OPERATION MANUAL

Pane e Vino

Welcome aboard!

We are happy you have chosen “Pane e Vino“ for your vacation. We are sure you will enjoy cruising the lovely islands of the Pacific Northwest. She has been in our family since she was built and provided us years of joy cruising the San Francisco Bay and Delta and she came up the coast on her own hull to the Pacific Northwest, proving her seaworthiness and reliability the whole way. Her new job is to share those characteristics with you.

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.

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BOAT OPERATION

Engine Inspection

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

Check the level of COOLANT in the expansion tanks. Check the level of OIL in each engine by checking your dipsticks located on the starboard side of each engine. Look at the notch marks on each dipstick that indicate the proper oil level. **DO NOT OVERFILL OIL!** Only fill if oil levels are below the ½ way mark. Please use a paper towel or oil rag, not the dish towels! Check the general condition of the BELTS, HOSES, and FUEL LINES.

Ensure the valve on each RAW WATER THRU-HULL is in the '**open'** position (lever in-line with valve).

Observe the glass of each RAW WATER STRAINER for debris. If necessary, close the seacock, open the strainer cover, clean the strainer, and reassemble. Remember to reopen the seacock. Check your generator fluids as well.

Start-Up

Before starting the engines, do your inspection. The engines should be started from the lower helm station.

Ensure GEARSHIFTS are in 'neutral', or the engines cannot be started because of the "neutral lockout". . Insert both keys into the IGNITION SWITCHES. Note: both upper and lower stations must be in neutral

Turn the ignition key to the on position...to the right. Press and hold the black start button until the engine starts. Do not crank for more than 20 seconds. If it does not start then wait one minute and try again.

When you start the engines the lower control station will always be the active station. To change stations go to that station and press the "active" button twice. The pilot lights will show solid red when the station becomes active.

Note -- If oil pressure is low, shut down engine, and inspect engine compartment and look for possible cause (for example, loss of oil.) Caution -- If an engine is overheating or there is lack of raw water expelled in the engine exhaust, stop the engine immediately. Recheck the raw water-cooling system to ensure the seacock is 'open' (handle in-line with valve). Next, check the raw water strainer for debris. Remove the strainer, clean, re-assemble, and reopen the raw water intake valve (seacock). Restart the engine and re-check water flow from the exhaust. If water is not flowing properly, the RAW WATER PUMP may need to be serviced. Seek help.

Shut-Down

Before shutting down, allow the engines 'idle' for about 5 minutes to cool them gradually and uniformly. The time engaged in preparing to dock the boat is usually sufficient. Ensure each GEARSHIFT is in the 'neutral' position and each THROTTLE is in the 'idle' position. Turn off engines by turning the key all the way counter-clockwise or pressing and holding the red stop button

Getting Underway

DISCONNECT the shore power cord (see 110-Volt next page). Close the PORTHOLES, WINDOWS, and FORWARD HATCH. Turn on your VHF and electronics. ASSIGN crew members their various positions. Once outside the marina, idle the engines while crew brings in fenders and lines.

Cruising

All close quarters maneuvering should always take place at the upper helm.

Engage the GEARSHIFTS. Cruising speed is a maximum of about 2600 RPMS. If you run at 1300 RPMS you will cruise at 8.5 knots and use only about 4.5 gallons of diesel per hour. Your speed will vary depending upon the weight and load and weather conditions. *Note -- Avoid higher engine speeds as it causes higher engine temperature, possible damage, and higher fuel consumption.*

Once in gear press the "sync" button . When it lights up you can use the starboard lever to advance and retard the RPM on both engines with one lever. Press the "sync" button to turn off this feature. This should be turned off prior to any closed quarters maneuvering

Speed and GPH

All of the following are approximate due to current and load

RPM	Speed	GPH	KMPG
1200	7.5	3.5	2.15
1300	8.4	4.6	1.8
1400	8.7	6.1	1.4

1500	9	7	1.3
RPM	Speed	GPH	KMPG
1600	9.5	10	.95
1700	10	11.8	.85
1800	11	14.7	.75
1900	11	15.6	.7
2000	13	18	.72
2100	14	20	.7
2200	16	21	.76
2300	17.8	22	.8
2400	19	24	.79
2500	20.5	25.75	.79
2600	22	27	.81

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Docking

During docking, use the FLYBRIDGE HELM for greater visibility to the stern. Have your crew make ready the lines and fenders 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. 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 GEARSHIFTS and THROTTLES to maneuver the boat.

Fueling Up

OPEN FILLER CAP(S) located on the back deck with a DECK FITTING KEY which is kept in the drawer under the sink .

MAKE SURE YOU HAVE THE RIGHT FUEL! DIESEL! DIESEL! DIESEL! MAKE SURE IT IS GOING INTO THE RIGHT DECK FILL! DOUBLE-CHECK!

Before pumping, have an oil/fuel sorbs handy to soak up spilled fuel. You should have a rough idea of the number of gallons you will need by the engine hour indicator or the fuel used display. Also periodically have someone turn on the key to watch the fuel gauge.

Place the DIESEL nozzle into the tank opening, pump slowly and evenly, and note the sound of the fuel flow. Pumping too fast may not allow enough time for air to escape, which may result in spouting from the tank opening. As the tank fills, the sound will rise in pitch or gurgle. Pay attention to the TANK OVERFLOW VENT on the outside of the hull near the tank opening. The sound may indicate that the tank is nearly full. Top off carefully, and be prepared to catch spilled fuel. Spillage may result in a nasty fine from law enforcement.

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

BOAT ELECTRICAL

The electrical system is divided into two distribution systems: 110-volt AC and 12-volt DC.

The systems are controlled from the AC ELECTRICAL PANEL located in the main cabin, the DC AUXILIARY PANEL located on the same panel, and the BATTERY SWITCHES FOUND in the engine room. When not connected to shore power, batteries are providing all power. Therefore, monitor the use of onboard electricity carefully with your volt meter located on the main panel, and turn off electrical devices that are not needed.

Most breakers are labeled by colored dots. Green signifies “usually on”. Red is “usually off” Blue dots are water pressure or water-related like pumps. Yellow signifies electronics or items to use cautiously. No dots are breakers signify irregular use or use with discretion.

110-Volt AC System

SHORE POWER supports all AC equipment and receptacles on board, as well as the battery chargers.

To connect to shore power, plug the 50 amp POWER CORD into the boat and then into the dock receptacle. Check the power rating/plug size of the nearest dock receptacle (that is 50 amp, 30 amp, 20

amp, or 15 amp). If necessary, add a CORD ADAPTER located under the aft setee. Turn the dock power on. Cords coming off the bow can be wrapped loosely around the bow line.

At the ELECTRICAL PANEL, flip the SHORE CIRCUIT BREAKER on. Check for reverse polarity. Then turn on appropriate breakers for battery charger, refrigeration, water heater, etc..

If the main breaker trips turn off loads not needed at the time.

Inverter Power

This vessel does not have a built in main inverter. There is small inverter behind the TV to run the TV and DVD player. It can also run small loads like laptop chargers, etc

Generator

To start your GENERATOR, first check that your generator's fluids are topped off and the raw water intake is open. The generator controls are located both on the generator and on the main electrical panel. First pre-heat the generator for about 20 seconds by holding the toggle switch to the stop position. Then push the toggle to the start position. Hold the switch in that position while the generator catches. (about 5-10 seconds). Make sure water and exhaust is exiting the port side.

After generator is running for five minutes to warm up, turn your AC distribution switch to generator. Then turn on AC systems as you would on shore power one system at a time.

To turn the generator off, first take off the load by turning off AC breakers. Wait five minutes to cool down. Then turn off main AC distribution switch. Lastly kill the generator by switching generator switch to "off" until it dies.

House (12-volt) System

5 battery banks support 12-volt DC power: 1) port engine battery 2) starboard engine battery 3) Generator battery and 4) two house batteries

The On-Off BATTERY SWITCHE is located in the engine room. Normally, leave the switch in the ON position. Both batteries in thehouse system are tied together as one large bank *Note -- Do not change the position of the switch to off while the engines are running or the alternator diodes will be damaged.*

Your 12 volt panel shows all the systems supported by your batteries. Primarily you will be turning on the breakers for your lights, water pressure, electronics, etc. Bilge pumps should always be left on.

Your breakers such as engine room and flood lights should always be turned off after every use.

House Battery Bank & Switch

The HOUSE BATTERY BANK provides power for all DC systems. When disconnected from shore power, all 12-volt devices drain the house battery. Use devices as needed. The DC voltmeter on the DC panel can be switched between Port and Starboard banks to measure charging or resting battery voltages. It is a good idea while at anchor to switch the battery switch in the engine room to either batter...this will give you a full battery as a back up.

When a battery bank is being charged, the voltage will read from about 13.1 volts to 14.4 volts depending upon state-of-charge of the battery bank. When the battery bank is at rest, (that is, not being charged), the voltmeter can give a rough indication of the state-of-charge of the battery bank.

The engine and house batteries are charged by the engine ALTERNATORS while underway. The engine and house batteries are charged by the BATTERY CHARGER when connected to shore power. Ensure the Battery Charger circuit breakers at the electrical panel is ON. The GENERATOR will also charge the batteries if the batter charger breaker is turned on

Voltage

Battery State

12.65 volts

100%

12.47 volts

75%

12.25 volts

50%

11.95 volts

25%

11.70 volts

0%

Battery Parallel Switch

Each battery bank will start both engines. However, should one engine battery bank be insufficiently charged to start the engines, the other engine battery bank may be momentarily connected to provide a boost. Press the BATTERY PARALLEL SWITCH located in the engine room.

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 RESONSIBILITY!

Always operate 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.*

To use the toilet, simply push the button for no more than 20 seconds at a time. If more is needed, please wait about 45 seconds becore trying again.

The TOILET THRU-HULL is located under the floor in the forward cabin if you need to shut off the water to the toilet. Clean the toilet as necessary.

Holding Tank

The sanitation HOLDING TANK holds approximately 40 gallons. Be aware of the rate of waste production. (about 1 gallon per flush) With an overfilled tank, it is possible to break a hose, clog a vent, or burst the tank. The result will be indescribable catastrophe and an EXPENSIVE FIX to you. Empty the tank EVERY OTHER DAY to avoid this problem.

The HOLDING TANK is located under the floor in the forward cabin There is a tank watch warning light located in the forward head.

The holding tank is emptied in one of two ways:

#1 At the Marine Pump-Out Station, remove the WASTE CAP located on the starboard foredeck. Insert the pump-out nozzle into the waste opening. Double-check your deck fitting! Turn on pump and open valve located on handle. When pumping is finished, close lever on handle and turn off pump. Remove 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 repump to leave the tank rinsed for the next charter. This also eliminates head odors.

#2 The tank's contents can be discharged with the Waste Pump only in Canadian waters.

The through-hull valve MUST be open to turn on the . The valve is located in the forward cabin under the floor. Turning on the waste pump with the valve closed will damage the pump. The breaker switch is covered to avoid inadvertent operation of the pump .

WATER SYSTEM

Fresh Water Tank(s)

The FRESH WATER TANK holds 100 gallons. Waste water from the sinks and showers drains overboard through various thru-hulls usually located under the sinks. There is a water tank level gauge located in the engine room

To refill the tank, remove the WATER CAP(S) located on the transom. Avoid flushing debris from the deck into the tank opening. DO NOT fill water and diesel at the same time!

Fresh Water Pressure Pump

The WATER PRESSURE PUMP is located in the engine room. Activate pump at the DC panel by turning on the breaker. 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. If you run out of water SHUT OFF YOUR HOT WATER HEATER on the AC panel. Serious damage can occur!

Hot Water Tank

The HOT WATER HEATER has an 11 gallon capacity tank and is available when connected to shore power or via the generator. To use , flip on the water heater circuit breaker on the AC electrical panel. Do not use the water heater if the water tank level is very low. The water heater is located in 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 the shower stall and floor. Check for accumulation of hair in the shower.

Raw Water Wash Down

To activate, flip the circuit breaker on on the main panel . After use, turn the switch off to prevent pump burn out, and ensure no object leans on the switch to turn it on accidentally.

GALLEY

Stove/oven

The stove and micro/convention oven is electric. Turn on the "stove" and "microwave" breaker on the AC panel.

Refrigerator

The REFRIGERATOR is dual voltage (12-volt and 110-volt power). It will automatically use 110-volt power when the shore power is connected; otherwise, it will operate on 12-volt power. Monitor the use of the refrigerator when the engines are not charging the 12-volt battery system. The local power switch is located below the front door. It can be turned down to the lowest position when anchored or moored or turned off when turning in for the night.

HEATING SYSTEM

Built-in Cabin Heat / AC

Make sure the AC breakers and AC Pump breaker on the AC panel is on. One unit control panel is located in the master cabin and another is located in the main cabin.

ELECTRONICS

All electronic manuals are located in the drawer under the aft cabin bed..

VHF Radios

There are two VHF radios. One at the lower station and one at the upper station.

Depth Sounder

There are two DEPTH SOUNDERS, one upper and the other at the lower station.

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

Radar

To operate the RADAR press and hold the POWER button to turn the radar/chart plotter on. To turn off, press and hold POWER button about 3 seconds. . Remember you are not allowed to travel in FOG or in serious wind conditions..

Global Positioning System (GPS)

One fixed mount GPS (Garmin) is on each station. Ascertain that your breaker is on and then press the power button. Refer to the manual normally found in the cabinet forward of the circuit breaker panel.

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

ENTERTAINMENT SYSTEMS

AM/FM Stereo Radio

The Kenwood brand AM/FM /CD unit is located in the main cabin It operates like a normal car radio. There are two speakers (stereo) in the salon. There is also a BlueTooth stereo in the main cabin that can play from your Blue tooth or USB device.

TV/VCR

TV/monitors's are located in the main cabin and in the aft stateroom. The main cabin monitor is as flat screen that will accept the DVD player through the RCA jacks (the DVD player is located behind the monitor), and HDMI cable (usually for your smart phone adapter) or a USB port. The monitor should be plugged into shore power when at dock or using the generator. There is also a dedicated small inverter if you wish to use the TV at anchor or underway. To use the inverter plug the TV into the inverter (and the DVD player, if using it) and turn the inverter on using the switch on the inverter. When done please turn off the inverter. You may hear the fan on the inverter cycle on and off. This is normal.

The TV in the aft cabin is a CRT TV. Since it is analog to get TV reception there is a converter box on top of the TV. Use the converter remote control to turn on the TV and change channels. This TV only works on shore or generator power.

ANCHORING

The primary WORKING ANCHOR is a Delta and is attached to 200 ft chain passed through the deck from the ANCHOR LOCKER The locker can be accessed through the forward cabin.

The WINDLASS POWER SWITCH is located on the main panel. At the bow, tap gently on the 'down' foot control to lower the anchor. If necessary, guide the anchor over the anchor roller to prevent binding on the pulpit.

Let out sufficient ANCHOR RODE (chain) before setting the anchor. Colored markers are placed every 25 feet on the chain and nylon rode, indicated amount of rode. If the anchorage is crowded put down at least a 5 to 1 scope (100 feet for 20 feet of water), back the anchor in with a short burst from the engine. Then let out additional scope dependent upon conditions.

There is an anchor bridle along with gloves and a tarp located in the forward stateroom cabinet near the floor on the port side. The bridle must be used to take the load off of the windlass. Not using the bridle can damage the windlass. To use it, loop the line over the cleats (on the outside

of the rail) and lock the chain grabber onto the chain . Then let a few feet of chain out so the bridle takes the load.

Before raising the anchor, ALWAYS start the engines as it uses large amounts of power. Turn 'on' the WINDLASS SWITCH and as the boat moves toward the anchor, press the 'up' control to take up slack line. Give the windlass short rests as you are pulling it up. Place yourself in position to guide the anchor onto the roller. As the anchor rises, be careful not to allow it to swing against the hull. Wash it down if you have a wash down pump before it goes into anchor locker. The chain locker on Navigators and Californians are rather shallow so the chain will pile up. It is required to have some one guide the chain in the forward cabin through the anchor locker so it does not pile up. The crewperson should push the pile side to side. In the forward cabin there is a bag with a pair of gloves and a small tarp in a bag in the small storage area on the port side near the floor.. Place the tarp over the bed to assure the bed stays clean.

Close the plastic covers on the FOOT PEDAL CONTROLS. Turn 'off' the WINDLASS POWER SWITCH.

A SPARE Bruce ANCHOR is normally stowed in the engine room. The 150 ft SPARE ANCHOR RODE is located in the engine room-. Attach the rode securely to the chain shackle.

Mooring Cans

The State Park Sticker on your vessel allows you to pick up the MOORING CANS in the parks for free. You only need to register at the kiosk usually located at the heads of the docks. Mooring cans have a metal triangle at the top upon which is a metal ring. The metal ring is attached to the chain which secures your boat. IT IS VERY HEAVY. The strongest member of your crew should be picked for this job.

Come up to the CAN into the wind as you would for anchoring. Have crew members on the bow, one with a boat hook and one with a mooring line secured like a bow line. As you are coming slowly up to the can have the crew holding the boat hook point at the can with the hook so the skipper always knows where it is. Hook the can and bring the ring up to the boat to allow the second crew to thread the ring with the line. Release the hold with the boat hook. If your mooring line is led out the starboard chock bring the end of the line back through the port side. You will essentially create a bridle with about 10 feet of slack from the chalk to the can.

BARBECUE

The BARBECUE and MOUNTING BRACKET are stored in the engine room. .

Place MOUNTING BRACKET in the fishing rod holder. Reverse the procedure to dismount barbecue. Attach a PROPANE BOTTLE to the REGULATOR . Carefully light the unit, preferably with a long-stem butane lighter. The barbecue generates a lot of heat and cooks hot and fast. Store the barbecue unit back in the engine room. Please wipe with a paper towel before storing to prevent grease and dirt soiling the boat..

Note: Propane bottles are not stocked by AYC. You will need to purchase one if extras are not found on board. Caution -- For safety reasons, do not store an opened propane bottle within the salon or engine compartment. Chances are these will leak slightly once opened and propane gas could settle into low spaces. Store these bottles in the cockpit cabinet. Ensure gasoline and flammable materials are not near the barbecue.

DINGHY & OUTBOARD MOTOR

Your RIB DINGHY with a 8 hp engine is stored above the aft deck. It has a capacity of about 500 pounds (motor, equipment, and ----- people).

To deploy the dinghy, clip the snap clip of the DINGHY cable to the ring on the bridle, Unhook the hold down straps. The winch controlled is kept under the flybridge seats and plugs in under the base of the davit. There are two buttons - one for raising and one for lowering. Be sure to have a firm grip with one hand on the hand hold so not to fall,

To start the motor make sure the red kill-switch is in on the stop switch, Open the vent for the fuel tank. Pump the fuel line bulb until it is firm. Be sure the motor is in neutral and the throttle advanced slightly. First try with the choke pushed in and pull the starting cord several times. If it does not fire pull the choke halfway and try again. When it fires put the choke in halfway until warmed up. Once ready to be underway the motor should idle with the choke all the way in.

When towing your dinghy, always keep it tight to the boat any time that you slow down or stop, Assign one of your crew members as the “dinghy” person to be responsible for taking up slack. You don’t want to wrap a propeller.

The motor is a two stroke motor and needs a 50:1 mixture of two stroke oil. Failure to add oil to the fuel will permanently damage the motor.

Coast Guard regulations state that any child 14 and under must wear a life jacket in a dinghy. It is a good idea for EVERYONE to follow this rule.

When you are done with the motor at the end of your cruise or if you don't intend to use it again please disconnect the fuel line from the motor while it is running. Run it until it stops. Then close the choke and start it again. The prevents fuel going bad and clogging the carburetor . The next charterer will thank you as will we.

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 on certain months.

CRAB AWAY FROM THE BOAT! Lines can get wrapped around props. Fish-flavored cat food with the pop-up ringed lids work the best for a nice neat way to bait the ring. After 15-20 minutes, retrieve the crab line and ring quickly. Keep the male crabs of proper size (usually 6 ¼ inches across the carapace). Boil crabs about 15 minutes to cook.

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.*

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 you lifejackets are stowed inder the flybridge seats A few should always be out and ready. Your flares and safety equipment are located just inside the aft door under the settee

Pane e Vino is equipped with two AUTOMATIC BILGE PUMPs. The master switch is located on the electrical panel. Normally, the switch will be left in the AUTO position. You may occasionally hear the pump operate due to condensation and water from the shaft log accumulating in the bilge.

The ENGINE SPARES BOX (plastic blue color) is stowed in the engine room. This includes oil filter, raw water impeller, pump parts, injectors, and other small parts. There are other spare parts under the setee in the main cabin.

Charts

Paper Charts are located in the cabinet forward of the breaker panel.

THRU-HULL LOCATIONS

Engine raw water – Engine room aft of each engine

Generator raw water – Engine room near generator

A/C and Heat – Engine room forward and center

Deck Shower – Engine room aft

Heads – In each head

Waste tank - Forward cabin, starboard side under floor