't let it slam as damage may occur. Down the stairs, you will enter into a large storage area where you will find a toolbox with many relevant tools in case the need should arise. There is a spare water pump and miscellaneous parts, fuses, cleaners, etc. are there as well. Additionally, in the storage area are the hot water heater (port side), the diesel furnace (starboard side) and extra sorbs. The main freshwater pump is also in the storeroom mounted fore of the diesel heater and thruster battery bank. Through the door to the engine room provides access to the engine. Checking the engines is not difficult nor time-consuming.

There are two sets of lights for the engine room. One on the main electrical panel on the 120V side. There are also 12V lights in the engine room; there is a switch for the 12V lights located in the storage room outside of the engine room. The engine room 120V lights are LED and they are commonly left on – these provide the most light to the engine and storage rooms. The switch for the engine room 120V lights is on the main breaker panel (side 2 of the 120V section).



(ANNECOLE's engine room looking from the storage room aft)

ANNECOLE has twin Volvo TAMD63P Turbocharged/Aftercooled Engines with counter-rotating screws. These engines are both fuel efficient and yet have ample power to get the boat to a nice cruising speed.

Remember your “**WOBBS**” every morning: **W**ater (Coolant), **O**il, **B**ilges (Inspect and Pump-out), **B**elts and **S**ea Strainer.

**WATER** Check the COOLANT level in the expansion tanks; you should see the coolant about 2” below the top of the expansion tank. CAUTION, do not remove the pressure-cap to the expansion tank when the engines are hot!

Coolant can be found in 1 gallon bottles in the storage area in front of the engines.

**OIL** Engines. Check the oil level on both engines. ANNECOLE’s engines do not burn much oil so these levels should remain fairly constant. The level should be in the middle but not over the top of the tic-marks on each dipstick. Please use a paper towel or oil rag, not the dish towels to wipe-off the dipstick! **DO NOT OVERFILL OIL!** Don’t add oil unless the oil level is at or below the bottom tic-mark on the dipstick. Conversely, only add oil (DELO 400 SAE 30) to bring the oil to the tic-mark on the dipstick.

Transmissions. Check the oil on both transmissions ANNECOLE’s transmissions burn no oil. If you experience severely low oil, the likelihood is that the heat exchanger has failed. If so, DO NOT START that engine or you will pump oil into the water. Check the Transmission oil levels with the engines running at idle and in neutral.

An unreliable method of checking the transmission oil levels is to do it cold with the engines OFF. The oil level will need to be  $\frac{3}{4}$ ” above the “Fill” tic on the dipstick.

If you need to add oil, only use (Delo 100 SAE 30)

Oils can be found at the forward end of the starboard or port engine.

**BILGES** ANNECOLE’s bilges should always be clean and dry. Make it a practice to turn on bilge pumps briefly every other day. Pay attention to water dispersing and investigate anything unusual.

**BELTS** Check the general condition of all BELTS (missing teeth or cracks) and HOSES (checked, cracked, bulging/swollen, or kinked). Several replacement belts can be found at the forward end of the starboard engine.

**SEA STRAINER** These are located at the forward end of each engine. Check the SEA STRAINER for debris (use a flashlight to shine through the bowl). To clean them, close the THRU-HULL, unscrew the wing nuts at the top of the sea strainer, pull and clean the basket, clean out the glass, put the basket back in, **be careful to ensure that the strainer seats in its resting area, this is a little more of a challenge than on most boats I’ve experienced** – screw the top back on – **if it doesn’t snugly fit on the top – don’t force – it means that the strainer isn’t properly seated**; twist and turn the strainer body until it seats and once the top is snugly tightened, OPEN THE THRU-HULL (lever in line with the valve body).

Be alert for any leaks; leaks (coolant, water, diesel, oil, hydraulic fluid) are not good! Look at the “sorbs” under the engines. They should be clean and white. There will be occasional oil blowback on the sorbs, minor drips of oil/grime. If there is anything more than very minor drippage/grime, note where the leak is and take the appropriate precautionary actions.

## Engine Start-Up

1. Before starting the engines, do your WOBBS inspection – **EVERY TIME!**
2. The engines should be started from the lower helm station, where the keys are generally permanently left in place;
3. Ensure that the white “electronic transmission” switches located at the bottom left on the main electrical panel are switched on (the engines won’t start unless these are turned on);
4. Once the electronic transmission switches are switched on, an alarm will sound and a station needs to take control of the transmission; press the button at the bottom front of the transmission lever control mechanism – the alarm will stop and four red lights will light up indicating that the control of the transmission and throttle is now from the lighted up station (see subsequent section for switching control stations to the flybridge or to the remote station, if available);
5. Insert both keys into the IGNITION SWITCHES in the pilothouse (chances are – they will already be there – I generally never remove them);
6. START the port engine first, let idle for 30 seconds and then start the starboard engine.
  - a. Turn the port engine key clockwise partially until the ENGINE panel lights up (next to the hour meter for the engine); if lit and no error, continue to turn the key clockwise until the engine starts. If for some reason the engine doesn’t start or you release the switch before the engine starts, turn the key counterclockwise as far as it will go; this resets the engine; try starting the engine again. Once started, repeat for the starboard engine.

*Note: ANNECOLE’s Volvo engines should start easily on the first try. If the engine cranks slowly or fails to turn over, consider charging the starter battery using its battery charger by firing up the genset and turning all of the chargers on. If this doesn’t work, then with the chargers off and the engines off, switch the combining switch ON to combine the house batteries with the start battery to provide additional power to the engine. After the engines are started, turn the combiner to OFF.*

(Main Battery Switches – 12V system)



(Main Battery Switches – 12V system)



## Engines

These Volvo engines have two exhaust ports each. On each side at the aft of the boat, you will generally see the starboard engine exhausting fumes **and water**. On the port engine side, you will generally see **only fumes**. There is another exit for the exhaust underneath the boat on either side. This is normal for the Annecole. Should you be concerned about not seeing any water flowing out the rear exhaust on the port side, check the sea strainers' water flow to make sure you see flow.

**Note: At all times in the engine room, be careful of moving parts, particularly the fan belts and all related pulleys that are turning. Watch hair, loose clothing, where you put your hands, etc.**

When at idle, Annecole idles at about 600rpm per engine.

## Running the Engines

After the engines have been run up to temperature for at least an hour you should “run them hard” for a few minutes at 2200 rpm. Believe-it-or-not, doing this helps the engines, makes them run cleaner, and makes them run more efficiently.

## Shut-Down

Before shutting down, allow the engines to ‘idle’ for about 5 minutes to cool them gradually and uniformly. Usually, this can be accomplished as you enter the marina and head for your slip or as you drop your anchor and get a good “hook”. The time engaged in preparing to dock the boat or anchor is usually sufficient. Ensure each engine control is in the “neutral” position. Turn off engines by turning each key counterclockwise as far as it will go and hold the key there for 3 seconds, then release.

## Getting Underway

Disconnect Shore Power

There are two ways to connect the shore power, with the Glendenning Cablemaster (motorized cable pulley system, reeling the cable in or letting the cable out) or directly with the aft shore connector on the starboard side of the boat (there is a 25' 50A power cable on the boat and that is the encouraged way to access shore power). Depending which way you decide to connect to shore power, there is a selector switch in the aft of the boat, below decks. Access the switch using the cockpit hatch. You will see the selector switch – select which source that you want to use for your AC source before connecting to shore power. Note: as of June 2021, the alternative shore power cable has been removed as the cablemaster is by far the favorite to be used by charterers.



If using the Cablemaster, perform the following:

- Turn the 3-way switch to “Power Reel”. This switch can be found on the selector below decks aft as described above.
- Turn on the breaker on the electrical panel entitled “Glendenning” – this switch should normally remain off as indicated by the “red dot” on the electrical panel. The breaker switch is on the main electrical panel above the electronic transmission switches at the bottom left of the panel. This switch provides power to the manual 3-position switch in the aft storage compartment.

- The 3-position switch to operate the Cablemaster is located in the aft storage compartment. Slide open the storage area's starboard door as far as it will go and at the top of the cabinet you will see the switch.



If the cable is being brought in:

- Turn off the main electrical panel “120V SHORE POWER” breakers as listed on the Annecole main panel
- Turn off the dockside breaker
- Disconnect the shore power cord at the dockside receptacle
- At the 3-position switch in the center of the storage compartment (up is OUT, middle is OFF, down is IN), move the switch to the down position. **MAKE SURE THE CABLE DOES NOT GO IN THE WATER!!!**. Have someone help guide the thick 50A cable through the through-hole, being careful not to chafe the sides. At the same time, someone will need to **ensure that the cable feeds into its round container below-deck**, if someone doesn't, the cable probably will not feed into its container and will be all over the place belowdecks and could get in the way of the steering connectors and otherwise cause major problems



Feed power cable into the round bin while it is incoming

- The Cablemaster will turn off when the shore power cord is fully retracted. Move the switch to the middle position; close storage compartment door.
- Close the outer through hole from swim platform and hand tighten; leaving it open will allow water from the stern to come in through the opening; not a good situation!!
- Turn OFF the Glendenning breaker on the electrical panel.

If it the cable needs to go out:

- Perform the reverse of the above.

When feeding the cable out, have someone walk the cable out until enough cable is needed, making sure that the cable is not chafing the sides of the metal through-hole. Then perform the above in reverse order.

Close the PORTHOLES (in the staterooms), close the WINDOWS (salon and galley), and close the FORWARD HATCH (VIP cabin). Lock the refer and freezer with their locks – yes the refrigerator door has flung open with everything spilling out. The icemaker also has a latch, but I've yet to see that come open.

Turn ON all electronics except those with a Red Sticker next to them – these should be turned off unless there is an immediate plan to use the item (ie. macerator, Glendenning Cablemaster, spare, water pump (for saltwater washdown at bow of boat), windlass, davit, etc.)

ASSIGN crew members their various positions.

Once outside the marina, idle the engines while crew brings in fenders and lines. Do not exceed 1,200 RPM until the engines have fully warmed-up.

## Cruising

All close quarters maneuvering may take place from either helm station depending upon your skill, situation, crew, and communications. Communication is critically important. Nothing bespeaks great seamanship like a crew quietly and competently maneuvering the boat and handling the lines while docking. No yelling, shouting, or panic; just calm control.

## Pilothouse Command

Personally, I like to perform close quarter maneuvering from the pilothouse with someone standing at the open pilothouse door, if available, and someone standing at the stern communicating positioning (both salon doors open). There is reasonably good visibility to the stern from the pilothouse. It's also recommended that the salon doors are open and the port side window in the pilothouse is open as well so that you can hear from the crew. Once someone is onto the dock – **without jumping**, the captain can help them secure the starboard midships dock lines as the proximity to the pilothouse door allows quick access to the starboard midship dock lines as appropriate (if someone isn't already there).



If docking with only two people, it's easiest to try and dock on the starboard side since there is good access to the midship and bow dock lines from the pilothouse.

## Flybridge Command



At the flybridge, you will find all of the controls for operating the boat as in the pilothouse. The bimini top, windows, and panels, are meant to be left in place. It is extremely difficult to put them back together if taken apart without ruining some things (zippers, et al) and **it can be very time consuming**. The front and main rear windows open and can be secured in their open positions with the provided snaps and straps. For the side windows, unzip across the top and side so that the window can be folded under, there is a piece of soft Velcro so that the window can be folded down against the Velcro so that the window doesn't get scratched.

Note: The analog camera in the cockpit of the boat is non-operational as of the date of this manual.

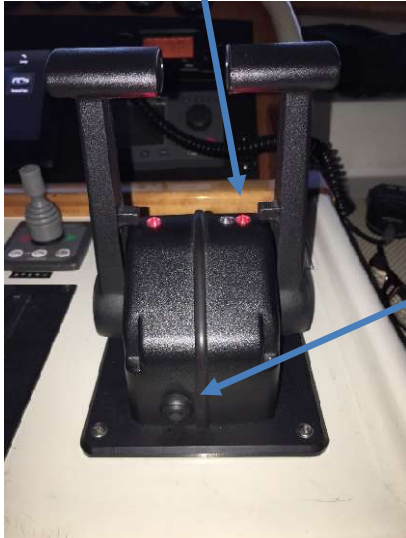
### ZF Micro-Commander Electronic Controls

These controls are effortless to use, almost too effortless. There is a delay before the transmission engages. BE PATIENT. The biggest issue that I have found with the shifters is that they are easy to “accidentally” leave in gear. The controls are precise and close and, because of the delay, sometimes it's easy to forget that one of the engines is in gear. Take your time and once you get the hang of it, it's a very comfortable drive system. Be patient and feel the detents on the levers. Do not fling them around. On ANNECOLE, a little goes a long way. When you put the boat in forward with both engines, it will lurch forward and can do 5 or 6 kts at idle. Be prepared. You may want to ease out on one engine (or rotate the engines one at a time to keep going straight). At slow speeds (ie. in a marina) I usually switch back and forth between the engines as each engine tends to force the boat in a different direction (prop wash) – with starboard engine engaged, the bow is pushed to port side; with port engine engaged, the bow is pushed to the starboard – all when going forward.

These controls are Reverse, Neutral, Forward; one lever per engine/transmission. You can only shift from Forward to Reverse by passing through Neutral. Do not “fling” the controls from Forward to Reverse or you will damage things.

ZF Micro Commander

Red lights indicate that this control set is in operation; the green light next to the red light nearest the starboard shift, when lit, indicates that the engines are synchronized. Tip: when shifting and the micro commander beeps, it means that you have shifted into neutral; conversely, when you shift and there is no beep, it has gone into gear (or is going into gear).



If you want to transfer control to the other station (flybridge or pilothouse), shift the levers that you are currently using to control the boat, into Neutral. Go to the other station, put both controls in Neutral and push the button on the lower front of the controls (CTRL button) and the red lights should light up and beep several times, indicating that control has been transferred to that station.

"CTRL" Button

**NOTE: do not push the button to take control of one station from the other while under power; it will immediately take the power down to zero and shift the gearbox into neutral – this is not good for the transmission! Wait until the soon-to-be former station has been shifted into neutral!**

Cruising speed is a maximum of 2,500 RPMs (WOT is 2800 RPM). If you run at 1,200 – 1,600 RPMs you should cruise at 10-12 knots depending on the weather and currents and make efficient use of fuel; this is considered efficient cruising speed. If you travel a bit slower, your fuel efficiency will increase. Your speed will vary depending upon the weight, load, sea, current, boat bottom and weather conditions. At low speeds, the TRIM TABS do not have much effect. If you want to run faster or balance out the boat, the TRIM TABS can be put in the "bow down" position to provide for a better and more efficient ride (though still consuming more fuel than travelling at lower rpms).

## Bow and Stern Thrusters

There are controls in the pilothouse and on the flybridge. These are meant to augment and help control the boat, allowing the bow or stern to move sideways. Warning – this is a 57,000 lb boat, the Bow Thruster is fairly powerful, but the Stern Thruster is not as powerful given its intended role – it will not have a large effect – do not count on it to move the boat significantly sideways against current or wind. Also keep in mind that given the pivot point on the boat – giving stern thrust to the starboard side, will also make the bow move to the port and vice-versa.



To turn "ON" the Thruster, press the two "ON" buttons on each thruster lever simultaneously and an **amber LED should come on** between the two ON buttons – indicating that the thrusters are ready to be used with the lever. Moving the lever moves the boat in the direction indicated. NOTE: this ready position deactivates after approximately 10 minutes of inactivity – so don't activate the thrusters when you are 15 minutes from docking, because by the time you start your maneuvering, they may be off when you go to use your thrusters!

These are electric thrusters. They are not meant to run continuously. Only run them for short periods of time (no more than 10 seconds with at least 10-15 seconds of rest between bursts). The thrusters run on 24V and have their own battery bank and charger – located on the starboard side of the boat in the storage room under the salon accessible by raising the stairway. The thruster battery bank is charged via its own

charger. So, if you are at anchor – run the genset to charge the batteries (for that matter – all chargers should be running – the genset is a monster for this boat, and when the genset is running, I like to run as much as I can to put a load on the genset) – there is no charging of the thruster batteries by the engines – only its dedicated 120V charger. **DO NOT STORE ANYTHING ON THE THRUSTER BATTERY BANK BOX in the storage compartment as the diesel heating system is there and gets very hot and can burn whatever is touching it.**

## Trimtabs

Annecole has Bennett trim tabs to adjust the riding angle of the boat. The controls are next to the ZF Micro-Commander Controls.

Note: make sure the trimtabs are in the “UP” position before backing down. If the trimtabs are down it will reduce maneuverability and could damage the trimtab mechanism. Push and hold the rear of the trim tabs to lift them all the way up. Pushing the buttons forward pushes the trim tabs down which also makes the bow go down while under power.



Trim tabs

Stern thruster in pilothouse (bow thruster on other side of steering wheel)

## Docking

During docking, have your crew make ready the lines and fenders in advance and give clear instructions on how you will be docking. Often times your crew will need to step off from the swim step with the stern line. **DO NOT JUMP OFF THE SIDE DECKS OF THE BOAT – THAT’S A GOOD WAY TO GET INJURED.** Another crew member will need to be at the bow or mid-ships to hand over the next lines.

Rock TRIM TAB switches to the ‘bow up’ position (8 to 10 seconds) to make slow-speed backing and turning easier. While moving slowly to the dock or mooring location, center the WHEEL (e.g. rudders straight) and use only the engine controls to maneuver the boat.

A word of experienced advice... Use one of the longer black dock lines at the looped-end amidships. Make it fast to the boat’s midship cleat. When you come alongside a pier, slip, or dock you can lasso the dock cleat and then make fast the bitter end to the midship cleat (so you essentially have a loop). Now the helmsperson can take their time as you have the boat under control. Power forward slowly and the boat will move forward and sideways towards the dock or you can accomplish the same maneuver in reverse.

## Fueling Up

OPEN FILLER CAP(S) located on the port and starboard decks in the cockpit. Note that these filler caps do require a DECK FITTING KEY. Deck fitting keys are in the top right had drawer to the right of the galley sink or in the stern locker. Both tanks are interconnected. The most efficient way to fill the tanks is to fill one tank, then fill the other then, finally, go back to the first tank because diesel will have flowed to the other tank while refueling it.

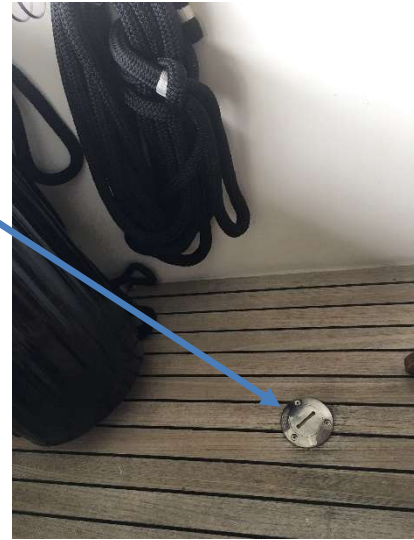


Diesel Fill

<<<< Starboard Port side >>>>

**MAKE SURE YOU HAVE THE  
RIGHT FUEL!**

**DIESEL! DIESEL! DIESEL!**



Before pumping, have an oil/fuel sorbs handy to soak up spilled fuel. There should be some in the stern locker and there are many in the below deck storage area. You should have a rough idea of the number of gallons of DIESEL you will need by the fuel tank level indicator on the pilothouse console. Place the DIESEL nozzle (the filler necks are sized for “high-speed” pumps) into the tank opening, pump slowly and evenly, and note the sound of the fuel flow. Pumping too fast may not allow enough time for air to escape, which may result in spouting from the tank opening. As the tank fills, the sound will rise in pitch or gurgle; the sound may indicate that the tank is nearly full. Pay attention to the TANK OVERFLOW VENT on the outside of the hull near the fuel fill opening. Do not over fill. Top off carefully and be prepared to catch spilled fuel. Spillage may result in a nasty fine from law enforcement.

Replace each tank cap. *Caution -- Clean up splatter and spillage immediately for environmental and health reasons. Wash hands with soap and water thoroughly.*

Fill the DIESEL fuel tanks FULL, but do not overfill.

## BOAT ELECTRICAL

There are 3 charging sources for Annecole’s electrical systems. These are ShorePower, Genset, and Engine Alternators. The main electrical panel is located aft on the port side in the main salon. There are markers next to certain breakers. Generally, under power all switches should be on EXCEPT the ones marked in PINK. The PINK dot breakers should only be turned on when the related item is needed. Note that the stereo breaker turns on the amplifier that powers the outdoor speakers which are non-operational and therefore, should not be turned on. The other PINK switches should only be turned on as needed. The ones marked in yellow, can be turned off while not under power (ie. while on the docks). Obviously if you are interested in programming some routes or something while sitting at the docks, the electronics should be turned on.



Analog meter for HOUSE bank only. While charging should get close to 14V; if it gets below 12V, charge with generator and battery charger on or shorepower

- **“Water pressure” breaker** - powers saltwater pump at bow of boat-NOT THE FRESHWTR SYSTEM;
- **“chart/lighter” breaker** - powers the stereo on the flybridge as well as the chart lights, lighter, and USB adaptors; the
- **“spare” breaker** - powers the aft blue underwater lights; there is an on/off button for the lights on the port side of the salon wood cabinets at the sliding doors
- the rest of the breakers are self-explanatory.
- Don’t turn on the macerator unless you want to begin macerating and discharging from the boat (illegal in US waters). The switch on the main panel immediately turns on the macerator.

*Note: the meter on the DC panel shows the voltage of the house batteries only – monitor this. If it falls below 12V, fire the genset up and charge all the batts on the boat. Under power, these house batts should be getting close to 14v. For the DC power, normal operation while stationary is to leave all the breakers on and only use the colored sticky items as needed – normally, the yellow sticky breakers would be on while the boat is under power .*

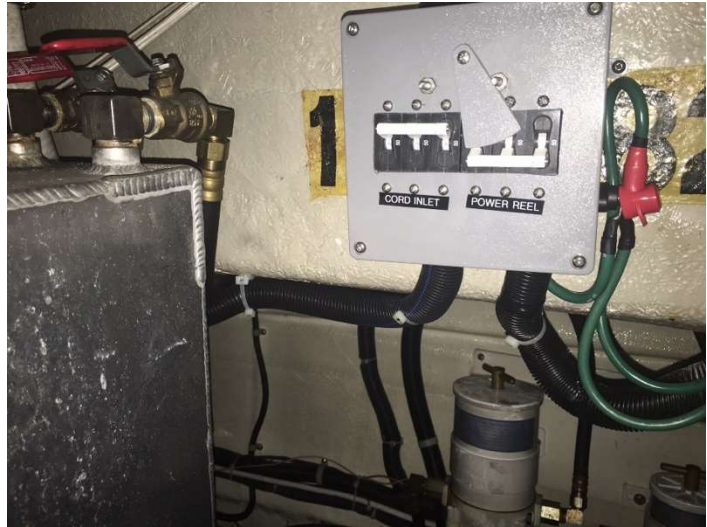


## ShorePower

Annecole has a Glendenning Cablemaster System for managing the connection from the boat to the shore (dock) with inputs of 230V 50A. There are multiple adapters aboard to accommodate 115V/230V 30A and 115V 20A. These adapters are in the stern storage compartment or in the aft cockpit below deck storage area.

### Connecting Shore Power

- Select either the Cablemaster “Power Reel” or the “Cord Inlet” if you are planning to use shorepower. As mentioned earlier, the selector switch is below deck in the cockpit accessed via the hatch – at the stern is the selector switch.
- Turn on the CableMaster / Glendenning breaker on the main electrical panel (lower left) if you plan on using the Cablemaster cord
- Turn off the dockside breaker
- Plug-in the shore power cord at the dockside receptacle.
- Turn the “AC Source Selector” switch to “Shore” on the main electrical panel. This switch can be found on the main electrical panel
- Turn-on the dockside breaker
  
- Above the CableMaster inlet in the aft storage cabinet is a 3-position switch (up is OUT, middle is OFF, down is IN). Move the switch to the up position. **MAKE SURE THE CABLE DOES NOT GO IN THE WATER!!!** Have someone assist with walking the cable in or out being careful not to chafe the sides of the cord on the through-hole. Move the switch to the middle position when sufficient cable is payed-out.
- Turn-OFF the Glendenning / CableMaster breaker on the main electrical panel when not in use.



### Disconnect Shore Power

- Turn the “AC Source” switch to “OFF”. This switch can be found on the main electrical panel.
- Turn on the “Glendenning/CableMaster” breaker on the main electrical panel.
- Turn off the dockside breaker
- Disconnect the shore power cord at the dockside receptacle.
- Move the cablemaster switch to the down (“IN”) position. **MAKE SURE THE CABLE DOES NOT GO IN THE WATER!!!** Have someone carefully feed the cord in so it doesn’t chafe on the sides of the cablemaster through hull. The CableMaster will turn off when the shore power cord is fully retracted. Move the switch to the middle position; close and latch the door.

- Turn-OFF the CableMaster breaker on the main electrical panel.

## Genset

Annecole is equipped with a Northern Lights 12kVA generator (genset). This can be used when on the anchor, while under power or when at the dock where there is insufficient shore power supply.



Genset starter controls. Push and hold left button for 5-10 seconds, then, while holding the left (preheat) switch, push the top of the right rocker switch until genset starts. To stop, press and hold down the right rocker switch.

### Starting the genset:

- Turn both of the “AC Power” switches to “OFF”. These switches can be found on the main electrical panel.
- Hold down the left “Preheat” switch for 5-10 seconds.
- While continuing to hold the “Preheat” switch, press the top of the generator toggle. Continue to hold until you hear the genset start and run smoothly (3-5 seconds). Then release both switches.
- After letting the genset warm up for a minute, you may place a load on the genset by moving the “Generator” switch on the lower main panel.

### Stopping the genset:

- Just reverse the procedure above.
- Remove the load from the genset by moving the Genset “AC Source Selector” switch to “OFF”.
- Wait 1 minute.
- Stop the genset by pressing the bottom of the generator switch. Hold the switch down until the genset stops.

## Engine Alternators

Each engine has its own alternator. They charge the start battery, then when the start battery is fully charged an ACR (automatic charging relay) is in place that will then allow current to pass through to the house and genset batteries.

## Battery banks

Annecole has multiple battery banks – all of which require **no maintenance** except the genset battery. The house and start batteries are AGMs (8Ds). The thruster bank consists of (2) AGM 8D batteries and the inverter bank consists of (4) Fullriver L16 AGM batteries. The genset battery, charged by the house bank charger is a standard battery and requires periodic monitoring and maintenance.

The banks are:

- Main house bank – (2) Northstar 12V 8Ds-NS AGMs (approx. 440AH at 12V), aft of the port engine
- Engine start battery – (1) Northstar 12V 8Ds-NS AGM, aft of the port engine
- Thruster bank – (2) Northstar 12V 8Ds-NS AGMs (wired to 24V) storage area starboard side
- Inverter bank – (4) 6V Fullriver L16 AGMs (DC400-6 wired to 12V, 415 AHs X 2 = 830 AHs), port side of port engine (8/2020)
- Genset battery – (1) 12V standard size battery

### Chargers/Inverters

There are three battery chargers on Annecole. One is also an inverter. The inverter charger (white Magnum) is located in the storage area fore of the engine room on the port side. The control panel for the Magnum is in the salon area aft on the port side aft as mentioned above.



This is the remote battery monitoring system for the **inverter system and battery bank** which consist of (4) L16 AGMs that require no maintenance. It displays current status and voltage of the inverter. If voltage drops below 12V, charge using the genset. The inverter is in the storage area below the salon stairs and was installed new in 2019. The batteries are on the port side of the port engine.

This is the remote control panel for the **house batteries (AGM 8Ds - 2019), the starter battery (AGM 8D) and the genset battery**. It displays current status and voltage of the batteries and charging amps and charging state. The battery charger is on the wall aft in the engine room port side and has a full selection of controls – you should have no reason to change any of the settings.

The thruster bank control panel can be turned on or off via the button. The thruster charger is located on the starboard side in the storage room mounted against the engine room wall. The 24V thruster battery system is also there and consists of (2) AGM 8D maintenance free batteries. You should have no reason to change anything on this charger. **DO NOT STACK ANYTHING ON THE THRUSTER BATTERY CASE IN THE MID STORAGE AREA. THE DIESEL HEATER EXHAUST GETS VERY HOT!!**

### Approximate boat current draws – DC (when operating unless otherwise stated)

Fwd/Aft Bilge	6.0	Master SR lights	1.5A/4.0A w/w.o bath fan
Trim tabs	4/8.5 A	Engine rm lts	3.5A
Wipers	6.5A	Cockpit lts	4.0A
Freshwater pump when pumping	2.0A	Pilothouse lts	1.1A
Stereo	1.5A	Tank monitor	0.6A
Autopilot	0.4A	Chart lighter/stereo/amp flybridge	2.3A
Electronic trans	always turn off after engines are shut off	Pwr seat	no draw when not using
Nav lts	3.4A	Electronics	6.8A
Arch lights	5.1A	Saltwater pressure	1.5A when in use/0A idle
Fwd lights	5.1A w/ fans and all lts	Diesel heating	approx 5A when on
Fwd lights w/o fans	2.8A		
Aft lights	1.1A		

Following are some notes/excerpts from the manuals on the three remote control panels – see the manual for more information on each of the chargers/inverters:

### Information about the Annecole Battery Chargers

#### Inverter Bank - Magnum Charger/Inverter MS 2812 (7/2019):



The inverter is the power source for all of the AC outlets on the boat, the refrigerator, the ice maker, the refer on the flybridge. It doesn't power anything requiring 220V or certain other items including: the



grill on the FB, Washer/dryer, hot water heater, stove, microwave – all of the aforementioned items need to be run while on shore power or using the genset. Note that the refrig's don't run on 12V, only AC, and leaving on the main refrigerator, the ice maker and the wine frig on the FB can drain the batts on the inverter bank. **Efficiency tip:** to make ice – put the made ice in a cooler or in the freezer then turn off the ice maker and if more ice is needed - turn the ice maker on when on shore power or when running the genset and leave on as long as necessary to make desired ice and offload ice to freezer or cooler.

- Power your TVs, stereos, plasma screens, and other sensitive electronics without worry. The pure sine wave inverter and power factor corrected charger provide clean, reliable inverter power with low total harmonic distortion (THD) of less than 5%.
- The extra large AC access cover with terminal screw block and 360° DC connection terminals with covers make this inverter more accessible when it needs to be.
- The MS Series comes in 12, 24, and 48 volt configurations, allowing you to choose the model that is right for you.
- Mount the MS Inverter/Charger on a shelf, bulkhead, or even upside down.
- The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.
- The MS Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.
- The MS Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

#### House/start/genset batts - Promariner Charger ProNautic 1250P (9/2018)

he charger is located in the engine aft of the port engine and is configured to charge the house batteries, the start battery and the genset battery. Key features include:

- Universal input (100–240V AC/50–60Hz), one charger for domestic and international applications
- Fully automatic, multi-stage battery charging of up to 3 battery banks
- Settings for lead acid, Gel, AGM or Lithium Iron Phosphate (LiFePO4) batteries
- Battery Temperature Sensor Included—adjusts charge voltage based on battery temperature
- Distributed-On-Demand™ Technology automatically senses and distributes up to full capacity to any one bank or combination of all banks
- ProMar Digital Charging Performance—12 selectable profiles and programmable



- Conservation Energy Saver Mode After fully charging and conditioning batteries, ProNauticP's Energy Saver Mode will monitor and Auto Maintain batteries only when needed, maintaining a full state of charge
- Digital Self-Calculating Absorption and Battery Health Reconditioning Mode Automatically programs conditioning time based on discharge state of batteries

**Owner note:** Check the voltage on the remote – it should be near 14 volts, if it is low or zero – switch the main panel charger switch off, wait until the display on the remote control panel shuts off (about 15 seconds), then turn back on – this is a known fault on this charger. This happens while on shore power or when the genset is on and when the charger should be charging....



### Thruster Bank - Samlex 24V charger – SEC–2425UL (10/2018)

The charger for the thruster battery bank is in the storage area fore of the engine room on the starboard side. The two 12V 8D batteries are wired in series to provide 24V to the thrusters. Key features include:

- Switch mode technology for high efficiency, lightweight and quiet operation
- Automatic operation for ALL Lead Acid Batteries Flooded, AGM or Gel Cell
- Can charge 2 banks of batteries simultaneously, no isolator necessary
- Can be used as a power supply or DC UPS when used in conjunction with a battery
- User Configurable AC Input voltage 120 or 230 VAC, 50 / 60 Hz
- User Selectable (by DIP Switch) for 2 or 3 stage, rapid and safe charging of stand-alone and loaded Lead Acid Batteries
- "Half Power Mode" reduces maximum charging current to half the capacity, allows for safe charging of lower capacity batteries
- Voltmeter and Ammeter for monitoring
- Fan cooled based on output current
- Protections: Short circuit, overload, reverse battery connection and over temperature
- Optional remote LED panel with 33' cable (model: 900-RC) for remote on/off control and indication of charging status - included
- Includes temperature sensor to prevent under/overcharging of battery if temperature varies extensively



**Remote control displays** operational status and charging stages using colored LEDs as follows:

- Green LED** – Marked "Power" – Indicates **ON** condition
- Green LED** – Marked "U Phase" – Indicates **Float** Stage
- Yellow LED** – Marked "U<sub>0</sub> phase" – Indicates Boost / **Absorption** Stage
- Red LED** – Marked "I Phase" Indicates **Bulk** Stage

## SANITATION SYSTEM

### **Marine Toilet**

It is important that every member of the crew be informed on the proper use of the MARINE TOILET. The valves, openings, and pumps are small and may clog easily. If the toilet clogs, it is YOUR RESPONSIBILITY! Always pump the head for children, so you can make sure nothing foreign is being flushed.

***Caution – Never put paper towels, tampons, Kleenex, sanitary napkins, household toilet paper, or food into the marine toilet. Use only the special dissolving marine toilet tissue provided by AYC.***

Note both toilets have their own macerators built into each unit. This is ideal as it prevents most causes of clogging toilets presuming you follow the instructions for not putting inappropriate objects into it.

Make sure the toilet breakers are on the main electrical panel are in the ‘ON’ position. These are normally left “ON” at all times.

On both toilets you will find one silver button on the sink base. To use the toilet, press and hold the silver button, bowl contents should go down the toilet and water should start to flow into toilet while the macerator grinder starts. Hold down the switch to allow adequate flow to get the waste to the holding tank. You can add water to the bowl holding the button down and letting go before it drops into the macerator.

Clean the toilet as necessary.

Remember, the two head systems are completely separate: If you have trouble, turn off the faulty head and use the other head; call AYC for assistance.

### **Holding Tank**

It is forbidden to discharge untreated sewage in inland US. waters, an area that includes all US. waters in which this boat operates. The boat holding tank must only be emptied at proper pump-out stations if it is in US. waters. (This rule applies in many Canadian harbors, but does not apply in Canadian open channels and waters at the time of this manual’s publication). However, in Canada, courteous practice dictates that the holding tank be dumped only when outside confined marinas or bays,

There is a gauge for the holding tank and for the water tank located on the pilothouse console – port side. Pay attention to the black water levels and pump out as necessary. DO NOT LET THEM OVERFLOW. Bad things and smells happen!!

## Macerator



**Switch on macerator pump.** Toggle on to start macerator only while through-hull to the starboard is open.

This and the below pic are views through the hatch in the VIP room under the carpet and pad. **NOTE: THIS SWITCH IS NOW LEFT "ON" AND TO OPERATE THE MACERATOR – TURN THE MAIN PANEL SWITCH TO ON ONLY WHEN WANTING TO MACERATE AND PUMP OVERBOARD WASTEWATER!!**

There is a macerator on the ANNECOLE for discharge of holding tank contents. The through-hull for the macerator is located belowdecks in a compartment accessed through the floor in the VIP stateroom. In the compartment, you will see some through-hulls, and pumps and the storage tank immediately below the opening. The largest through-hull to the starboard side is the waste/effluent through-hull. **This is normally left open (ie. don't close this valve and then turn the macerator on – this could be a major problem).**



**NOTE: THE MACERATOR SWITCH ON THE MAIN ELECTRICAL PANEL WILL START PUMPING OUT WASTE INTO THE WATER THROUGH THE THROUGH HULL. ONLY TURN ON THE MACREATOR SWITCH ON THE MAIN PANEL WHEN YOU PLAN**

**Through-hull for macerator.** This is a view through the hatch in the VIP room under the carpet and pad of the black water through hull.

**ON DISCHARGING WASTE.**

Of course, if the holding tank is full, the heads cannot work! Pump the holding tank (see below) when required...

## Pump out

At the Marine Pump-Out Station, remove the WASTE CAP located on the midships starboard side deck. Insert the pump-out nozzle into the waste opening. Double-check your deck fitting! Turn on pump and open valve located on the pump handle. When pumping is finished, close lever on handle and turn off pump. Remove SLOWLY from deck fitting. If there is a fresh water hose on the dock, rinse the tank by adding 2 minutes of water into tank. Then re-pump to leave the tank rinsed for the next charter. This also eliminates head odors.

## Water System

Below the cockpit deck under the hatch is a hose connection with a Y-connector. The Y connector has hoses coming from the dock water inlet on the transom (connects to the Y with the white cap), a spraydown hose to the aft is located in the stern storage area on the port side (white hose attached to Y connector) and finally, a connection back to the main water system. Keep the Y-connector on/off selectors closed when not using either the dock water connection or the spraydown.



Y valve – this hose connects to the dock input receptacle on the rear transom. Turn off when not connected to dock water.

Y valve – the white hose connects to stern freshwater washdown located in aft cabinet. Close when not using washdown.

## Fresh Water Tank(s)

The FRESH WATER TANKs hold approximately 170 gallons. There is a water tank gauge on the pilothouse panel right next to the black water holding tank gauge. There is a switch on the main electrical panel to turn the tank gauges on. The water fill tank is on the swim platform on the port side. Just above the fill tank opening, on the transom, is the water connect for dock water.

To refill the tank

1. Rinse off the deck around the WATER CAP on the port side of the swim platform at the stern of the boat.
2. Remove the WATER CAP. The key is in the top right drawer in the galley or also in the stern storage cabinet. Please return it when finished.
3. Fill the tank. Use a clean hose (There is a 25' and a 50' white hose in-between the fuel tanks under the cockpit hatch).

Avoid flushing debris from the deck into the tank opening. NEVER fill water and diesel at the same time!

## Fresh Water Pressure System

The fresh WATER PRESSURE PUMP is located on the floor in the starboard section of the main storage area under the salon stairs. There is an extra freshwater pump in this storage area should the main pump fail.

Activate the pump at the DC panel by turning on the breaker. The pump will automatically come on when it senses a pressure drop. If the water pump continues to run, you are either out of water or might have an air lock and need to bleed the system by opening up a faucet or there is a leak in the system. If you run out of water or turn off the freshwater pump, SHUT OFF YOUR HOT WATER HEATER on the AC panel. Serious damage can occur!

To connect to dock water, an inlet is on the port side on the lower transom accessed via the swim platform. Connect here to the dock water and make sure connections are snug. This inlet has a pressure regulator that limits the water pressure going into the boat's water system. There is a Y valve on top of the port fuel tank that will need to be opened for pressurized dock water to get to the water system. See above to open the water Y valves.



## Hot Water Tank

The HOT WATER HEATER has a 20 gallon capacity tank and is available when connected to shore power or the genset. To use on shore power, flip on the water heater circuit breaker on the AC electrical panel. Do not use the water heater if the fresh water tank level is very low. The water heater is located on the port side of the storage room in front of the engine room.

## Shower

Before taking a shower, make sure water pressure and shower sump breakers are on. Take only very short “boat” showers (turning off water between soaping up and rinsing). To keep shower tidy wipe down/squeegee the shower stall and floor. There is a squeegee in each shower, please use it after you are done. This keeps the boat drier and reduces mildew. Check for accumulation of hair in the shower and sink drains.

A freshwater sprayer is available at the stern from a hose in the port stern cabinet. To activate the freshwater pump, open the Y valve as described above and flip the FRESHWATER PUMP breaker located on the 12V DC main electrical panel – this is the same breaker that provides for freshwater throughout the boat and is normally on.

## Sinks & Shower Drains

Waste water from the showers drains through a common sump and pump located below the floor just forward of the master cabin berth. Infrequently, this may get clogged with hair and soap residue. It’s an unpleasant, but simple task to clean this out.

## Seawater Pressure Pump and Hose

There is a seawater washdown on the bow to be used primarily to wash the anchor chain as it is being raised. To activate the seawater washdown, turn “ON” the WATER PRESSURE breaker on the 12V DC main electrical panel. The hose for the seawater washdown is in the **black hanging storage bag** on the starboard side near the bow. The base needs to be inserted into the inlet at the bow and then twisted hard clockwise to lock in and to activate the saltwater system. Make sure the panel switch is turned on. If there is no pressure – it is likely that the inlet hasn’t been pushed down and turned in far enough clockwise.

The saltwater pump is accessed via a cutout under the main carpet in the VIP room. It is also the same location where the **macerator pump switch** and **macerator through-hull valve** are located. The through hull is normally in the open position.

# HEATING SYSTEMS

## DIESEL FURNACE

There is a Diesel Furnace System aboard *Annecole* that can heat the living spaces. This additional heating system was recently installed and will make your chartering experience a more pleasant one.

The two heating systems on the *Annecole* use two different vent systems, the main Planar system really cranks out the heat, and has the exhaust vents marked with a green dot on each vent. The other system is inop and certain vents don't have a purpose. The diesel heating system is a **Planar 8D24-123** with its exhaust exiting amidship on the starboard side – you will most likely be able to hear it and smell it when it first starts up. The heater is located in the storage room on the starboard side in front of the engine room. It's rated at consuming 1 liter of fuel for every 3 hours of operation and puts out 21,000 BTU with strong air flow. If the heater runs for 3 straight hours – the place will be HOT.

To use the **Planar** heater:

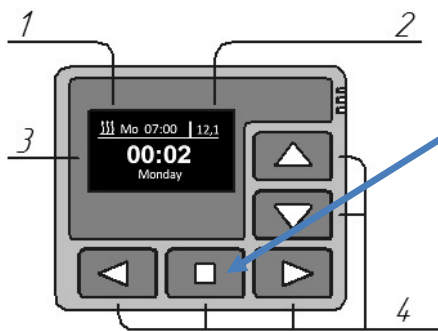
There is no switch on the main electrical panel. Note: The heater switch on the main electrical panel controls the main heater/AC unit – which is currently inoperable. To operate the Planar – press the button with the square.

There is a manual for the heater in the cabinet below the control unit (which is in the Salon on the starboard side above the side table next to the couch with a lamp on it. It looks like this:

### >>> WARNING <<<

The exhaust from the furnace is on the outside of the hull, to starboard, under the salon windows, and could be very hot! Be sure that a fender, dock if moored, or another boat, if rafted, is not so close as to be overheated and possibly ignite from this potentially hot blast!




Control panel external view



- 1 – activated startup timer.
- 2 - power supply voltage
- 3 – LED indicator.
- 4 – control keys.

NOTE: Sometimes the buttons to the heat system stick – if they stick, unstick them by wiggling them a little.



**To start furnace** press the button with the square . **To stop the furnace**, press the button with the square . Note: after pressing the  button, the furnace will continue blowing as it goes through it's shutdown process – approx. 5 minutes.

## ELECTRIC HEAT

There are also electric built-in heaters in the master stateroom and in the VIP stateroom with their own separate heating controls using a simple thermostat. These are nice while at the dock if you just want to heat a small area. If you want to heat both the guest area and the master stateroom and the salon area, it is generally best to use the diesel Planar furnace.

### >>> **WARNING** <<<

*Do not put any garbages or bedding or other items in front of the electric heaters. They can get very hot and could catch something on fire. The master electric heater is below the small desk in the master and the VIP heater is on the starboard side of the VIP room wall. The Annecole doesn't like fires aboard!!*

There is also at least two additional electric space heaters aboard in the port-side cabinets in the salon and in the Master Stateroom storage cabinets port side.

## NAVIGATION ELECTRONICS

There is a complete setup of three (3) Raymarine Axiom + multifunction displays (all with 12" screens – two in the pilothouse and one on the flybridge – installed 2023); all with wireless connectivity. There is also GPS, depth/fish finders, radar, and autopilot with a wired remote on the flybridge and a wireless remote located in the pilothouse. Additionally, there is a Standard Matrix AIS/GPS VHF transceiver and a RAM remote.

Most of electronics manuals are located in the binders in the port side cabinets nearest the stairway to the pilothouse/galley. The MFDs are very intuitive and easy to use. You will most likely never need to access the manuals. I find that the best way to shut off all MFDs is via the "electronics" switch on the main panel. All can be switched on with a flick of that switch. There are lots of manuals. Please do not reprogram all of these electronics.

### **Multifunction Displays (MFDs)**

The displays are all networked with a RayNet and a NMEA backbone and all must be turned on to work effectively. **Note: the best way to turn them off and on is by the main electrical panel switch labeled "Electronics" – not manually on each MFD – they are built to be turned on and off via the main power cutoff – you may have connectivity issues with the depth sounders and other equipment if you turn the MFDs off and on manually from the MFDs.** The flybridge display is wired to the transducers on the boat and provide all of the depth and fish finding abilities of the network on the Annecole. If you are **not** getting any depth readings, ensure that the flybridge display is turned on as it provides all of the data for the wired network. The "Master" is the pilothouse display on the right.

If you enjoy gadgets and other conveniences, download onto an iPad (iPhone works but features are a little difficult to work with) the following app (they are free – or at least they were when I downloaded them):

- **RayControl**

Log into one of the three MFDs by selecting the wireless network in your settings on the iPad or other device. Once connected to the MFD, using the app, you can see and/or control the MFD itself – including looking out changing the music playing on the flybridge stereo, plan a route, look at the charts, etc. When logged in to the MFDs as a wireless network, you won't have access to other networks and the internet (kind of obvious but thought I'd mention it).

### **VHF Radios and AIS Transceiver**

There is 1 fixed-mount Standard Matrix AIS/GPS VHF Radio on the boat, with controls at each helm station. There is also a handheld VHF radio that I like to have with when taking the tender out or when we're hiking or exploring on some islands and want to communicate back with someone on the Annecole. We usually agree on a channel to communicate on and we lock the radios on that channel. The handheld VHF radio and its charger/power cords are in the cabinet behind the stairway door to the master stateroom. **DON'T LOSE THEM.**

Always monitor channel 16 while underway.

## **Depth Sounder / Fish Finder**

There are 2 DEPTH SOUNDER frequencies available, and both have fish finder displays (50kHz and a 200kHz).

All depth sounders are “zeroed” for the sounder itself on the bottom of the boat about midship. ANNECOLE draws about 5’ so please be advised that anything under 10’ (3 meters or 1.5 fathoms) is risky. Be prudent and be careful. Stay in deeper waters and mind your tides.

*Remember to **ALWAYS** consult your charts for depth!*

## **Radar**

To operate the Raymarine broadband 4k HD Color Array RADAR, once the MFDs are powered up, select the Radar icon and press “TRANSMIT”. It will take about 10 seconds for the RADAR to display on the MFD.

*Remember you are not allowed to travel in FOG, at night, or in serious wind conditions.*

## ENTERTAINMENT SYSTEMS

### **Turn Visio TV on and set input to HDMI-1**

To use the Yamaha stereo system on the boat, **turn the TV on**. The TV remote receiver isn't working with the TV, so to turn on the TV, on the left or port side of the TV, reach around the left side with your fingers and about  $\frac{2}{3}$  of the way up the side of the TV, there are about 5 buttons that you can feel, the top one turns the TV on, you can tell the TV is on when the VISIO light at the bottom center of the TV lights with white light.

Once the TV is on, **make sure it is set to input HDMI-1**. The TV input selector is the bottom button on the TV buttons, a few buttons below the On/Off button for the TV.... It's the bottom selector - keep pressing to get to HDMI-1 on the TV input. There is basically no need to change the input on the TV – it can all be changed through the Yamaha receiver.

For true ease of use and simplicity, download the app “AV Controller” from the app store - this app makes it really easy to control the stereo from your mobile device.... To familiarize yourself with the stereo – the manual is at the following link (or was at the time of this documentation):

[https://usa.yamaha.com/products/audio\\_visual/av\\_receivers\\_amps/rx-v685\\_u/downloads.html](https://usa.yamaha.com/products/audio_visual/av_receivers_amps/rx-v685_u/downloads.html)

or

[https://usa.yamaha.com/files/download/other\\_assets/3/1161703/web\\_AV17-0164\\_RX-V685\\_om\\_UCRABGLFH\\_En\\_D0.pdf](https://usa.yamaha.com/files/download/other_assets/3/1161703/web_AV17-0164_RX-V685_om_UCRABGLFH_En_D0.pdf)

Turn on the stereo using the Yamaha remote and you should see information on the TV that will help in the selection of what you want to listen to....

Log the Yamaha receiver into the Annetole2.4 or 5.0 network by following the on-screen instructions (on the menu screen select System and then go to wireless settings). Use WPS or the password to the Annetole2.4 or 5.0 networks; the password is still “ronius22”; note: the receiver may already be logged into that network.

Open the AV Controller app and search for the Yamaha receiver RX-V685 ##### and connect with that. Open Spotify or Pandora on your phones to work with those - follow the on-screen prompts.

Most people end up using Pandora or Spotify or local music on their phones. The Spotify app works really well with the system and you can control all song playing from your smartphone, including songs, the receiver itself, volume, start/stop, party mode, which turns the rear cockpit speakers on. Note - the rear speakers are Zone 2 and are powered by the amplifier that is below the stairs that goes to the storage area in front of the engine room midcabin - there are blue lights emanating from the amplifier if it is powered on; on the main electrical control panel aft in the Salon, there is a switch for the “stereo” which turns/powers the amplifier. If you don't plan on using the rear (cockpit) outdoor speakers, turn the “Stereo” switch off - the blue lights should now be off on the amplifier....

Switch the remote to Zone 2 to control zone 2 - on/off, volume, input, etc.... I generally leave the system in “stereo” or “2-ch” listening mode when listening to music....The system takes a little getting used to, but once figured out, it's a really fun system to work with....

## **Audio Video, DVD, DirecTV**

In the main salon is the music and video entertainment system which consists of a Vizio TV, a Yamaha AV Receiver, a Sony DVD Player, and a ROKU unit all connected to a Bose surround system with a subwoofer underneath the TV cabinet. There are two speakers in the cockpit that are connected to Zone 2 on the Yamaha system and are powered through an amplifier that is connected to the “Stereo” switch on the DC electrical panel. Everything else runs on 120V electrical.

On the Flybridge, there is a Fusion 755 entertainment system connected to the Flybridge zone with a pair of speakers on the flybridge and a subwoofer under one of the seats on the flybridge. The Fusion allows for inputs of AM, FM, Pandora, BT, iPods, USB and others. The 755 has a docking station – the front folds down and an iPod is sitting in there in the pullout tray. If you want to play an iPhone or other device – there is a USB connection on the flybridge station that will connect to the 755 with the correct input selected. A manual for the 755 is in the galley table drawer.

The most popular input to the 755 is via Bluetooth. There is also an iPod in the docking area with a lot of songs on it if you are interested in listening to any songs/playlists on it. The Fusion is also connected to the MFDs, so you can see and control what’s playing, the volume, etc. by selecting the Fusion option from the touchscreen display on the MFDs or from your smartphone if you download the MFD apps described earlier.

The cockpit speakers are operational via the Yamaha system in the Salon – Zone 2.

## **DiracTV – NOT OPERATIONAL**

### **Music**

The most common option for playback of music is via Bluetooth using songs on a persons smart device, iTunes, Spotify or Pandora. Both of the entertainment systems – FlyBridge (FB) and Main Salon/Cockpit can be connected via Bluetooth and songs controlled and played back, including volume et al..

### **DVDs**

To watch DVD movies – there are a number of movies in the cabinet on the starboard side of the boat next to the couch - about two feet from the TV. Please be sure to leave them for the next guest. Many of the DVDs are for kids. To watch a movie, turn on the DVD player with the DVD remote. The following settings will need to be setup to watch a DVD:

- TV input set to COMP (for composite) – the TV remote is inop and you will have to manually set the input by pressing a button on the middle left side of the TV. The top button is the power and the bottom button is the input (about 5 below the power) scroll through the input options selecting either COMP for DVDs or HDMI1 for everything else.
- Yamaha AV system to AUDIO1/DVD – use your smartphone or the AV remote to set this input or it can be set from the front of the panel of the Yamaha by scrolling through inputs. Make sure you set an appropriate listening mode to get the most out of the system while enjoying a movie.

Remember the Yamaha is the master as it controls the input selection and the volume.

When you are done with the AV system, please shut it down by turning all devices “OFF” .

**Note: The following assumes a previous charterer or AYC personnel hasn’t changed the setup!!**

Connections	Out	In	Comments
Yamaha		ROKU to HDMI 1	Allows ROKU video and audio to play on Yam system with Yam input set to HDMI 1
Yamaha		Audio 1	Sound comes from DVD player to Yamaha via optical cable with input set to Audio1 labeled as DVD Sound. Note: DVD plays audio through Yamaha system, not through TV sound which allows for a surround sound experience
Yamaha		USB	This is only for mass storage devices – ie. Memory stick with music – <b>not for playing music from smartphone</b>
Yamaha		Bluetooth	Connect to music system and plays Pandora, Spotify, music from phone, etc...
Yamaha	HDMI 2 – Salon TV		TV input should be set to HDMI 1 at all times unless a DVD is playing, in which case the input on the TV sb set to Comp – this is just informative as the Yamaha output is HDMI2
Yamaha	HDMI 1 – Master TV		Plays audio and video on master stateroom TV when master stateroom is set to similar HDMI input; note: this can be turned off by changing HDMI control to off on the Yahama
DVD	COMPOSITE video output to Salon TV		Salon TV input must be set to Comp to watch DVDs and input on Yam must be set to Audit 1 / DVD Sound
DVD	Optical (digital) audio to Yamaha Audio 1 in		Yamaha input must be set to Audio 1 / DVD Sound and the Salon TV must be set to COMP
Salon TV		Comp from DVD	Select COMPOSITE input on TV to watch DVD
Salon TV		HDMI from Yam	Select HDMI 1 input on TV to get video feed from Yamaha



To watch DVD:	<b>TV Input – COMP; Yamaha input Audio 1</b>	Note – DVDs play video from DVD to TV directly and audio play through Yamaha system when set to AUDIO 1 as input.
To watch ROKU / Netflix / Amazon / etc	<b>TV Input - HDMI1; Yamaha input - HDMI1</b>	Can effectively make Salon TV a smart TV by selecting ROKU as the input. Note: there is a separate ROKU remote control to control ROKU
To listen to smartphone	<b>TV Input – HDMI1; Yamaha input - either Bluetooth, Spotify or Pandora</b>	TV input is used to see the controls on the master Yamaha receiver.

## GALLEY

The boat has an open galley with nice counter space and easy access to stored items. In addition, with this set up you are not blocked off from the rest of the space, so when you are cooking, you can remain part of the conversation both in the main salon as well as the pilothouse.

### **Range**

The electric 3-burner counter-top range works just like your home unit. To use this the “STOVE” 240V breaker must be “ON” and you must be either on shore power or genset power.

### **SHARP Carousel Microwave / Convection Oven**

The microwave/oven is electric and runs either when on shore power or on the generator. Turn on the microwave breaker on the AC panel.

This unit operates just like your home microwave or oven.

### **Jenn-Aire Barbecue**

ANNECOLE has a large electric BBQ on the flybridge. It has a downdraft system that is turned on automatically when either of the two burners are turned on. There is a grease cup below the BBQ that works effectively. Please empty as needed. Additionally, the vent system air is blown out the port side of the enclosure and there is a vent out there that is covered by the bimini. To ensure better circulation – go onto the Dinghy Deck on the port side and reach around and unsnap some of the lower buttons/unzip a zipper to help with air flow.

Please keep this grill and the surrounding area clean! To close the top, wait until the heating elements have cooled down then lift up and it will be able to be lowered.

### **Refrigerator, IceMaker, & Freezer**

ANNECOLE has 1 main refrigerator and one flybridge wine-cooler type refrigerator.

There is a separate icemaker in the Salon below the stairs leading up to the flybridge. To make ice, ensure the lever in the ice compartment is down (just like your home icemaker) and the switch on the front of the icemaker is turned on. In order for ice to be made the fresh water pump also must remain on. The icemaker and refrigerators are powered by the inverter/AC. Leaving all of them on can drain the batteries faster. The ANNECOLE has a separate inverter bank from the house bank – each with plenty of battery reserve. With all 3 cold units on – the refrigerator, the FB wine cooler and the ice maker in the salon – along with any other 120V items, the inverter bank can drain down. Sometimes when staying on the anchor and needing to conserve 120V AC power – the ice maker ice can be stored in the freezer and then turned off. Keep in mind – if the ice maker is turned off – any ice in the ice maker will melt – please dispose of any excess ice before it melts and makes a mess.

We generally leave all refrigerators and the icemaker ON all the time when on shore power. As described above, when anchored, we will occasionally turn off the icemaker and/or salon refer to save power.

### **Other Galley Items**

The galley is stocked with basic necessities (toaster, small coffee maker, etc). There are some larger pots and other items under the seat cushions in the pilothouse/galley area. The left sink drains overboard and the

right sink (with a disposal) drains through a through-hull. The disposal switch is in the storage area below the sink.

### **Washer – Dryer**

A conventional apartment-size stacked washer-dryer unit is located at the base of the stairs leading to the VIP and bunk staterooms. It operates just like your home units. Note: you must be on either shore power or running the genset. It does use a lot of water, so pay attention to your fresh water levels. Clean the lint catch as necessary. If it doesn't get cleaned, the drying can take longer than it should.

### **Vacuum Cleaner**

ANNECOLE has a small rechargeable vacuum cleaner in the salon under the lift-up stairs – this is generally good for small jobs. There is also a larger multi-function vac in the closet on the starboard side when going down the stairs to the front sleeping areas, this rechargeable vacuum works great; the battery charger and battery are in the storage cabinet off the stairs to the master. The larger vacuum has a roller brush and attachments that allow for many variations of set up. The attachments are also in the cabinet on the way to the fore sleeping areas.

## ENGINE ROOM

### **Fuel Transfer Levers**

There are two 375 gallon tanks at the rear of the boat. They have gravity based transfer hoses that transfer fuel between the tanks to keep them level. Please ensure that the levers are left in the open position. When filling with gas, I generally close both; fill up each tank then open the valves so that when I fill the second tank, the first tank hasn't drained into the 2<sup>nd</sup> tank and lowered itself.

## ANCHORING

The primary WORKING ANCHOR is a 20kg Bruce Claw type anchor with approximately 275ft of 5/16" galvanized chain passed through the deck from the ANCHOR LOCKER in the bow and accessible from the VIP room.

The WINDLASS is a vertical capstan MUIR with 5/16 chain gypsy. The Windlass breaker is located on the main electrical panel. There are control switches at the pilothouse, flybridge and foot-pedals for up and down on the bow.

At the bow, release the emergency strap and tap gently on the "down" foot control to lower the anchor. Let out sufficient ANCHOR RODE (you've got a total of 275' of chain) before setting the anchor. Colored markers are placed every 25 feet on the chain; the nylon rode is unmarked. If the anchorage is crowded put down at least a 3 to 1 scope (78 feet for 20 feet of water – remember the bow is 6' above the waterline). Attach the bridle stored in the black bag that is hung on the starboard side near the bow, to the chain and attach to the cleats on either side. Release a couple of feet of chain so that the chain is putting the holding pressure on the bridle and not the bow sprit and windlass.

Using the bridle pretty much lessens "sailing at anchor", excessive swing, makes everything quiet, and reduces stress on the windlass. **Please, please use it.**

NEVER, just let the anchor tension be taken solely by the windlass. That's not what it was built for; use a bridle. Be aware of your swing radius as compared to other boats and objects around you. You might want to set an anchor alarm to alert you should ANNECOLE drag.

Don't forget to turn "OFF" the WINDLASS breaker when you are done.

Before raising the anchor, ALWAYS start the engines as it uses large amounts of power. Turn "on" the WINDLASS breaker. Bump the engine controls forward and as the boat moves toward the anchor, press the "up" control to take up slack chain/line. Remove the bridle. Don't run over the anchor chain. Give the windlass short rests as you are pulling it up. As the anchor rises, be careful not to allow it to swing against the hull.

We suggest that you use the washdown at the bow to wash the rode and anchor as you are retrieving it and before storing in the anchor locker. Make sure the WATER PRESSURE breaker on the main panel is switched on (this is only for saltwater at the bow). Spray wash the chain and/or anchor as necessary. This helps keep it from smelling in the forward locker and annoying anyone sleeping in the VIP cabin. The seawater washdown hose is in the same black bag that contains the anchor bridle. There is a connection at the bow

for the sprayhose. Twist it clockwise until the pump turns on – this can be a little tight. Be patient and you will get it connected properly. It is pressurized by the sea water pressure system. Turn the breaker on the main panel when done and put the washdown away in the black storage bag.

### **Stern Anchor**

There is a small stern anchor located belowdecks aft with approx. 25' of chain along with approx. 100' of rope.

### **Mooring Cans**

ANNECOLE is too large for any state park mooring can. Do not use them as they are designed for boats up to 45' LOA. There are some docks and floating moorage at some of the San Juan Islands (Stewart Island) that, if needed, may be available.

## TENDER & OUTBOARD MOTOR

There is an AB Inflatables aluminum bottom 14', 4+ person TENDER with a 30hp engine that is stored on the flybridge aft deck. The tender has a capacity of about 1,200 pounds (motor, equipment, and 4+ adult people). The motor has power tilt and trim controls. The tender is also supplied with a Raymarine MFD with built in fishfinder and a bilge pump. It will easily get 4 people where needed. Please ensure that proper safety is followed and that the lanyard for the safety key is attached to the driver in case he/she should be thrown off the boat – IT HAPPENS.

The tender has a pole light for the stern that can stick in its respective fitting on the back. It is usually left down unless needed for either added safety or traveling at night.

The davit is a Brower Systems crane-type with an electric motor rated for 800 lbs capacity. There is a Davit breaker on the main electrical panel. This must be turned "ON". The control for the davit is stored in the flybridge seating area. It is a handheld remote control system.

Note how the davit, cable, straps and tender are stored. Please duplicate this including tying-down the tender. You sure wouldn't want it to fall off if you hit a big wave! **Note that the front securing rope goes through the bracket on the console to the left (port) connector bracket. Only one connection to the front of the tender is included and necessary.**

Cable through grab handle to front connector – only one connector in front is used and two in back are used



DO NOT TOW the Tender, lift it and store it with the davit.

Towing reduces your speed, decreases fuel economy, puts tremendous strain on the tender's tow eye, and you run the risk of flipping the tender in a wake or other wave. Just lift it and then these are all non-issues.

To deploy the tender – make sure the main engines are running when operating the Davit System due to high power consumption:

1. **Insert the drain plug if it's not already in.**
2. Remove all tie-down straps. Remember how they were originally on.
3. Using the davit control unit to raise/lower the hook on the end of the Davit, attach the Davit cable hook to the lifting bridle ring.
4. Lift the tender up and push the tender out to starboard while holding onto the line attached to the dinghy.
5. Have someone in the cockpit grab the line to help maneuver the tender as it is lowered – NEVER STAND UNDER THE TENDER!! YOU NEVER KNOW WHAT COULD HAPPEN WITH ROPES AND PULLEYS!!
6. Lower the tender to the water – keep it away from the boat – at the bottom it tends to get caught on part of the boat that sticks out
7. Have someone disconnect the davit cable from the tender lifting bridle while securing the bow or stern line on the tender.

8. Raise the davit cable and secure it and store the control.

To raise the tender, just do the reverse of the above steps.

1. Follow steps in reverse order to raise the tender. Before raising the tender, raise the engine (tilt) so it's up "a little" – no more than half way up, this is so it doesn't bang the boat when lowering it onto the tender storage area;
2. Bring the tender to the starboard side of the boat with the dinghy bow facing forward on the Annecole.
3. Carefully raise the tender, the stern of the tender will sit on the port side of the boat with the bow of the tender facing the starboard side of the boat. Ensure the tender is balanced and sitting on the storage arms as appropriate;
4. Turn off all switches on the tender electrical control panel and/or turn the red master power switch (shown right) to the off position. Remove stern light if up. Leave in the back of the tender. If desired – attach charger to battery to maintain trickle charging. The charger is in the console storage compartment. Note – the main electrical power panel needs to have the BBQ switched on as the power outlet that is most convenient for the tender charger draws its power from the BBQ power;
5. Secure the tender with the straps.
6. Secure the Davit cable hook, so the swing arm doesn't swing and is snug.

## FUEL RECOMMENDATIONS

Use unleaded gasoline with a pump octane rating of 87 or higher – no ethanol.

This outboard motor is certified to operate on unleaded gasoline. Unleaded gasoline produces fewer engine and spark plug deposits and extends exhaust system life. Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt or water in the fuel tank. Occasionally you may hear a light "spark knock" or "pinging" (metallic rapping noise) while operating under heavy loads. This is no cause for concern. If spark knock or pinging occurs at a steady engine speed, under normal load, change brands of gasoline. Please refill the tank to full upon return.

Every other day when regularly using the tender, check the oil in the engine. Remove the dipstick, wipe clean, insert into engine again and take reading (make sure engine is level), if oil is below bottom line, add more oil until just below the top line. Dingy oil is 10W-30 API oil category SG or SH with the starburst certification displayed on the container.

Whenever the tender is in its resting location, make sure you open the drain plug. A dinghy full of water will crush the roof.

**ONCE AGAIN: if the tender fills with water while stored on the flybridge, the weight will destroy the flybridge and whatever is in the tender. Please make sure to remove the drain plug to prevent this from happening.**

Coast Guard regulations state that any child 12 and under must wear a life jacket when in a tender. It is a good idea for EVERYONE to follow this rule.

## **CRABBING & FISHING**

Always check the fishing and crabbing requirements before you leave on your cruise. You will need a license. Many areas are CLOSED to crabbing and fishing during certain months.

CRAB AWAY FROM THE BOAT! Lines can get wrapped around props. Fish-flavored cat food with the pop-up ringed lids or raw chicken seems to work the best for a nice neat way to bait the ring. After 15-20 minutes, retrieve the crab line and ring quickly. Measure the crabs using the CRAB MEASURING GAUGE normally located in the stern locker. Keep the male crabs of proper size (usually 6 ¼ inches across the carapace). Boil crabs about 12 minutes to cook. Before setting crab pot or rings, confirm water depth and be certain the buoy line is long enough for water depth.

After using, wash equipment thoroughly with fresh water (available from the cockpit shower faucet). *Note - - Please do not store wet rings and gear inside the boat. Be mindful of rust stains as you will need to clean these off.*



## **OTHER: Safety & Bilge Pumps**

SAFETY should be paramount in your daily cruising. A MAN OVERBOARD DRILL should be discussed and perhaps even practiced with a life jacket. Remember your lifejackets are stowed in the main-stateroom locker and there are more in the flybridge locker (under the sink and grill). A few should always be out and ready. Your flares and safety equipment are located in the compartment next to the main electrical panel.

ANNECOLE is equipped with multiple AUTOMATIC BILGE PUMPS. The 2 master breakers are located on the main electrical panel. There are also bilge switches on the pilothouse control panel and the FB control panel. These are for manual operation of the bilges. They also will automatically turn on if there is water triggering the float switches at each bilge pump. If for some reason you find that the float switches are not operating automatically – it is likely that the fuse for the bilge pump has blown or that a 175A MRBF fuse mounted on the main house battery has blown (extra MRBF fuses are in the tool box in the storage area in the top drawer along with a number of other fuses). The fuses for the bilges are on a small fuse panel to the port side of the ProNautic Charger (on the aft wall on the port side of the engine room). Extra fuses are attached on the wall next to the fuses as well as in the tool box top drawer. The needed fuses are 25A fuses.

There is a Blue Sea automatic charge relay (ACR) that isolates the start and house batteries. When the ACR is operating normally – there is a small green light on the ACR indicating everything is OK. If the green light is blinking, then most likely the 175A MRBF fuse, described above, is blown. You may occasionally hear the bilge pump operate due to condensation and water from the shaft log or rudder through accumulating in the bilge. There are also switches on the flybridge for the mid-cabin and aft bilge pumps. There is virtually no normal circumstance in which the mid-cabin bilge would be on. If either of the bilge pumps has been tripped because the float switch has been activated, a light will illuminate on the related bilge pump switch.

The ENGINE SPARES are generally stowed in the blue tool cabinet in the storage room.

## WHAT TO DO IF...

### **ANCHOR CHAIN WON'T COME OUT OF CHAIN LOCKER**

The anchor chain is continuous, secured at both ends, and cannot tangle. But sometimes a pile of chain will fall over, and one loop of chain will fall through another loop. Usually you can clear this by grasping the chain where it exits the hawse pipe from the chain locker with your hands, and pulling it up or down to “jiggle” the loop out of the chain; you may have to retrieve some chain to do this, in order to have enough slack to jiggle it! It is rare when this will not clear the jam. The other solution: Access the chain locker and clear the tangle in it. *Caution: Turn off the windlass breaker to protect your hands when manhandling chain!*

### **ANCHOR FOULED, CAN'T RAISE IT**

This can happen if you “pull the boat to the anchor” with the windlass. You should move the boat under power until it is over the anchor, or, even better, slightly ahead of it before hauling. Usually this will clear it. Otherwise, take a line and form a fixed, loose loop around the chain. Weight the loop, and lower it down the line until it reaches the bottom, sliding down the chain. Then, using the tender, take the line forward past the anchor so that you can pull the anchor out, opposite the direction its flukes are pointing. This should help you to pull the anchor free.

### **BATTERIES (HOUSE) KEEP RUNNING DOWN**

Have you run the engines or generator enough? Is something left on (like the engine room or mast lights, too many electronics, etc.) that is too great a load for the time you were not charging? Are you using the inverter for big jobs? Use the generator or shore power. Have you had the battery chargers on whenever plugged in to shore power or running the generator? - You must, for the house batteries to charge! Is a main battery fuse blown? It is located on the house battery and if working – the green light on the ACR relay will be on. If the ACR lights is blinking – the fuse on the house battery is likely blown. Replacement fuses are in the blue tool box.

### **ENGINE OVERHEATS**

Is the drive belt for the water pump intact? Spare belts are in the engine room spares kit. Is the sea strainer clogged? See that section in these Owner's Notes. Is the impeller shot? If sea strainer is clear and belt is good, this is likely. Change (spare in spares kit) or call a mechanic. *Do not run engine if it overheats!*

### **ENGINE WON'T START**

If starter does not turn, is transmission in neutral? Are the transmission switches on the main electrical panel turned on? Check battery, battery switches. Start generator, charge all the batteries. If starter turns, assume fuel problem: did you bump a fuel valve on the fuel tanks? Make sure all open, if one was closed, re-prime engine or call a mechanic if you can't do this (see engine manual).

### **FOG DELAYS RETURN**

Call AYC by telephone or VHF and advise them to receive instructions.

### **HEAD WON'T FLUSH**

Is breaker on? Turn it on. Have you over-filled the holding tank? Pump it to allow more effluent to enter it. See the “Heads” section of these Owner's Notes. If all else fails, just use the other head.

## **HIT A FISH NET**

Immediately put the engines in neutral. DO NOT try to back-off, you will just foul the net more. Try pulling the boat back with the tender & outboard. Get assistance from the fisherman. *You are responsible for damage you cause to a net!*

## **HIT A LOG OR ROCK**

See EMERGENCY PROCEDURES, next chapter.

## **PROPELLER FOULED OR DAMAGED**

Have the prop checked by a diver or dive it yourself if able. Check for vibration. Try turning shaft by hand in engine room, both should be turn-able with engine in neutral. Is shaft noisy, or does it load engine? Do not use that side or call assistance. See emergency procedures, next chapter. There are no spare props onboard.

## **WATER (FRESH) WON'T FLOW**

Is there water in the tank? Is fresh water Pump breaker on? If the pump runs continuously and you still have no water pressure, it is because you have no water.

# **Emergency Procedures**

## **Protect your lives first!**

1. Put on life jackets
2. Contact the Coast Guard with an emergency "MAYDAY" call.
3. If adrift, prepare to anchor to keep the boat from drifting into danger.
4. If the boat is really sinking, consider "beaching it" if necessary.
5. Launch the tender and prepare to board if necessary. Take a handheld VHF radio (located in the pilothouse).
6. Be sure to wear life jackets!

## **Then, worry about the boat!**

In a true emergency, you certainly are authorized to call for immediate commercial assistance as minimally required to assure the safety of you and the boat. It is not an emergency if neither you nor the boat is at risk. For all non-emergency assistance or mechanical repairs done by others AYC MUST give prior approval for you to be reimbursed!

## **If you think it may not be an emergency:**

If you have any concern about your long-term safety, contact the Coast Guard on VHF Channel 16, either normally or using an urgent "PAN PAN" call. Tell them that you are calling to advise them about your situation, so they can keep in touch.

Be sure that the status and safety of the boat and crew is someone's responsibility while you sort out the boat's problem. For example, delegate your mate to keep a watch for hazards, or to operate the boat on course slowly while you deal with the difficulty.

Here is a checklist for solving the problem:

1. Isolate it;
2. Get the manuals;
3. Get parts;
4. If necessary, call AYC for help.

Over the years, most problems with charter boats are caused by misuse! Holding tanks overflow because they aren't checked; heads clog because foreign matter (especially facial tissues and tampons) are put in them; engines fail because they run out of fuel, they must be "purged" to re-start. Use the boat carefully, and you'll avoid these problems.

Almost all problems that are not operator-caused, i.e., that are boat deficiencies, are caused by pumps that fail, hoses and belts that break, and seawater strainers that get clogged. Generally, these problems are annoyances, and usually they are inconvenient, but they still *can* happen. Try to stay calm, collected, and be a professional by dealing with the problem in a businesslike, calm way. It will make everyone's day a better one!

### **Hitting a Log, Rock, or Debris ----- Please Don't!**

Hitting a log is a real risk in our Northern waters because logging and "log rafts," are such a big part of our commerce.

If you hit a log did you put a hole in the boat? Idle the engines then think. Usually, you can tell just by where the noise of the hit came from. After putting the engines into idle and/or neutral, check the bilges (don't forget the lazarette area, where the rudder posts are). If you did "hole" the boat; if "yes" go immediately to the "If an Emergency" on the preceding pages.

If no hole, and still idling, is the boat vibrating? If "yes," put each engine into neutral in turn, identify and shut down the offender. Then continue on one engine. Call AYC after you reach the closest safe harbor. If no vibration at idle, slowly accelerate one engine at a time. Is there vibration on either? If "yes," run at idle or on only the good engine, to reach a close, safe harbor. Then contact AYC.

*NOTE: With a twin-screw boat, the damaged running gear can't be used after hitting an object. However, if while under way on one engine the other engine's propeller shaft rotates by itself because of water passing over its propeller, then you must let the unused engine idle in neutral so that its transmission has lubrication, and the cutlass bearings on the damaged shaft are lubricated. This is still true whether the boat has dripless shaft seals or a standard shaft "log". When running on one engine with the other idling as required, be sure that the idling engine is pumping water through its exhaust pipe.*

If there is no vibration on either engine, you got lucky and probably did no damage to the running gear. Congratulations! A diver will check the vessel's bottom upon its return, just as after every charter.

## BOAT INFORMATION

### Engine Inspection

VESSEL NAME .....Annecole  
YEAR/MAKE/MODEL OF VESSEL .....2004 / Navigator Rival 5700  
HULL IDENTIFICATION NUMBER .....NVY57R14C404  
USCG DOCUMENTATION NUMBER .....1169082  
HAILING PORT..... Camano Island, WA  
DESIGNER .....Jule Marshall  
BUILDER .....Navigator Yachts, Perris, CA  
HULL MATERIAL ..... Fiberglass (FRP)  
HULL TYPE .....Planing, Modified-Vee  
L.O.A. .... 57'  
BEAM .....15'  
DRAFT ..... 4' 6"  
DISPLACEMENT .....47,500 lbs. (dry)  
FUEL ..... Diesel  
INTENDED CRUISING AREA ..... Pacific Northwest and Adjacent Waters

### Engines

Engine Manufacturer: **Volvo Penta**  
Model #: **TAMD63P-A**  
Serial # (Port): **2061193414**  
Serial # (Starboard): **2061193240**

### Transmission

Transmission Type: **Straight**  
Manufacturer: **ZF**  
Model #: **301A**  
Serial # (Port): **20040708**  
Serial # (Starboard): **20040710**  
Ratio: **2.901:1**

### **Underwater Machinery System**

Propellers: Two, Michigan

Size: 32 x 31

Number of Blades: Four

Material: Bronze

Propeller Shaft Size: 2 inch diameter

Material: Stainless Steel

Material: FRP stern tubes

Packing Gland: Tides Marine Strong Seals (lip seal)

Struts Material: Bronze

Configuration: V-strut

Rudders Material/Configuration: Bronze spade

Trim Tabs Manufacturer: Bennett

Number of Tabs: Two

Bow and Stern Thrusters: Sleipner Side Power 24VDC

### **Fuel System**

Engine Fuel: Diesel

Number of Tanks: Two

Manufacturer: Navigator

Tanks Capacity: 375 gallons each, 750 gallons total

Construction Material: Aluminum

Tank Shape: Rectangular

Fuel Line(s) Type: Neoprene

Shut-Off Valve(s): Lever valves at rear of tanks

Fuel Filter(s) & Screen: Yes

Quantity: Two

Type: Remote

ID Number: Racor 900MA

Secondary Fuel filter(s): Engine mounted

Manufacturer: Baldwin BF988

Fuel Fill Pipe(s): Two

Location: Cockpit

Material: Neoprene

Fuel Fill Vent(s): Two