



# Orientation Sheet for Horizon

Updated: 2017-Apr-21

## General

- All voyages should be documented in the ship's log book. Report any damage or deficiencies to [cruising@downtownsailing.org](mailto:cruising@downtownsailing.org) and to boat manager [dsc@ccso.com](mailto:dsc@ccso.com) / 410-203-2673

## Specifications

Registration #:	<b>MD 5596 AC</b>	Hull#:	<b>XLY 595267</b>
Make:	<b>Islander 36</b>	Year:	<b>1977</b>
Engine:	<b>Perkins 4.108; 4-cyl Diesel 48-HP</b>		
Displacement:	<b>13,450 lbs</b>	Draft:	<b>5' 02"</b>
Mast Height (from waterline):	<b>52' 06"</b>	Fuel Capacity:	<b>30 gal.</b> Holding tank: <b>18 gal.</b>
LOA:	<b>36' 08"</b>	Water Capacity:	<b>54 gal.</b> 2 tanks, below Salon Settees
LWL:	<b>28' 25"</b>	Batteries:	<b>House battery 1 and 2 (Starboard lazaret)</b> <b>Starting Battery (under companionway steps)</b>
Beam:	<b>11' 17"</b>	Sails:	<b>Main, Genoa on furler, staysail with boom</b>

## Safety Equipment

- First Aid Kit: Drawer port side      Rescue Sling: Stern Rail
- PFDs: V-berth      Fire Extinguishers: (2) – Starboard side cabin, Port quarter berth
- Day/Night Flares: Aerial & Hand-held – Drawer port side above seats in salon
- Sounds (Horn, Bell & Whistle): Drawer port side above seats in salon
- Auto-Switched Bilge Pump: Wired directly to House Battery (must be switched to Auto when leaving boat). The switch is located on the starboard side inside the cabin above the galley sink
- Old Bilge Pump: Wired to Electric Panel on the engine compartment wall (manual mode only). **Do not use this pump unless the other one is not working.**
- Manual Bilge Pump: Cockpit Port side (handle located in drawer port side above seats)
- Anchors: Danforth (35 lbs) bow; Rode: 15' of chain & 150' of line (marked every 30')
- Thru-hulls/Sea-cocks: Engine water intake: In the cabin, starboard side, under the sink, front handle  
Engine exhaust: Stern Port side  
Bilge out: Stern center (smaller hole)  
Galley sink drain: : In the cabin, starboard, under the sink behind engine seacock  
Transducers (Speed/Depth): Salon, below settee - forward Starboard side  
Head sink drain: Head, under sink    Toilet raw water intake: Head, under sink  
Waste tank - overboard drain: Forward Cabin, under V-Berth (Starboard side)
- Thru-Hull Bungs: In the cabin, port side drawer above the seat



VHF Radio: Mounted above Nav Station counter. It has GPS (no antenna) and DSC, press middle button to silence the beep when turned on, it beeps because we don't have GPS antenna for it.

Emergency Tiller: **None**

Tool Box: In the cabin, starboard side above the seat

## Engine Check, Startup and Shutdown Procedures

**Check Oil:** Access from under companionway top step (lifts up and folds down in half), the dip stick is on top of the engine to your right half way into the engine compartment. There is a yellow cable tie on it.

**Change Engine's Diaper:** This engine leaks oil that we have to capture before it gets into the bilge water by placing an oil absorbent sheet under the engine. If the sheet is soaked with oil, replace it. Fresh ones are in the storage bin under the very bottom companion step (the step lifts up revealing the storage).

**Check Belts:** Engine, Forward End, accessible from top

**Check Coolant:** Access from under companionway top step (lifts up and folds down in half)

**Check Fuel:** Fuel gauge in the cockpit, starboard side panel, key must be turned to first position

### Startup:

Remove the solar panel by first turning it upside down, waiting for 30 seconds for voltage levels to drop and then disconnect the two connector by squeezing the tabs and pulling away. You can store the solar panel in the starboard lazaret but protect the surface.

Set battery switch to #2. It is located on starboard bulkhead next to sink but all the way in

Remove key from VHF radio (Located In the cabin, port side, above Nav table)

Gear shift on port side of binnacle – put in neutral (vertical position) **Engine will not start unless the shifter is in neutral**

Throttle on starboard side of binnacle – push a little forward to slow idle position

Insert key into ignition and turn to “on” position (Oil alarm will sound). The key has three positions. The first turn will activate the gauges so you can see the fuel level and voltage. Another turn will crank the engine.

Throttle back after engine starts; **check for water from Exhaust Thru-Hull at the stern port side**

Check Oil pressure gauge after 10 seconds to make sure it is above 30, if not stop the engine immediately and DO NOT take the boat out. DO NOT add oil. You must report this condition. Monitor the gauge for the PSI reading during engine operation underway.

Monitor water temperature gauge during operation. If it goes above 185, throttle down to idle. If the temperatures does not drop, shut down the engine and sail back or ask for tow. You must report this condition.

**Steam with the red battery switch set to “Both” position for at least an hour to charge all batteries, you can then switch it to 1. When sailing or at anchor, set it to position 1 or you will drain all 3 batteries and the engine will not start.**

### Shutdown:

Throttle the engine hard for 3 seconds, bring it back to idle speed for 1 minute and then pull out the kill switch. Once the engine stops, return the kill switch by pushing it back in.

Turn key to off position; turn Battery Switch to “Both” (**Do NOT turn off the ignition key or battery switch while the engine is running**)

Connect the solar panel

At the end of sail, return key to VHF radio. DO NOT close seacock.



Electrical Panel: Mounted on the engine compartment wall port side

Battery switches: There are two: 1. Red **Perko switch** on the starboard side that can switch between the two battery banks or combine both, 2. On the electrical panel; this switch is not used.

Stove: Fueled by propane, tank in the aft port lazaret. Not tested for safety. Do NOT use.

Ice Box and refrigerator: Has electric cold plate, switch is on the panel. Drains into bilge. Not functional.

Deck Fittings:

Pump-out: Forward, Port side

Water Fill Tubes: Deck Fittings (Port and Starboard sides, boat has two water tanks)

Fuel Fill Tube: Deck Fitting (At the Stern behind the rail)

Compass: Mounted in the binnacle

Autopilot: Disconnected and not functional

Shower Drain: Auto Pump (in Shower Sump) is wired to "Water Pressure" switch on Electric Panel

Prop walk: To STARBOARD in reverse, this boat has a left-hand prop unlike others

## Sailing

Mainsail controls are achieved through a cabin-top mounted winch, leading to a traveler car system running across the deck in front of the main cabin's sliding hatch. Winch handles are located in the drawer above sofa on port side inside the cabin

Main: Topping Lift: Use cleat on mast below the boom

Outhaul: Use cleat on underside of boom

Slab reefing: Single Reef Only

Mast Slide: Gate should be pinned up with Main dropped, lowered with Main raised

## Leaving and Securing the Boat

Holding tank pumped out

Fuel tank topped off or leave cash in the log

Ensure all below-waterline thru-hulls except the engine intake seacock are closed

Ensure bilge and ice box are empty of water

Ensure all hatches and windows are closed

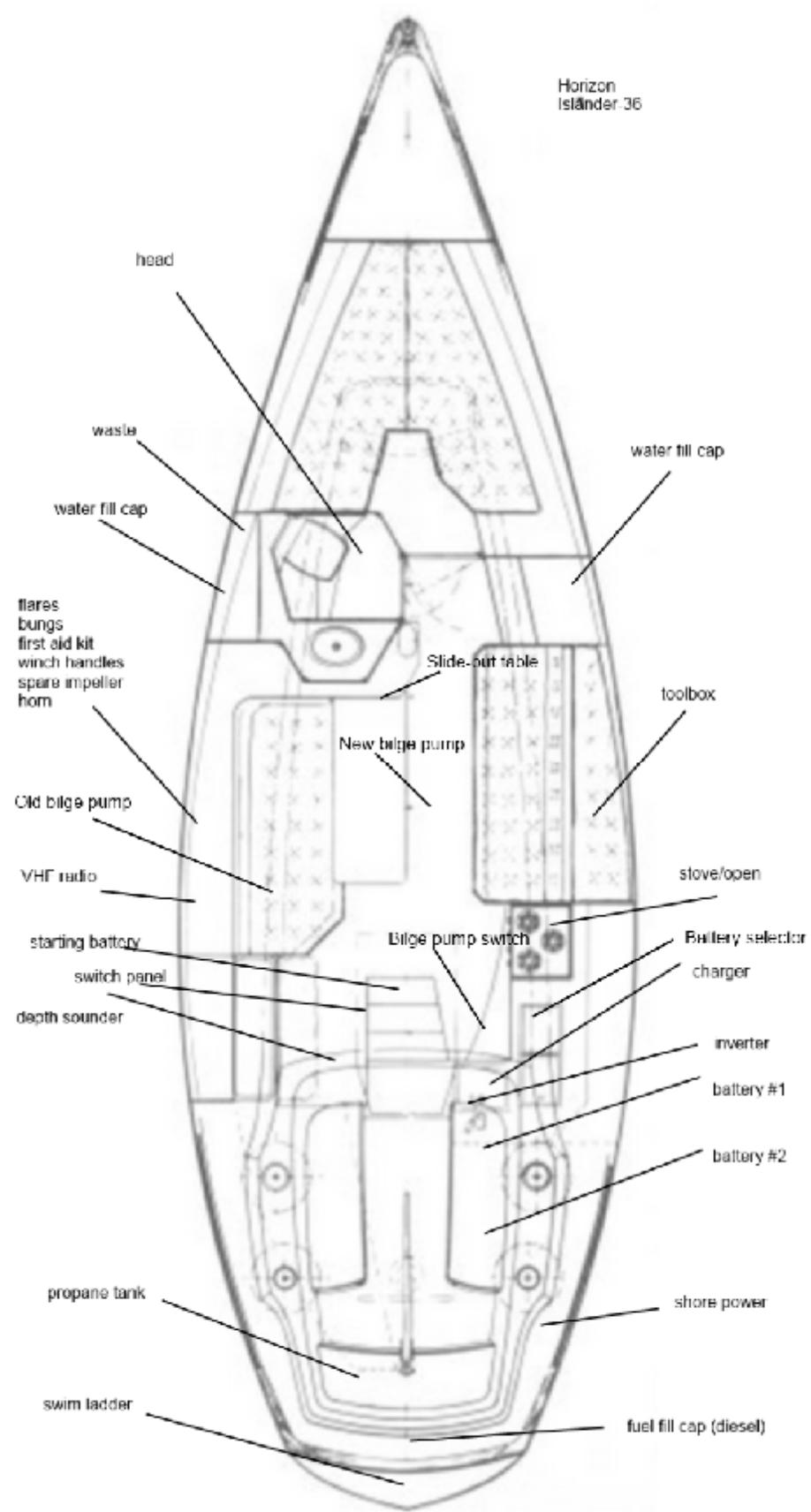
Red battery switch set to BOTH position, or the solar panel will not be able to charge start battery

Bilge pump set to Auto mode, the green LED should be lit (above galley sink on starboard side)

Trash and belongings removed.

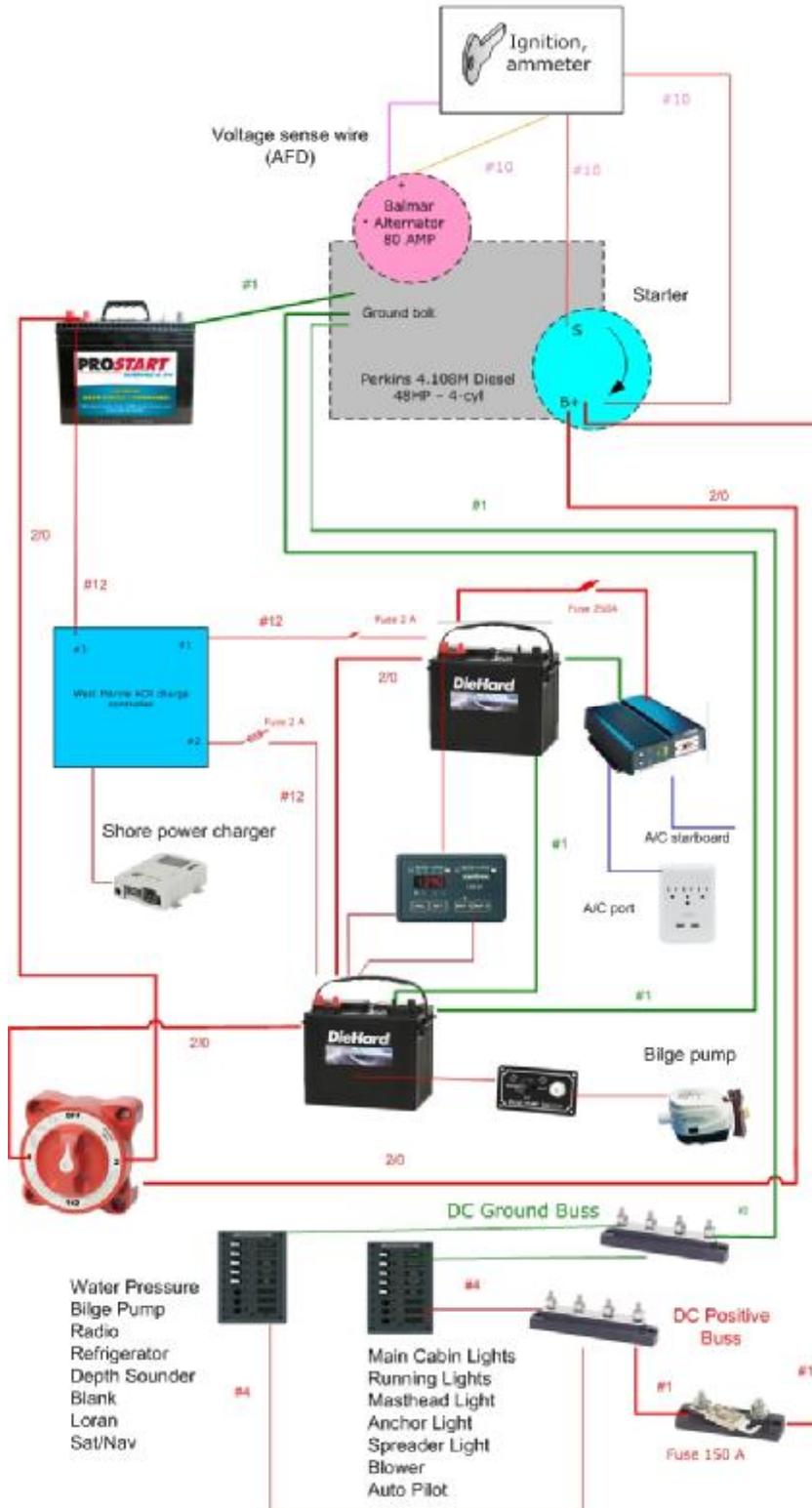
Make an entry in the ship's log book located in the cabinet on starboard side across from the door to the head. Do NOT leave the log in the Nav desk. It will get wet from leaking porthole.

Companionway padlock closed





## Horizon Electrical Wiring Diagram 2014-Aug-02





<b>Hull Type:</b>	Fin with rudder on skeg		<b>Rig Type:</b>	Masthead Sloop	
<b>LOA:</b>	36.08'		<b>LWL:</b>	28.25'	
<b>Beam:</b>	11.17'		<b>Listed SA:</b>	576 ft <sup>2</sup>	
<b>Draft (max.)</b>	6.08'		<b>Draft (min.)</b>		
<b>Disp.</b>	13450 lbs		<b>Ballast:</b>	5820 lbs	
<b>SA/Disp:</b>	16.35	<b>Bal/Disp:</b>	43.27%	<b>Disp/Len:</b>	266.33
<b>Designer:</b>	Alan P. Gurney				
<b>Builder:</b>	Islander Yachts (USA)				
<b>Construction:</b>	FG		<b>Ballast type:</b>	Lead	
<b>First Built:</b>	1971	<b>Last Built:</b>	1986	<b># Built:</b>	770
<b>AUXILIARY POWER (orig. equip.)</b>					
<b>Make:</b>	Perkins		<b>Model:</b>	4.108	
<b>Type:</b>	Diesel		<b>HP:</b>	48	
<b>TANKS</b>					
<b>Water:</b>	54 gals		<b>Fuel:</b>	32 gals	
<b>RIG DIMENSIONS</b>					
<b>I:</b>	45.00' / 13.72m		<b>J:</b>	14.48' / 4.41m	
<b>P:</b>	39.25' / 11.96m		<b>E:</b>	12.75' / 3.89m	
<b>PY:</b>			<b>EY:</b>		
<b>SPL:</b>	15' / 4.57m		<b>ISP:</b>		
<b>SA(Fore):</b>	325.80 ft <sup>2</sup>		<b>SA(Main):</b>	250.22 ft <sup>2</sup>	
<b>Total SA:</b>	576.02 ft <sup>2</sup>		<b>DL ratio:</b>	266.33	
<b>SA/Disp:</b>	16.35	<b>Est Forestay Len:</b>	47.27'		

# Horizon Engine Start and Shutdown Procedures

**Check Oil:** Access from under companionway top step (lifts up and folds down in half), the dip stick is on top of the engine to your right half way into the engine compartment. There is a yellow cable tie on it. If you find the oil level a little low, DO NOT add oil. If it is very low, contact the boat manager, do NOT take the boat out.

**Change Engine's Diaper:** This engine leaks oil that we have to capture before it gets into the bilge water by placing an oil absorbent sheet under the engine. If the sheet is soaked with oil, replace it. Fresh ones are in the storage bin under the very bottom companion step (the step lifts up revealing the storage).

**Check Belts:** Engine, Forward End, accessible from top

**Check Coolant:** Access from under companionway top step (lifts up and folds down in half)

**Check Fuel:** Fuel gauge in the cockpit, starboard side panel, key must be turned to first position

## Startup:

Remove the solar panel by first turning it upside down, waiting for 30 seconds for voltage levels to drop and then disconnecting the two connectors by squeezing the tabs and pulling away. You can store the solar panel in the starboard lazaret but protect the surface carefully.

Set battery switch to #2. It is located on starboard next to sink, but all the way on the bulkhead

Remove key from VHF radio (Located in the cabin, port side, above Nav table)

Gear shift on port side of binnacle – put in neutral (vertical position) **Engine will not start or even crank unless the shifter is in neutral position.**

Throttle on starboard side of binnacle – push a little forward to slow idle position

Insert key into ignition and turn to “on” position (Oil alarm will sound). The key has three positions. The first turn will activate the gauges so you can see the fuel level and voltage. Another turn will crank the engine.

Throttle back after engine starts; **check for water from Exhaust Thru-Hull at the stern port side**

Check Oil pressure gauge after 10 seconds to make sure it is above 30, if not stop the engine immediately and DO NOT take the boat out. DO NOT add oil. You must report this condition. Monitor the gauge for the PSI reading during engine operation underway.

Monitor water temperature gauge during operation. If it goes above 185, throttle down to idle. If the temperatures does not drop, shut down the engine and sail back or ask for tow. You must report this condition.

**Steam with the red battery switch set to “Both” position for at least an hour to charge all batteries, you can then switch it to 1. When sailing or at anchor, set it to position 1 or you will drain all 3 batteries and the engine will not start.**

## Shutdown:

Throttle the engine hard for 3 seconds, bring it back to idle speed for 1 minute and then pull out the kill switch. Once the engine stops, return the kill switch by pushing it back in.

Turn key to off position; turn Battery Switch to “Both” (**Do NOT turn off the ignition key or battery switch while the engine is running**)

Connect the solar panel

At the end of sail, return key to VHF radio. DO NOT close seacock.