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NAVIGATION

A) Départ du port:

Unlock all doors and lockers, and **check** that the bilges are free of water.

Close all hull portlights and deck hatches.

Fill:

- the water tanks from the plug situated in front of the bridge.
- . **diesel tanks** from the plugs situated on the back port and starboard.

Check the levels of water and diesel with gauges at the helm station (chart table).



Put in place outside the safety equipment (horseshoe buoys, life raft, ...).





Check for the absence of fuel and gas vapors inside the boat.

Switch on remote-controlled battery circuit breakers switches at the entrance to the saloon or manually in engines compartments.

Caution - Principle of batteries coupling:

- The coupling between the service park batteries and engine battery is activated when a voltage exceeds 13.2 V.
- The coupling is maintained until the park voltage is greater than 12.8 V.
- When the voltage drops below 12.8 V, the coupling stops, the engine battery is then isolated from the park service.
- The circuit breaker AID / START enables the coupling of battery park IF A PARK IS INSUFFICIENT.

It should always be disconnected when the engine is running.





starboard compartment

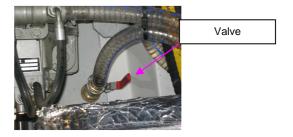
port compartment

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Check that the valve of the circuit of water of cooling is opened.

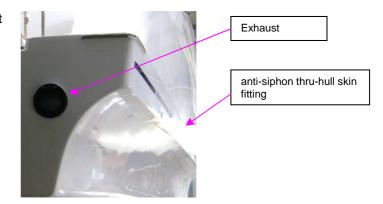
Start the engine.

See B for a detailed description of the starting procedure.



Check that cooling water is discharged from the exhaust and the anti-siphon thru-hull skin fitting.

In case of a fault, carefully read the engine manual.



Switch on the electronic equipment: speedo, log, GPS, VHF,...according to the option installed.

In strong winds, **carefully chock** or lash down anything that might move.

Check that the **navigation lights** are working before a night passage.



B) Moteurs:

Cockpit.

VOLVO D3 150CV with EVC electronic command system

Instruments and Controls

This chapter describes the instruments, panels and controls Volvo Penta sells for your engine.

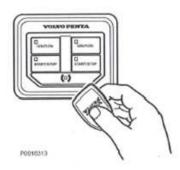
If you would like to complement your instrumentation, or if your boat is equipped with instruments not described here, we ask that you contact your Volvo Penta dealer.

For information about screens from 8" and above, please refer to the separate manual for Volvo Penta Glass

Ignition Lock

There is always a helm station with an e-Key panel or an ignition switch on the boat. The ignition must be switched on here in order for other helm stations to be used.

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e-Key panel

The Volvo Penta e-Key consists of a panel and a key fob.

Hold the key fob in front of the (0) symbol on the panel to unlock the EVC system. A sound confirms the system is unlocked.

When the electrical system is locked a red light flashes under the symbol. The lamp goes out to indicate the system is unlocked.

Key Management

Two key fobs comes at delivery. It is possible to expand add additional keys, the system allows up to four keys. With a key already registered to the system other keys can be added or removed, see Key Management page 130.

Safety lanyard

A safety lanyard (optional extra) can be connected to the panel. Should the safety lanyard be removed the engines will stop, the system alerts and a warning message is displayed in the Information Panel.

1) Starting the engine

Starting the Engine

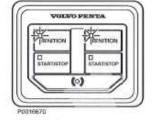
Shifting and adjusting speed is only possible at an active station. The main station is automatically activated when the EVC-system is unlocked with the e-Key panel and the ignition is switched on.

On a boat with two or more stations the engine(s) can be started from another station with a start/stop panel – if the engine(s) are turned off. The station automatically becomes active when the engine(s) is/are started.

Make sure the ignition is on

A green light in the IGNITION button indicates to ignition is on.

The ignition is switched on via the e-Key panel. Press the IGNITION button to switch the ignition on.



Put the gear in neutral

Put the drive/reverse gear in neutral by moving the control lever(s) to neutral at all stations.







Start the engine

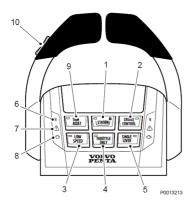
Starting with the e-Key panel

To start, press the START/STOP button once for each engine.

If the starter motor is engaged for its maximum activation time (30 seconds), the starter motor circuit is cut automatically to protect the starter motor from overheating. If possible, leave the starter motor to cool for at least five minutes before making a new start attempt.

Starting with the start/stop panel

Press the starter button for each engine. Release the button as soon as the engine has started.



Engine and drive features are cont tons on the control. What buttons able is depending on the installation

1 STATION

The button lamp is lit if the helm lit. Refer to *Helm Stations page* information.

- 2 CRUISE CONTROL (optional) Switch on cruise control by pre Fine tune the locked engine spe or reducing (-) engine rpm with other side of the control.
- 3 LOW SPEED (optional) See Optional page 41 for inforr
- 4 THROTTLE ONLY
 Disconnects the shift function s
 lever only affects engine speed
 ing shift function" in this chapte
 tion.
- 5 SINGLE LEVER (optional) Switch on the single-lever func button. The lever that is moved becomes the control lever for b other control lever has no funct single-lever function is activate lights up to show that the functisingle-lever function by pressin

6 N

Neutral position. The symbol shows that the drive/ reverse gear is disengaged.

7 /

The warning triangle lights up if the system discovers a fault; refer to *Fault Handling page 54* for information.

The warning triangle lights up on the same side as the driveline with the indicated fault.

- 8 This function is not available.
- 9 TRIM ASSIST

The Power Trim Assistant, PTA, adjusts the trim angel automatically according to engine speed (rpm), see *Power Trim Assistant page 32* for information.

10 TRIM

Trim the drive out//in.

For twin engine installations the adjustment of the drives are synchronized. For further information see *Instruments and Controls page 30*.

Caution

Do not turn the starter motor for more than ten seconds. Possible exhaust water backflow may damage the engine.

2) Stopping.

Engine Shutdown

Allow the engine to run at low idle, in neutral, for a few minutes after operations are completed. In this way afterboiling is avoided at the same time as temperature equalization takes place. This is especially important when the engine has been run at high rpm or under heavy load.



Stop the Engine

IMPORTANT!

Never disconnect the current with the main switches when the engine is running. The alternator and electronics could be damaged.

Stopping with the e-Key panel

- Disengage the drive/reverse gear by putting the control lever in neutral.
- Stop the engine(s) by pushing the START/STOP button(s).



Stopping with the start/stop panel

- Disengage the drive/reverse gear by putting the control lever in neutral.
- 2 Push the stop button(s). Release the button(s) when the engine(s) has/have stopped.

Turning the ignition off and locking the EVC system

To turn the ignition of, press the IGNITION button. The green lamp in the IGNITION button goes out to indicate the ignition is off.

To lock the EVC system, hold the key fob in front of the symbol on the e-Key panel.

A flashing red light indicates the system is locked.

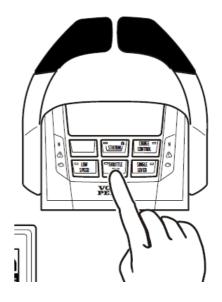
C) Navigation

Engine speeds:

Increase the engine speed steadily to allow engine temperature to rise.

Wide open throttle and cruising engine revs will vary according to the engines on board. See *engine instruction book*.

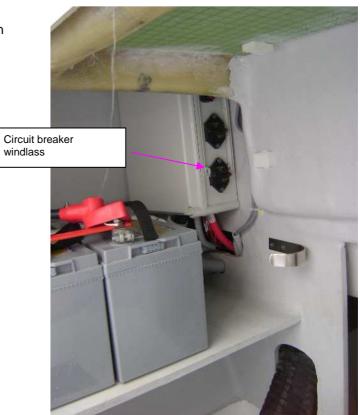
These engine speeds are subject to the sea state and speed must be reduced with increasing swell.



D) Mouillage:

Check that the port **engine** is running.

Check that the **circuit breaker** windlass is switched on (aft port compartment).



The command is made by the **remote control** of ascent and descent.

(chain locker)

Command situation



Setting the anchor

Unhook the safety tackle, lower the anchor and the chain to the last few metres of the final desired length.



Attach onto the chain, the snap shackle from the **bridle** waiting in the anchor locker.



Let out the end of the length of chain desired until the tension of the mooring gear has been taken up by the bridle.

ce que la tension du mouillage soit reprise par la patte d'oie.

> Raising the anchor.

Raise the anchor as far as the bridle's snap shackle and **undo** the snap shackle from the bridle.



Raise the anchor **slowly**, making sure that the anchor is put into the anchor roller correctly.





Block the chain with the tackle intended for that use

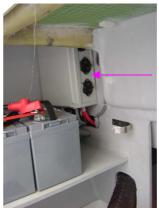
Caution

When running, keep clear of the windlass and the chain. In particular, pay a big attention on the protection of hands and feet.



If the load on the windlass is too great, the **circuit breaker** will operate.

Switch it back on to set the windlass running again.



circuit breaker

E) On arrival in port:

Stopping the engines

(see part B for a detailed description of the stopping procedure)



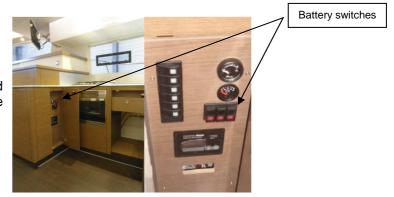
Switch off all electrical installations.

Close all gas supply valves (on tank and appliances).

Check that the bilges are free of water.

Switch off the battery switches during extended stops.

Close the valves of the gas oil tank during extended stops. They are located under the floors in the passageways.



CONFORT

A) Electrical installations:

1) Circuit 12V.



2) 220V alternating current (AC) system : (optional)

Connect the **shore power cord** by unwinding it completely or **start** the generator set.



Control panel 220V

Regularly **check** the state of the cable.

If the cable is damaged, to replace it by an identical cable.



Caution

Never connect a shore power cord when the plug is wet.

Turn **shore** / **generator changeover switch** to the right position

Check the presence of the current thank to the light on the differential earth-leak circuit breaker.

Switch on the differential earth-leak circuit breaker and the circuit breaker of the desired function (starboard engine compartment).

B) The refrigeration system:

12 V-Refrigerator

Check the state of load of the park battery service on the voltmeter of the electrical panel.

The start-up is done via the thermostat. Set the refrigerators thermostat to the desired temperature.

(For the maintenance, see the builder manual)



C) Gaz:

Open the regulator stop valve fixed directly on the tank



Open the main stop valve and the stop valve of the appliance to be used (galley locker).

Each gas appliance is equipped with a safety system. To light it, **keep the button pressed down.**

<u>Caution</u>: Ventilate during the use.

D) Water:

1) Freshwater system.

Open the tank valve. « Eau douce » sous la trappe de plancher de la cabine arrière bâbord.



Valve

Check that the water heater supply valve (port engine compartment) is always opened.





Valve

Switch on the *freshwater pump* **function** on the electrical distribution panel

The **deck shower** is shut-off with a valve.



2) Use of toilet.

Check that the sea water supply and evacuation valves for toilet) are opened. Under the floor in front starboard side.



Place the toilet lever to the "Water in" position and pump for at least 10 strokes to evacuate and dilute the black water.





Place the toilet lever to the "Evacuation" position and pump for several strokes to completely empty the pan.

Repeat the operation at least twice.

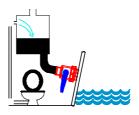


3) Use of holding tanks.

To store the black water in the holding tank : close the discharge seacock.

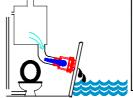
Caution:

Never force the pump Storage capacity: 45 litre.



Regularly empty the holding tank:

- . directly to the sea by opening the discharge seacock: Open the gate of evacuation **only to the wide.**
- on the dock by pumping from the "Waste" deck plate. « Waste ».





4) Discharge shower.

Open the discharge valve situated in the cupboard of each bathroom



In bathroom

6) Drainage

Cockpit compartment :

Hand pump

Open and unfold the manual pump located on the back trunk of the cockpit.

Pipe stored inside the back locker of the cockpit.





Engine compartment:

Electrical bilge pump

Switch on the function at the electrical distribution panel. **Switch off** from the end.

3 possible positions: -On

-Off

-Temporary

> Hu

➤ Hull:

Electrical bilge pump

Switch on the function at the electrical distribution

panel.**Switch off** from the end. 3 possible positions: **-On**

-Off

- Temporary

