

OPERATOR'S MANUAL

Volvo Penta Color Monitor

**VOLVO
PENTA**
00-02-0631

IMPORTANT!

This kit with its accompanying instructions is produced for Volvo Penta's service workshops, boat-builders, machine manufacturers and other authorized workshops which have personnel with qualified professional training.

The installation instructions are only produced for professional use and are not intended for non-professional use. Volvo Penta will not assume any liability whatsoever for damage incurred, either damage to materials or personal injury, which may result if the installation instructions are not followed or if the work is carried out by non-professional personnel.

WICHTIG!

Dieser Satz mit vorliegender Einbauanleitung ist für Volvo Penta Kundendienst-werkstätten, Werften, Maschinenbauer und für andere ermächtigte Werkstätten mit beruflich geschultem Personal vorgesehen.

Die Einbauanleitung ist nur für den berufsmäßigen Gebrauch vorgesehen und nicht für unprofessionelle Anwendung gedacht. Volvo Penta übernimmt nicht die geringste Haftung für irgendwelchen Schäden an Personen oder Sachen, die als Folge einer Nichtbefolgung der Einbauanleitung oder wegen Ausführung der darin beschriebenen Arbeiten durch nicht beruflich geschulte Personen entstehen.

IMPORTANT!

Ce kit, avec instructions de montage, est destiné aux ateliers de service Volvo Penta, aux constructeurs de bateaux et autres ateliers de construction agréés avec un personnel qualifié.

Les instructions de montage sont exclusivement conçues pour une utilisation professionnelle. Volvo Penta se dégage de toute responsabilité pour d'éventuels endommagements, corporels ou matériels, résultant du non respect des instructions ou d'un travail effectué par un personnel non compétent.

IMPORTANTE!

El presente juego con las instrucciones de montaje se destina a los talleres de servicio Volvo Penta, constructores de embarcaciones y máquinas y a otros talleres autorizados que cuentan con personal capacitado.

Las instrucciones de montaje están destinadas únicamente para uso profesional, por lo que Volvo Penta no aceptará responsabilidad alguna por cualquier daño, tanto personal como material, resultado de no haber seguido las instrucciones de montaje o de haber sido efectuado el trabajo por personal que no está debidamente capacitado.

IMPORTANTE!

Questo kit e le relative istruzioni di montaggio sono stati realizzati per le officine di servizio Volvo Penta, i cantieri, i fabbricanti di macchine e tutte le altre officine autorizzate il cui personale ha ricevuto un addestramento qualificato e specializzato.

Le istruzioni di montaggio sono state redatte esclusivamente per uso professionale e non sono adatte all'uso non professionale. La Volvo Penta non si assume alcuna responsabilità per eventuali danni alle cose o alle persone, derivanti da trascuratezza nel seguire le istruzioni di montaggio oppure dall'esecuzione dei lavori da parte di personale non qualificato.

VIKTIGT!

Denna sats med föreliggande monteringsanvisning är framtagen för Volvo Pentas serviceverkstäder, båtbyggare, maskintillverkare och övriga auktoriserade verkstäder som har personal med kvalificerad fackutbildning.

Monteringsanvisningen är enbart framtagen för yrkesbruk och är inte avsedd för icke yrkesmässig användning. Volvo Penta påtager sig inget som helst ansvar för eventuella skador, såväl materiella som personskador, som kan bli följd av att monteringsanvisningen ej följs, eller om arbetet utförs av icke yrkeskunnig personal.

VIGTIGT!

Dette sæt med tilhørende monteringsvejledning er blevet udviklet for Volvo Pentas serviceværksteder, bådebyggere, maskinproducenter og andre autoriserede værksteder, som har medarbejdere med kvalificeret, faglig uddannelse.

Monteringsvejledningen er udelukkende beregnet til professionel anvendelse og ikke til hobby- eller fritidsbrug. Volvo Penta påtager sig intet som helst ansvar for eventuelle skader på såvel materiel som personer, som kan være en følge af at monterings-vejledningens anvisninger ikke blev overholdt, eller hvis arbejdet blev udført af ikke-professionelt personale.

TÄRKEÄÄ!

Tämä sarja ja asennusohje on tarkoitettu Volvo Pentan huolto- ja korjaamoille, veneenrakentajille, konevalmistajille ja muille valtuutetuille korjaamoille, joiden henkilökunta on saanut pätevän ammattikoulutuksen.

Asennusohje on tarkoitettu ainoastaan ammattikäyttöön. Volvo Penta ei vastaa mahdollisista materiaali- tai henkilövahingoista, joita asennusohjeen laiminlyöminen tai ammattitaidottoman henkilökunnan suorittama asennustyö voi aiheuttaa.

BELANGRIJK!

Deze set met de bijgevoegde montage-aanwijzing is ontwikkeld voor de werkplaatsen van Volvo Penta, botenbouwers, machinefabrikanten en overige bevoegde werkplaatsen, die personeel hebben met een gekwalificeerde vakopleiding.

De montage-aanwijzing is alleen ontwikkeld voor professioneel gebruik en is niet bedoeld voor niet-professioneel gebruik. Volvo Penta neemt geen enkele verantwoordelijkheid op zich voor eventuele schade, zowel materiële schade als persoonlijk letsel, die het gevolg kan zijn als de montage-aanwijzing niet wordt gevolgd, of als het werk wordt uitgevoerd door niet-vakkundig personeel.

IMPORTANTE!

Este jogo, juntamente com as respectivas instruções de montagem, foi concebido para as oficinas de serviço da Volvo Penta, construtores navais, construtores de máquinas e outras oficinas autorizadas, com pessoal devidamente formado.

As instruções de montagem foram concebidas unicamente para utilização profissional e não se destinam a utilização não profissional. A Volvo Penta não se responsabiliza por quaisquer danos eventuais, tanto materiais como pessoais, que possam resultar no caso de as instruções de montagem não serem seguidas, ou se os trabalhos forem executados por pessoal não profissional.

ΠΡΟΣΟΧΗ!

To περιεχόμενο αυτού του πακέτου μαζί με τις οδηγίες συναρμολόγησης που τα ακολουθούν είναι ειδικά επιλεγμένο για συνεργεία σέρβις της Volvo Penta, ναυπηγεία, κατασκευαστές μηχανών και για λοιπά εξουσιοδοτημένα συνεργεία που διαθέτουν εξειδικευμένο προσωπικό.

Οι οδηγίες συναρμολόγησης προορίζονται μόνο για επαγγελματική χρήση και δεν αποσκοπούν για χρήση από μη επαγγελματίες. Η Volvo Penta δεν αναλαμβάνει απολύτως καμία ευθύνη για πιθανές ζημιές, τόσο υλικές όσο και προσωπικές, που μπορούν να προκληθούν επειδή δεν ακολουθούνται οι οδηγίες συναρμολόγησης ή επειδή η εργασία εκτελείται από μη εξειδικευμένο προσωπικό.

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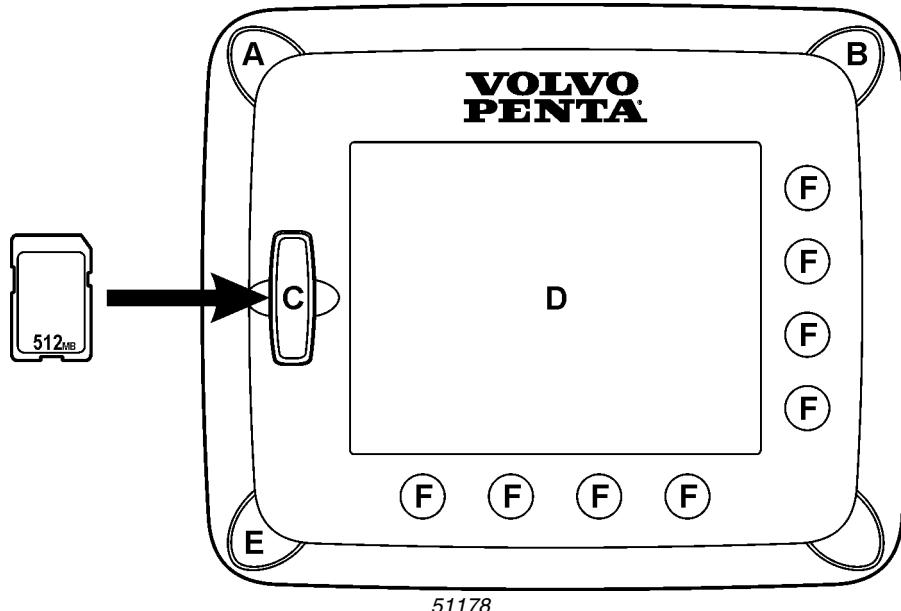
Notes

Product Information

The Volvo Penta Color Monitor is designed for instrumentation and control on electronically controlled engines communicating using SAE J1939 and NMEA 2000. The Color Monitor is a multi-function tool that enables equipment operators to view many different engine or transmission parameters and service codes, and can support up to two engines simultaneously.

Display Features

- A. **Fault Light:** Red – Error
- B. **Fault Light:** Amber – Warning
- C. SD Map Card Slot
- D. Flat Screen Display
- E. Keypad Indicator Light
- F. Navigation Buttons



Fault Lights

These indicators, located in the top two corners of the unit, will light up when a fault occurs. The unit will display an amber light for a warning or a red light for a shutdown condition. A corresponding pop-up message describing the fault may also be displayed on the screen.

Keypad Indicator Light

Located on the bottom left of the unit, the keypad indicator lights up each time one of the touch capacitive buttons is pressed.

SD Map Card Slot

This slot is used for reprogramming the unit. If using the GPS Kit, it is also used for the Navionics map cards to retrieve the maps. It is sealed from the rest of the unit. It should remain covered to keep out water, dust, and other contaminants.

Mounting Options

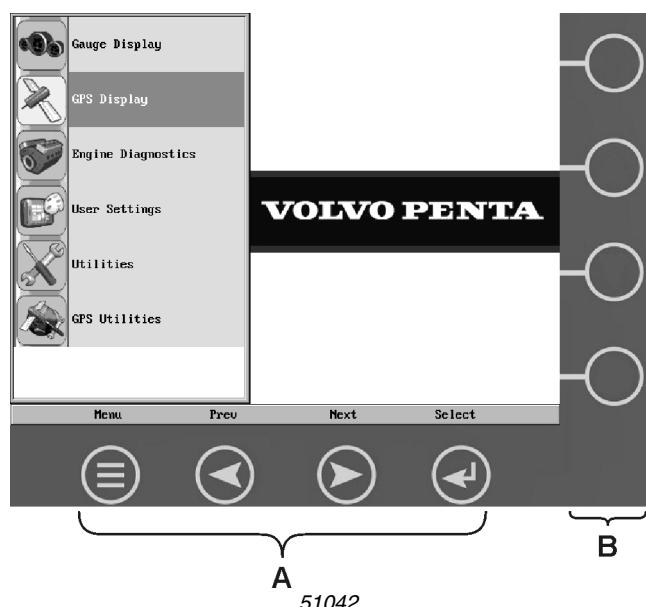
Two mounting options are provided with the Color Monitor's design. The in-dash mounting option will require a hole to be cut for insertion of the display. A template is provided with the depth and dimensions of the display for easy installation. The gimbal-mount method enables the display to be installed on top of the dash. The gimbal design allows rotating and tilting the unit for the best display position for the operator's viewing.

For complete installation and wiring instructions, refer to the document entitled *Volvo Penta Color Monitor Installation Instructions* (PN 7747029) included with your product.

NOTE! Do not leave plastic installation template installed with the display. This will create a condition where the protective cover will engage too tightly.

Color Monitor Navigation

Navigating the Color Monitor is accomplished using two sets of buttons—one fixed and one virtual—to access menus and pop-ups, and to make selections from available options. Each time a button is pressed, confirmation of the button press is given by the amber light at the lower left corner of the Color Monitor.

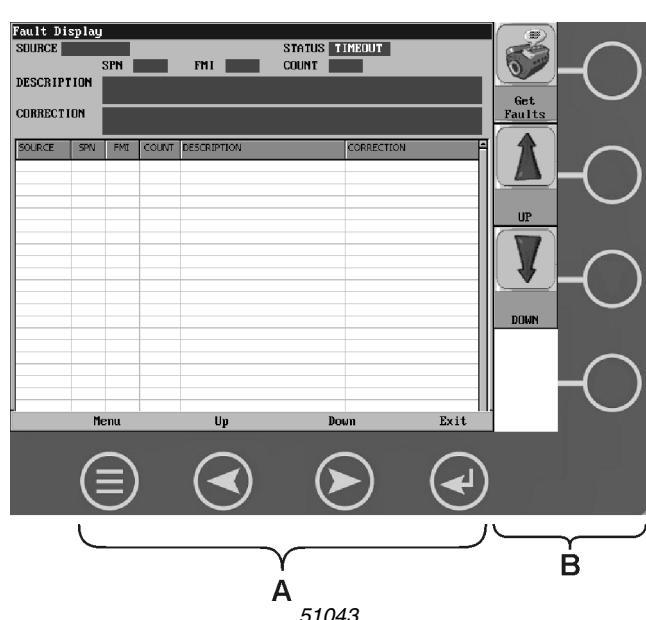


Fixed Buttons

A row of horizontal buttons **A** located at the bottom of the display provides a set of fixed buttons consisting of **Menu**, **Prev(ious)**, **Next**, and **Select**.

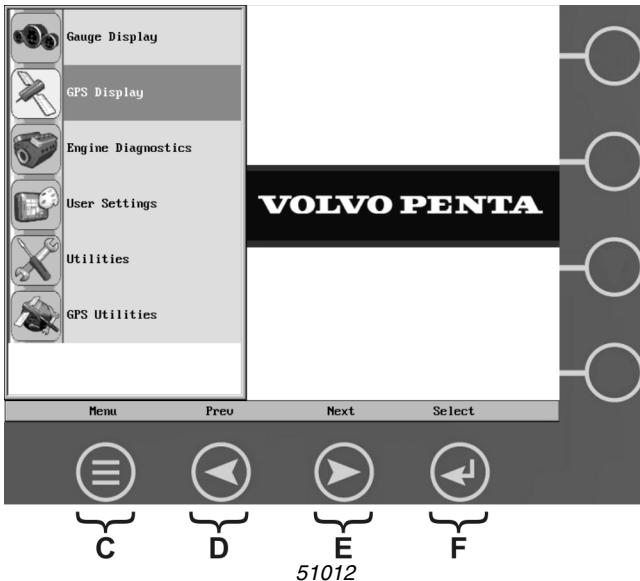
On some screens, **Select** may be replaced by other options such as **Save**, **Exit**, **Reset**, **Delete**, **Go To WPT**, or **Popup**.

On some screens, **Menu** may be replaced by **Cancel**. **Prev** and **Next** may also be represented as **Up** and **Down**.



Virtual Buttons

A column of vertical buttons **B** located to the right of the display, are virtual buttons. They will change according to the options available for the screen being displayed.

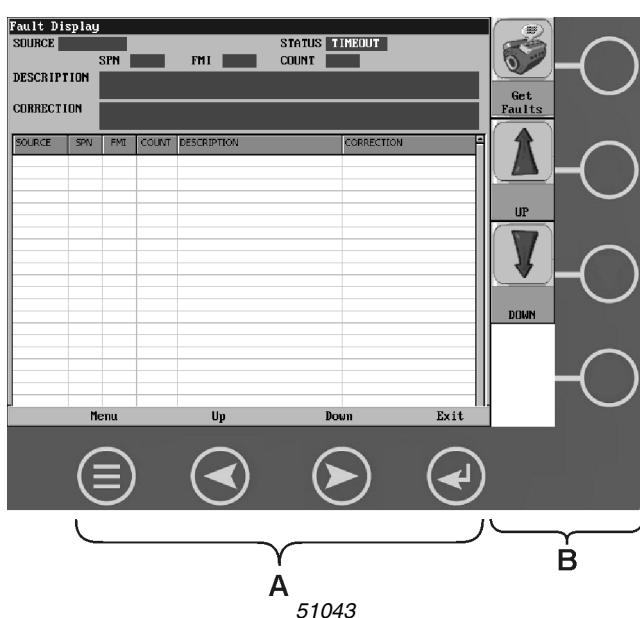


Menu

The Menu can be accessed at any time, from any screen being displayed by pressing the **Menu** button.

The **Menu** button **C** is always located in the first position of the fixed buttons.

The **Select** button **F** is also sometimes the **Popup** button.



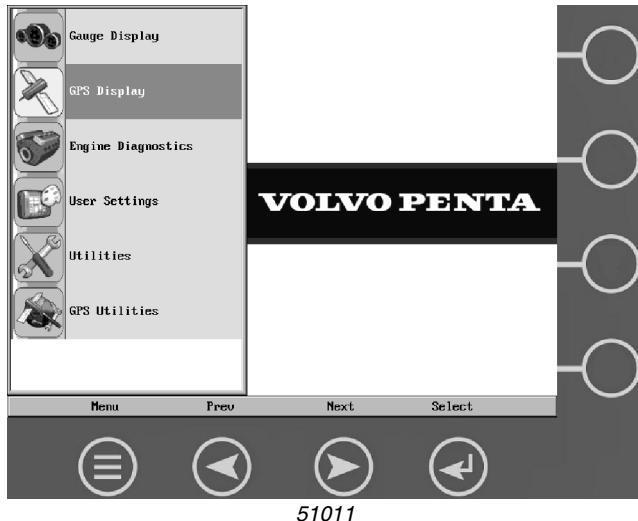
Popup

The **Popup** button utilizes the virtual keys **B** to the right of the display to provide shortcuts for navigation and display options.

Product Features

Power Up

The Volvo Penta Color Monitor is most frequently installed with power connected to the ignition. When the ignition is turned on, the display powers up and the engine health statistics can be viewed via preset gauges. To see more gauge screens, press the **Next** or **Prev** buttons.



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Main Menu

The main menu is activated at any time by pressing the **Menu** key on the display.

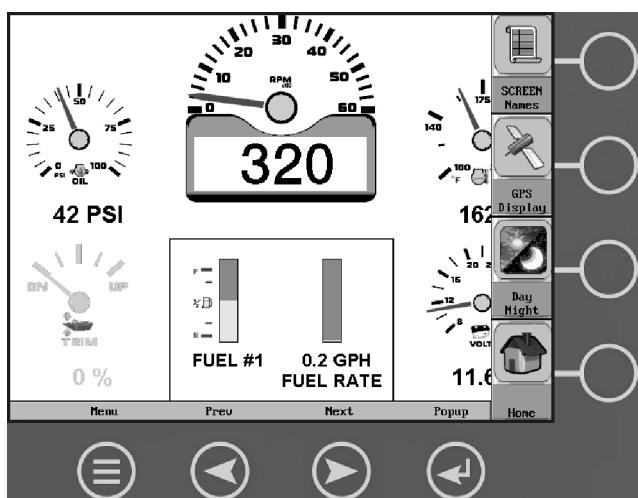
The following features are accessed through the main menu:

- **Gauge Display** – provides a series of screens that display engine and auxiliary information in a variety of formats.
- **GPS Display** – provides global positioning information based on your position.
- **Engine Diagnostics** – displays a list of engine fault codes, descriptions, and on some engines corrective action will be shown.
- **User Settings** – allows you to customize the display options for ambient light and brightness, set US or metric units, specify the Home screen and screen setup status.
- **Utilities** – allows configuration of the unit including wire configuration, plug address, fault conversion, CAN data, and fault codes. Also displays software version information at the top of the page.
- **GPS Utilities** – contains options to set up track and position, chart and time, and waypoint manager. Also displays satellite status.

Gauge Display

The Gauge Display screen consists of several pre-defined layouts that contain combinations of analog gauges, curved bar (half-moon) gauges, straight bar gauges, or digital (text) readouts. These screens are displayed upon startup.

You can scroll through the various gauge screens by pressing the **Next** and **Prev** buttons. This can be repeated until all screens have been viewed. The currently displayed screen will stay active until another button is pressed.



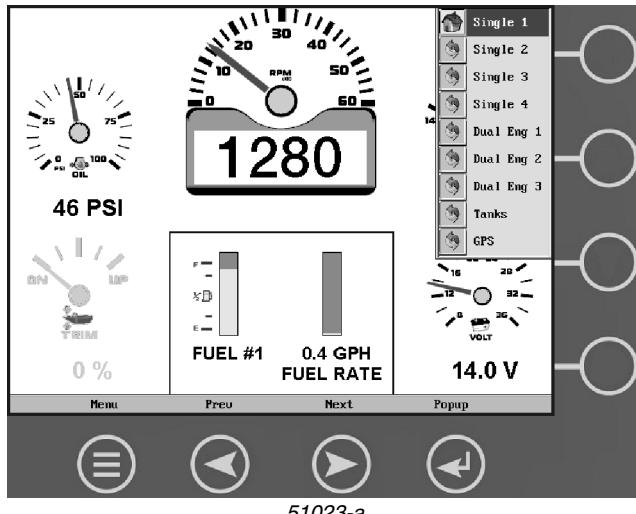
51022-a

Gauge Display Popup

Pressing the **Popup** button on any of the Gauge Display screens will provide additional virtual buttons, as shown on the previous page (illustration # 51022-a).

These virtual buttons provide quick navigation and access to frequently used features:

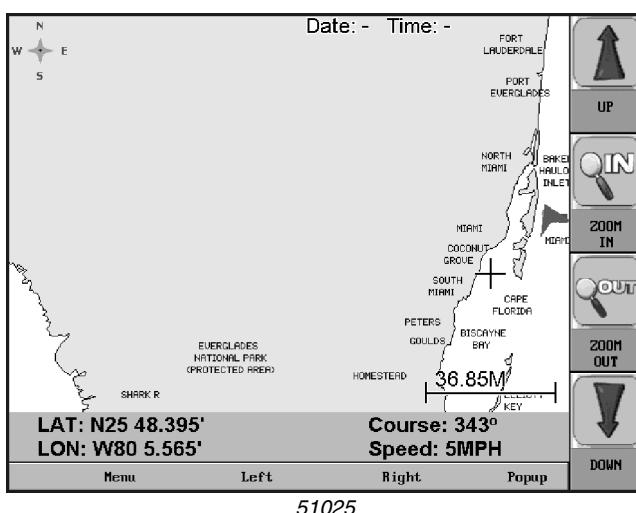
- Screen Names
- GPS Display
- Day/Night
- Home



Screen Names

When **Screen Names** is selected from the Popup, a small window appears at the top right of the display. This window contains the names of each of the screens that are currently "Turned ON." Using the **Prev** and **Next** buttons allows you to scroll through and display the various gauge configurations.

For instructions on how to turn screens ON or OFF, refer to *User Settings* on page 12.



GPS Display

When **GPS Display** is selected from the Popup, a GPS map is displayed.

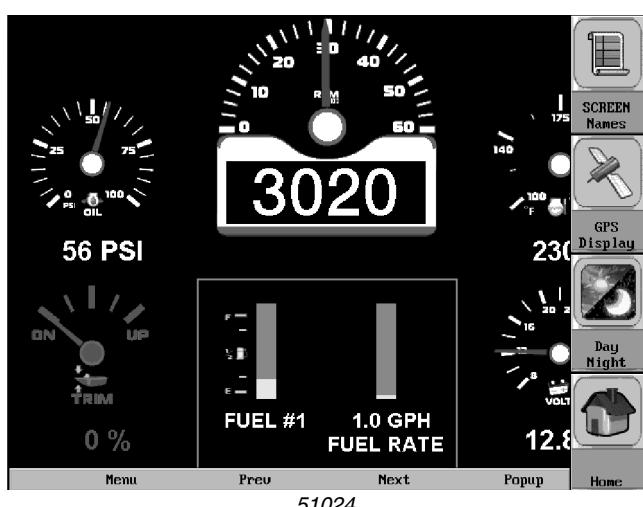
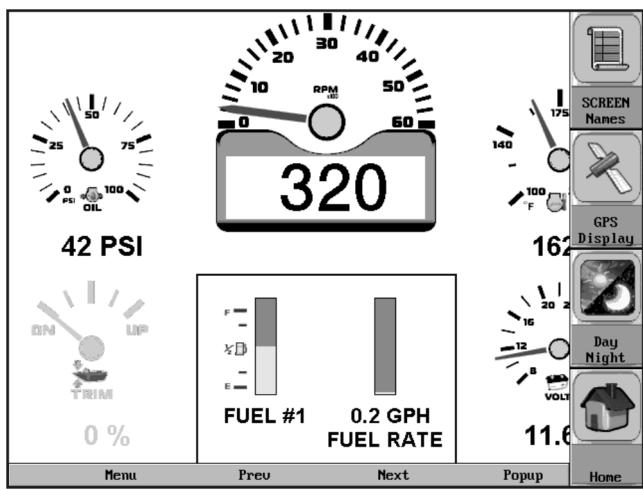
The GPS Display screen is optional and can be turned ON or OFF. If it is turned ON, the **GPS Display** button will show the screen at left.

NOTE! In order for this information to be available on the Volvo Penta Color Monitor, a GPS receiver kit (PN 3849222) that is NMEA 2000 compatible must be installed. This NMEA 2000 device (along with any others) should be networked using valid NMEA 2000 cabling and terminating resistors (NMEA Backbone Kit PN 3849223). The NMEA 2000 cabling should ALWAYS be plugged into Plug D on the back of the display.

The GPS Display can be accessed several ways:

- Using the Menu button
- From the Popup menu
- By scrolling through the Gauge Display

For instructions on how to use the GPS map, refer to *GPS Display* on page 9.



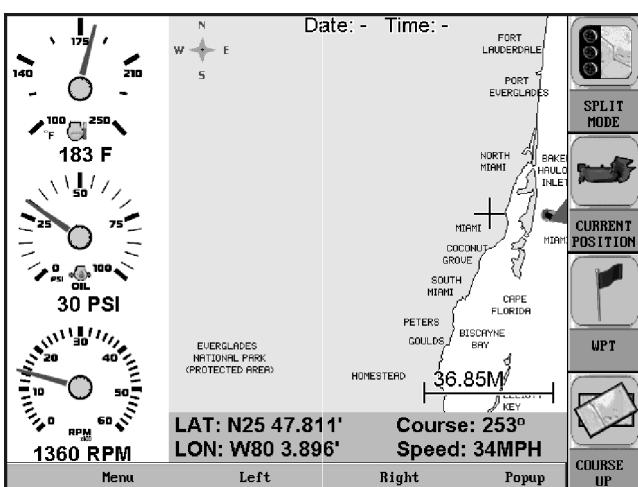
Day Night

The **Day Night** button allows you to toggle the display screen between Day View and Night View. This feature can also be changed as described in *User Settings* on page 12.

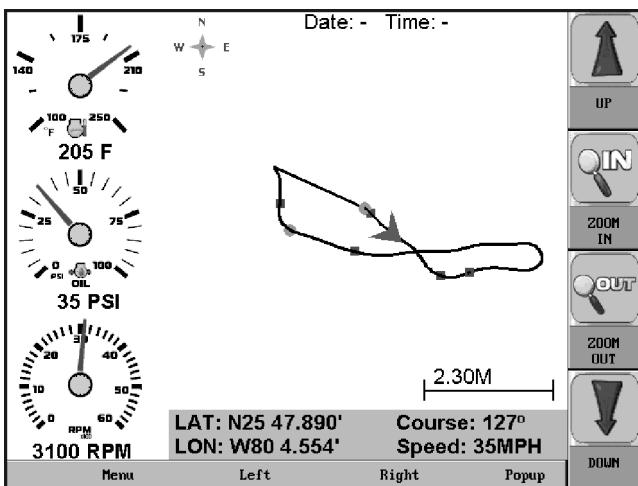
Home

The **Home** button is a one-touch navigation feature that allows a pre-defined Home screen to be accessed from the available Gauge Display screens. Once selected, the Home screen will be displayed anytime the **Home** button is pressed. It will also be the first screen displayed when accessing the Gauge Display screens.

For instructions on how to setup the Home screen, refer to *User Settings* on page 12.



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51027-a



51027-b

GPS Display

GPS Display is accessed by selecting it from the main menu or the Gauge Display popup. The GPS feature displays the map data and up to 3 configurable gauges. Latitude and Longitude coordinates are also listed, as well as course and speed.

GPS terminology defines COG as "Course Over Ground" and SOG as "Speed Over Ground."

You can navigate the GPS map by pressing the **Up**, **Down**, **Left**, and **Right** buttons to move the cross-hairs on the map. You can also press the **Zoom In** button for more detail or the **Zoom Out** button for a larger viewing area.

Tracking shows the current route and any waypoints you have set. A green arrow indicates your current position, while the red square indicates the initial point of tracking.

For instructions on setting GPS display options, refer to *GPS Utilities* on page 14.

GPS Display Popups

When the GPS Display is on, a **Popup** button provides quick access to the following GPS features:

- Split Mode
- Current Position
- WPT
- Course Up/North Up

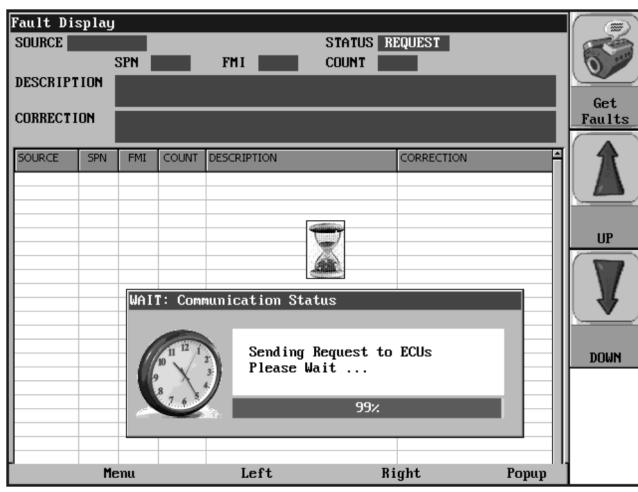
Split Mode – toggles between a split screen with up to 3 gauges, or a full map screen without gauges.

Current Position – is used to return to the current boat/satellite position after having moved the cursor to another location.

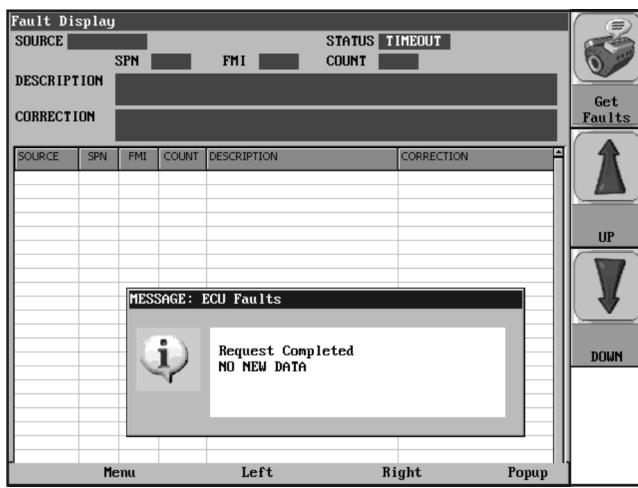
WPT – places a marker or "waypoint" on the map to mark a favorite location.

NOTE! Refer to *GPS Utilities* on page 14 for more information on waypoint management.

North Up/Course Up – determines how the orientation of the map is displayed; either conventional "North Up" or, according to the current course heading, "Course Up."



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Fault Display					
SOURCE	SPN	FMI	COUNT	DESCRIPTION	CORRECTION
ENGINE #1	110	4	1	ENG COOL TEMP VOLT BELOW NORM OR SHORT LOW SOURCE	
DESCRIPTION	SPN	FMI	COUNT	ENG COOL TEMP VOLT BELOW NORM OR SHORT LOW SOURCE	
CORRECTION					
SOURCE	SPN	FMI	COUNT	DESCRIPTION	CORRECTION
ENGINE #1	110	4	1	ENG COOL TEMP VOLT BELOW N	
ENGINE #1	94	16	1	FUEL DELIVERY PRESSURE HIG	
ENGINE #1	834	2	1	RACK ACTUATOR ERROR BLEED	
ENGINE #1	655	7	1	INJ CYLINDERS FUEL FLOW LO	
ENGINE #1	107	31	3	AIR FILT DIFF PRESS PLUGGE	
ENGINE #1	655	7	1	INJ CYLINDERS FUEL FLOW LO	
ENGINE #1	28	4	1	% ACCEL POSS VOLT BELOW NO	
ENGINE #1	970	31	4	EXT AUX ENG SHUTDOWN SWITC	
ENGINE #1	91	14	1	ACCEL PEDAL POS THROTTLE S	
ENGINE #1	655	7	1	INJ CYLINDERS FUEL FLOW LO	
ENGINE #1	1041	3	2	START SIGNAL ALWAYS ACTIVE	
ENGINE #1	1076	10	1	FUEL INJ PUMP CONT VALVE E	
ENGINE #1	97	31	2	WATER IN FUEL DETECTED	
ENGINE #1	97	31	2	WATER IN FUEL DETECTED	
ENGINE #1	1041	3	2	START SIGNAL ALWAYS ACTIVE	
ENGINE #1	620	3	4	SENSOR VOLTI (+5VDC) ABOVE	
ENGINE #1	100	18	2	ENGINE OIL PRESS LOW	
ENGINE #1	110	4	1	ENG COOL TEMP VOLT BELOW N	
ENGINE #1	28	4	1	% ACCEL POSS VOLT BELOW NO	

51029-a

Engine Diagnostics

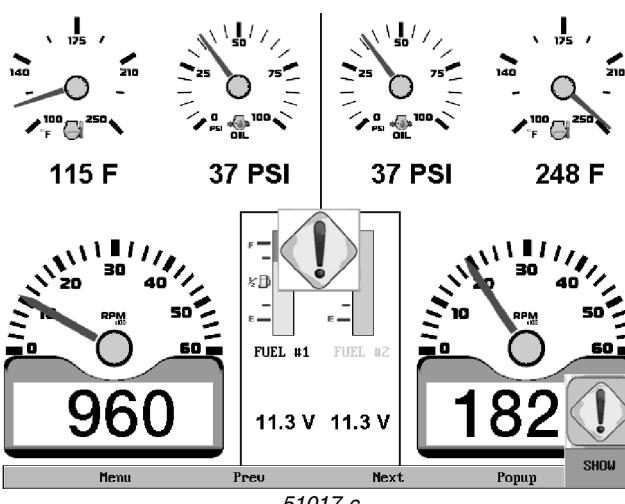
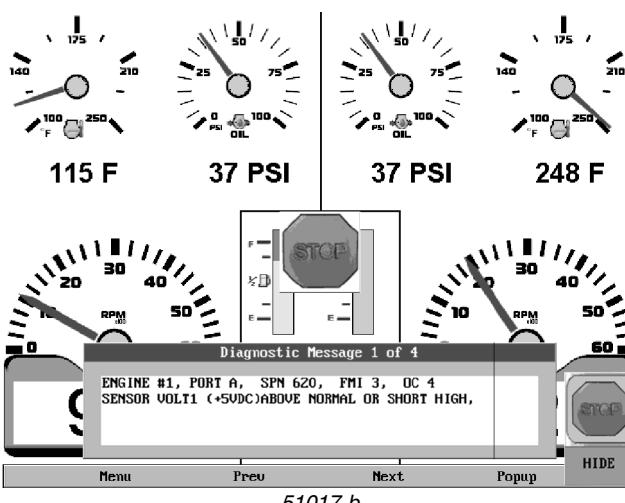
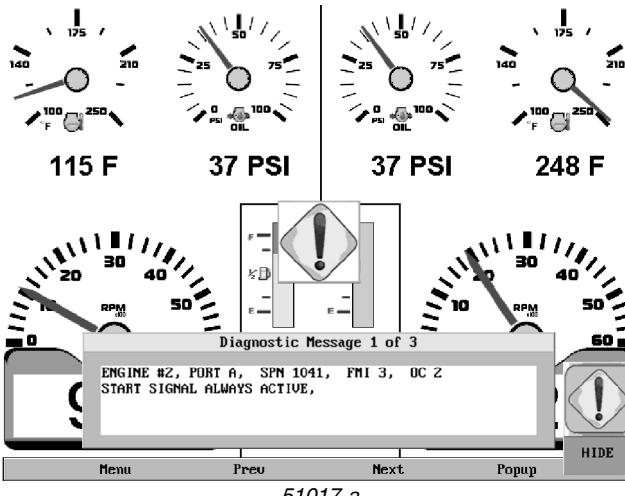
When choosing this selection, the display will query the engine control unit (ECU) and provide feedback on any diagnostic codes that have been activated and stored in the ECU for service needs.

The Engine Diagnostics option displays faults based on engine or auxiliary source. A description of the fault as well as the suggested action for correction is provided for each fault occurrence.

The following is a list of field definitions contained on the Fault Display screen:

- **Source** – Identifies the component having the fault; engine 1, 2, or auxiliary.
- **Status** – Indicates whether the fault has been corrected.
- **SPN (Suspect Parameter Number)** – Fault code. If not translated into text by the color monitor, see the engine manufacturer's literature for the definition of the SPN.
- **FMI (Failure Mode Indicator)** – Fault code. The FMI is defined by SAE J1939 and if not translated into text, see the SAE standard or the engine manufacturer's literature.
- **Count** – The number of times the event has been flagged.
- **Description** – Most common SPNs and FMIs have text for the description stored in the color monitor. If there is no text, then this SPN and FMI must be defined by referring to the engine manufacturer or the SAE J1939 standard.
- **Correction** – Troubleshooting guidelines for corrective action to take in addressing the fault.

NOTE! This field is only used with certain brands and models of engines.



Fault Code Pop-ups

A fault condition will trigger a pop-up dialog box on the screen describing the nature of the fault. Corresponding red or amber fault lights on the corners of the unit are also activated to indicate the severity of the fault.

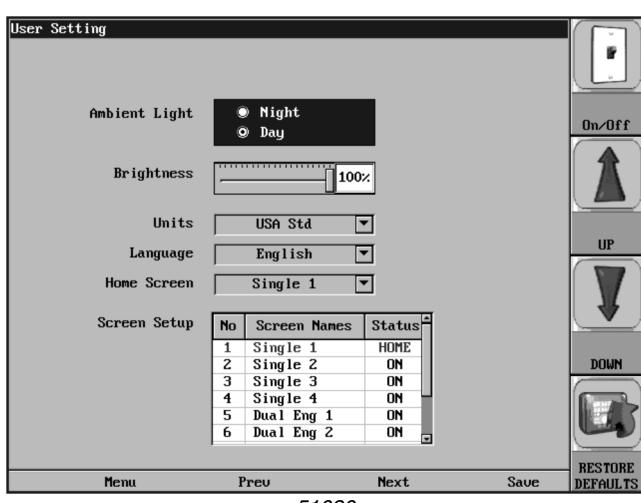
Scrolling Through Multiple Messages

The title-bar of the fault code pop-up may indicate multiple messages, as in "Diagnostic Message 1 of 3." You may press the **Prev** and **Next** buttons to scroll through the different messages.

How to Hide/Show Faults

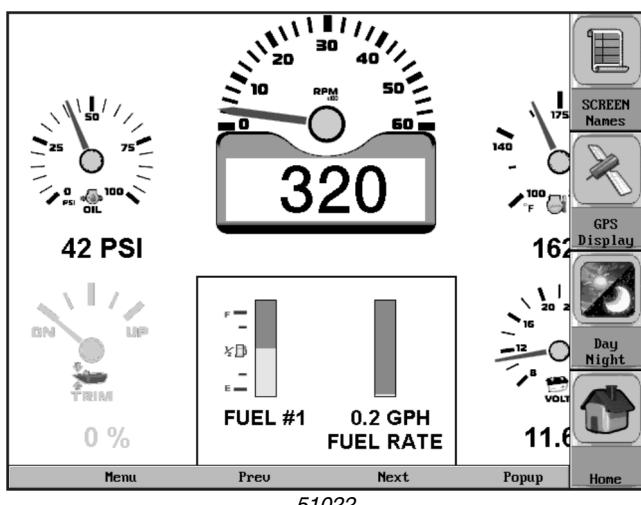
To hide the fault code pop-up being displayed on the screen, press the virtual button on the right next to the "Hide" icon. The pop-up will disappear, however the "Warning" or "Stop" icon will remain on the screen to indicate there is still a fault. Pressing "Hide" does not clear the fault, it only hides the pop-up message.

When a fault code has been hidden, a "Show" icon will remain in the bottom right corner. When this virtual button is pressed, the fault code will again be displayed.



User Settings

User Settings provides options to specify viewing preferences for the color monitor. Pressing **Prev** and **Next** navigates through the options, and **Up** and **Down** scrolls through the selections for each option.



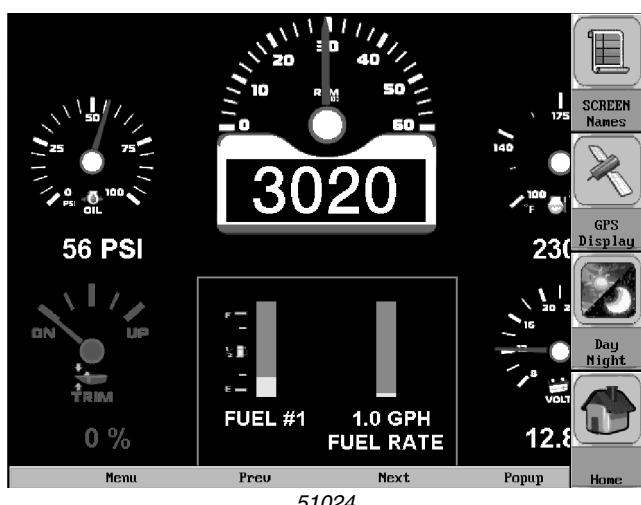
Ambient Light

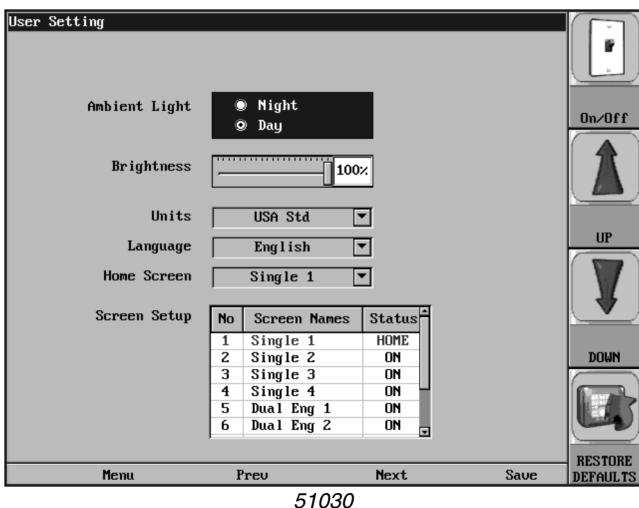
Night and Day options are provided for ambient lighting. The screens at left illustrate these options. When the ambient lighting settings are changed in User Setting, the power-on default is changed.

NOTE! The ambient lighting option is also accessible through a pop-up menu on the gauge display screens. When the pop-up is activated, selecting the **Day Night** virtual button changes the display to the opposite mode.

Brightness

You can set the brightness control by using the **Up** and **Down** virtual buttons to change the settings in 5% increments until the desired brightness is achieved.





Units

Select how units are displayed by using the **Up** and **Down** virtual buttons to select:

- USA Std (US standard units)
- Metric KPa
- Metric Bar
- Imperial Eng (English imperial units)

Language

This option allows you to select the language of the text that will be displayed on the screen. As an example, by using the **Up** and **Down** virtual buttons, you may select English, French, German, or Spanish to display the text.

NOTE! The list of language options varies by model.

Home Screen

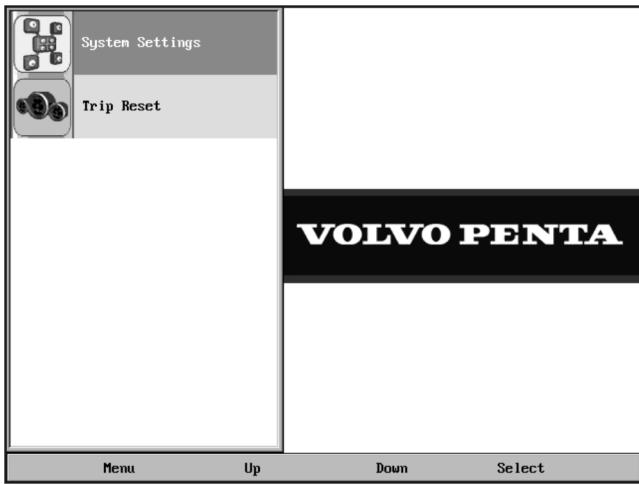
The Home Screen option allows you to specify a favorite screen from the Screen Names list that can be used as a shortcut back to that screen. Use the **Up** and **Down** virtual buttons to scroll through the list until the desired screen is listed. This will be the Home Screen.

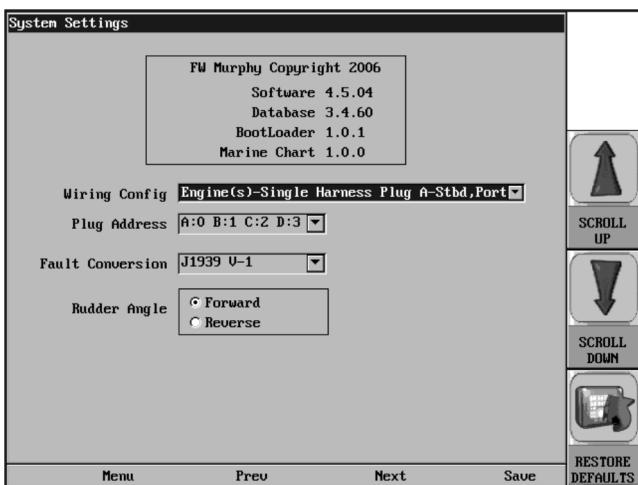
Screen Setup

The Screen Setup option provides a list of screens that may be shown when accessing the Gauge Display screens. The 'Status' field will indicate which screen has been specified as the HOME screen. It also provides the user the ability to turn the screens ON or OFF by pressing the **On/Off** virtual button. If a screen is turned OFF, it will not show up when Gauge Display is activated.

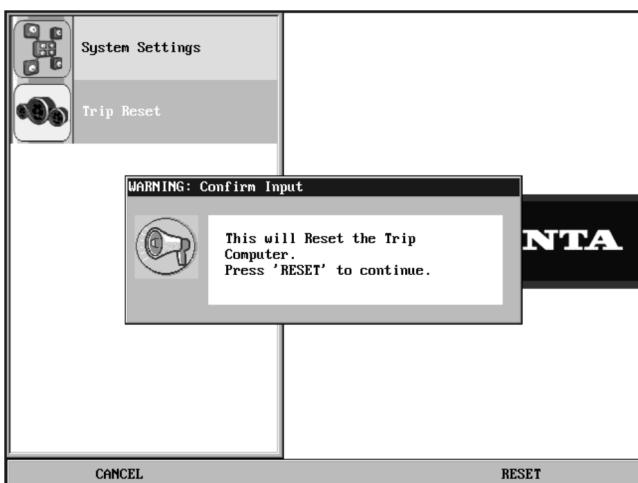
Utilities

Utilities allow you to configure wiring and communication settings. It is typically only accessed when the unit is first installed in order to configure the unit. Utilities also allows you to reset the trip computer. The sub-menu at left is displayed when Utilities is selected.

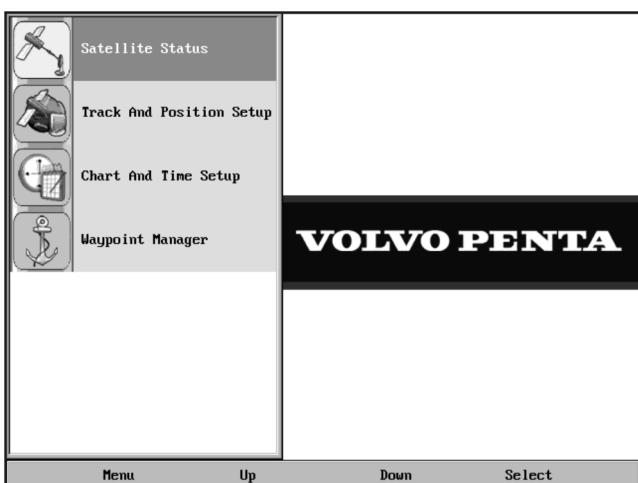




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System Settings

The System Settings screen displays the current software version loaded on the color monitor. You can set individual settings for the available options or choose to select "Restore Defaults" for the factory settings.

The **Prev** and **Next** buttons allow you to move from field to field. While the cursor is highlighting a field, the **Scroll Up** and **Scroll Down** buttons display available options. Once all the options have been selected, press **Save**.

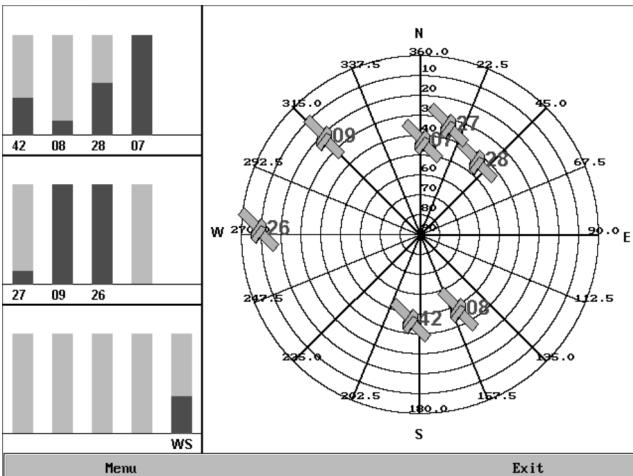
For guidelines to configure your color monitor, refer to *Setting Up Your Color Monitor for the First Time* on page 17.

Trip Reset

This option is used to reset the trip computer. When you select Trip Reset, all current trip data that has been saved will be erased. To verify that you wish to clear the trip computer of existing data, press the **Reset** button. To leave all trip data unchanged, simply press the **Cancel** button.

GPS Utilities

When using a GPS device, GPS Utilities will allow you to configure and monitor satellite tracking data. The sub-menu at left is displayed when GPS Utilities is selected.



51035

Satellite Status

This feature displays a graphic indicating the satellites currently visible in orbit and the signal strength of each satellite.

Track And Position Setup Screen

Position Format Selection

- Degrees And Decimal Degrees
- Degrees, Minutes And Decimal minute
- Degrees,Minutes.seconds And Decimal seconds

Menu Prev Next Save

51036

Track and Position Setup

This feature allows you to define the amount of detail to display for the longitude and latitude information on the GPS map.



Track And Position Setup Screen

Position

WARNING: Confirm Input

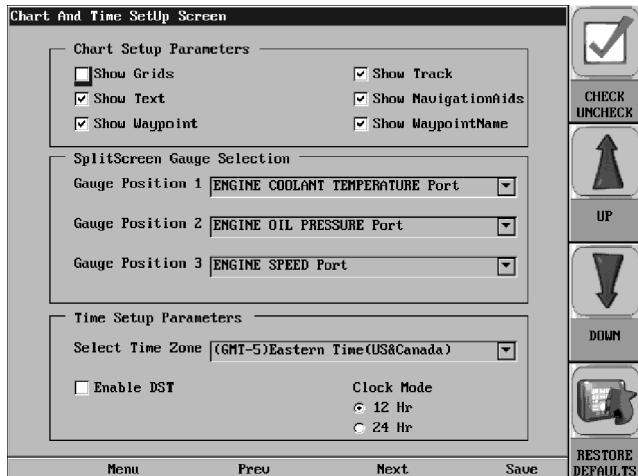
This will Delete the Track
Press 'DELETE' to continue

CANCEL DELETE

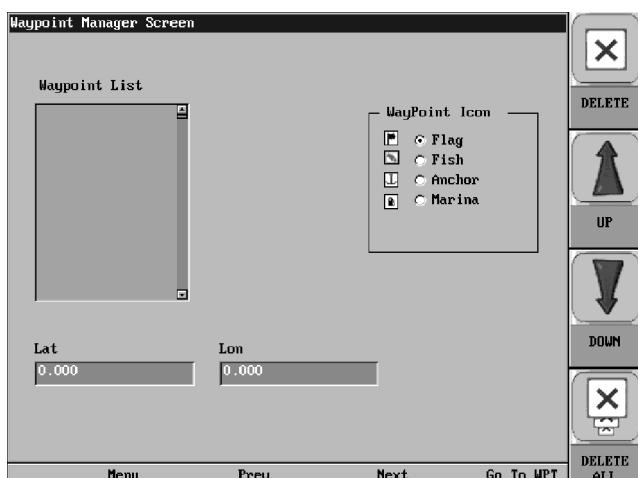
51037

Pressing the **Delete Track** button will delete the current tracking information. **Restore Defaults** will reset the longitude and latitude to the factory default setting.





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Chart and Time Setup

This menu option allows you to set up viewing options for the GPS Display.

Chart Setup Parameters – use the **Check/Uncheck** button to select the information you want displayed on the GPS screen.

Splitscreen Gauge Selection – allows you to custom configure the type of gauges you want to display in split screen mode.

Time Setup Parameters – is used to select correct time zone and clock mode for either 12-hour or 24-hour time formats. You can also enable DST (Daylight Savings Time) by using the **Check/Uncheck** button to select the box.

Waypoint Manager

Waypoints allow you to mark specific locations by latitude and longitude. Once the waypoints are established, the Waypoint Manager allows you to associate an icon with them for identification.

Waypoint List – displays a list of the waypoints that have been set. Use the Up and Down buttons to highlight the desired waypoint.

Waypoint Icon – allows you to assign one of four different icons to any of the waypoints listed.

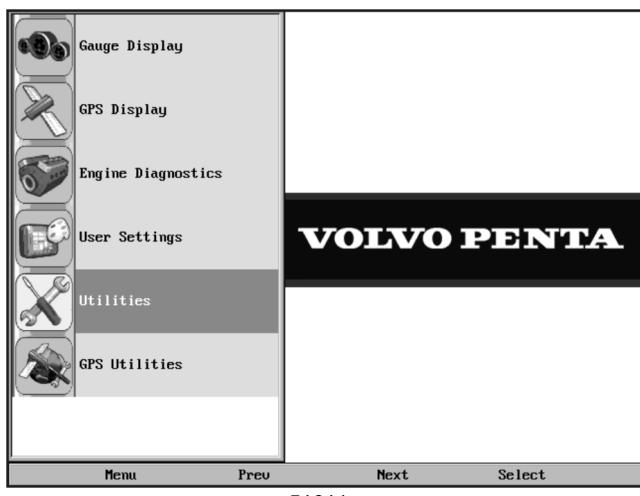
Lat/Lon – Displays Latitude and Longitude values for the currently highlighted waypoint on the list.

You can delete a single waypoint by using the **Delete** button, or all of them at once with **Delete All**. Pressing the **Go to WPT** button displays the GPS screen containing the currently highlighted waypoint.

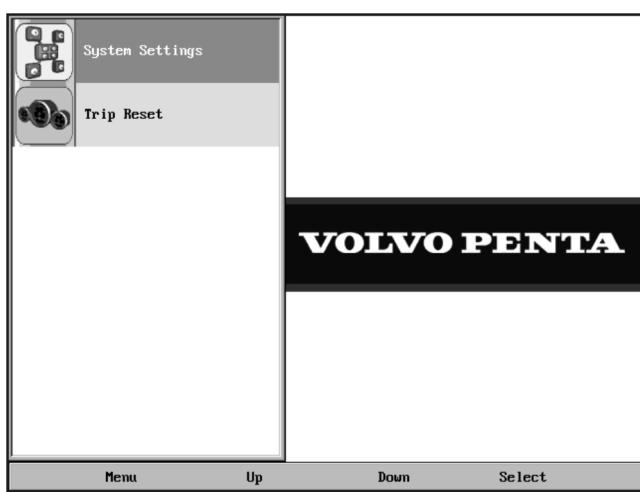
Setting Up Your Color Monitor for the First Time

The guidelines presented below are intended for setting up the color monitor for the first time. Once the configuration is set up, there is no need to revisit or change any of the settings. If the unit is already installed on the boat, it is unlikely to need configuration changes; however, consult with the selling dealer to make sure.

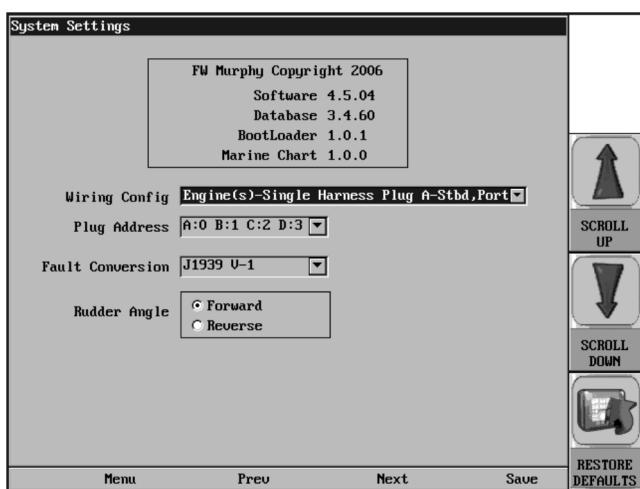
NOTE! If you require assistance during the set up process, contact Volvo Penta customer support at:
(877) 337-3682.



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1. At the main menu, press the **Next** button to move the highlight bar through the options until Utilities is highlighted. Press **Select**.

2. The Utilities sub-menu is displayed. From the Utilities sub-menu, select System Settings.

3. The System Settings screen is displayed.

4. With the cursor highlighting the Wiring Config field, press the **Scroll Up** or **Scroll Down** virtual buttons (located to the right of the display), to scroll through the list of options. The field options consist of the following:

- Custom
- (A) Engine(s) – Single Harness Plug A-Port, Stbd
- (B) Engine(s) – Single Harness Plug A-Stbd, Port
- (C) Engines – Dual Harness Plug A&B-Port, Stbd
- (D) Engines – Dual Harness Plug A&B-Stbd, Port
- (E) NMEA – Plug D-Port, Stbd
- (F) NMEA – Plug D-Stbd, Port

NOTE! This setting needs to match the wiring configuration for how your color monitor was installed. If you are unsure of how to configure these settings, consult the dealer where your system was installed.

The following table is provided as a partial reference list of engines and their appropriate wiring configuration.

Engine Type	Single Engine Configuration	Twin Engine Configuration ¹
Volvo Gas	(C) Dual Harness Plug A, B – Port, Stbd	(C) Dual Harness Plug A, B – Port, Stbd or (D) Dual Harness Plug A, B – Stbd, Port
Volvo Diesel or Gas EVC ²	(E) Plug D-Port, Stbd	(E) Plug D – Port, Stbd or (F) Plug D – Stbd, Port
1. The difference between A & B, E & F, and C & D is only the orientation of the data on the screen. In a twin application the engines' data may appear on the wrong side of the screen. Changing to the secondary option, A to B, C to D, or E to F, will switch the data to the other side of the display. 2. An NMEA 2000 conversion module is needed. This can be purchased through Volvo Penta.		

5. When the correct setting for Wiring Config is displayed, press the **Next** button to advance to the Plug Address field.
6. With the cursor highlighting the Plug Address field, press the **Scroll Up** or **Scroll Down** virtual buttons to scroll through the list of options. These options consist of the following:
- | | |
|--|--|
| <ul style="list-style-type: none"> • A:0 B:1 C:2 D:3 • A:1 B:2 C:3 D:4 • A:2 B:3 C:4 D:5 • A:3 B:4 C:5 D:6 | <ul style="list-style-type: none"> • A:4 B:5 C:6 D:7 • A:5 B:6 C:7 D:0 • A:6 B:7 C:0 D:1 • A:7 B:0 C:1 D:2 |
|--|--|
7. When the correct setting for Plug Address is displayed, press the **Save** button. The Utilities sub-menu is displayed.

 **CAUTION! Accept the defaults for the remaining fields in System Settings. They should only be changed when directed to do so by customer support.**

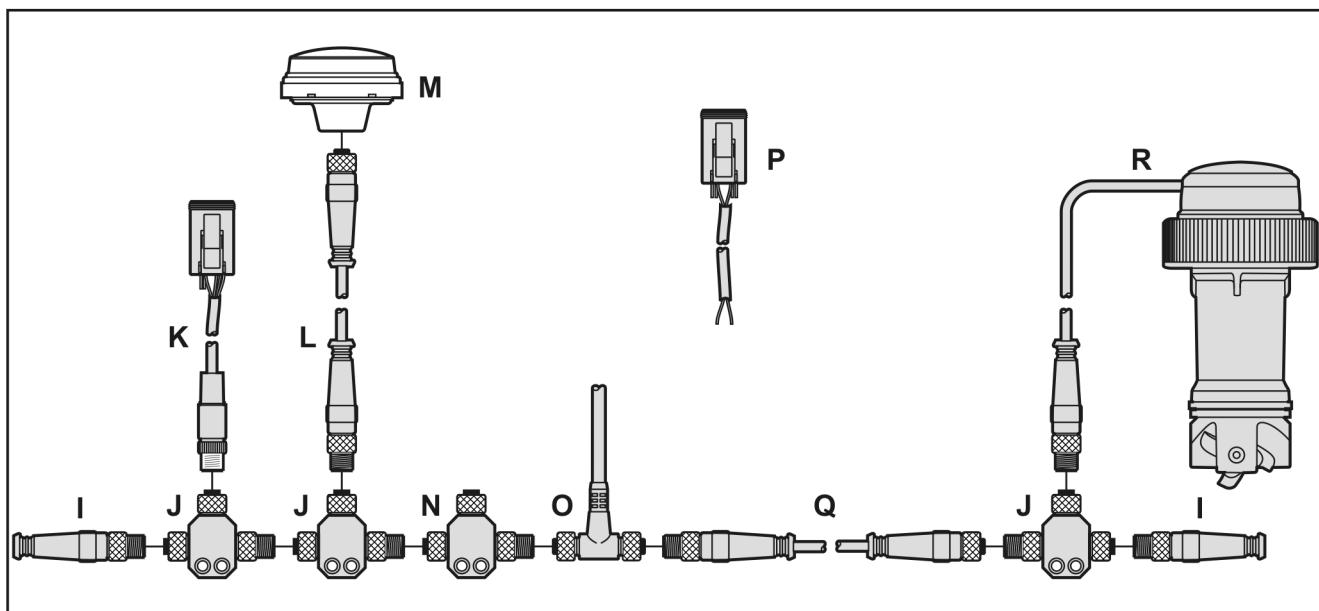
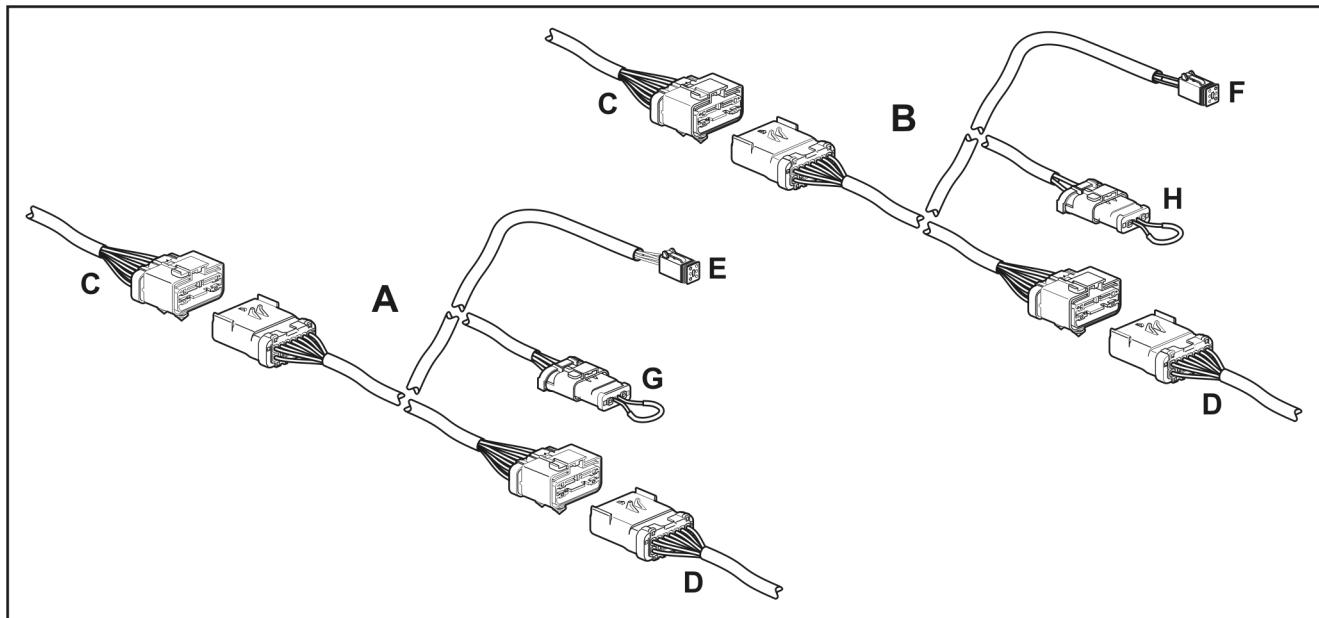
Once the System Settings have been configured, you may want to set up your display options and favorites. For information on this process, refer to *User Settings* on page 12.

Troubleshooting

Symptom	Cause/Remedy
Display appears not to work or doesn't come "ON"	<ol style="list-style-type: none"> 1. Display could be in sleep mode. Touch a key on the keypad to activate the display. 2. Verify the amber keypad indicator light flashes when a key is touched. 3. Check for loose connections at battery and display unit. 4. Check for reversed polarity on the power connections. 5. Verify battery has a minimum voltage of 6 Volts.
Display resets or goes "OFF" when starting engine	<ol style="list-style-type: none"> 1. Check display supply wires are connected properly to battery. 2. Verify battery is charged properly. 3. Check battery for efficient starter current.
Engine systems remain powered with key switch off on a twin engine installation	<ol style="list-style-type: none"> 1. Verify that power to the display only comes from one engine. 2. If it is desired that power comes from both engines, the power supplies need to be connected through diodes.
Display has no backlight	<ol style="list-style-type: none"> 1. Contact technical support.
Display has no keypad backlight	<ol style="list-style-type: none"> 1. Contact technical support.
No Network communication (GPS, Multisensor, Tank)	<ol style="list-style-type: none"> 1. Verify NMEA standard is 2000. 2. Verify that each NMEA device is connected through its own Tee. 3. Verify there are terminate resistors at each end of the network. 4. Verify there is power on the network. 5. Verify all connections are secure. 6. Please contact technical support for additional assistance.
SAE J1939 CAN	<ol style="list-style-type: none"> 1. Verify for proper terminate resistors (120 Ohms) at both ends of network backbone. 2. Verify overall network backbone length is not exceeding 40 meters. 3. Verify drop distance is not exceeding 1 meter. 4. Verify there is power to the network. 5. Verify all connections are secure. 6. Please contact technical support for additional assistance.
Faulty and/or No Engine Information	<ol style="list-style-type: none"> 1. Verify proper wire harness is installed and connected (contact technical support for additional assistance). 2. Verify proper system setting on display (wiring configurations). 3. Verify that engine is powered up. 4. Verify wiring harness has terminate resistors.
Display doesn't detect SD card	<ol style="list-style-type: none"> 1. Make sure SD card is engaged properly. 2. Verify that there is no water in the card slot. 3. Verify SD card is in good condition (no corrosion on card contacts).

Cables, Connectors, and Components

- A. Single engine application or Port side in twin engine application
- B. Starboard side in twin engine application
- C. 14-Pin connector on engine
- D. 14-Pin connector on boat cable harness
- E. To plug A on display
- F. To plug B on display
- G. To plug A on second station display
- H. To plug B on second station display



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- I. Terminate resistor
- J. NMEA device Tee
- K. Cable connected to plug D on display
- L. GPS cable
- M. GPS receiver
- N. Tee connector to NMEA interface (**EVC only**)
- O. Power supply cable for NMEA components
- P. To plug A on display (**EVC only**)
- Q. Extension cable
- R. Multisensor

Specifications

Electrical

Display	6.4" Color transmissive TFT LCD
Resolution	VGA, 640 x 480 pixels
Orientation	Landscape
Backlighting	CCFL, 350 cd/m ² (50,000 h lifetime) not replaceable
Processor	Sharp ARM9 LH7A404, 200 MHz Philips ARM7 LPC2194 70 MHz
Flash Memory	16 MB
RAM	32 MB SDRAM
EEPROM	32 KB
Operating Voltage	6 to 32 VDC, protected against reverse polarity and load-dump
Power Consumption	10 W full backlight 22 W full backlight with heater (< -10° C)
CAN	4 CAN ports according to CAN specification 2.0B. One port isolated according to NMEA 2000
RS-485	2 MODBUS Master ports at 38.4 Kbaud
Protocols	J1939, NMEA 2000, proprietary
Connection	4 Deutsch DT04-6P 6-pin connectors
Keyboard	8 Capacitive Touch Keys

Mechanical

Mounting Variants	Panel Mounting – Mounts with eight screws into the lip of the bezel. Gimbal Mounting – Uses an articulating gimbal.
Dimensions	(W x H) 8.74 x 7.23 in Panel Mount Depth – 0.605 in Unit Depth – 3.265 in
Cutout for panel mounting	(W x H) 7.15 x 5.65 in
Case Material	High impact acrylic front case Polycarbonate back case
Weight	2 lb

Environmental

Operating Temperature	-20° C to +85° C
Storage Temperature	-40° C to +85° C
Protection	IP68
Emissions	IEC 60945, 95/54/EC
Immunity	SAE J1113, ISO 11452

NMEA 2000 Parameter Group Numbers (PGNs)¹

127245	Rudder
127250	Vessel Heading
127488	Engine Parameters, Rapid Update
127489	Engine Parameters, Dynamic
127493	Transmission Parameters, Dynamic
127505	Fluid Levels
127508	Battery Status
128259	Speed
128267	Water Depth
129025	Position, Rapid Update
129026	COG & SOG, Rapid Update
130310	Environmental Parameters
130576	Small Craft Status

J1939 Parameter Group Numbers (PGNs)¹

61442	ETC1 - Electronic Transmission Controller 1
61443	EEC2 - Electronic Engine Controller 2
61444	EEC1 - Electronic Engine Controller 1
61445	ETC2 - Electronic Transmission Controller 2
65164	AAI - Auxiliary Analog Information
65213	FD - Fan Drive
65243	EFL/P2 - Engine Fuel Level/Pressure 2
65248	VD - Vehicle Distance
65253	HOURS - Total Engine Hours
65257	LFC - Liquid Fuel Consumption
65262	ET1 - Engine Temperature 1
65263	EFL/P1 - Engine Fuel Level/Pressure 1
65265	CCVS - Vehicle Speed
65266	LFE -Fuel Economy (Liquid)
65269	AMB - Ambient Conditions
65270	IC1 - Inlet/Exhaust Conditions
65271	VEP - Vehicle Electrical Power
65272	TRF1 - Transmission Fluids 1

1. Partial List

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<http://www.volvpenta.com/manual/coupon>

Ja tack,

jag vill kostnadsfritt ha en instruktionsbok på svenska.

Publikationsnummer: 7747597

Namn

Adress

Land

*Observera att erbjudandet gäller i 12 månader från båtens leveransdatum,
därefter endast i mån av tillgång.*

**VOLVO
PENTA**

42200/615001/155099900192

**VOLVO
PENTA**

Volvo Penta of the Americas
1300 Volvo Penta Drive
Chesapeake, VA 23320-9810