VesselView 502, 703, 903, and VesselView Link

8M0179549 221 eng

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Declaration of Conformity

VesselView 502

Mercury Marine declares that the following product to which this declaration relates is in conformity with the requirements of EU directive **1999/5/EC R&TTE** (Radio and Telecommunication Terminal Equipment) and satisfies all the technical regulations applicable.

The assessment has been carried out in accordance with **Annex IV** of the above directive.

Product	Mercury Marine VesselView 502

This product has been tested to the following standards.

Standard	Description
EN 60950-1:2006	Information technology equipment - Safety - Part 1: General requirements covering the essential requirements of article 3.1 (a) of the R&TTE Directive.
IEC 60945:2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results. Covering essential requirements of article 3.1(b) of the R&TTE Directive.
EN 301 489-1 V1.9.2	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements [RTTE Article 3(1)(b)].
EN 300 328 V1.9.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive.
EN 300 440-2 V1.4.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive.

Test Reports

Laboratory	Report Number
Austest Laboratories	0419NAVGO5XSE_60950
EMC Technologies	151215_1, 151215_2
SPORTON LAB	EH3N2752-01, ER4O2349

Notified Body Involved

Name	Address	NB Number
MET Laboratories, Inc.	914 West Patapsco Avenue, Baltimore, Maryland 21230-3432, United States.	0980

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive and standards for CE marking for sale in the European community.

	Authorized Representative
Address	Mercury Marine, W6250 Pioneer Road, P.O. Box 1939 Fond du Lac, WI 54936-1939
Signature	Christopher D. Drees, President, Mercury Marine 
Date	06/07/2016

The attention of the purchaser, installer, or user is drawn to special measures and limitations to use which must be observed when the product is taken into service to maintain compliance with the above directives. Details of these special measures and limitations to use are contained in the appropriate product manuals.

VesselView 703

Mercury Marine declares that the following product to which this declaration relates is in conformity with the requirements of level 1 and 2 in Australia as required by the following notices: Radiocommunication devices (Compliance Labeling) Notice 2003, Radiocommunication Labeling (Electromagnetic Compatibility) Notice 2008 and Radiocommunication (Compliance Labeling - Electromagnetic Radiation) Notice 2003 made under Section 182 of the Radiocommunication Act 1992.

Product	Mercury Marine VesselView 703

Standard	Description
IEC 60945:2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results. Covering essential requirements of article 3.1(b) of the R&TTE Directive.
EN 300 32 V1.9.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wide band transmission systems; Data transmission equipment operating in the 2.4 GHz band and using wide band modulation techniques.

Test Reports

Laboratory	Report Number
EMC Technologies (NZ) Ltd.	160816_1
Sporton Lab	ER4O2349

Notified Body Involved

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive and standards for CE marking for sale in the European community.

	Authorized Representative
Address	Mercury Marine, W6250 Pioneer Road, P.O. Box 1939 Fond du Lac, WI 54936-1939
Signature	Christopher D. Drees, President, Mercury Marine 
Date	02/16/2017

The attention of the purchaser, installer, or user is drawn to special measures and limitations to use which must be observed when the product is taken into service to maintain compliance with the above directives. Details of these special measures and limitations to use are contained in the appropriate product manuals.

VesselView 903

Mercury Marine declares that the following product to which this declaration relates is in conformity with the requirements of level 1 and 2 in Australia as required by the following notices: Radiocommunication devices (Compliance Labeling) Notice 2003, Radiocommunication Labeling (Electromagnetic Compatibility) Notice 2008 and Radiocommunication (Compliance Labeling - Electromagnetic Radiation) Notice 2003 made under Section 182 of the Radiocommunication Act 1992.

Product	Mercury Marine VesselView 903

Standard	Description
IEC 60945:2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results. Covering essential requirements of article 3.1(b) of the R&TTE Directive.
EN 300 32 V1.9.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wide band transmission systems; Data transmission equipment operating in the 2.4 GHz band and using wide band modulation techniques.

Test Reports

Laboratory	Report Number
EMC Technologies (NZ) Ltd.	160910_1
Sporton Lab	ER4O2349

Notified Body Involved

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive and standards for CE marking for sale in the European community.

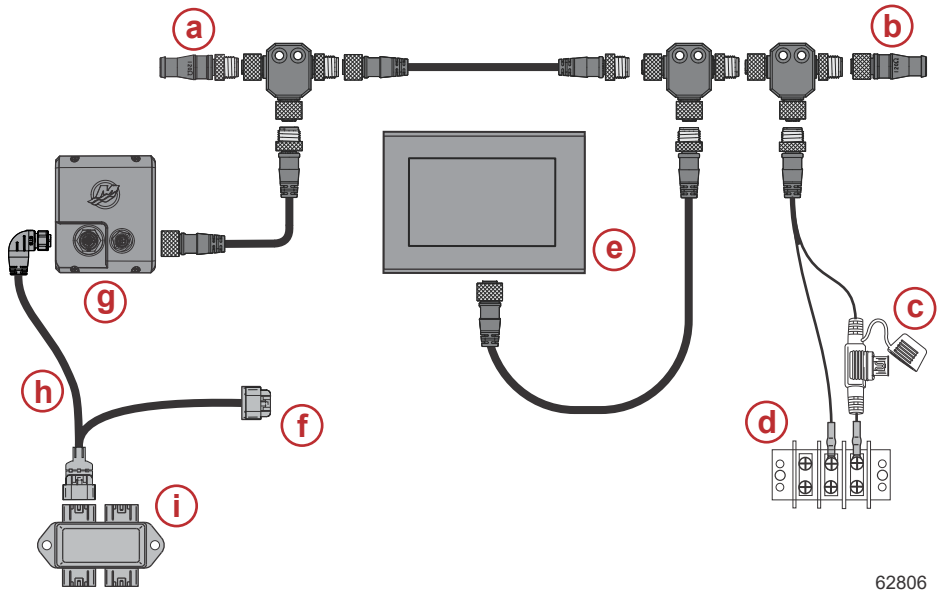
	Authorized Representative
Address	Mercury Marine, W6250 Pioneer Road, P.O. Box 1939 Fond du Lac, WI 54936-1939
Signature	Christopher D. Drees, President, Mercury Marine 
Date	02/16/2017

The attention of the purchaser, installer, or user is drawn to special measures and limitations to use which must be observed when the product is taken into service to maintain compliance with the above directives. Details of these special measures and limitations to use are contained in the appropriate product manuals.

VesselView Overview

IMPORTANT: VesselView is a multifunction display (MFD) that is compatible with products manufactured by Mercury Marine Outboards, Mercury MerCruiser, and Mercury Diesel. In addition, the VesselView software can be installed on compatible display devices from Lowrance® and Simrad®. Some of the functions explained in this manual will be disabled depending on the power package it is connected to.

The VesselView vessel management system consists of two parts; the VesselView unit and the VesselView Link Module. The VesselView Link reads Mercury's SmartCraft data and broadcasts that information across the NMEA 2K network.



- **a -** 120 ohm termination resistor, male
- **b -** 120 ohm termination resistor, female
- **c -** NMEA 2000 fused power source
- **d -** Power bus
- **e -** Navico/Mercury approved multifunction display
- **f -** Power connection for a Mercury multifunction device
- **g -** VesselView Link controller
- **h -** VesselView Link harness
- **i -** Junction box

VesselView is a comprehensive boat information center that can display information for up to four gasoline or diesel engines. It continuously monitors and reports operating data including detailed information such as water temperature and depth, trim status, boat speed and steering angle, and the status of fuel, oil, water, and waste tanks.

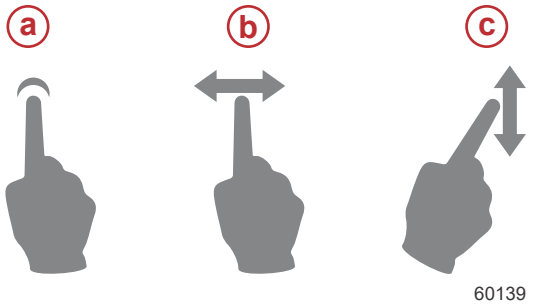
VesselView can be fully integrated with a vessel’s global positioning system (GPS) or other NMEA-compatible devices to provide up-to-the-minute navigation, speed, and fuel-to-destination information.

VesselView is a display extension for autopilot and joystick operations. All functionality of these piloting features are controlled through Mercury Marine's autopilot control area network (CAN) pad. VesselView will show if a mode of control is active or in standby; pop-ups will appear as the vessel arrives at waypoints, prompting response to turns. Additional display text can be used to adjust the engines and drives to achieve maximum efficiency.

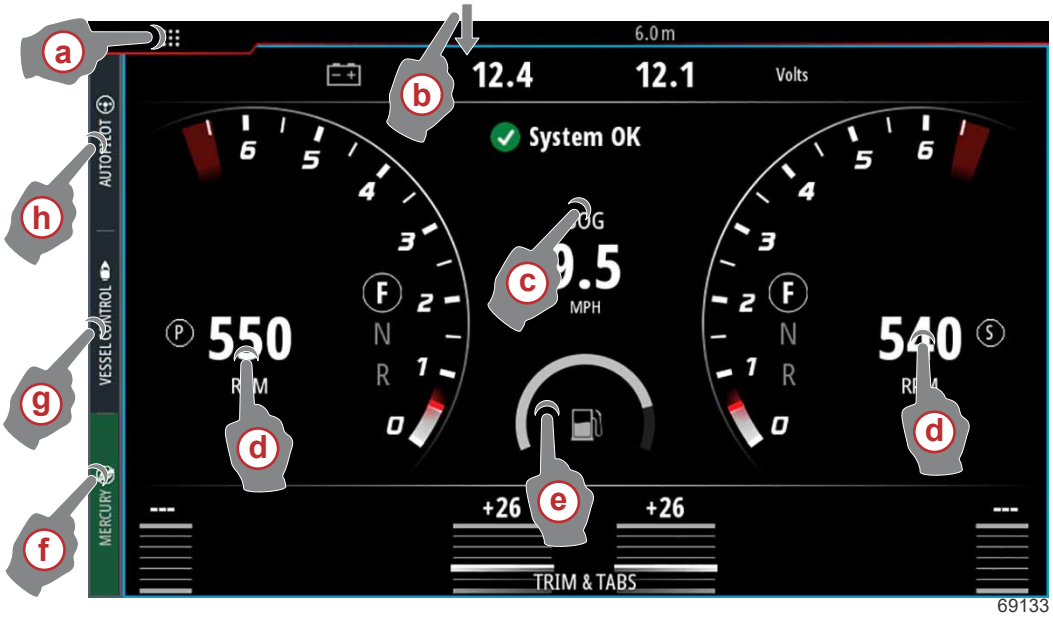
VesselView is equipped with a micro SD card port that allows the import or export of the vessel personality configuration. It can also be used by the owner to upgrade to the latest software version. When more than one VesselView is used, either as a triple-engine or quad-engine application, or a second helm, the same micro SD card can be used to download those configurations to each VesselView unit.

VesselView Screen Display Locations and Descriptions

VesselView has multiple fields that display specific engine information and active modes. To activate and display information through the touch sensitive screen, the operator can use the following gestures.



a - Indicates a screen touch
b - Indicates a screen swipe left or right
c - Indicates a screen swipe up or down



a - Touching the **HOME** menu will take the user to the main **HOME** menu screen of the VesselView unit. This screen shows the user the Navico® side of the MFD and its features, options, and settings menus. VesselView can be started by touching the Mercury Tile on this screen.

b - A downward swipe from outside the touch screen, into the touch screen will bring up the System Controls menu. From here, users can set and adjust the System Settings, Standby mode, Brightness, Wireless options, and display the Instrument Bar on the right-hand side of the screen.

c - Touching the speed district of the screen will enlarge the speed data on-screen.

d - Touching the RPM district of the screen will enlarge the engine data on-screen.

e - Touching the fuel district of the screen will enlarge the fuel data on-screen.

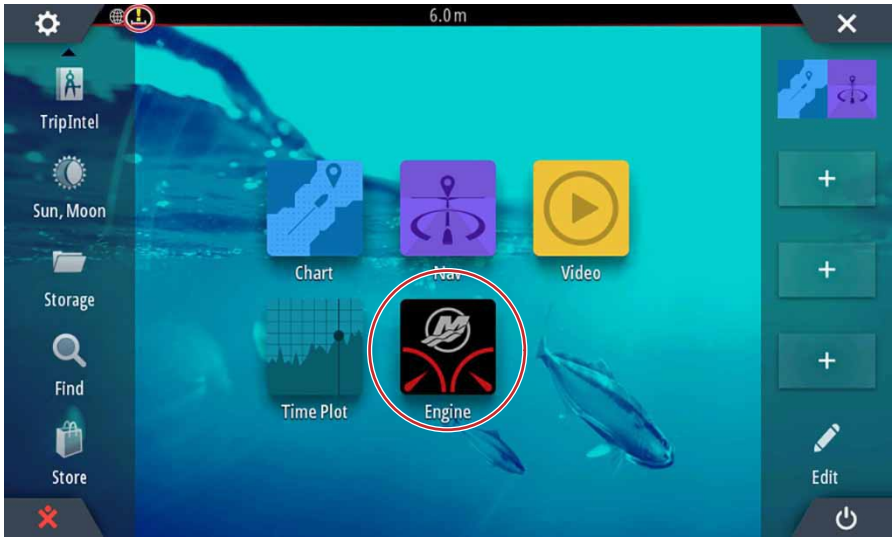
f - Touching the **Mercury** tab will display engine and vessel data on the left-hand side of the screen. This is helpful when the main screen is populated with autopilot data screens or being used to enlarge a specific data display.

g - Touching the **Vessel Control** tab will bring up the features associated with VesselView.

h - Touching the **Autopilot** tab will bring up Mercury autopilot features. Features are dependent on power package, and some features are downloadable through the GoFree Shop.

Home Page

Operators may find themselves out of the recognizable Mercury Marine screens of the VesselView. These menus and options are referred to as the Navico® side of VesselView. Mercury Marine does not support these components of the unit. For additional information on this side of the VesselView, please contact Navico®. To get back to the navigation screens of the Mercury Marine side of the unit, press the **Home** button, and the Mercury Engine tile will appear. Select this tile to return to the VesselView screen.



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The System Controls window can be brought up by swiping from the top of the unit onto the screen. This will allow the user to; use the Mercury Settings menu, place the unit in Standby mode, adjust the brightness of the screen, run in night mode, engage the Touch lock feature, customize wireless connectivity, and activate the instrument bar on the right-hand side of the display.

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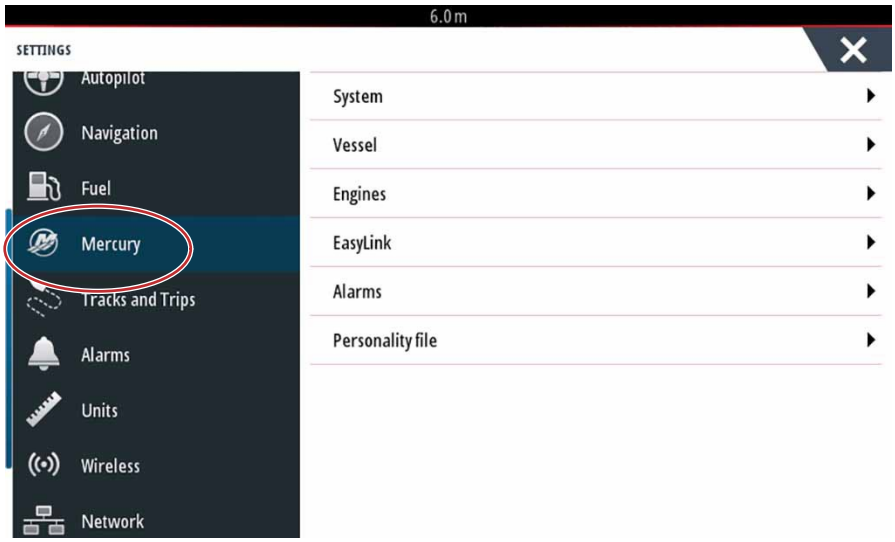
Within the Settings menu in the System Controls window, select the **Mercury** icon to make changes to VesselView functions. All of the preferences and settings that pertain to VesselView are contained within the Mercury settings. All other menu options pertain to the Navico® side of the MFD. Any inquiries regarding these features should be directed to Navico®.



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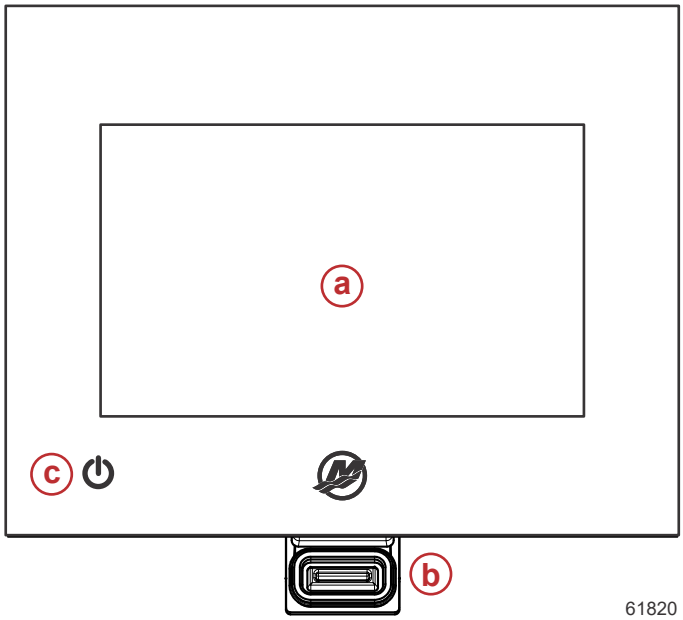
VesselView 502 Front Controls



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a - Touch screen
b - Micro SD card port
c - Power/brightness

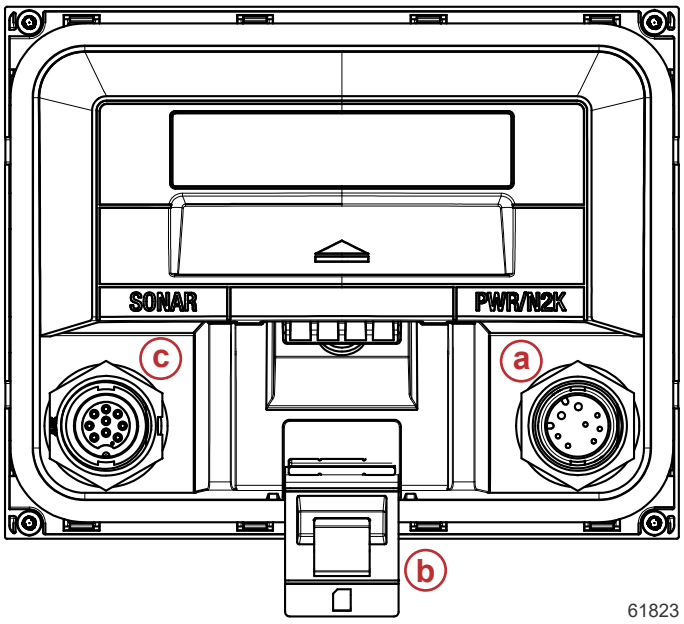
VesselView 502 Front Control Operations

Touch screen: The screen on VesselView 502 has numerous districts that are touch sensitive and operated with a touch, or with a vertical or horizontal swipe.

Micro SD card port: Allows VesselView software to be upgraded, to have navigation charts uploaded, and waypoints and settings to be saved.

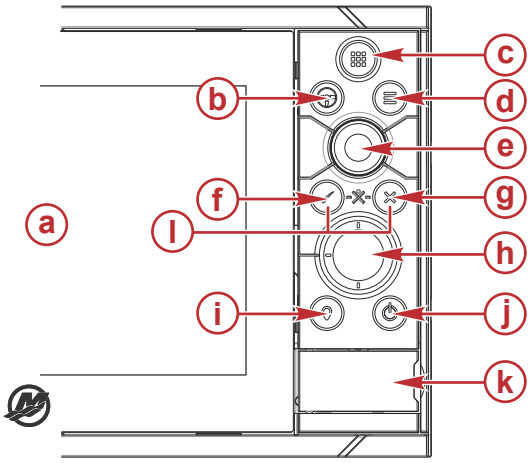
Power/brightness: Press once to display the System controls dialogue. Repeat short presses to cycle the backlight brightness. Press and hold to turn the unit **ON/OFF**.

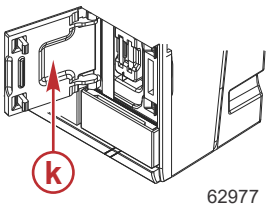
VesselView 502 Rear Panel Connections



Item	Function	Description
a	Power/NMEA 2K	Provides the power connection/connects to NMEA 2K network
b	Micro SD card port	Allows file transfers and file saving
c	Sonar	Provides a sonar input

VesselView 703 Front Controls





a - Touch screen
b - Wheel key
c - Pages/home key
d - Menu key
e - Rotary knob
f - Enter key
g - Exit key
h - Arrow keys
i - Mark key
j - Power key
k - Card reader door
l - Man overboard (MOB) mark combination keys

VesselView 703 Front Control Operations

Touch screen: The screen on VesselView 703 has numerous districts that are touch sensitive and operated with a touch, or with a vertical or horizontal swipe.

Pages/home key - press to open the Home page for page selection and setup options.

Wheel key - user configurable key, refer to Operator manual. Default without autopilot in system: Short press toggles between panels on split screen. Long press maximizes active panel on split screen. Default with autopilot in system: Short press opens autopilot controller and places autopilot in standby mode. Long press toggles between panels on split screen.

Menu key - press to display the active panel's menu.

Rotary knob - turn to zoom or scroll the menu, press to select an option.

Enter key - press to select an option or save settings.

Exit key - press to exit a dialog, return to previous menu level, and clear cursor from panel.

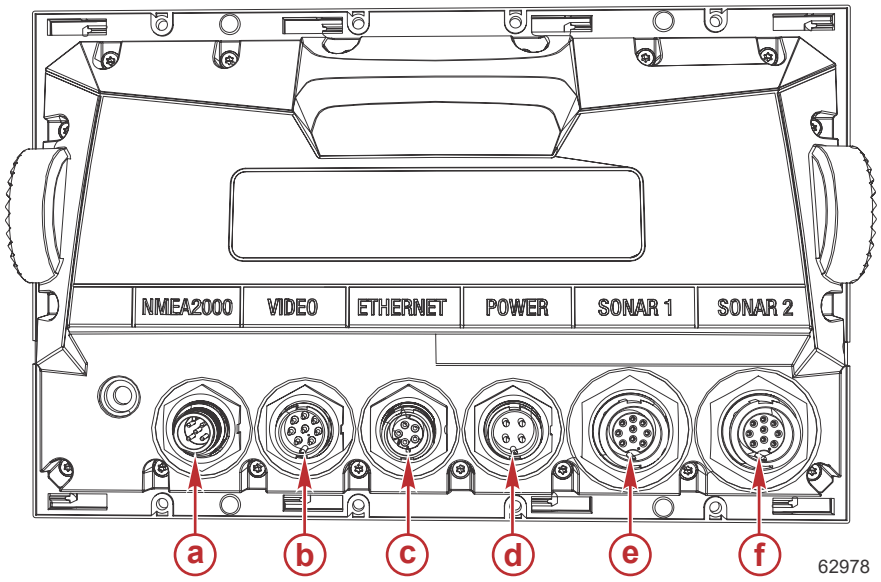
MOB keys - press simultaneously the **Enter** and **Exit** keys to create a MOB (Man overboard) at the vessel's position.

Arrow keys - press to activate cursor or to move cursor. Menu operation: press to navigate through menu items and to adjust a value.

Mark key - press to place waypoint at vessel position, or at cursor position when cursor is active.

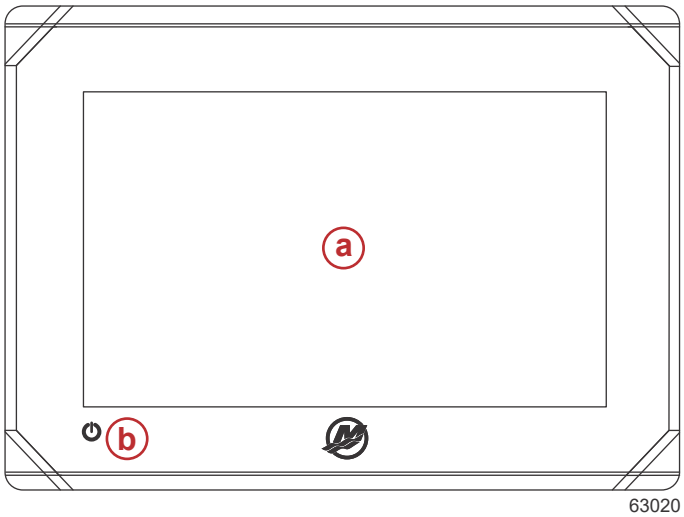
Power key - press and hold to turn the unit **ON/OFF**. Press once to display the System control dialog, additional presses will toggle through 3 default dimming levels.

VesselView 703 Rear Panel Connections



Item	Function	Description
a	NMEA 2000	Connects to NMEA 2K network
b	Video in	Provides input for video sources such as cameras, and NMEA 0183 port
c	Ethernet	Connection to high bandwidth network modules
d	Power	Provides the power connection
e	Sonar 1	For single channel CHIRP, 50/200 kHz conventional or HDI transducer
f	Sonar 2	For single channel CHIRP, 50/200 kHz conventional, TotalScan, StructureScan or ForwardScan transducer

VesselView 903 Front Controls



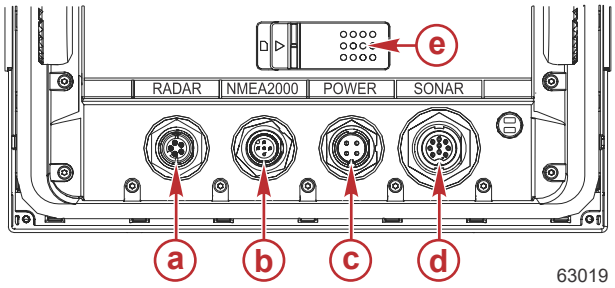
a - Touch screen
b - Power button

VesselView 903 Front Control Operations

Touch screen - allows touch navigation of vessel data screens.

Power button - press and hold to turn the unit **ON/OFF**. Press once to display the System Controls dialogue.

VesselView 903 Rear Panel Connections



Item	Function	Description
a	Radar/ethernet	Connects to vessel radar signal or ethernet connection
b	NMEA 2000	Connect to the NMEA 2000 network
c	Power	Provides the power connection
d	Sonar	CHIRP, Broadband, DownScan, and SideScan imaging (dependent on the transducer)
e	Micro SD card door	Provides two card slot for uploading charts and software updates

VesselView Link Overview

VesselView Link integrates a Mercury-powered boat's SmartCraft data and control system with specific Simrad® and Lowrance® instruments, providing a fully functional Mercury VesselView user interface on those units' displays. Available as a single-engine or multiple engine interface, Mercury VesselView Link easily installs beneath the boat's dash. It is engineered to work with the following instruments:

Mercury VesselView Displays

- VesselView 502
- VesselView 703
- VesselView 903

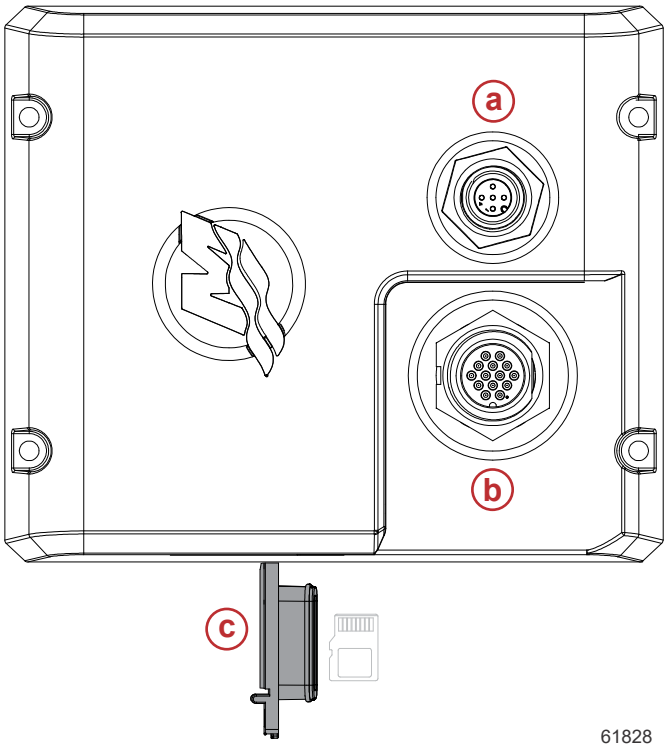
Simrad Compatible Displays

- NSS evo2 and evo3
- NSO evo2
- GO XSE

Lowrance Compatible Displays

- Elite Ti (7" or larger)
- Elite Ti2
- HDS Gen 2 Touch
- HDS Gen 3
- HDS Carbon
- HDS Live

VesselView Link Connections



a - NMEA 2K connection
b - SmartCraft/power connection
c - Micro SD card port

Device Maintenance

IMPORTANT: It is recommended that the supplied white plastic sun cover be installed for protection when the unit is not in service.

Display Screen Cleaning

Routine cleaning of the display screen is recommended to prevent a buildup of salt and other environmental debris. Crystalized salt can scratch the display coating when using a dry or damp cloth. Ensure that the cloth has a sufficient amount of fresh water to dissolve and remove salt deposits. Do not apply aggressive pressure on the screen while cleaning.

When water marks cannot be removed with the cloth, mix a 50/50 solution of warm water and isopropyl alcohol to clean the screen. Do not use acetone, mineral spirits, turpentine type solvents, or ammonia based cleaning products. The use of strong solvents or detergents may damage the antiglare coating, the plastics, or the rubber keys.

It is recommended that the sun cover be installed when the unit is not in use to prevent UV damage to the plastic bezels and rubber keys.

Media Port Cleaning

The media port door area should be cleaned on a regular basis to prevent a buildup of crystalized salt and other debris.

Notes:

Section 2 - Initial Screens and Setup Wizard

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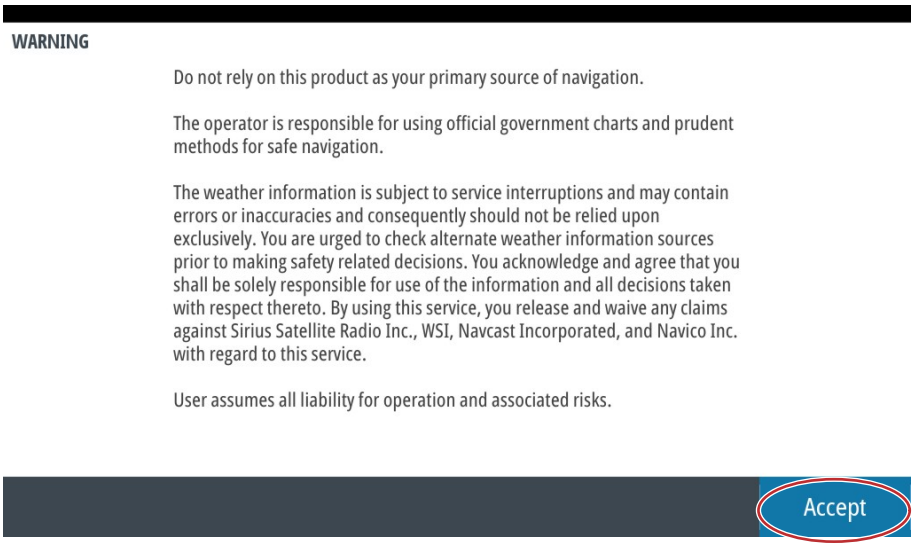
VesselView Start-up Advisory Screen

When VesselView is started, a warning screen pops up and advises the operator not to rely on the product as a primary source of navigation and that the user assumes all liability for operation and associated risks.



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Splash Screen

When the ignition key is turned on, a Mercury start-up splash screen will appear. The Mercury logo will appear in the center of the screen. The logo will remain during the start-up process. Do not try and rush the unit by pressing buttons during the start-up stage. Power packages with emissions control will show an engine icon in the lower left-hand corner of the screen.

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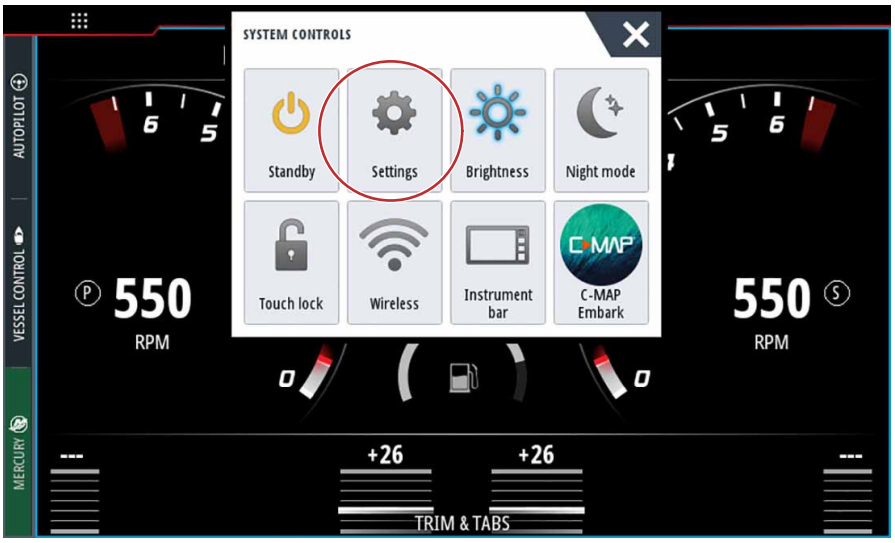
Setup Wizard

The VesselView Setup wizard guides you through the first steps of configuring the VesselView. The Setup wizard can be accessed at any time through the **Settings** menu. Open the **System Controls** window. The **System Controls** window can be brought up by swiping from the top of the unit onto the screen. Select the **Settings** tile.



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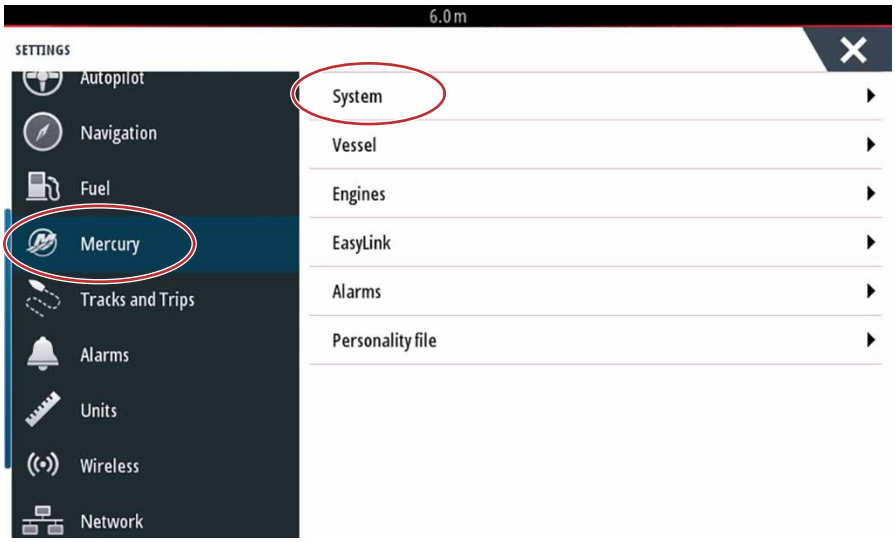
Select the **Mercury** option on the left-hand side of the screen. Select the **System** option.



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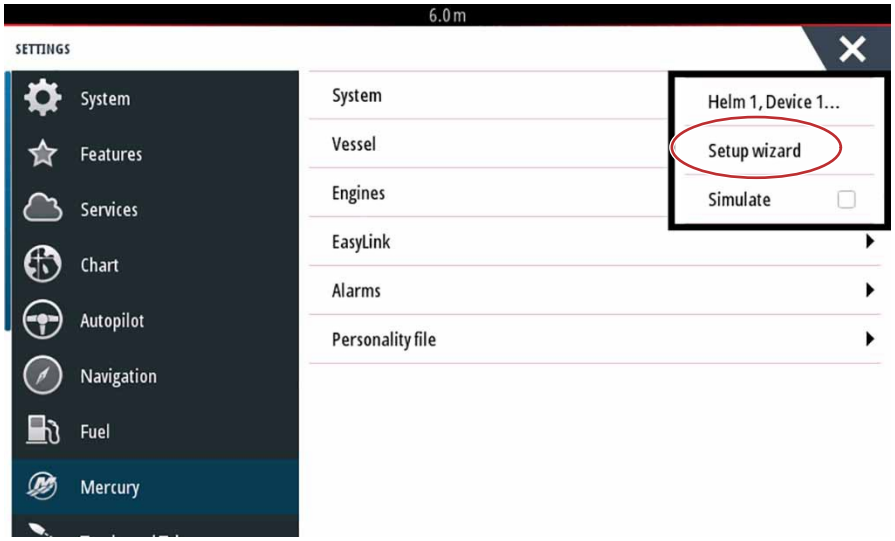
In the **System** menu, select the **Setup wizard** option.



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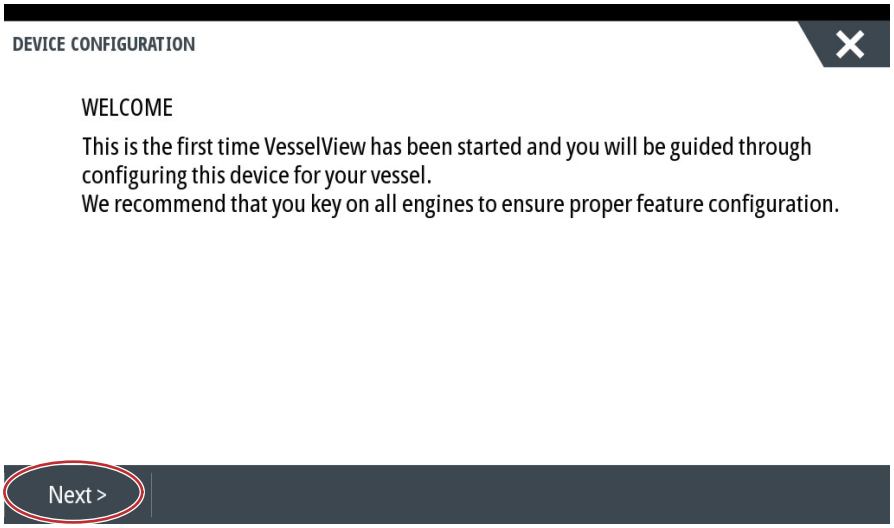
On the Device Configuration WELCOME screen select **Next** to begin the Setup wizard.



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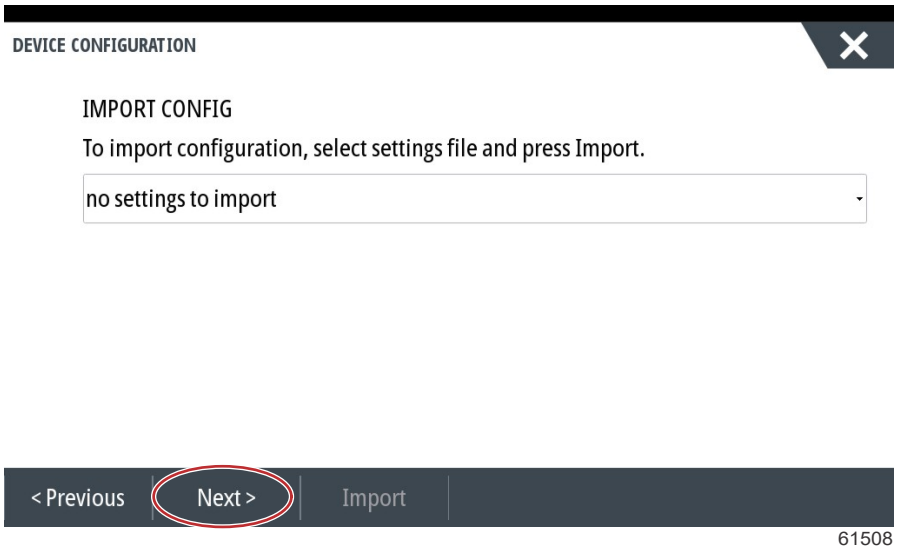
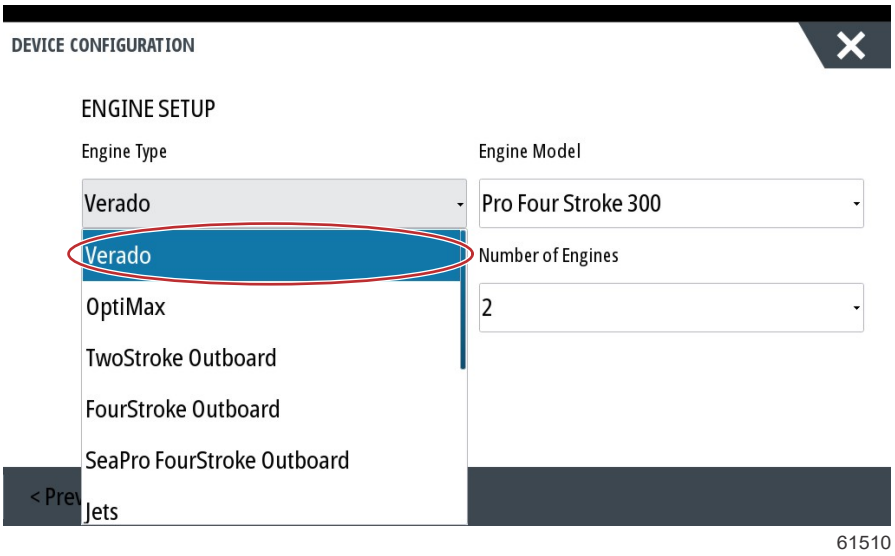
Import Configuration

To import an existing vessel configuration, insert a FAT or FAT 32 micro SD card with the configuration file and select this file in the drop-down menu. If there is no import file, select **Next** to continue.

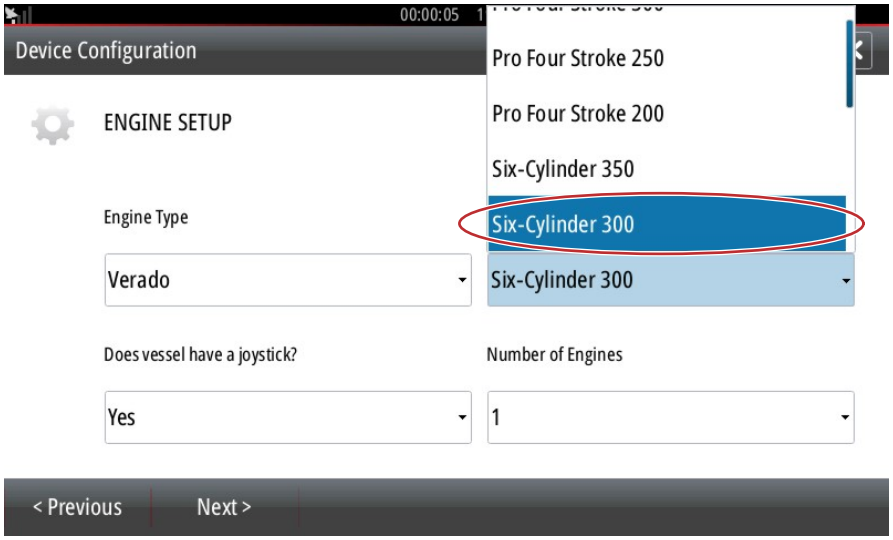


Engine Setup

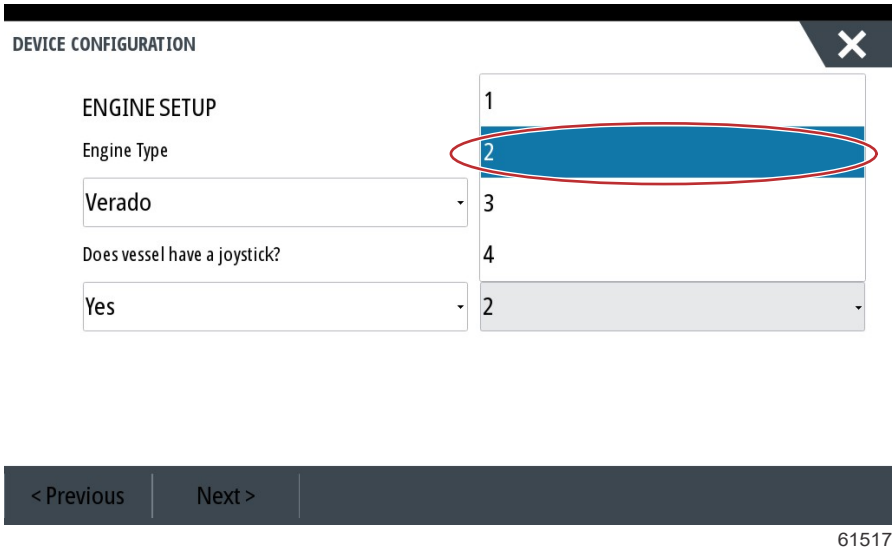
1. In the **Engine Setup** screen, use the rotary knob or touch the menu fields to select the correct option.
2. Complete selections in the **Engine Setup** screen.



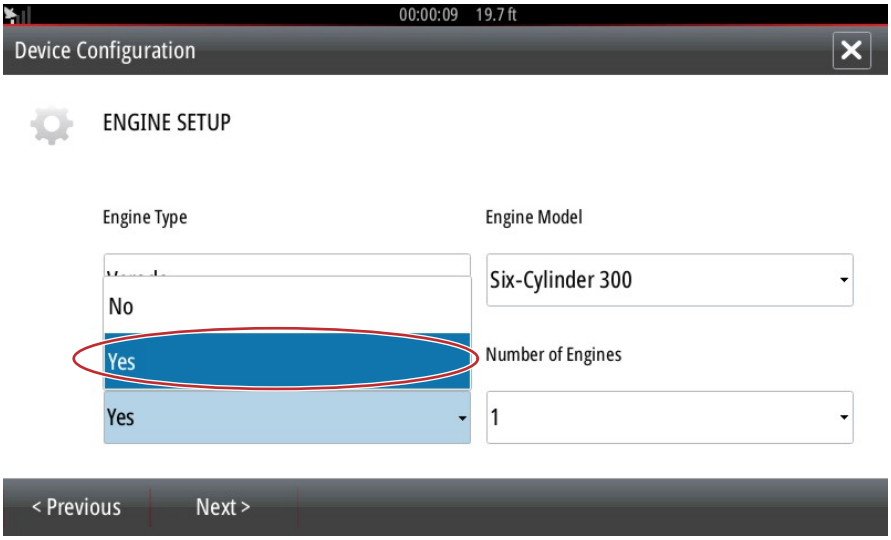
Engine family selection



Engine model selection



Number of engines



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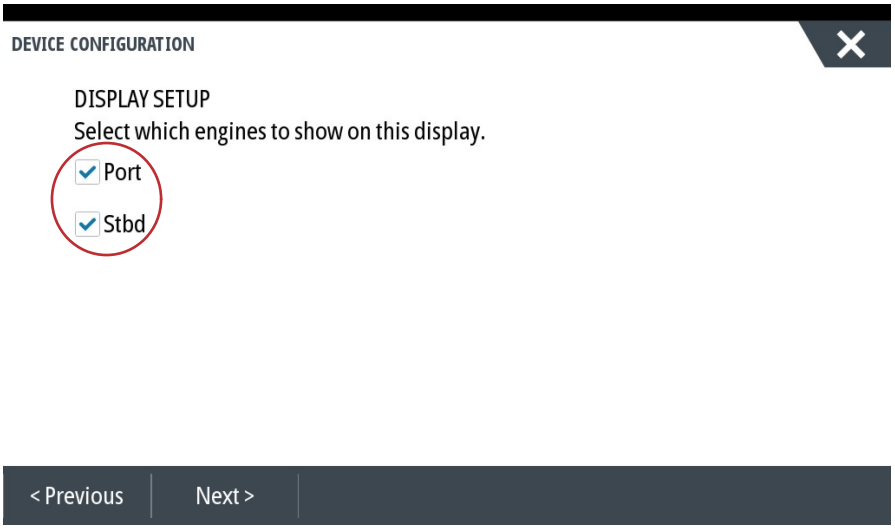
Joystick selection

3. When finished making selections, select **Next** to continue.

Display Setup

Depending on the number of engines indicated in the **Engine Setup** screen, select the engines to be displayed by this VesselView unit. Up to four engines can be selected. Select **Next** to continue.



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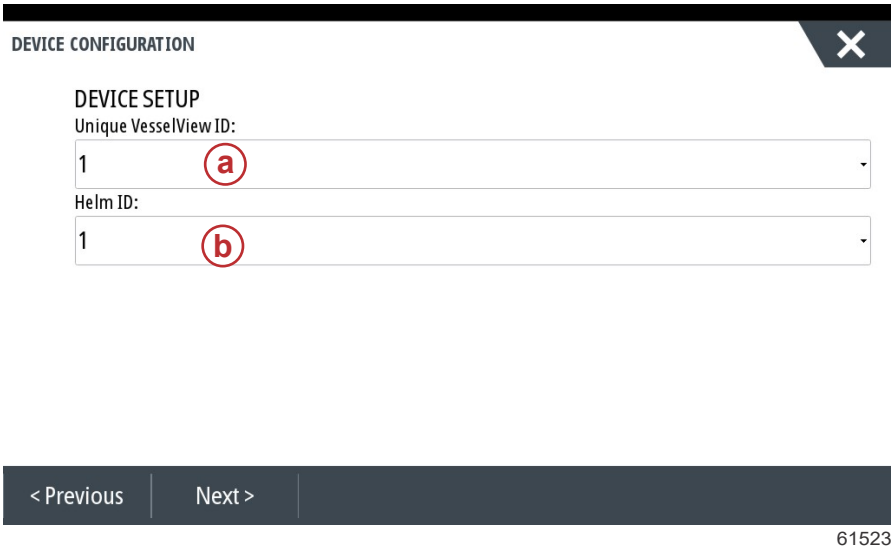
Device Setup

In the Device Setup screen, use the rotary knob or touch the menu fields to select the proper options. If using multiple VesselView devices, be sure to assign unique numbers to each unit, to avoid data problems. Helm numbers should match the location of the individual VesselView unit. It is common to make the main helm 1 and the secondary helm 2. Select **Next** to continue.

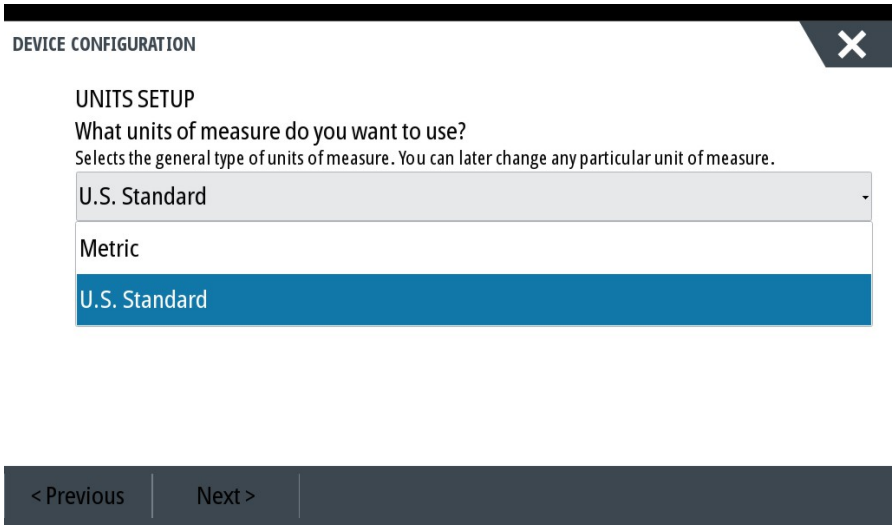


61523

a - VesselView identification field
b - Helm identification field

Units Setup

Select the units of measure that VesselView will display on-screen data: speed, distance, and volumes. Particular units of measure can be changed later.



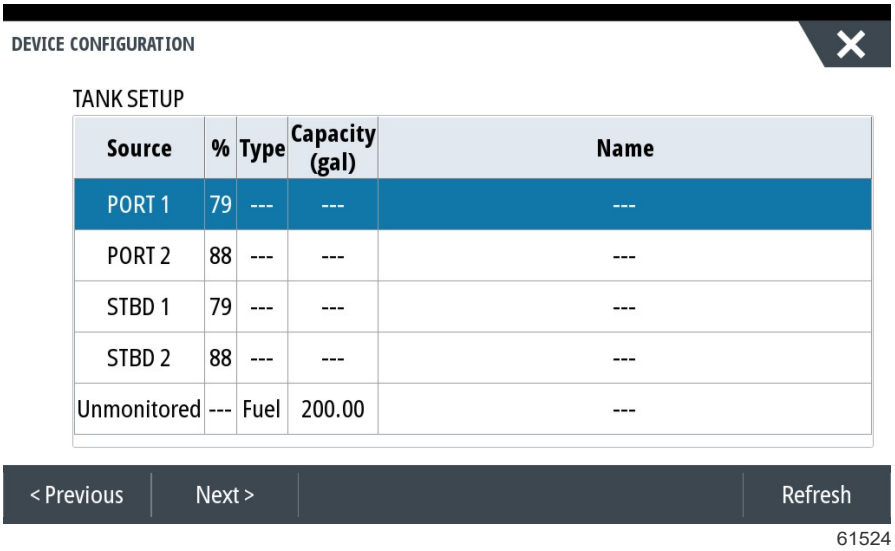
61521

Tank Configuration

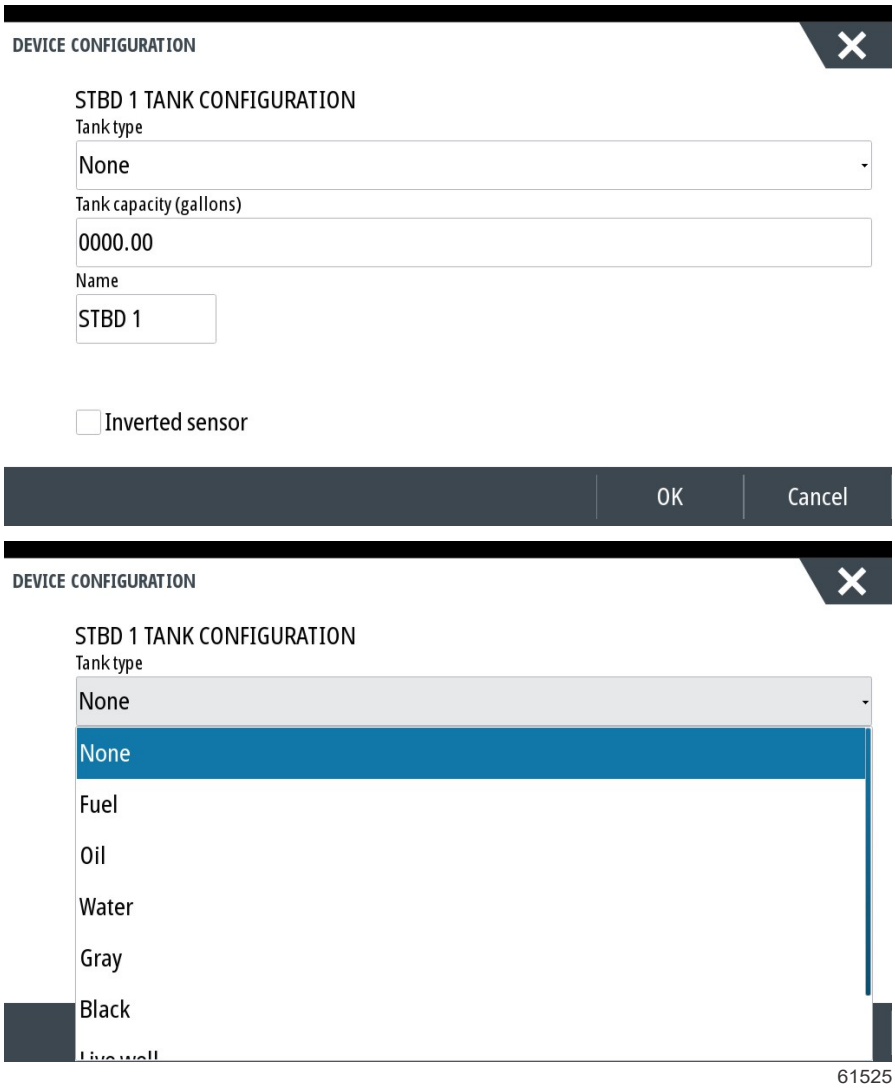
In the tank setup screen, tank type, capacity, and tank name can be assigned. The % column will display the live tank volume. Selecting the **refresh** button will query the tank sensors and refresh the readings.

An unmonitored tank is a tank that does not have a sensor associated with it. The fuel level changes based off calculated fuel used from the engines.

Select the tank row to be customized.



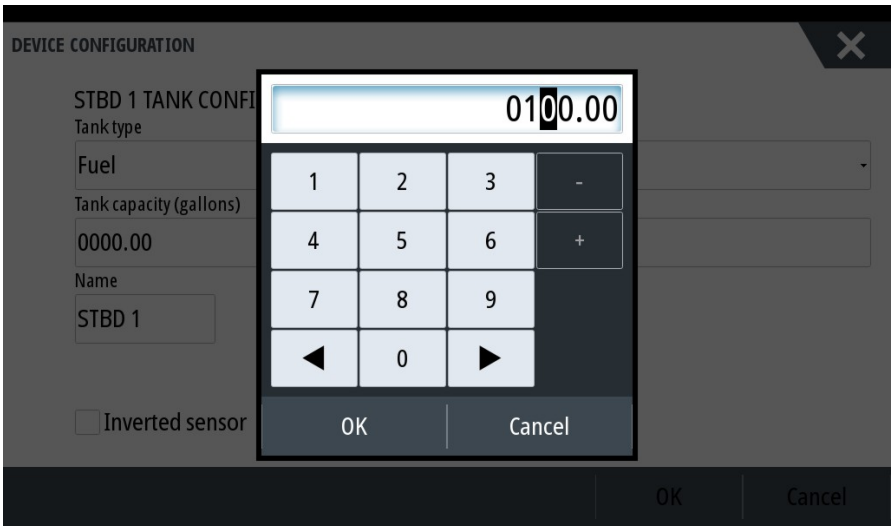
Tank types include: fuel, oil, water, gray, black, live well, and genset. Selecting genset as a tank type will not add the volume of the genset tank to the overall volume of the vessel propulsion fuel tanks.



Select the tank type

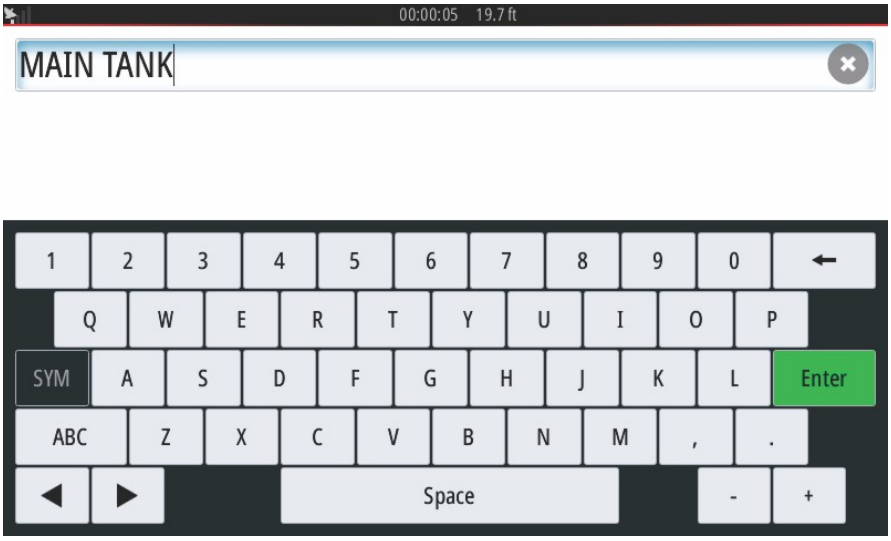
Use the on-screen keypad to enter the capacity. When finished entering tank capacity data, select **OK** to close the keypad.

VesselView gives the operator the ability to invert the volume value of the tanks being monitored. This option is available to accommodate some tank sensors that transmit data opposite of sensors manufactured for use in North America.



61526

The tank position will populate the name field. To change the name of the tank, select the field and use the on-screen keypad to customize the tank name.

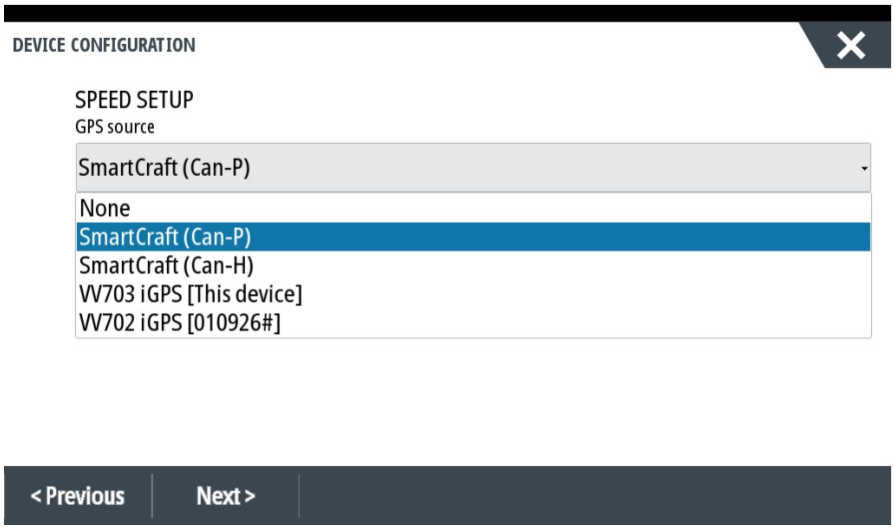


61528

After entering a tank name, select **Enter** on the keyboard to continue to the next tank row in the Tank Setup screen. When all tank customization data has been entered, select the **Refresh** button in the lower corner. Check all data fields for accuracy, and select **Next** to continue with the Setup wizard.

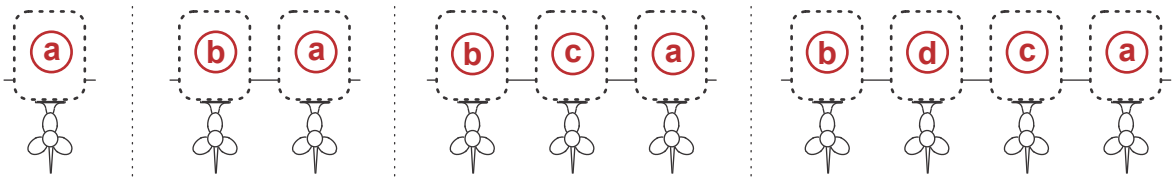
Speed Setup

In the Speed Setup menus, there are three options for determining how VesselView will acquire speed information. If the vessel is equipped with a GPS, the drop-down menu will allow selection of available devices. If the vessel is equipped with a pitot sensor, this option will be selected. If the vessel is equipped with a paddle wheel, then an option to select will drop-down. After the speed source has been selected, select **Next** to continue.



61529

The pitot and paddle wheel source selection is shown in the following illustration. Select the engine or drive unit that transmits the speed data to the VesselView.

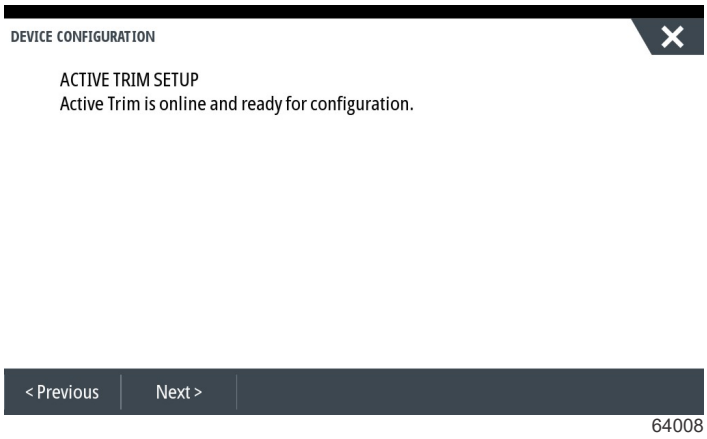


60056

a - PCM0 = starboard outer
b - PCM1 = port outer
c - PCM2 = starboard inner or center
d - PCM3 = port inner

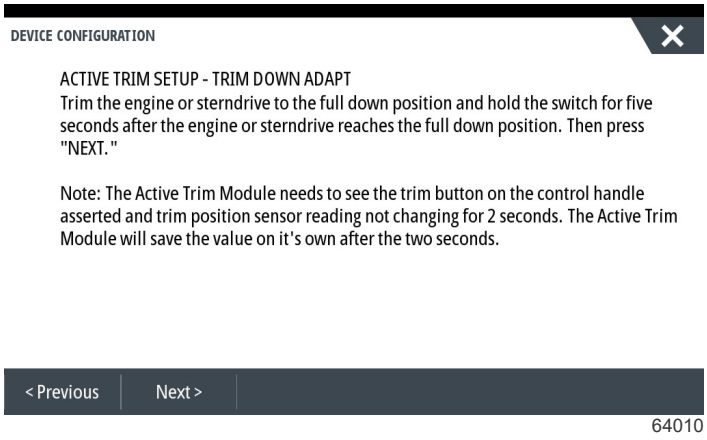
Active Trim Setup

The Setup wizard will take the operator through the setup and configuration of Active Trim. Follow the on-screen instruction for each step.



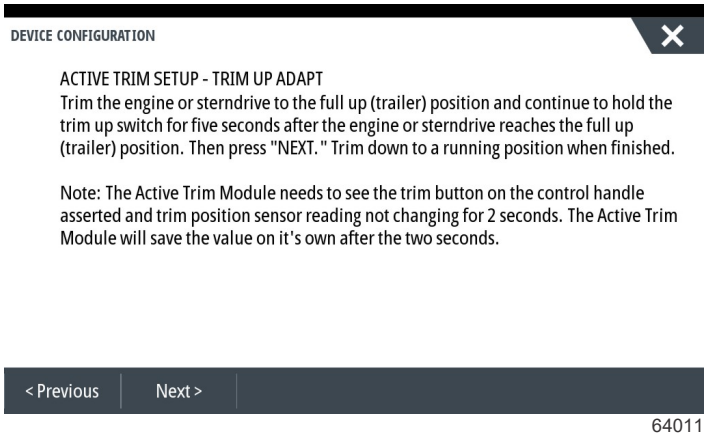
64008

Active Trim activation screen



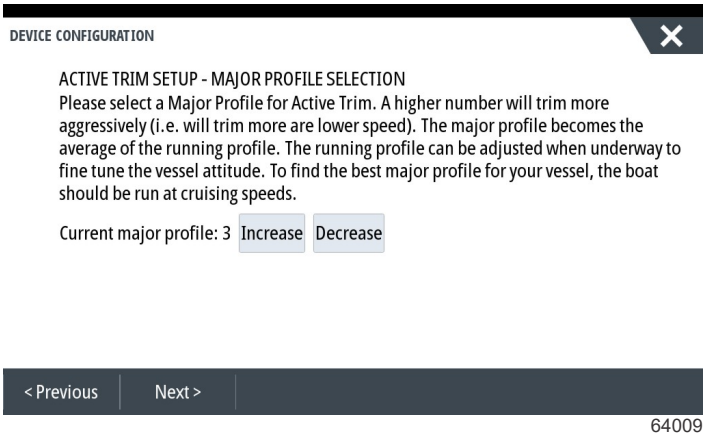
64010

Trim down adapt screen



64011

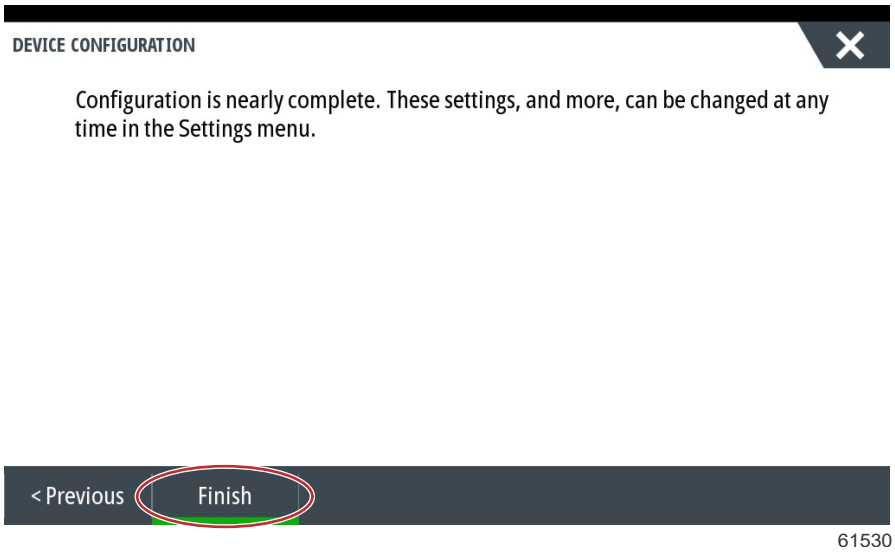
Trim up adapt screen



Major profile selection screen

Finishing Setup Wizard

Select **Finish** to complete the Setup wizard on the VesselView. Do not power off the unit until the Finish screen is replaced by the vessel activity screen.

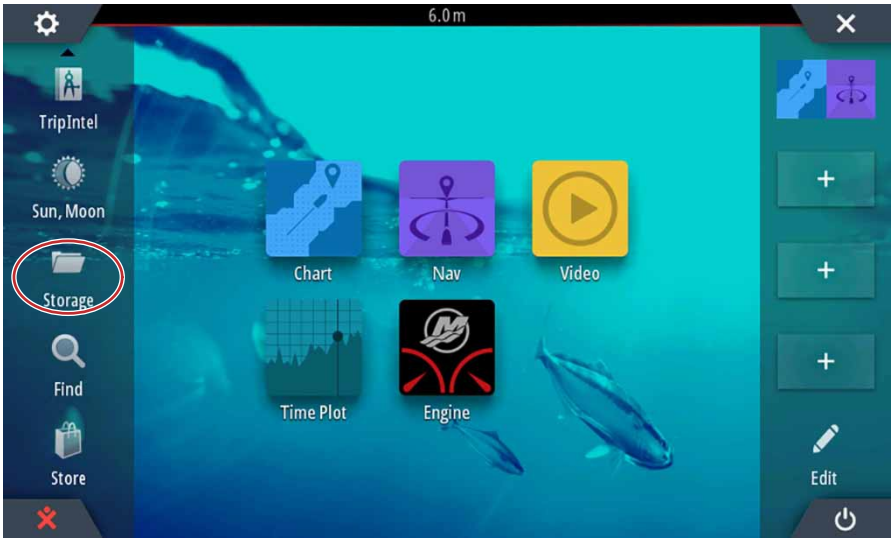


Creating Screen Captures

VesselView has the ability to capture complete screens and store them for download to a SD card. For VesselView 502 and 903 screen captures, turn on the **Screen Capture** option in **Settings>System** menu. Double tap the top edge of the screen area to activate a screen capture. For screen captures from VesselView 703, press the **Power** button and the **Home** button at the same time. On the VesselView 502, screenshots can be captured by double-touching the header bar of an open dialog box, or by double-touching the screen header bar, if no dialog box is open. A notification tab will appear on the bottom of the screen, containing the image number of the screen capture. This notification tab will not be present on the captured screen.

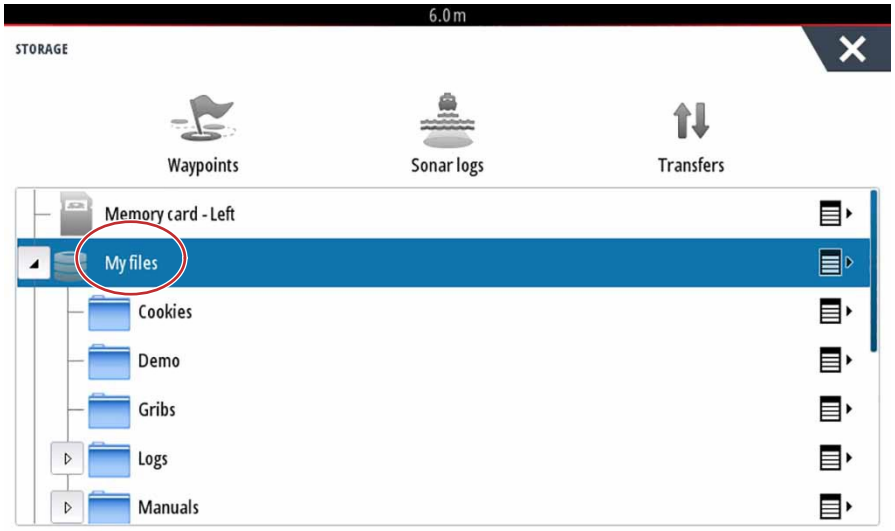
61472

VesselView has an internal memory capacity for screen captures. It is recommended that files such as screen captures, waypoints, tracks, and routes be backed up on an SD card or other external storage device, and the internal memory kept as clear as possible. By default, all of the screen captures are stored in a **Screenshots** folder in **Storage**. The **Storage** folder can be accessed by swiping from the top of the unit onto the screen to bring up the left-hand side options. Select **Storage**.

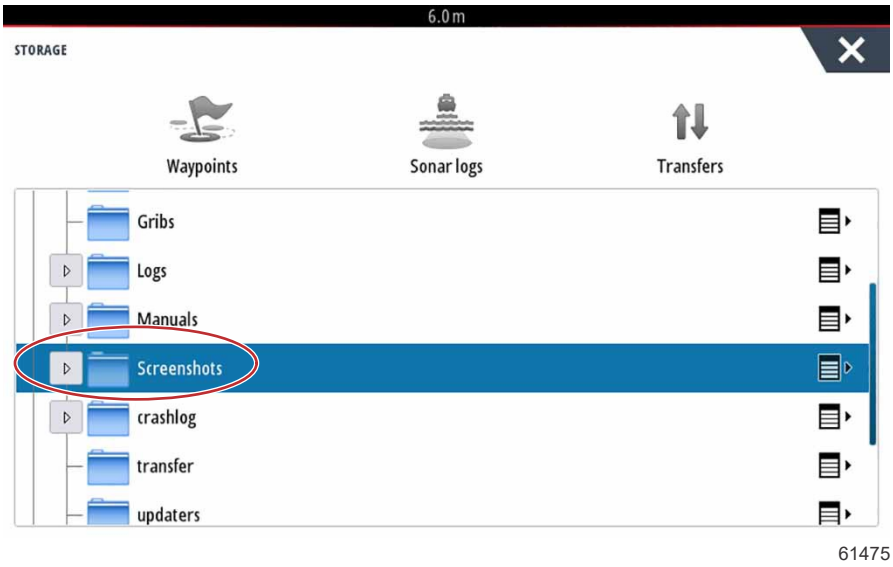


61473

Open the **My files** folder and navigate to the **Screenshots** folder. In the **Screenshots** folder, all of the screenshots that were captured will display. Shots can be copied to the SD card for transfer to a computer or mobile device.

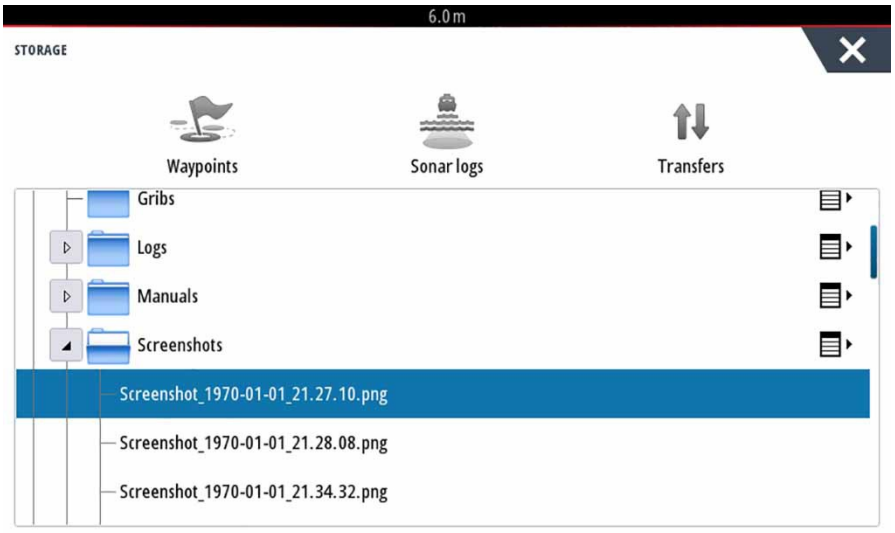


61474

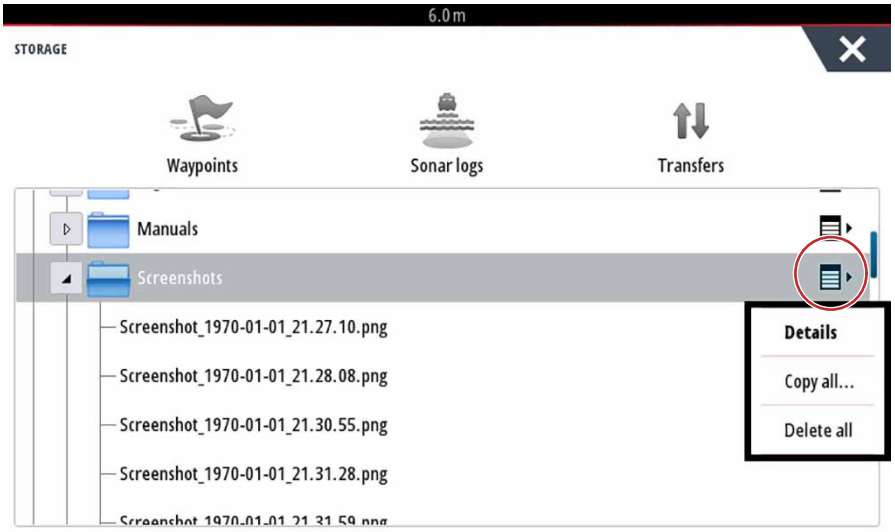


61475

Individual screenshots can be accessed by selecting them. All screenshots can be accessed at once using the **Details icon** on the right-hand side of the files window. Selecting this icon will allow viewing of the screenshot details, copying all the screenshots, or deleting all of the screenshots.

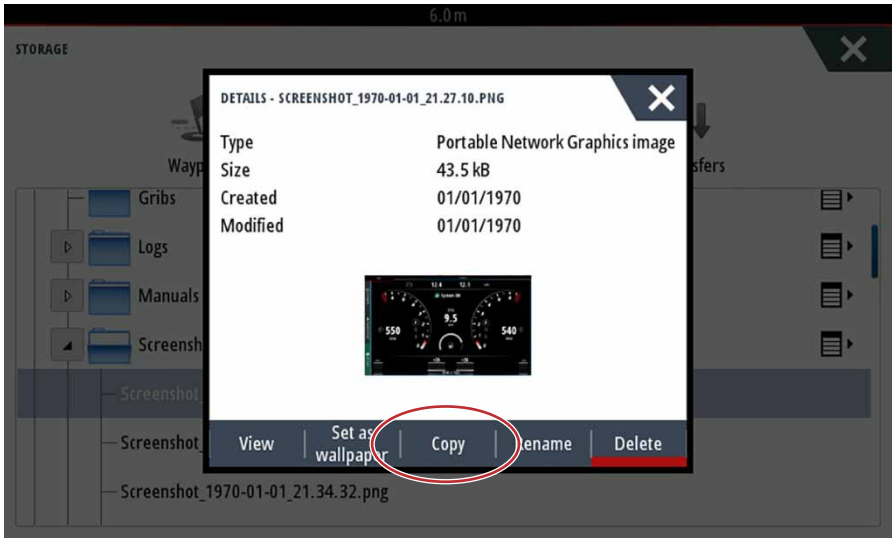


61476



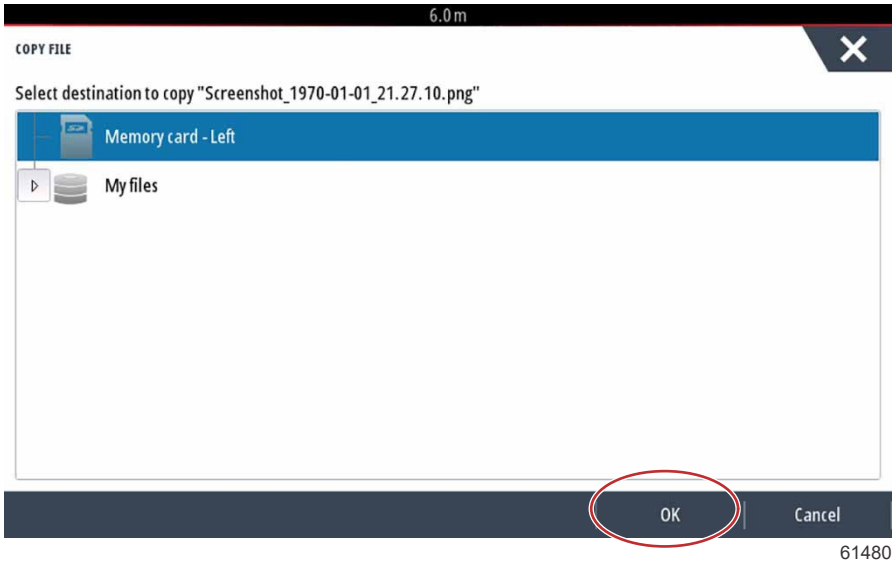
61477

If an individual screenshot is selected, a window will appear with options to **View**, **Set as wallpaper**, **Copy**, **Rename**, or **Delete**. Select **Copy** to download the image from the VesselView.



61479

With a SD card loaded into the VesselView, select **Memory card** as the destination for the file and select **OK**. Close the window by selecting the **X** in the upper right corner. This will take you back to the **Screenshots** folder. To download additional images, follow this procedure.



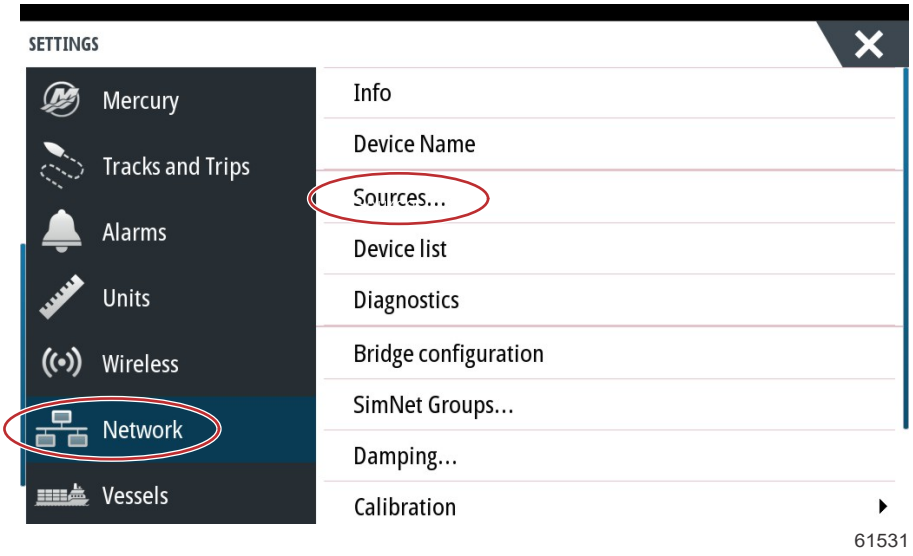
61480

Data Source Setup

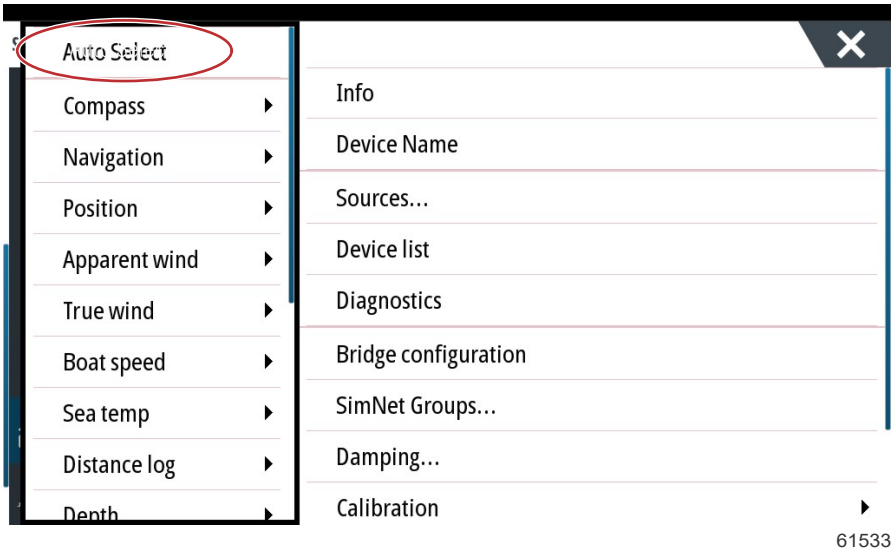
Data Sources

To setup data sources, select the **HOME** tab at the top of the screen.

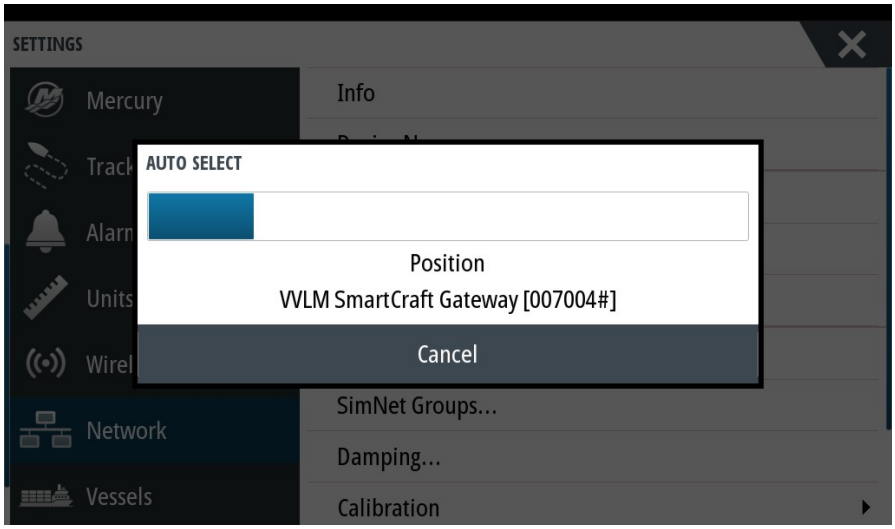
Power on all products and key **ON** all engines to ensure that all data generating sources can be detected. Open the System Controls window. The System Controls window can be brought up by swiping from the top of the unit onto the screen. Select the **Settings** tile. Select the **Network** option on the left-hand side of the screen. **Select Sources...** .



VesselView will display numerous sources of data producing devices. For a general query of all detectable devices on the vessel, select the **Auto Select** option at the top of the list.



Auto select will search the network and compile a list of all devices that are detected during the auto select process. When the progress bar completes, the Settings menu can be closed by selecting the **X** in the upper right-hand corner of the screen.



61534

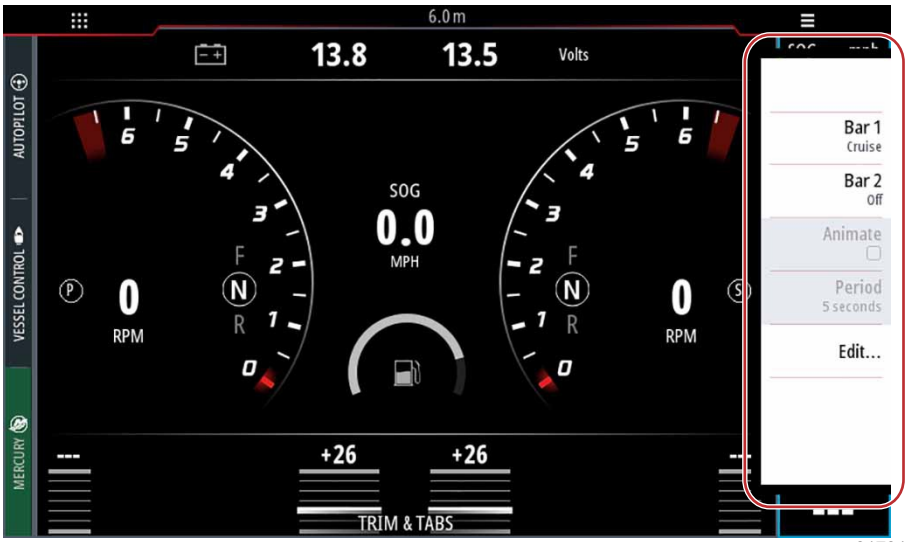
Instrument Bar

To activate the Instrument bar, swipe from the top of the display screen into the top of the screen area. This will bring up the System Controls window. Select the **Instrument bar** tile to activate the Instrument bar.

61482

The Instrument bar is located on the right-hand side of the display. The Instrument bar contains text and numeric data in numerous tiles. Each tile in the Instrument bar can be changed by the operator. There are also boating lifestyle options that will populate the data tiles with useful information for your type of boating.

You can configure the Instrument bar to display either one or two bars. If you specify to display two bars you can set it to alternate the bars automatically by selecting the **Animate** box. The time period for the bar data to be displayed can also be selected.



61731

Use the menu to select a predefined activity for one or both of the bars. When an activity bar is selected, predefined instrument gauges are displayed in the bar.

NOTE: *This only turns the Instrument bar off for the current page.*

Turning the Instrument bar ON/OFF

1. Activate the Instrument bar by selecting it.
2. Select the **MENU** button to open the menu.
3. Select **Bar 1** or **Bar 2** and then a predefined activity bar.

Edit the content of the Instrument bar

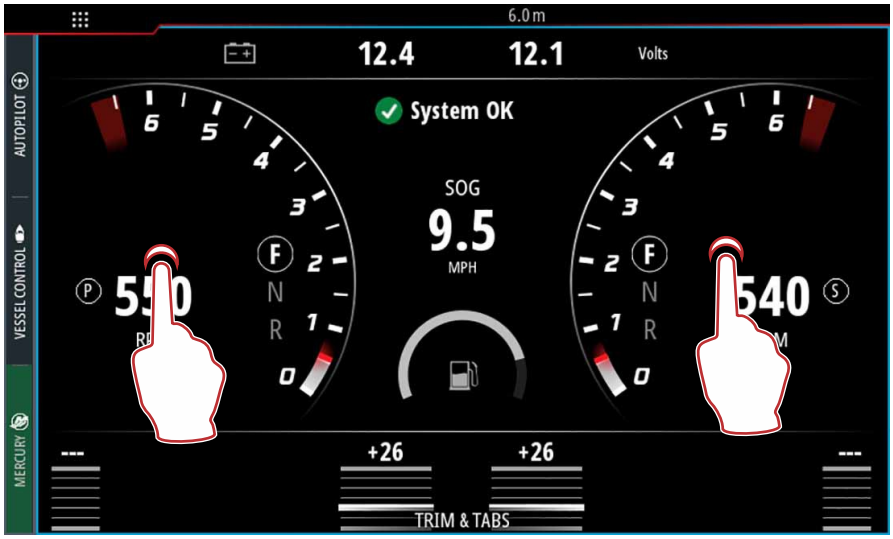
1. Activate the Instrument bar by selecting it.
2. Select the **MENU** button to open the menu.
3. Select **Edit** to change an instrument gauge followed by the gauge you want to change.
4. Select the content you want to display from the **Choose Data** dialog.
5. Select **MENU** and then **Finish editing** to save your changes.

VesselView User Interface Overview

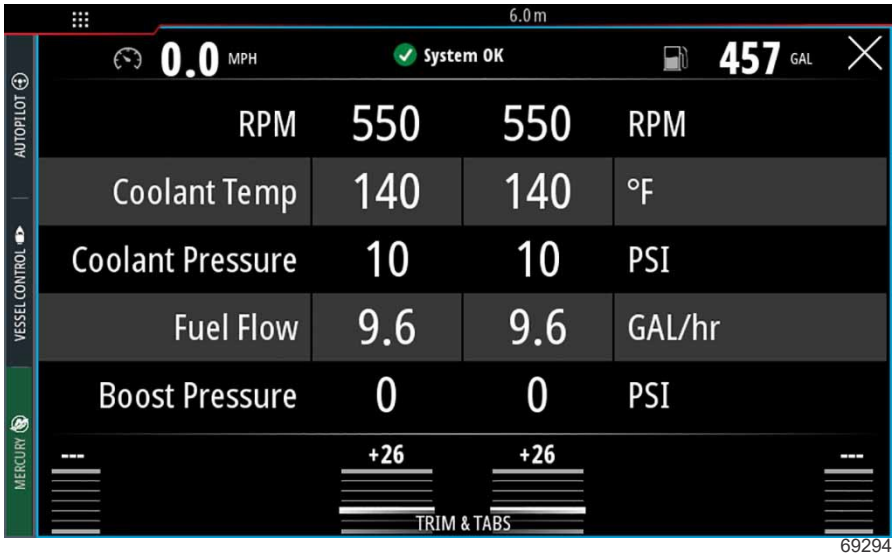
Data Interaction Areas (Touch)

VesselView has more detailed information that can be accessed by touching different areas on the main screen.

Touch the RPM area to access engine data.

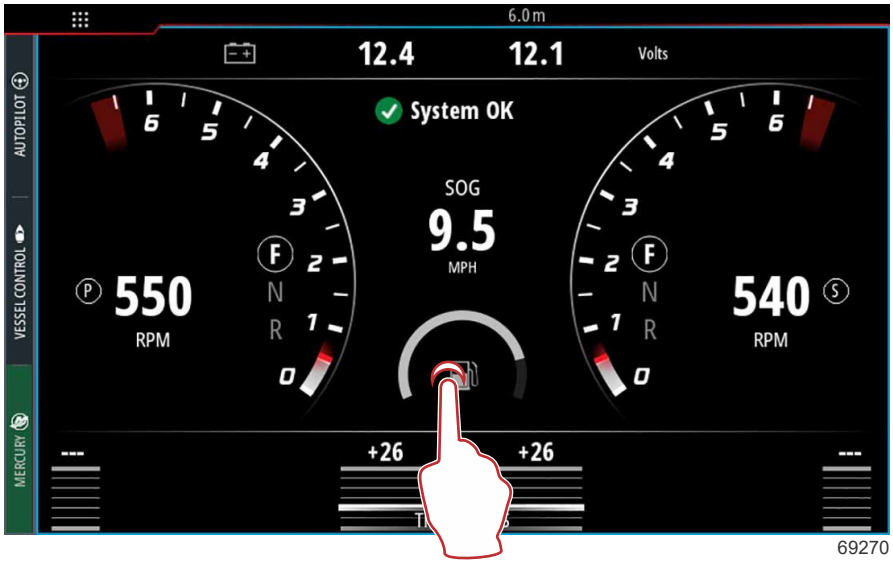


63925



69294

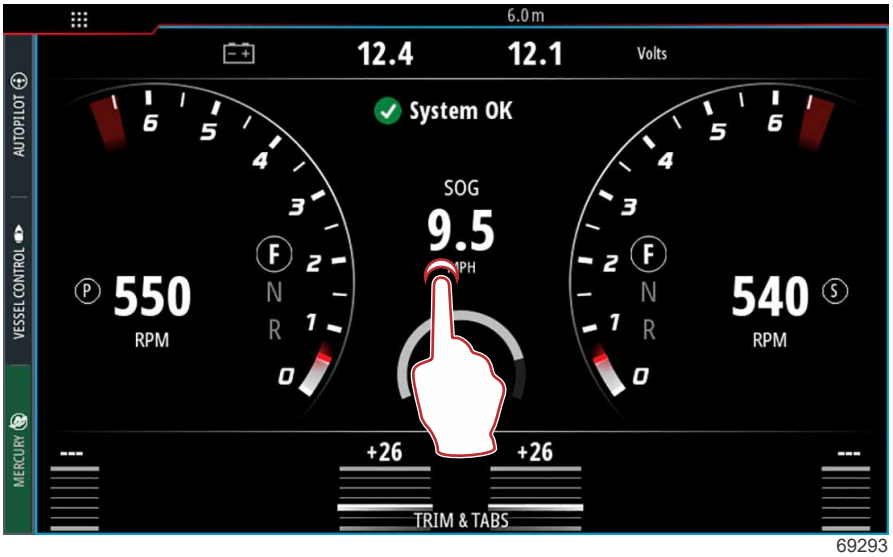
Touch the fuel icon to access fuel data.



69270

69291

Touch the speed area to access speed data.

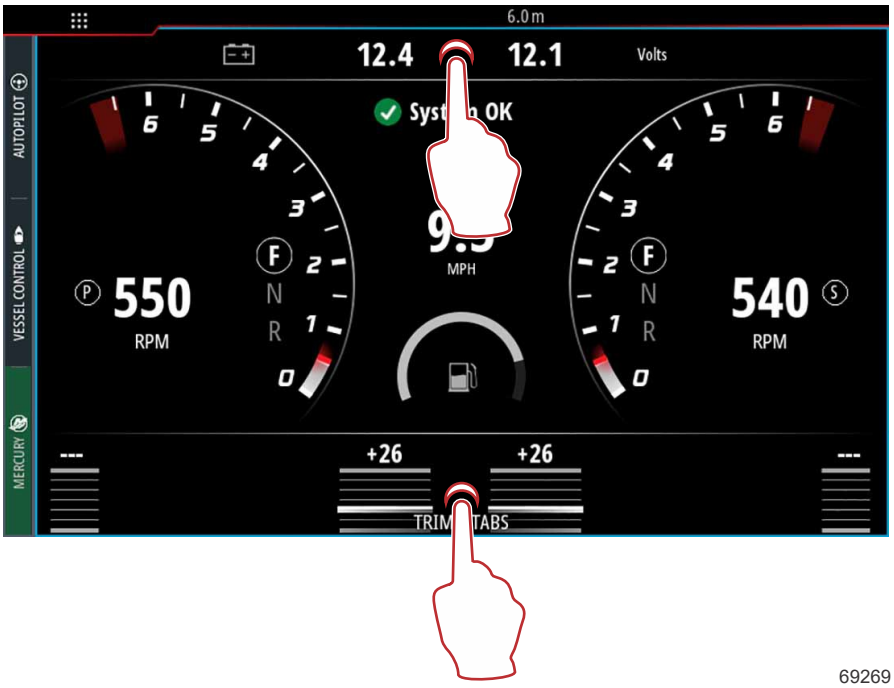


69293

69292

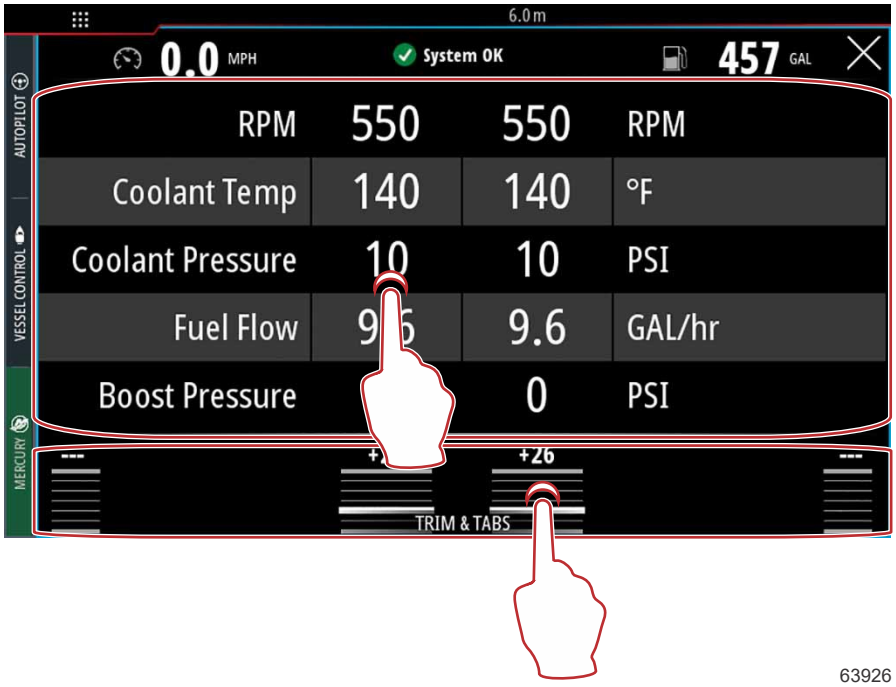
Customizable Data Areas (Press and Hold)

VesselView will display a screen of all of the engine parameters that are currently checked, or active, on the display. Pressing and holding any of the displayed engine data bars will bring up the file menu of available engine data items. The operator can turn data on or off by selecting the entry. A checked box will indicate that the data will display and an unchecked box will delete that data from the VesselView displayed data.



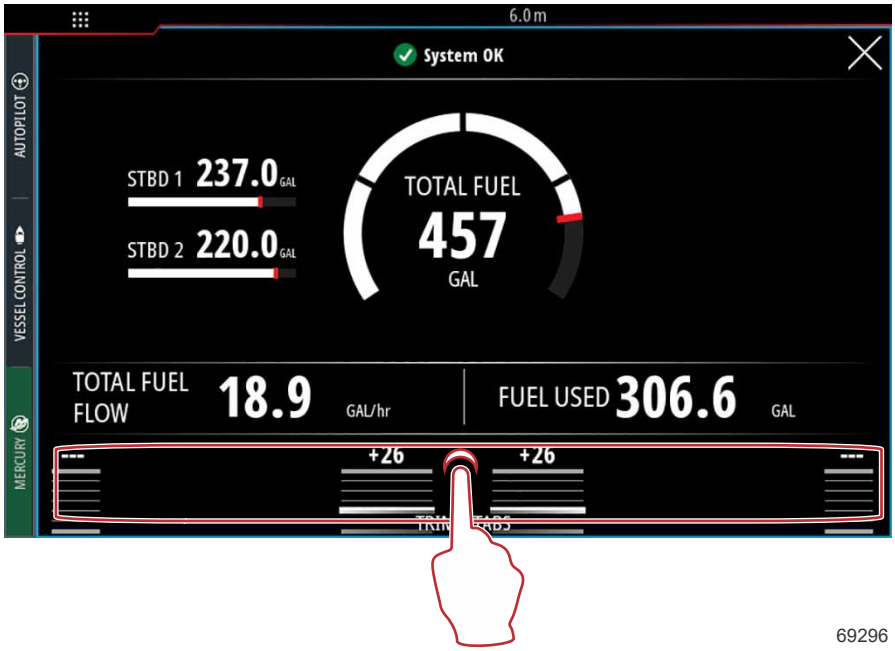
69269

Home screen customizable data areas



63926

Engine data screen customizable data area



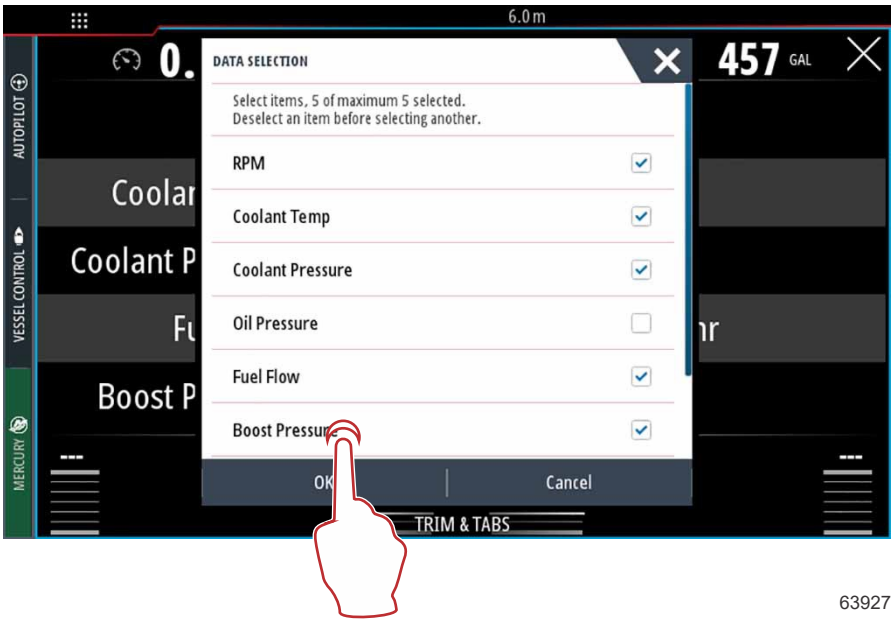
69296

Fuel screen customizable areas

69295

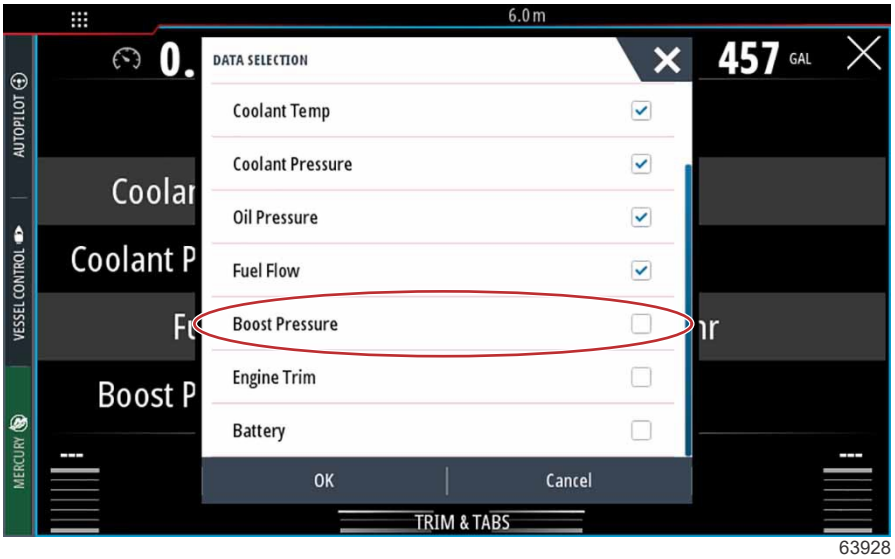
Speed screen customizable data areas

Depending on the power package of the vessel, as input during the Setup Wizard, some items may not display any live data because the engine does not use or transmit that data.



63927

Touch to turn on or off an item



63928

Unchecked items will not display data

Selecting the **X** will return the VesselView to the main navigation screen.

61726

Section 3 - Features and Operation

Table of Contents

Engine Scheduled Maintenance

If a maintenance reminder is detected during a system scan, the Mercury tab in the lower left-hand corner of the screen will display in the color blue. Use common sense to protect your investment, and check your engine oil on a regular basis, preferably before each use.

When the scheduled maintenance time is fully depleted, a maintenance pop-up will appear after the start-up scan. The operator can close the pop-up, but the reminder will appear at every key-on of the vessel. Acknowledgement of the maintenance reminder will reset the maintenance time frame in VesselView. To access the specific information regarding scheduled maintenance navigate to the descriptive maintenance text message using the following instructions. Users can view the maintenance bar at any time to view the depletion status. This can help in scheduling future appointments with your dealer, if the maintenance is not performed by the owner.

Select the **Mercury** tab in the lower left-hand corner of the screen.

61536

Select the **MORE** option.

61538

To view the remaining time before scheduled maintenance, select the **MAINTENANCE LIFE** option. The more of the progress bar shown in blue, the sooner scheduled maintenance is needed.

61540

Maintenance life

Smart Tow

Smart Tow is an easy to use program to manage boat acceleration and target speed goals for pulling skiers, tubers, or watersport equipment of all varieties. Smart Tow takes the guesswork out of acceleration problems like too much hole shot, too much overshoot, deceleration, and constant speed targets. Select a profile, select **enable**, and place the control handle to wide-open throttle, Smart Tow will do the rest.

The Smart Tow panel allows you to select, set, and modify settings in the Smart Tow features.

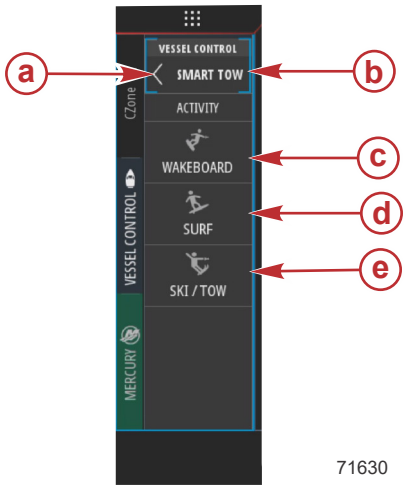
Smart Tow is based on the engine RPM unless the vessel has a GPS installed and connected to the control area network. When the vessel contains a GPS, you can select either speed targets or engine RPM targets for Smart Tow control options. You can also create custom launch profiles.

Vessel Control Smart Tow Options

VesselView with Smart Tow control initially presents to the operator three options to choose from: Wakeboard, Surf, and Ski/Tow. These options provide the operator with ready-made selection points from which to enable the Smart Tow launch/cruise activity. These screens also provide convenient access for controlling vessel options for tow sports and wake surfing.

NOTE: *Surf and wakeboard selections (c and d in the following illustration) will not be selectable (grayed-out) if your boat is not equipped a Mercury MerCruiser Bravo 4 S Sterndrive. These features also require the boat to be equipped with the Mercury Marine Integrated OEM installed Lenco© surf tabs and CZone ballast tank controls.*

1. Select **VESSEL CONTROL**, **SMART TOW**. You can select any of the listed activities with a single tap. To return to the previous view, use the less than caret (**<**) at the top of the panel.

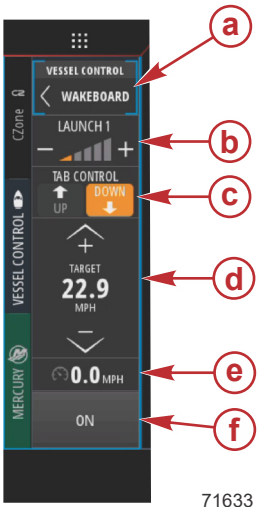


71630

a - Return to previous view
b - **VESSEL CONTROL–SMART TOW**
c - **WAKEBOARD** activity
d - **SURF** activity
e - **SKI/TOW** activity

2. When **WAKEBOARD** is selected, the panel will change to show the controls for this activity. The display shows the last use settings.
   - There are five launch profiles. Tap the **+** or **–** to select the desired profile.
   - Tap the up or down symbol in **TAB CONTROL** to move the tab to full extension or full retract.
   - **TARGET SPEED** is default set to the last use launch number profile target speed. Tap the **+** or **–** to change the target speed.
   - The actual speed of the boat is displayed below the target speed.
   - The wakeboard activity can be enabled at the bottom of the panel.

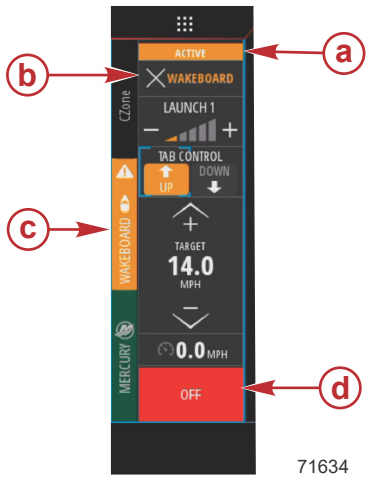
     NOTE: *When **ON** is displayed, the activity is not enabled. To enable the activity, tap **ON**. When the word **OFF** is displayed, the activity is enabled. After the activity is enabled, to launch the vessel using the selected launch profile, tab position, and target speed, rapidly advance the throttle handle from forward in gear idle to forward wide-open throttle. The engine will follow the launch profile acceleration curve. For a more aggressive launch, select a higher value on **LAUNCH**.*



71633

a - **WAKEBOARD** vessel control
b - Launch control
c - Tab control - both tabs operate in the same direction
d - Target speed
e - Actual speed
f - **ON** selection - enable

3. When the activity is enabled, the display will change color indicating **WAKEBOARD** is active. The launch profile, tab control, and target speed can be changed while wakeboard is active. To hide the panel, tap the **X** at the top of the panel. To unhide the panel, tap the **WAKEBOARD** option displayed left of center. The wakeboard activity can be turned **OFF** by tapping the selection at the bottom of the panel.



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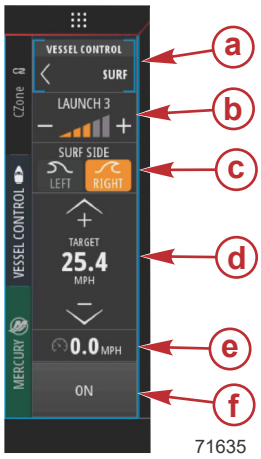
a - Wakeboard is active
b - Tap **X** to hide panel
c - Tap to unhide panel
d - Turn wakeboard **OFF**

4. When **SURF** is selected, the panel will change to show the controls for this activity. The display shows the last use settings.
   - There are five launch profiles. Tap the **+** or **–** to select the desired profile.
   - Tap the left or right **SURF SIDE** icon for the desired wave position.
   - **TARGET SPEED** is default set to the last use launch number profile target speed. Tap the **+** or **–** to change the target speed.
   - The actual speed of the boat is displayed below the target speed.

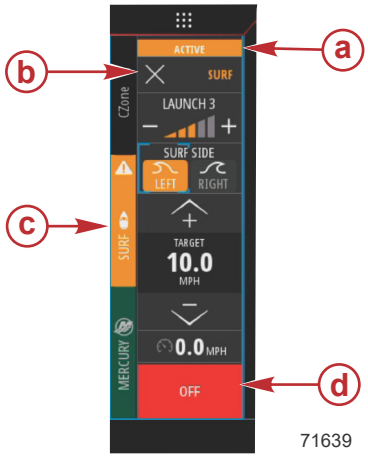
- The surf activity can be enabled by tapping the selection at the bottom of the panel.

  NOTE: *When* ***ON*** *is displayed, the activity is not enabled. To enable the activity, tap* ***ON****. When the word* ***OFF*** *is displayed, the activity is enabled. After the activity is enabled, to launch the vessel using the selected launch profile, wave position and target speed, rapidly advance the throttle handle from forward in gear idle to forward wide-open throttle. The engine will follow the launch profile acceleration curve. For a more aggressive launch, select a higher value on* ***LAUNCH****.*



a - **SURF** vessel control
b - Launch control
c - Surf side wave position - controls each tab independently: full retract or full extend
d - Target speed
e - Actual speed
f - **ON** selection - enable

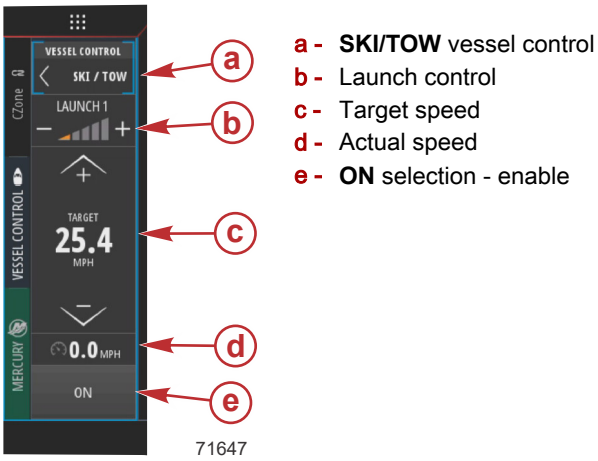
5. When the activity is enabled, the display will change color indicating **SURF** is active. The launch profile, surf side wave position, and target speed can be changed while surf is active. To hide the panel, tap the **X** at the top of the panel. To unhide the panel, tap the **SURF** option displayed left of center. The surf activity can be turned **OFF** by tapping the selection at the bottom of the panel.



a - Surf is active
b - Tap **X** to hide panel
c - Tap to unhide panel
d - Turn surf **OFF**

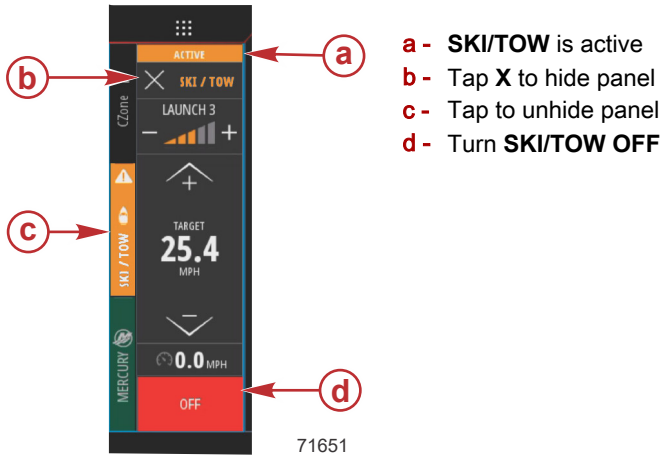
6. When **SKI/TOW** is selected, the panel will change to show the controls for this activity. The display shows the last use settings.
   - There are five launch profiles. Tap the **+** or **–** to select the desired profile.
   - **TARGET SPEED** is default set to the last use launch number profile target speed. Tap the **+** or **–** to change the target speed.
   - The actual speed of the boat is displayed below the target speed.
   - The **SKI/TOW** activity can be enabled by tapping the selection at the bottom of the panel.

NOTE: *When* ***ON*** *is displayed, the activity is not enabled. To enable the activity, tap* ***ON****. When the word* ***OFF*** *is displayed, the activity is enabled. After the activity is enabled, to launch the vessel using the selected launch profile and target speed, rapidly advance the throttle handle from forward in gear idle to forward wide-open throttle. The engine will follow the launch profile acceleration curve. For a more aggressive launch, select a higher value on* ***LAUNCH****.*



- **a -** **SKI/TOW** vessel control
- **b -** Launch control
- **c -** Target speed
- **d -** Actual speed
- **e -** **ON** selection - enable

7. When the activity is enabled, the display will change color indicating **SKI/TOW** is active. The launch profile and target speed can be changed while **SKI/TOW** is active. To hide the panel, tap the **X** at the top of the panel. To unhide the panel, tap the **SKI/TOW** option displayed left of center. The **SKI/TOW** activity can be turned **OFF** by tapping the selection at the bottom of the panel.

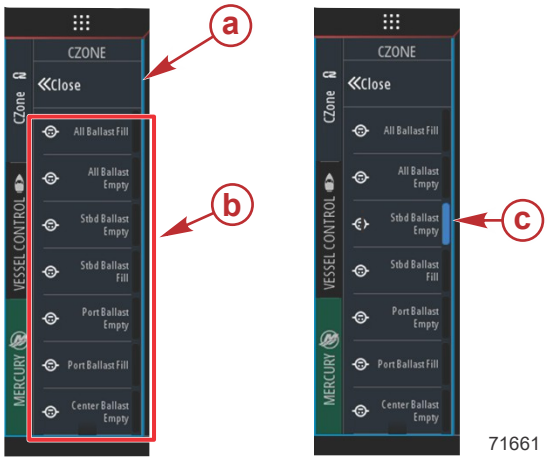


- **a -** **SKI/TOW** is active
- **b -** Tap **X** to hide panel
- **c -** Tap to unhide panel
- **d -** Turn **SKI/TOW OFF**

CZone

The CZone tab selection offers ballast control for use in conjunction with, or separate from the other Smart Tow features if equipped. The three ballast tanks can be filled to augment the height, length, and position of the wave or wake. To fill or drain the ballast tanks, tap the desired option. A blue bar will appear next to the active tank operation. The fill and drain process is default set to a pre-determined time to sufficiently fill or drain the tank. This pre-determined time cannot be changed. To interrupt the fill or drain process, tap the active selection. Select the **CLOSE** option at the top of the panel to exit CZone.

NOTE: *When the fill or drain process is interrupted, the tank may be partially filled. If you tap the fill tank option, the tank may overflow, dumping the excess water through the overflow vent outside the boat until you interrupt the process or, allow the pre-determined time to elapse. If you tap the empty tank option on a partially filled tank, the pump may continue to run when the tank is empty until you interrupt the process or allow the pre-determined time to elapse .*



a - Tap to close the panel
b - Eight ballast tank options: 4 fill, 4 drain, (scroll down to view center ballast fill option)
c - Active ballast tank selection

- Ballast Tank Etiquette
  - The ballast system can harbor invasive aquatic species. Practice proper etiquette by following these simple actions: drain the ballast system every time the boat is removed from the water, allow the ballast system to dry before operating in a different body of water.

Cruise Control

The cruise feature allows the operator to select a set point and adjust the value so the vessel maintains a specific speed or engine RPM.

- Cruise is RPM based, unless the vessel incorporates a Mercury Marine GPS into the control area network.
- If the vessel has a Mercury Marine GPS, the default setting is vessel speed.
- The operator can select either RPM set points or speed-based set points. The type of cruise option can be changed in the Settings menu.

NOTE: *Cruise Control can be disabled by placing the remote control levers in neutral.*

Activating Cruise Control Mode

To activate the Cruise autopilot option, select the **Vessel Control** tab on the left-hand side of the screen.

Select the **Cruise Control** tile in the Vessel Control bar.

Select the up or down arrows to achieve the desired speed.

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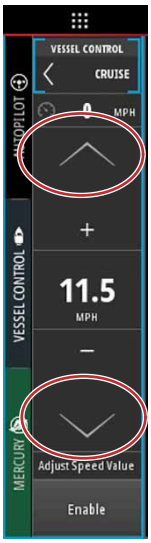

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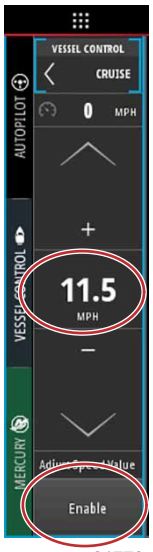
With the desired cruise speed set, select the **Enable** tile in the cruise bar. Place the remote control handles in the forward gear position, and place the handles in the wide-open throttle position. VesselView will increase the speed of the vessel to the selected set point chosen by the operator.



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When Cruise is active the Vessel Control tab will be orange, alerting the operator that the vessel is in an autopilot control mode.

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Cruise Control mode can be cancelled by placing the remote control handles in the neutral position or by selecting the Disable tile in the bottom of the Cruise Control bar. To access the **Disable** tile, select the **Vessel Control** tab on the left-hand side of the screen, this will bring up the Cruise Control bar and the **Disable** option.

Troll Control

Troll RPM ranges are power package dependent, but the maximum RPMs for all engines or outboards is 1000 RPM.

To activate Troll Control, select the **Vessel Control** tab on the left-hand side of the screen.

Select the **Troll Control** tile in the Vessel Control bar.

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The vessel must be in gear and the throttle must be at idle. If the vessel does not meet these conditions, a warning icon and accompanying text will instruct the operator on how to make Troll Control available.

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When gear and throttle conditions are met, the Vessel Control bar will display Troll Control options. The increase and decrease arrows are grayed out when either the minimum or maximum RPM value has been selected. Select the **+** or **–** icons on the screen to adjust the RPM value.

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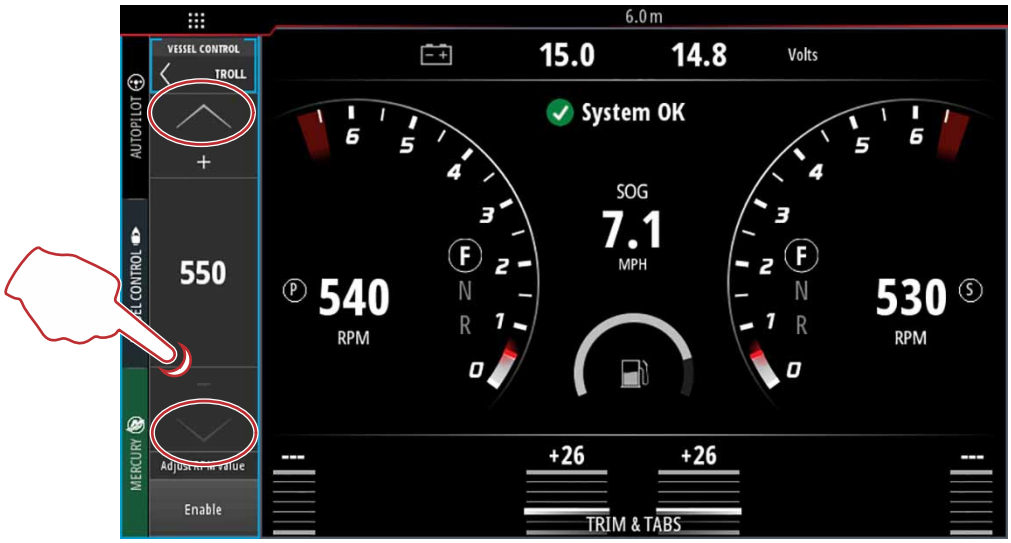

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When the desired RPM value has been chosen, select the **Enable** tile. This will start Troll Control and the engines will climb to the desired RPM.

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The Enable tile will turn orange and read Disable. The Vessel Control tab will turn orange and display a warning symbol and the text Troll Active.

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The Vessel Control bar can be minimized during Troll Control operation without affecting the Troll Control autopilot function. Select the arrow in the upper left-hand corner of the Vessel Control bar to minimize the bar.

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The main screen returns to normal size and the Troll Active tab is visible in orange on the left-hand side of the screen.

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To disable troll control, select the **Troll Active** tab, which will display the Troll Control options bar. Select **Disable** to turn Troll Control off.

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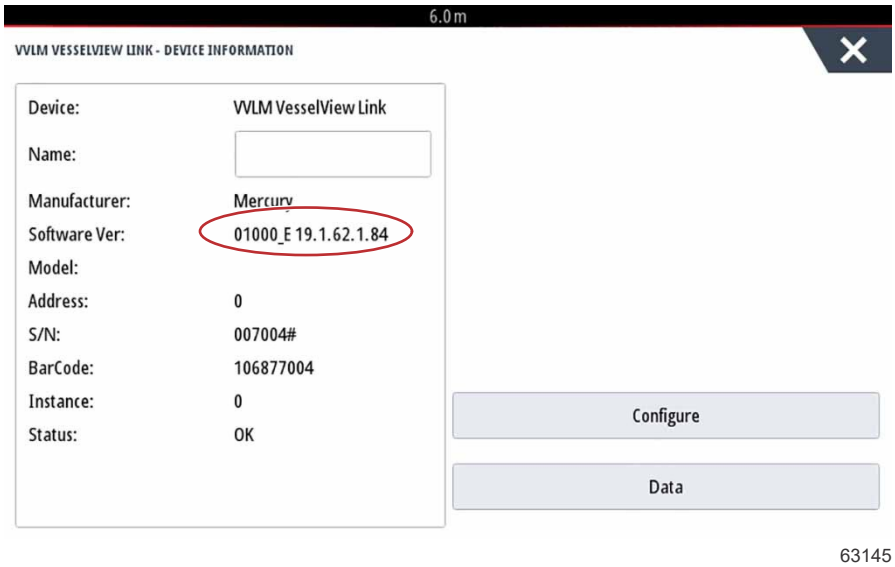
Active Trim

Requirements

In order for Active Trim to function on VesselView, the VesselView Link software must be at version 2.0 or later. See **Section 6 - Software Update Procedures.**

Additional hardware for your vessel may be required for the Active Trim features to function. See your authorized Mercury Marine dealer for information on required hardware.



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VesselView Link software version location

Introduction to Active Trim

Active Trim is Mercury Marine's patented GPS-based automatic trim system. This intuitive, hands-free system continually adjusts engine or drive trim for changes in operating conditions to improve performance, fuel economy, and ease of operation. It responds to boat maneuvers with precision and delivers a better overall driving experience. No knowledge of trimming an engine or drive is needed to take advantage of Active Trim.

- As the boat accelerates, the engine or drive will trim out.
- As the boat decelerates, for example, while making a turn, the engine or drive will trim in.
- Active Trim can be overridden at anytime by using the regular, manual trim buttons.

- Active Trim allows the boat operator to compensate for changes in boat load, driver preferences, and weather conditions while maintaining full automatic control.

The Active Trim system has four modes of operation:


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1. Idle speeds
Maintains the existing trim position.


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2. Acceleration (hole shot)
Tucks the engine or drive under to minimize bow rise and improve time-to-plane.


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3. Planing speeds
Progressively trims the engine or drive based on GPS speed to maintain the most efficient running attitude.

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4. Override
When the boat operator uses manual trim, the Active Trim system is immediately overridden, returning full control to the operator.

Active Trim Operation

- Active Trim automatically controls trim to maintain the optimum engine or drive position based on engine RPM and boat speed.
- Active Trim progressively trims out the engine or drive to maintain an efficient running attitude.
- Active Trim will maintain the last known trim position when operating at speeds in excess of 80 km/h (50 mph).
- Operation above 80 km/h (50 mph) may require trim adjustments using the panel mounted or control handle trim position switch.
- Active Trim will gradually return the engine or drive to the down position during deceleration.
- Active Trim will only function when the engine or drive is in the normal trim range.

GPS

Active Trim uses a GPS signal to determine vessel speed. The Active Trim system will not automatically control trim until the GPS unit has acquired a signal.

Resume Functionality

If the boat operator overrides the Active Trim system at planing speeds using the trim button, or exceeds 80 km/h (50 mph), the system will stop controlling the trim. Active Trim will resume automatically under the following conditions:

- Override occurred above 80 km/h (50 mph) and the boat operator then decelerates to below 80 km/h (50 mph).
- Override occurred above 80% of the rated engine RPM and the boat operator then decelerates to below 80% of the rated engine RPM.
- Override occurred in the cruising speed range and then the boat operator decelerates to idle. Active Trim will become active on the next acceleration.

Shallow Water Operation

Active Trim cannot detect water depth and will not trim up automatically in shallow water. The boat operator will need to override Active Trim by trimming the engine or drive manually or pressing the OFF button.

Trailer Position

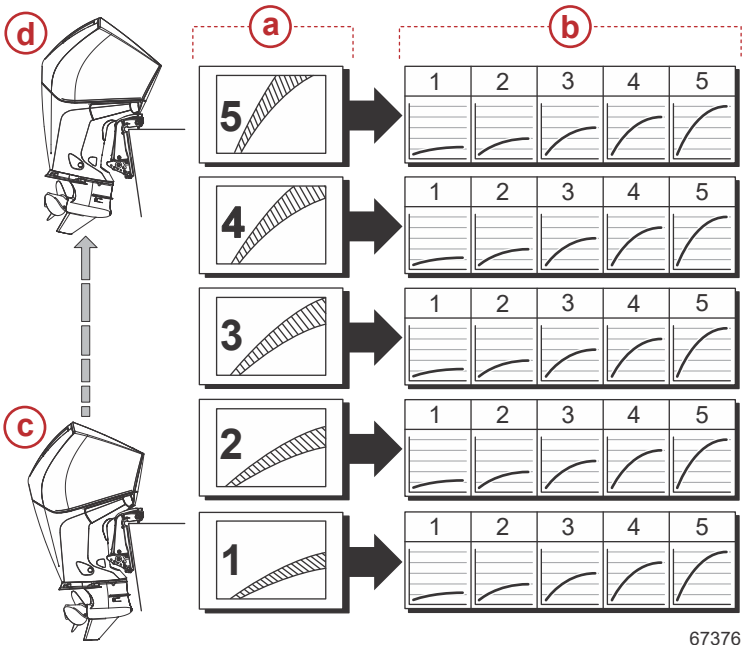
Placing the engine or drive in trailer position (over 50% of the adapted trim range) will prevent Active Trim from engaging. Any time the engine or drive is trimmed above its normal range—to navigate shallow water, launch the boat from a trailer, or load the boat onto a trailer, for example—you must manually trim down before Active Trim will function. This safety feature is meant to prevent the engine or drive from automatically trimming down and hitting something.

Trim Profiles

Active Trim works off 25 preset trim profiles. These 25 trim profiles are divided into five major profile groups. Within each major profile group are five minor profiles—sometimes referred to as adjustable profiles.

Major Trim Profiles: Major trim profiles are selected in the **Settings>Mercury>Engines>Active Trim** menu. There are five major trim profiles. The lower the number, the less aggressive the trim position of the outboard or drive will be at a lower boat speed. As the major trim profile number is increased, the more aggressive the outboard or drive trim angle will be at lower boat speeds. Finding the proper major trim profile ultimately results in the boat running on plane, where the bow is at a desirable attitude to the water surface and the outboard or drive is perpendicular to the water surface. For most applications, a major trim profile will be 2, 3, or 4. Select a running major trim profile and increase the major profile until the boat begins to porpoise, then back down one major trim profile.

Minor Trim Profiles: Minor trim profiles are selected in the **Vessel Control in the Control bar** screen. Once a desirable major trim profile has been selected, select a minor trim profile. Slight variations in the minor trim profiles can be made to help compensate for boat loading—passenger or gear distribution, changes in ballast or fuel tank levels, weather, propping, and operator preference. Select a minor trim profile between 1 and 5 to find the ideal trim position for running on plane.



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a - Major trim profiles
b - Minor trim profiles
c - Less aggressive trimming
d - More aggressive trimming

Active Trim Operation and Adjustments

1. Press **VESSEL CONTROL** to access Active Trim in the Vessel Control menu.

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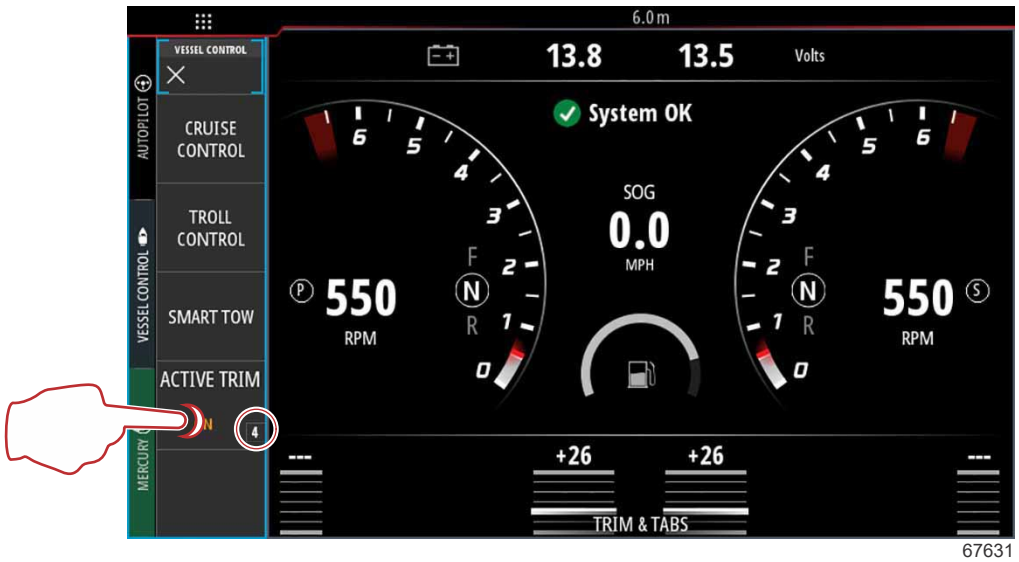
2. Then press **ACTIVE TRIM** to access the minor trim profile selections. The number in the lower right is the selected minor profile.



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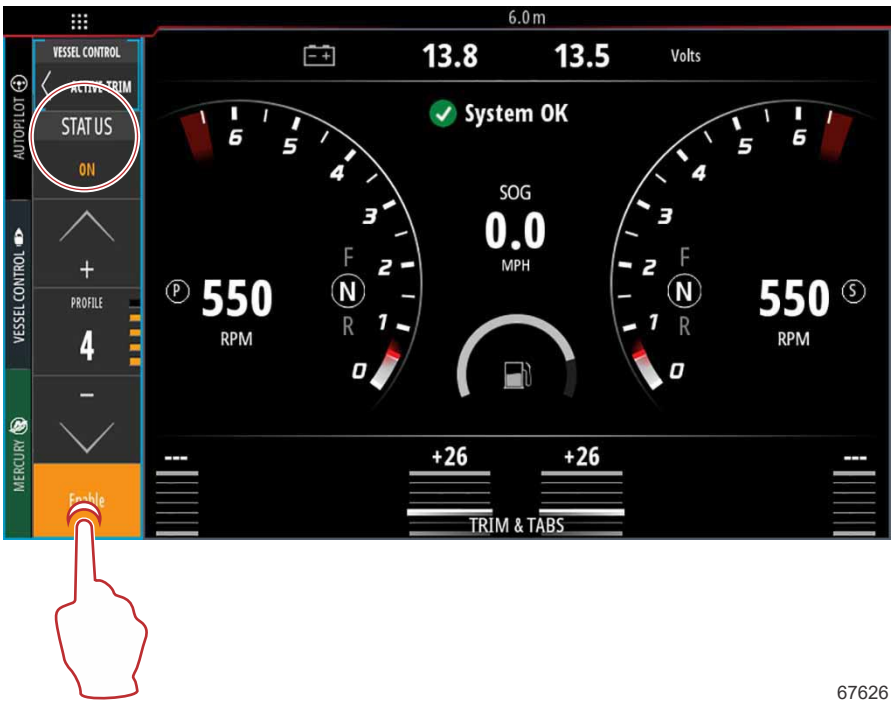
3. Press **Enable** to turn Active Trim on or off. If **Enable** is greyed out, the Active Trim **STATUS** is **OFF**. If **Enable** is highlighted, the Active Trim **STATUS** is **ON**.



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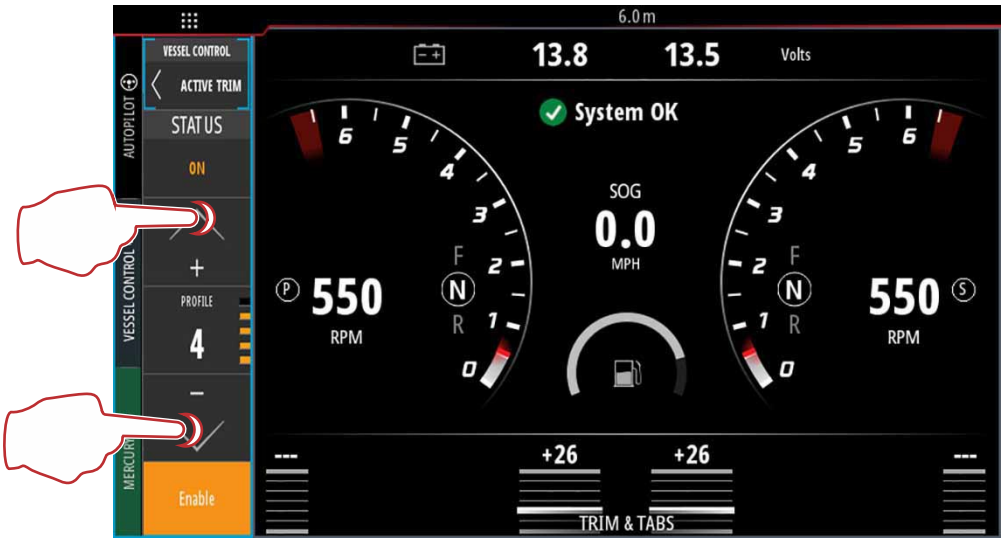
4. When Active Trim is enabled select a minor trim profile by touching the up or down arrows on the Active Trim screen. Refer to **Settings>Mercury>Engines>Active Trim** to adjust the Active Trim major trim profile if the highest or lowest minor trim profile number does not work.



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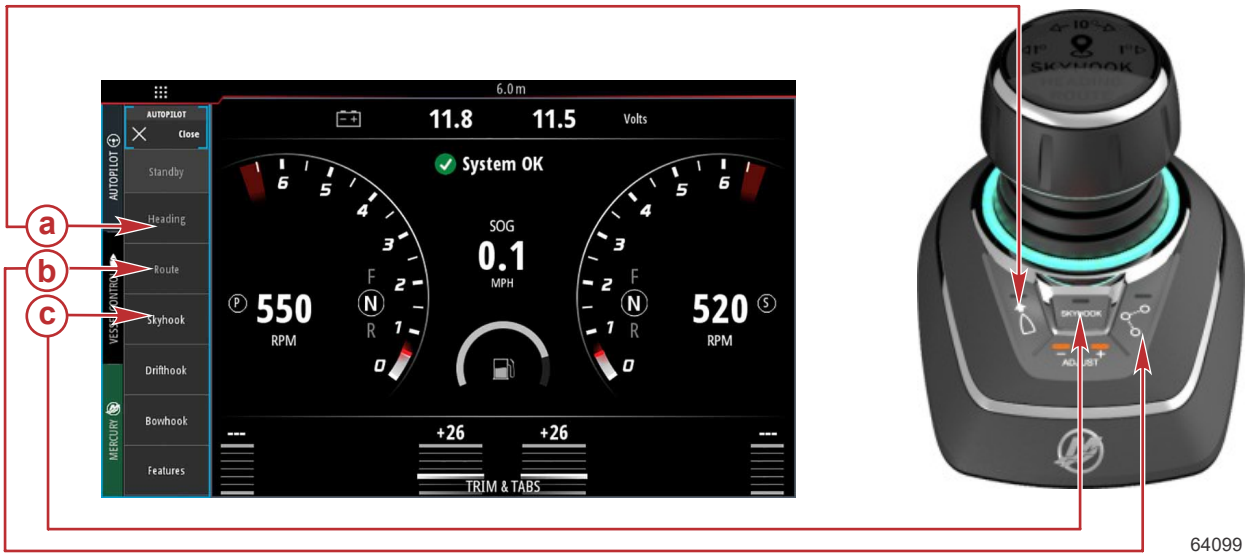
SkyHook

Overview

SkyHook is a feature of the joystick control. SkyHook will keep the vessel in a specific GPS position on the water. SkyHook will engage the engines or drives in a number of directions and speeds to compensate for wind and current effects on the vessel. This is especially helpful when waiting for a bridge opening or for vessel traffic to clear an area. When activated, SkyHook takes over and maintains the vessel position.

VesselView and the Design 2 Joystick

The feature tabs on the VesselView display and the buttons on the Design 2 joystick are designed to activate all heading changes, route engagements, as well as all SkyHook features. For example, (a) heading can be engaged using the joystick and VesselView can be used to make adjustments using the on-screen tabs in the SkyHook autopilot menu. Likewise, either that joystick or VesselView can be used to put a feature in standby or deactivate that feature.



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a - Heading feature
b - Route feature
c - SkyHook feature

Functions

SkyHook

When SkyHook is selected a warning window will open alerting the operator to make sure that there are no swimmers in the vicinity of the vessel. To acknowledge this message, select **Continue**.

SkyHook will not engage unless the joystick and control levers are in neutral.

Before engaging (activating) SkyHook, the operator must:

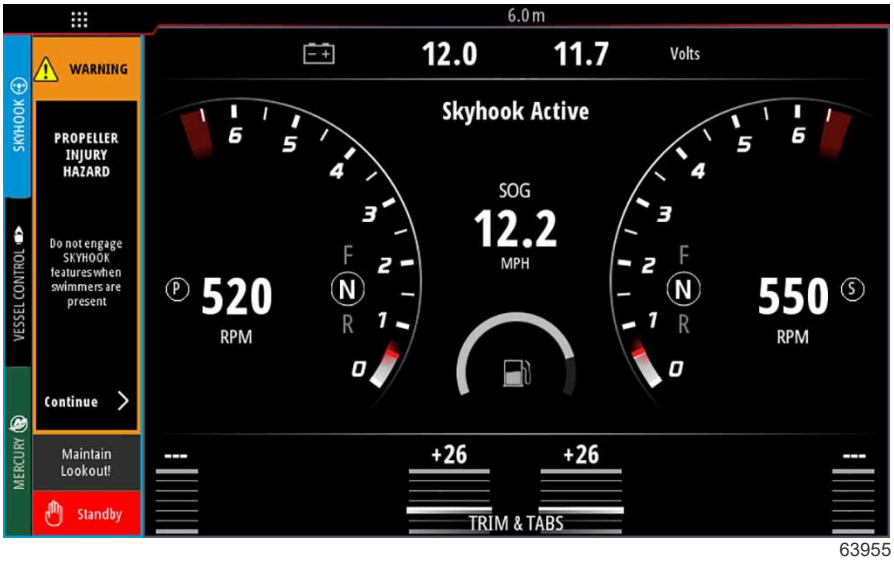
1. Inform passengers how SkyHook operates, to stay out of the water and off the swim platform and boarding ladder, and to be alert for any sudden shifts in the boat position.
2. Inform passengers of any audible or visual warning systems that may be installed on the boat, and when they can expect them to be active.
3. Check to see that no one is near the back of the boat or anywhere in the water near the boat.

After engaging (activating) SkyHook, the operator must:

1. Remain at the helm and maintain a vigilant watch.
2. Disengage (deactivate) SkyHook if anyone enters the water or approaches the boat from the water.

⚠ WARNING

A rotating propeller, a moving boat, or a device attached to a moving boat can cause serious injury or death to people in the water. When Skyhook is engaged, the propellers rotate and the boat moves to maintain the position of the boat. Stop the engines immediately whenever anyone is in the water near the boat.



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SkyHook activation warning

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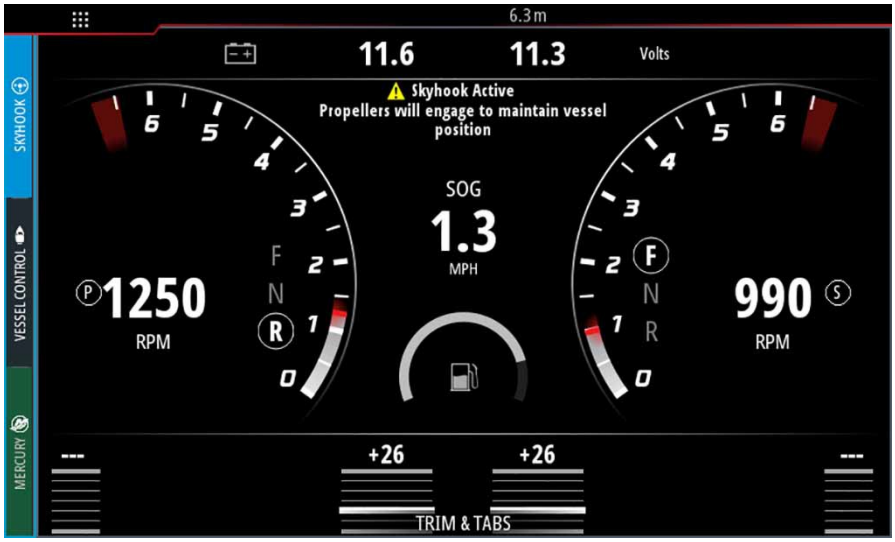
SkyHook active

SkyHook will remain engaged until the operator cancels the feature. The SkyHook data panel can be minimized while SkyHook is still engaged. A text message will remain on-screen to alert the operator.



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Data panel minimized, SkyHook active

Heading

Auto heading allows the boat to automatically maintain a compass heading while the boat is underway.

Engaging Auto Heading

1. Ensure that the starboard engine key switch is in the RUN position.
2. Place at least one running engine in forward gear.
   NOTE: *Auto heading does not function with the ERC levers in neutral or reverse.*
3. Steer the boat to the desired compass heading.
4. Engage **Heading**.

5. Heading adjustments can be made on-screen, in 1° and 10° increments.

- **a -** The heading that the vessel is currently on
- **b -** The desired, or target heading
- **c -** 1° heading change to port
- **d -** 1° heading change to starboard
- **e -** 10° heading change to port
- **f -** 10° heading change to starboard

Route

⚠ WARNING

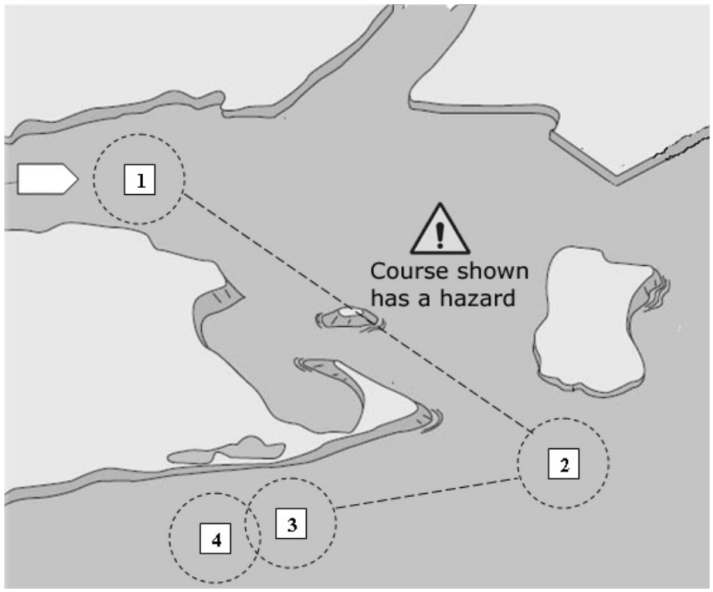
Avoid serious injury or death. Inattentive boat operation can result in a collision with other watercraft, obstacles, swimmers, or underwater terrain. The autopilot navigates a preset course, and does not automatically respond to hazards in the vicinity of the boat. The operator must stay at the helm, ready to evade hazards and warn passengers of course changes.

Route mode allows the boat to automatically navigate to a specific waypoint or sequence of waypoints, called a waypoint route. This feature is intended for use in open waters, free from obstructions above and below the waterline.

Using the example route shown in the following illustration:

- Waypoints are shown in numbered squares within the arrival circle (a dashed-line circle around the numbered square).
- A hazard is present between waypoints 1 and 2. If these waypoints are used for the route, the autopilot will attempt to navigate through the hazard. It is the captain's responsibility to select waypoints that avoid all hazards.
- Waypoint 4 is too close to 3 to be used in the same route. Waypoints must be far enough apart that the arrival circles do not intersect.

- A route, including waypoints 1, 2, and 3, is represented by the straight dashed-line. The autopilot system will attempt to navigate this route. It is the responsibility of the captain to ensure that the route does not contain any hazards, and to keep watch while underway.



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Example route

When the route mode is activated and the boat is put into operation:

- The operator must remain at the helm at all times. The feature is not designed to allow unattended operation of the vessel.
- Do not use the route mode as the sole source of navigation.

IMPORTANT: Route mode can be used only with chartplotters approved by Mercury Marine.

The arrival radius must be set to 0.05 nautical miles or less. Refer to the chartplotter's user manual for details.

The accuracy of the feature can be affected by environmental conditions and incorrect use. Observe the following information when using the track waypoint and waypoint sequencing feature.

Waypoint Data—Distance Settings	
Between waypoints	Greater than 1.0 nautical mile (1.15 mile)
Arrival alarms	No less than 0.1 nautical mile (0.12 mile)

IMPORTANT: Route mode will automatically turn the boat upon arrival at a plotted waypoint.

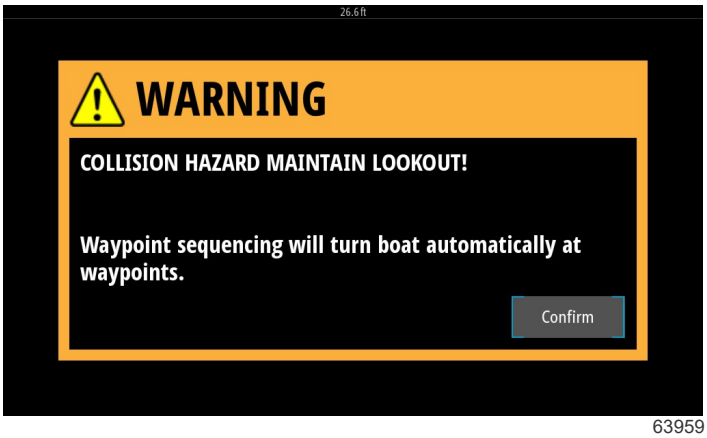
To engage the route mode:

1. Turn on the chartplotter and select a waypoint route to be tracked.
2. Place at least one ERC lever in forward gear. Route mode does not function if both levers are in neutral or reverse.
3. Manually steer the boat to the direction of the first waypoint and hold the boat steady at a safe operating speed.

⚠ CAUTION
Avoid injury from unexpected turns at high speeds. Engaging the Track Waypoint or Waypoint Sequence feature while on plane can cause the boat to turn sharply. Confirm the direction of the next waypoint before engaging these autopilot features. When underway in Waypoint Sequence mode, be prepared to take appropriate action when reaching a waypoint.

4. Select the **Route** tab on-screen.
   - VesselView will sound a single beep to let the operator know that **Route** mode is operational.
     NOTE: *Two horn beeps sound if route mode does not engage.*
   - The autopilot tracks to the first waypoint on the chartplotter course.
5. VesselView will sound a beep at all waypoints.
6. If you are in a waypoint arrival zone set by the chartplotter, route mode informs the autopilot it is okay to proceed to the next waypoint. The waypoint sequence mode acts as a waypoint acknowledge function, and the autopilot sounds a beep when in the zone.

7. If you are not in a previously set waypoint arrival zone, route mode starts auto sequencing to the waypoints in the route. Acknowledge that you understand the information presented in the pop-up warning.



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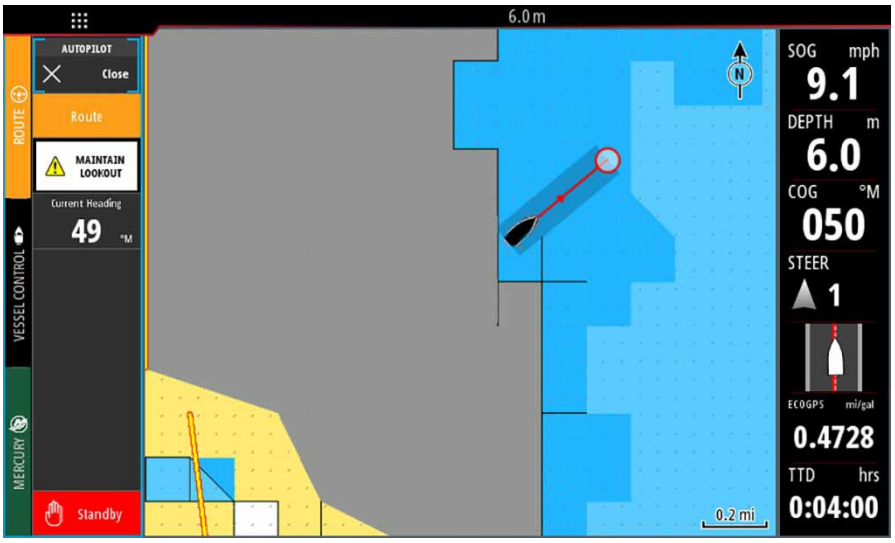
Change of course warning screen

8. Stay alert. The boat turns automatically in this mode. You must know if it is safe to turn when the vessel is entering a waypoint arrival zone. Inform passengers that the boat automatically turns so that they can be prepared.



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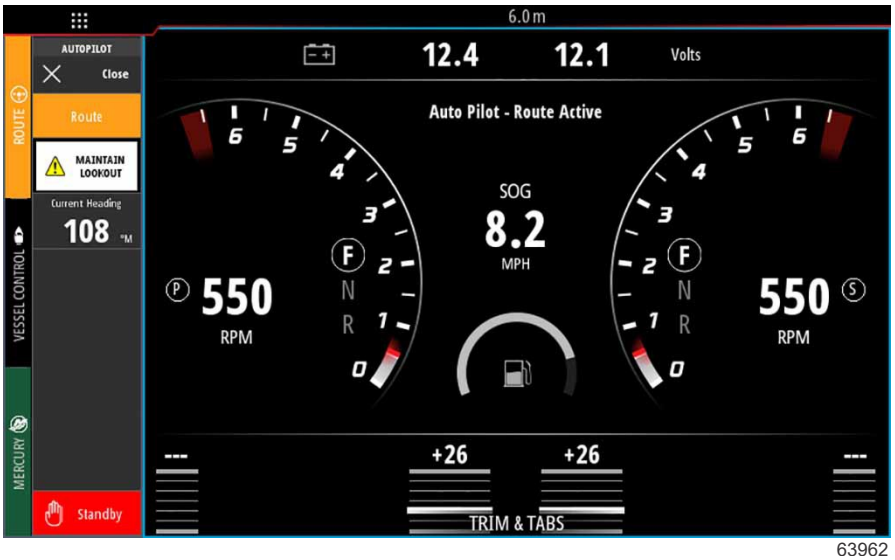
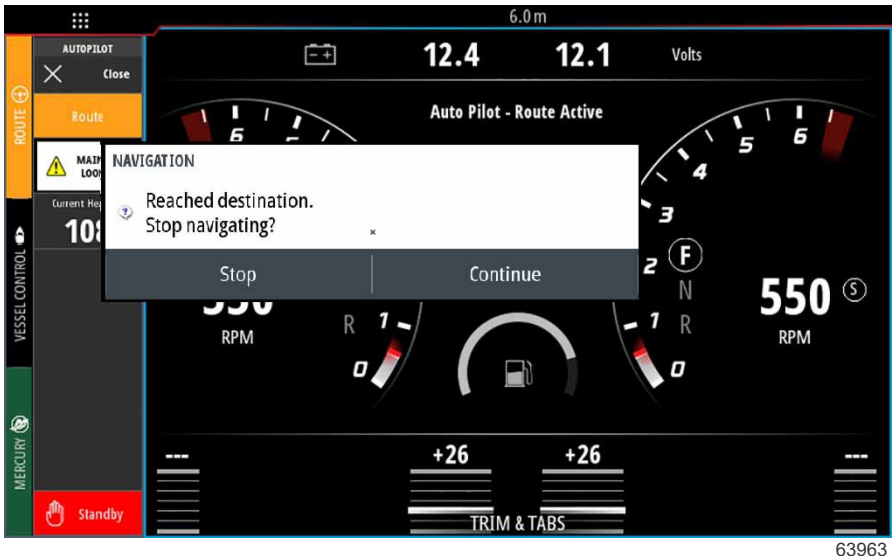


63962



63963

63964

VesselView Devices Supporting SkyHook Advanced Features

SkyHook advanced features are available for free as downloadable content (DLC) through the GoFree Shop. These features require Mercury's latest joystick system (indicated by the Joystick light ring) and the VesselView 502, 703, 903, or compatible Lowrance® or Simrad® with software release 19.4 or later. The displays previously listed require a VesselView Link with software release 19.3 or later. Advanced functions can be downloaded by going to: https://gofreemarine.com/products/mercury/.

NOTE: *The electronic control modules on your Joystick system may need to have the firmware updated by your Mercury-certified dealer in order to use these advanced functions.*

63953

Mercury design 2 joystick

Advanced Features

The advanced SkyHook features are only available on compatible Mercury joystick equipped boats.

While remaining in SkyHook, the following features can be used to augment the positioning control of the vessel.

Heading Adjust

Heading Adjust provides Joystick operators with the ability to adjust the heading lock in 1° and 10° increments while SkyHook is active, making vessel control even more precise.

BowHook

BowHook can be used to unlock the heading and maintain position, allowing the boat to point in whatever direction the winds and currents dictate. This feature is useful when a locked-in heading is not necessary.

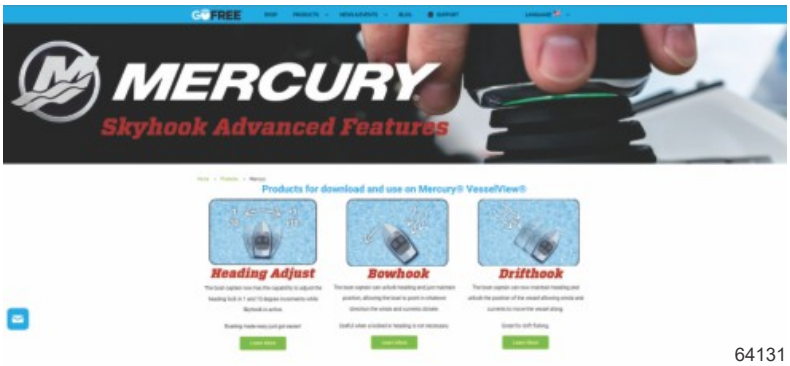
DriftHook

DriftHook lets the operator maintain a heading and unlock the position of the vessel allowing winds and currents to move the vessel along. Adjustments of 1° and 10° increments can be made while drifting when bundled with Heading Adjust.

The SkyHook advanced features, Heading and Route function the same as their stand-alone autopilot counterparts. The difference is that these features can be accessed while in SkyHook mode. In Heading Adjust, vessel direction changes can also be made in 1 and 10 degree increments. In Route, changes can be made to waypoints and destinations.

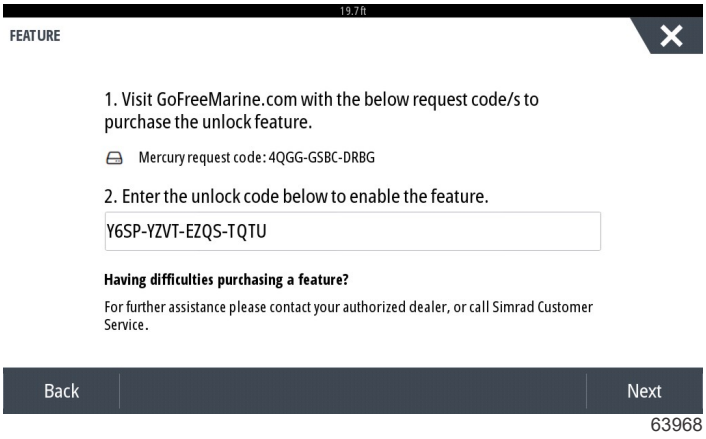
Purchasing the SkyHook Advanced Features

Purchasing advanced features can be done by going to: https://gofreemarine.com/products/mercury/. Follow the instructions on the website during the purchasing process.



64131

Once a purchase has been verified the operator will receive an activation code. This code can be entered into the VesselView.

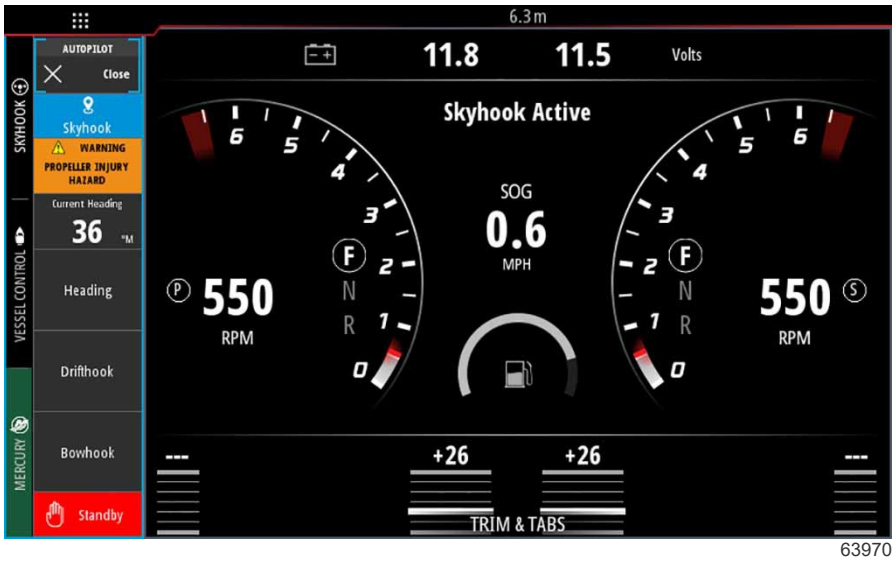


Unlock code entry screen

Heading Adjust

Heading Adjust provides Joystick operators with the ability to adjust the heading lock in 1° and 10° increments while SkyHook is active, making vessel control even more precise.

Select the **Heading Adjust** option from the menu tab.



SkyHook active with Heading Adjust

With the Heading Adjust tab on-screen, change the heading in 1° or 10° increments.

63972

a - Current vessel heading
b - New target vessel heading
c - 1° heading change to port
d - 1° heading change to starboard
e - 10° heading change to port
f - 10° heading change to starboard

DriftHook

Maintain vessel heading and unlock the position of the vessel allowing winds and currents to move the vessel along. Adjustments of 1° and 10° increments can be made while drifting when bundled with Heading Adjust.

Select the **DriftHook** option from the menu tab.

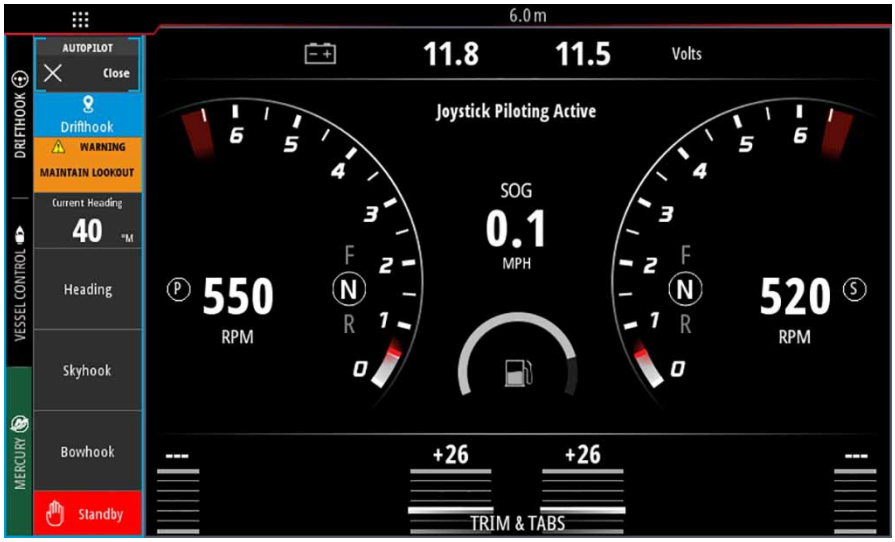
A warning window will appear, advising swimmers to clear the area of the vessel to avoid propeller injuries. DriftHook will only activate after the operator confirms seeing this warning and selects continue.

⚠ WARNING

A rotating propeller, a moving boat, or a device attached to a moving boat can cause serious injury or death to people in the water. When Skyhook is engaged, the propellers rotate and the boat moves to maintain the position of the boat. Stop the engines immediately whenever anyone is in the water near the boat.

63976

Propeller injury hazard warning



63977

SkyHook active with DriftHook engaged

BowHook

Unlock the vessel heading and maintain position, allowing the boat to point in whatever direction the winds and currents dictate. Useful when a locked in heading is not necessary.

Select the **BowHook** option from the menu tab.

63978

Advanced feature menu bar on left of screen

A propeller injury hazard warning will appear on-screen.

⚠ WARNING

A rotating propeller, a moving boat, or a device attached to a moving boat can cause serious injury or death to people in the water. When Skyhook is engaged, the propellers rotate and the boat moves to maintain the position of the boat. Stop the engines immediately whenever anyone is in the water near the boat.

63980

BowHook active

Sport Exhaust

Feature Description

NOTE: *Sport Exhaust is only available on certain outboard models.*

The Sport Exhaust feature allows the operator to change the sound of the outboard idle relief exhaust volume. Enabling the Sport Exhaust feature opens an exhaust passage, allowing a more deep exhaust sound.

Sport Exhaust Screen

The Sport Exhaust screen displays the status of the engine's sound feature.

67605

Pressing the **SPORT EXHAUST** button will enable—[ON], or disable—[OFF] the Sport Exhaust feature.

67606

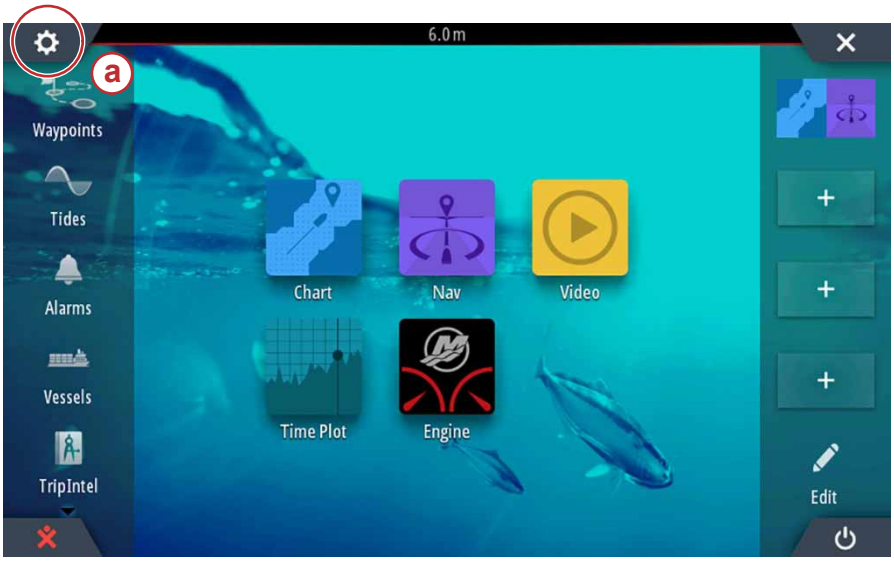
Section 4 - Setup and Calibrations

Table of Contents

Settings Activation

Activating the Settings Menu

Touching the settings icon in the upper left corner of the **Home** screen will bring up the **System Controls** window. Within the System Controls window is the **Settings** tile.



63275

a - Settings icon

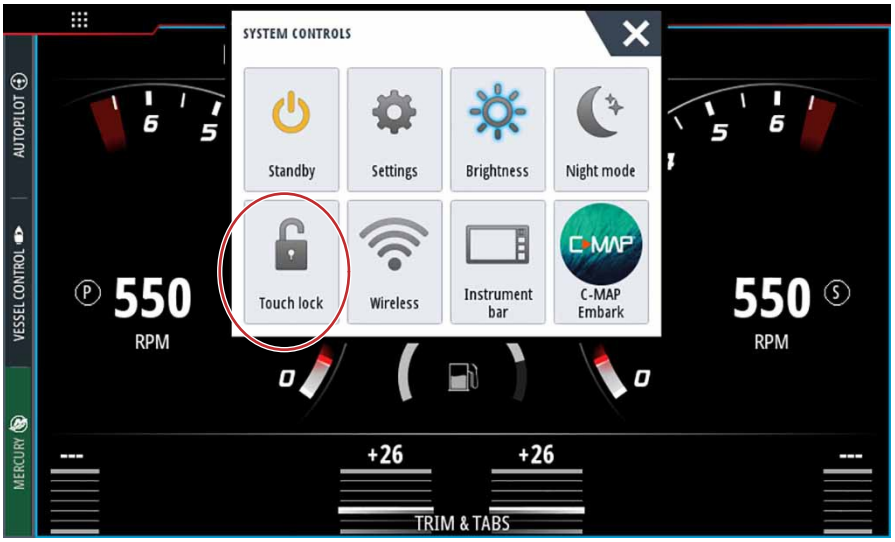
Swiping vertically down from the top of the screen will bring up the **System Controls** window. From here, select the **Settings** tile.

63276

System Controls window

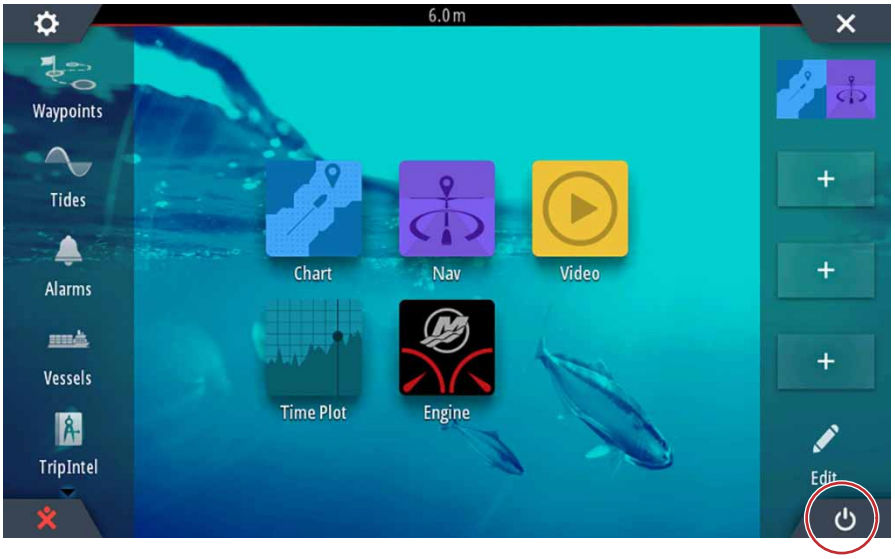
Touch Lock

Touch Lock is a feature that allows the operator to lock the screen from being changed by touch or swipe motions. Navigating the VesselView is done by using the rotary knob and panel buttons while the Touch Lock is enabled.

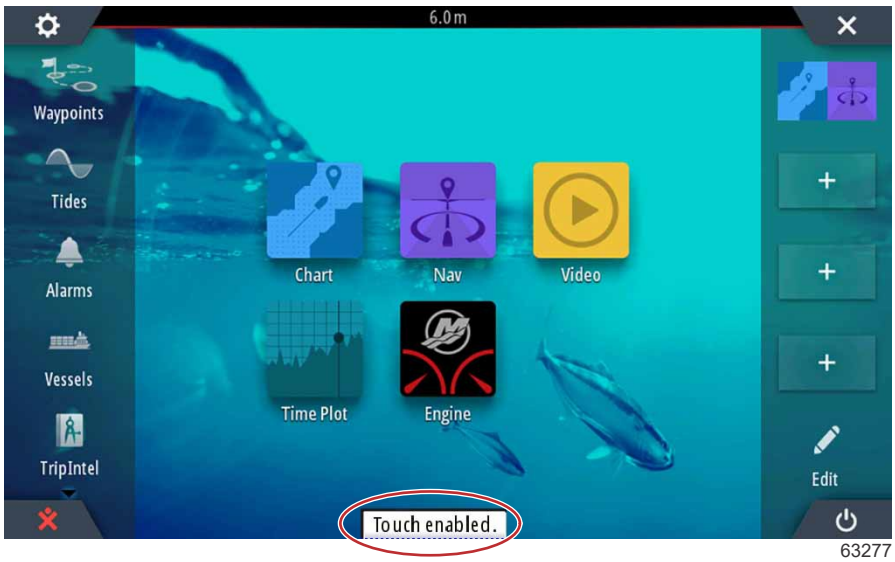


63280

In the event that the screen is not responding to touch. The Touch Lock may have been inadvertently activated. To bring the operation of the VesselView back to normal, use the rotary knob to open the Home screen and select the Power icon in the lower right corner of the screen. Toggle through the screen elements with the rotary knob until the Power icon is illuminated. Press the **power** button to restore screen touch capability.



63279



63277

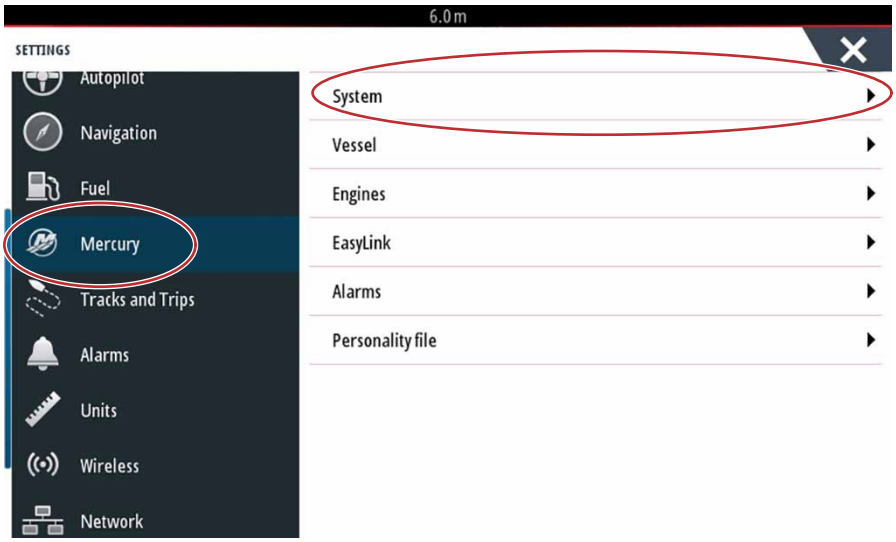
Touch enabled screen message—press the power button to enable touch

System Settings

Navigation to the Settings Menu

Changes in any of the settings can be made at any time using the **Settings** menu. All menus can be navigated by touching the screen or by using the rotary knob.

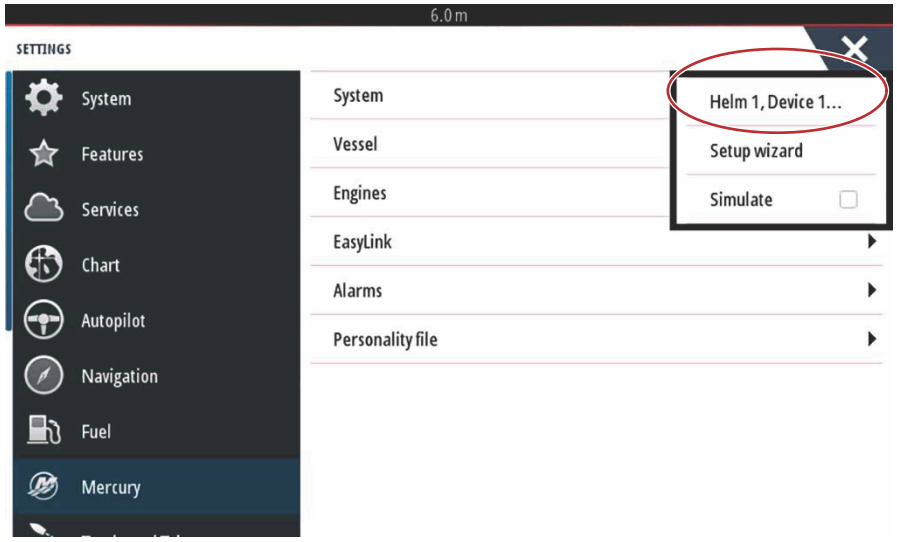
The Settings menu can be found by swiping downward from off the screen onto the upper portion of the screen. This will bring up the **System Controls** window. Select the **Settings** tile. A menu will appear on the left portion of the screen. Select **Mercury** from the list of options. The window of VesselView settings controlled by the Mercury side of the MFD will appear.



61655

Helm and Device Locations

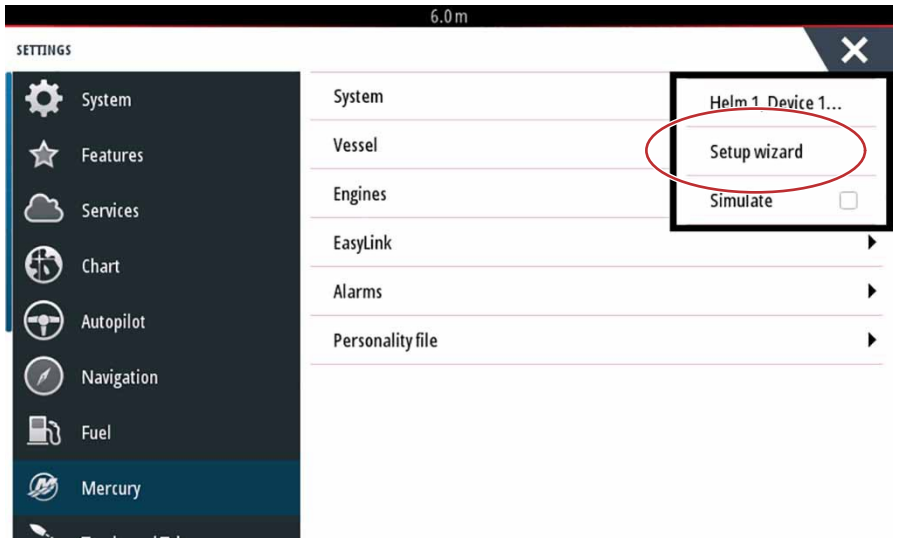
Within the System Settings the operator can define the location and the number of the VesselView device. This is important when there are multiple VesselViews installed on a vessel. Assigning unique helm locations and device numbers prevents communication errors over the control network.



61656

Setup Wizard

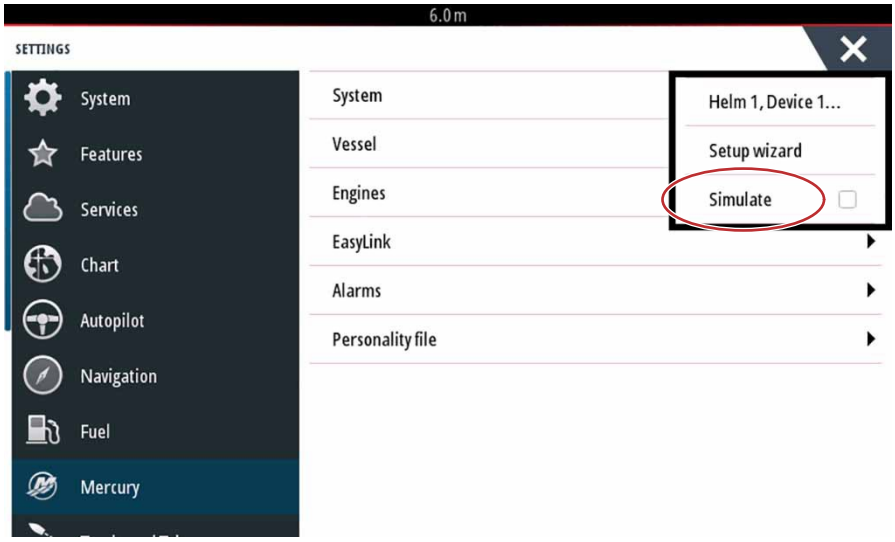
Setup wizard is covered in Section 2. Changes to the Setup wizard can be made at any time by accessing the program through this menu.



61657

Simulate

Simulate is used at a dealer level, to show consumers the display characteristics of the display. When the unit is in Simulate mode, the data shown on the screen should not be used as navigation information. All data shown during Simulate is randomly generated.



61658

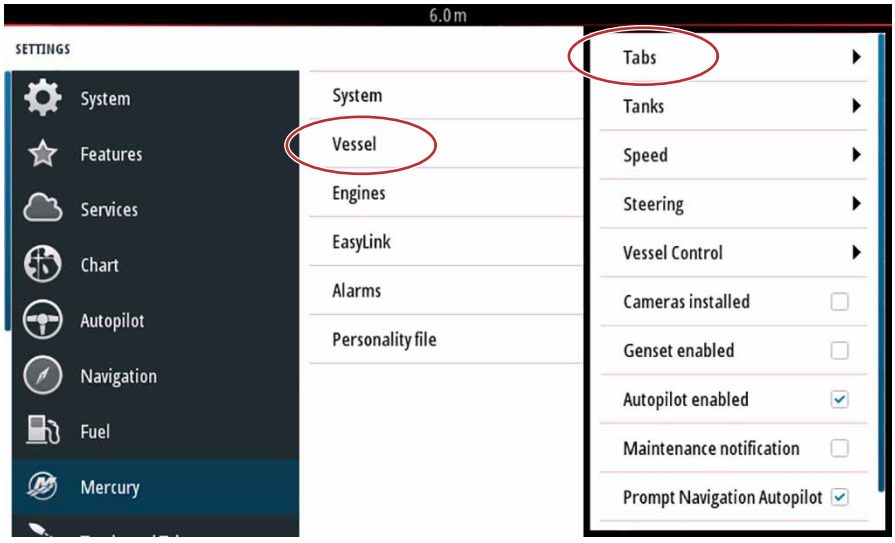
Vessel Settings

Tabs

The Settings menu can be found by swiping downward from off the screen onto the upper portion of the screen. This will bring up the **System Controls** window. Select the **Settings** tile. A menu will appear on the left portion of the screen. Select **Mercury** from the list of options. The window of VesselView settings controlled by the Mercury side of the MFD will appear.

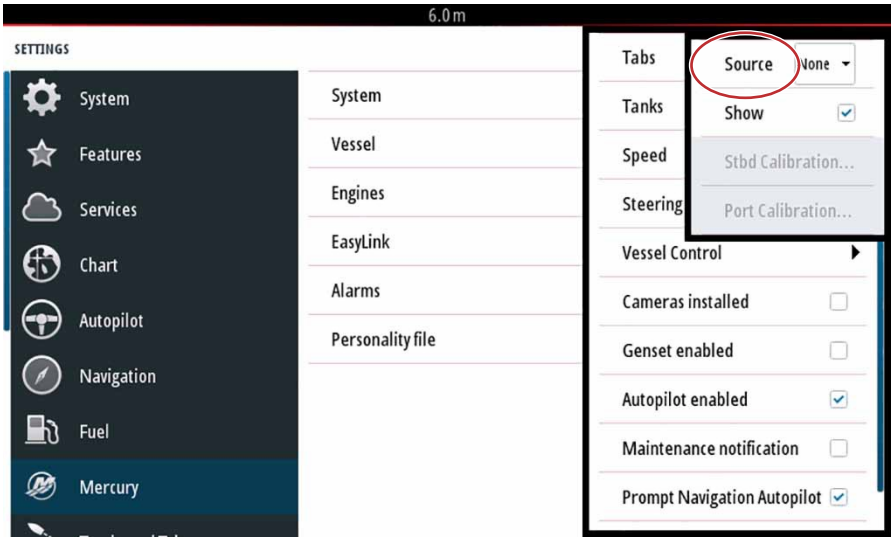
Select the **Vessel** settings option.

Select the **Tabs** option.



61659

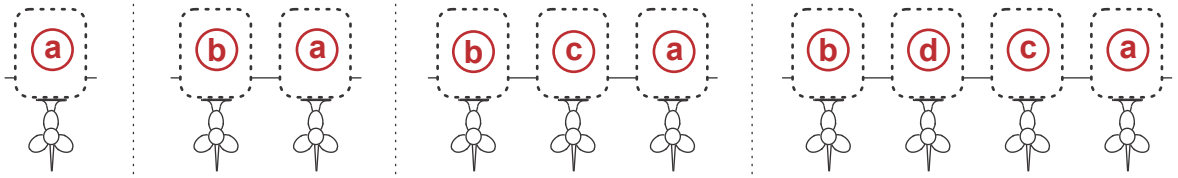
Tabs settings allows the operator to display the tab positions on the screen by selecting the **Show** checkbox. The **Source** option allows selecting the outboard or drive that carries the Tab sensor data to the network.



63238

The tab sensor data is sent by one of the outboards or drives on the vessel. Use the following image to determine the proper selection.

In addition to the PCM selections, there are options to select either the TAB—trim tab interface module, or the TVM—thrust vector module, to send tab data to the VesselView.



60056

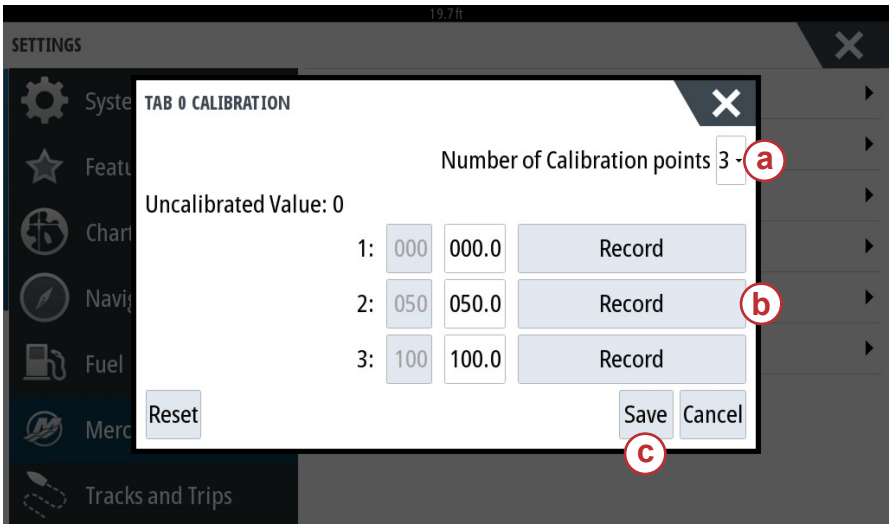
Drive assignment options

a - PCM0 = starboard or starboard outer
b - PCM1 = port or port outer
c - PCM2 = starboard inner or center
d - PCM3 = port inner

61661

Tab calibration allows the operator to put the tabs in their uppermost and lowermost positions and record the percentages. This is useful for determining the true 0° trim position—the point at which the tabs are parallel with the bottom of the vessel. Correctly calibrated tabs will show an accurate position of the sliders on the screen.

To calibrate the tabs, trim the tab parallel to the hull, record the reading, this will be the tabs actual 0%. Trim the tab all the way down, record the reading, this will be the tabs actual 100%. Select **Save** to keep the new calibrated tab data.

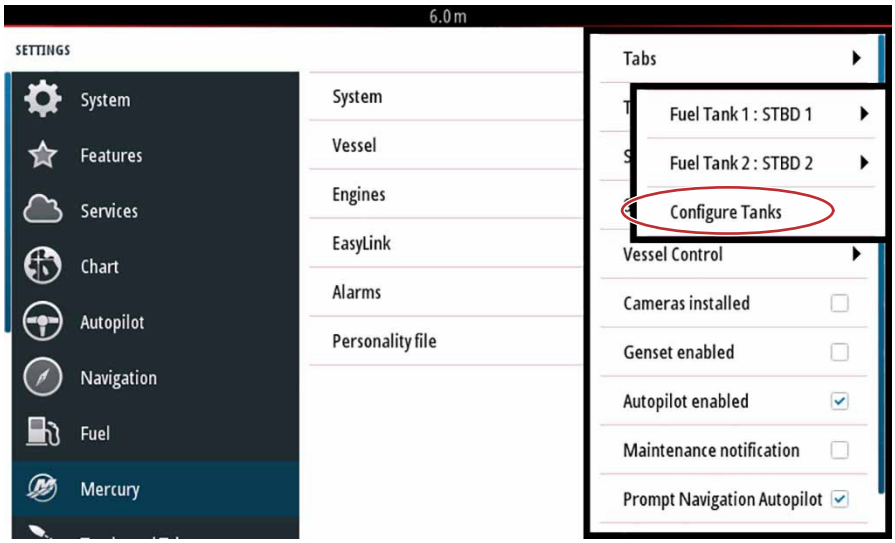


61669

- **a -** Select the number of points of calibration desired
- **b -** Position of the tabs for recording purposes
- **c -** Select save to keep the calibration

The Set outboard or drive to Zero is the actual tab position that will read 0% on the display. Operators can determine at which point the vessel runs flat in the water. At this running position, the tabs may actually be at a percentage of downward angle. The Set to Zero option allows the operator to have the optimal flat aspect of the vessel read as 0% on the gauge. As an example 10% actual tab position is where the boat runs flat, so the VesselView will display it as 0. Go below 10% and it will show negative numbers.

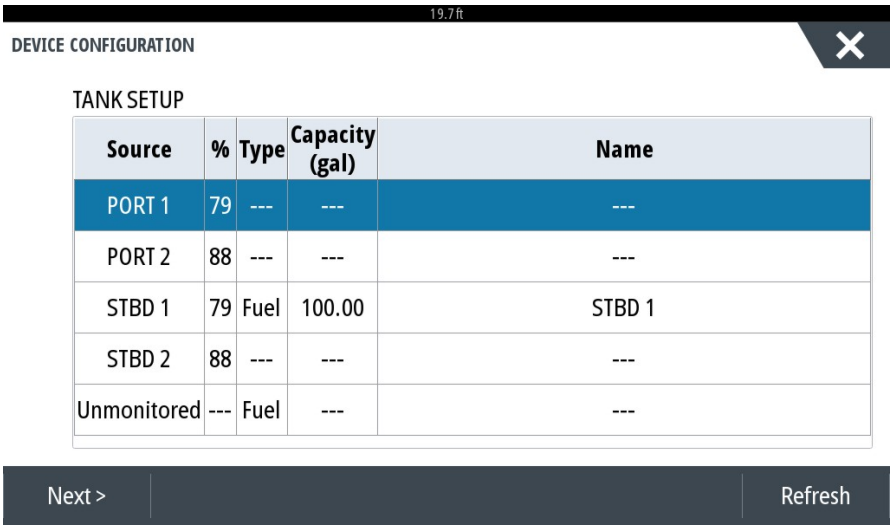
Tanks



63240

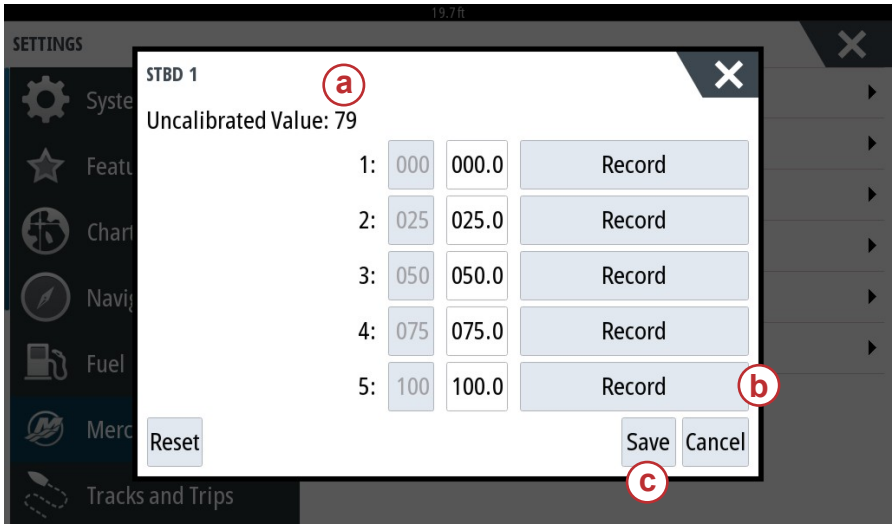
Tank configuration is covered in the Setup Wizard, but additional changes and settings can be made through the Tanks menu at any time.

Tank settings and calibrations allow the selection of the type of tank, the capacity of the tank, and the calibration method for tanks.



63239

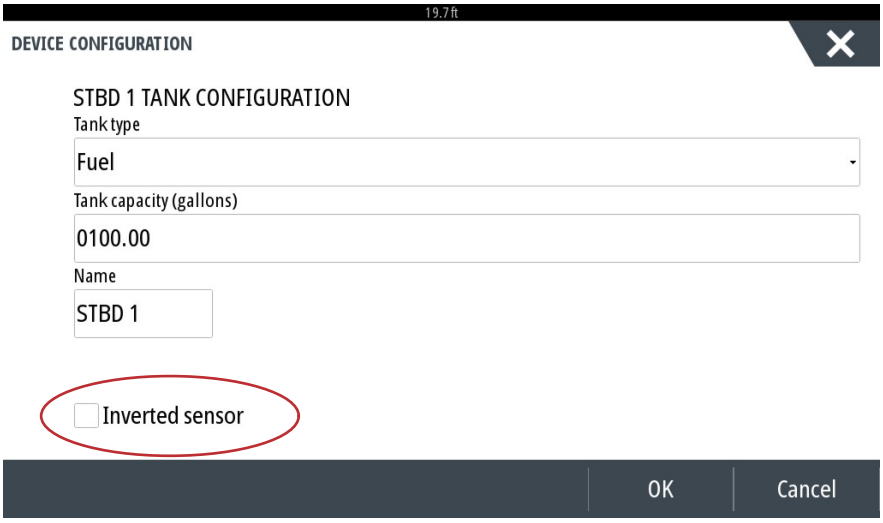
Performing tank calibration: There are many situations in which a tank may need calibration; odd shaped tanks, V-bottomed tanks, stepped-sided tanks, and even a tank's aspect when the boat is in the water. Floats and sensors can send inaccurate data to the operator, causing problems with fuel and other volume display. The most accurate way to achieve tank calibration is to start with an empty tank with a known capacity. Pump one quarter of the capacity and record the float or sensor position. Repeat this procedure in one quarter increments, recording the float or sensor position each time, until the tank is full. Tank calibration allows the operator to adjust the full through empty readings of a tank. When a tank is highlighted, select the arrow on the right side of the tab to activate the calibration screen. The default readings are in the second column, and can be selected. In the following example, we know that the fuel tank is full, but we are receiving a reading of 79 percent full. Select the **Record** button in the 100 percent row, VesselView will now consider a reading of 79 percent as full, and adjust the half and empty readings accordingly. When the level of a tank is known to the operator, tank calibration can be used to correct the gauge reading to match the known level at any time.



61671

- **a -** Current full reading before calibration
- **b -** Record calibration fields
- **c -** Save the current calibration data

VesselView gives the operator the ability to invert the volume value of the tanks being monitored. This option is available to accommodate some tank sensors that transmit data opposite of traditional standard sensors. Standard tank level sensors read a 33–240 ohm resistance. A reading of 240 ohms will indicate an empty tank and a reading of 33 ohms will indicate a full tank. Inverted tank sensors typically read 0–180 ohms, with 0 being a full tank and a reading of 180 indicating an empty tank.



63507

NOTE: *Check with the manufacturer of the vessel's tank sensor to determine if this option is appropriate for your situation.*

When tank calibration is complete, select **Save** and the unit will return to the navigation screen.

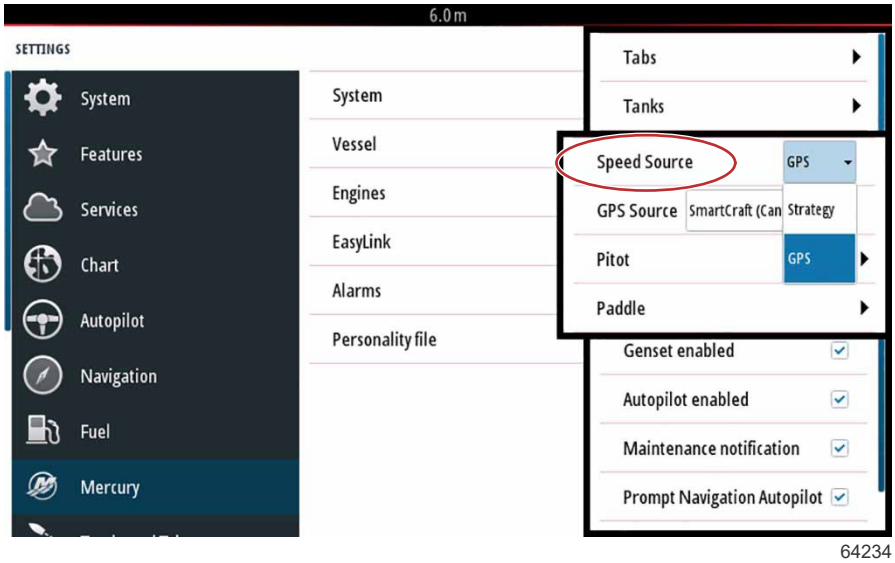
Speed

Speed settings allow the operator to select the type of sensor or sender that the VesselView will receive speed data from.

Speed settings can be configured using this menu.

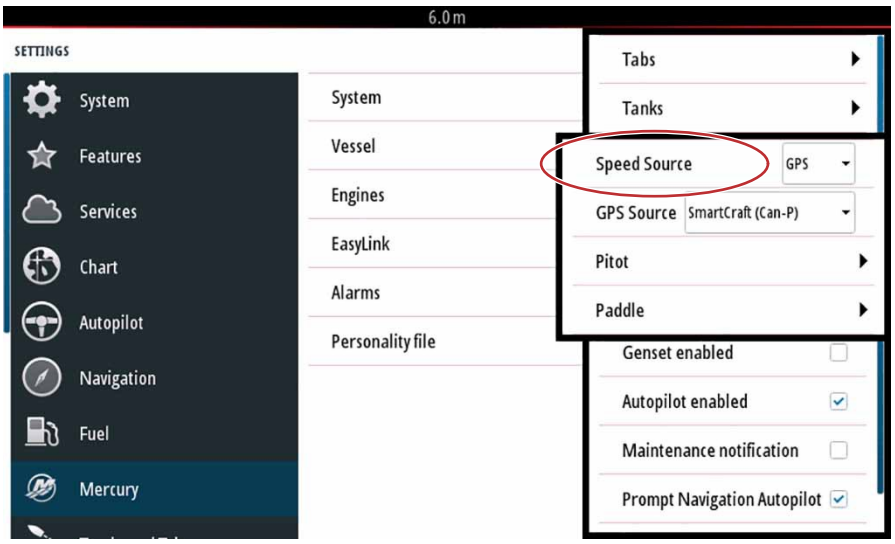
Speed source has the option of choosing a GPS and the GPS source, the CAN P or the CAN H network. Selecting the pitot option brings up a selection of sources—PCMs.

The pitot sensor data is sent by one of the outboards or drives on the vessel. Use the following images to determine the proper selection.

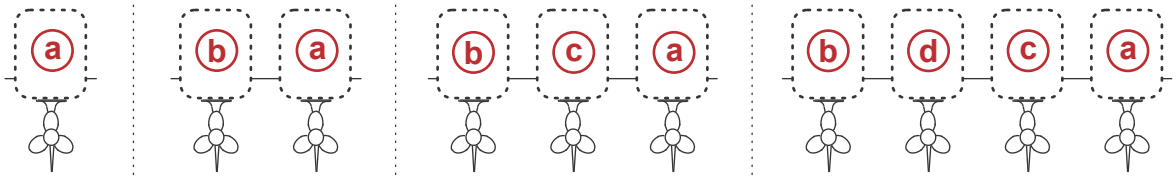


64234

Speed strategy—GPS or mechanical options



63241



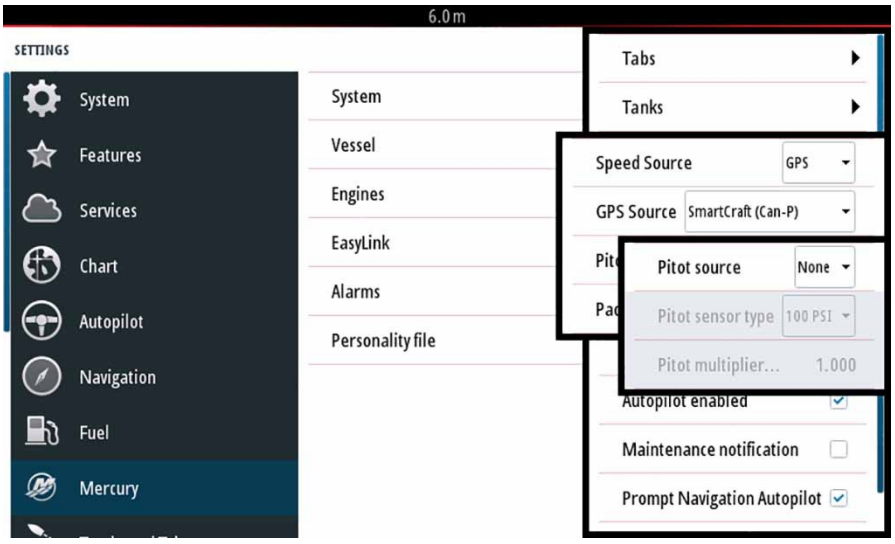
60056

Drive assignment options

a - PCM0 = starboard or starboard outer
b - PCM1 = port or port outer
c - PCM2 = starboard inner or center
d - PCM3 = port inner

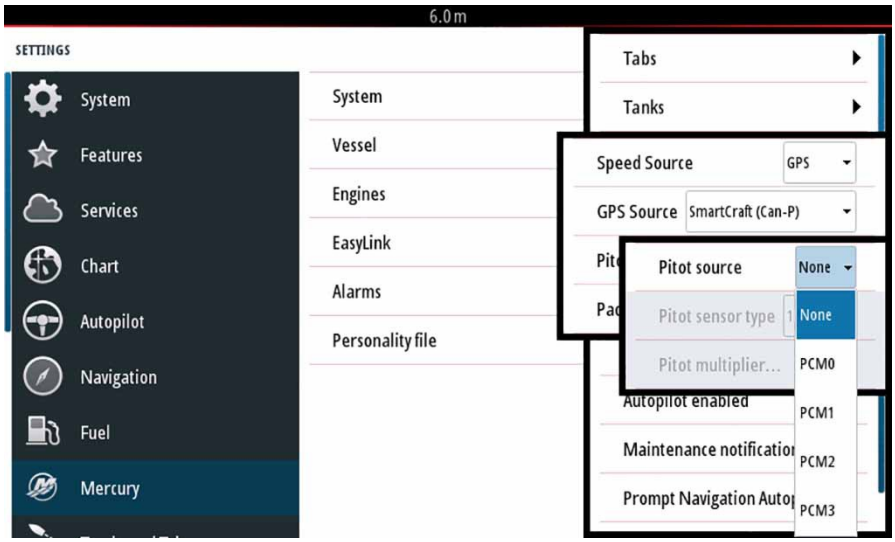
Pitot type options include 100 psi and 200 psi. The 200 psi option only applies to select Mercury Racing outboard models.

The pitot multiplier will use 1.00 as a default setting and can be increased or decreased to correct speed display readings that read too high or too low. For a low speed reading, increase the pitot multiplier by selecting the multiplier window and use the on-screen keypad to enter an amount. For a high speed reading, decrease the pitot multiplier by selecting the multiplier window and use the on-screen keypad to enter an amount.

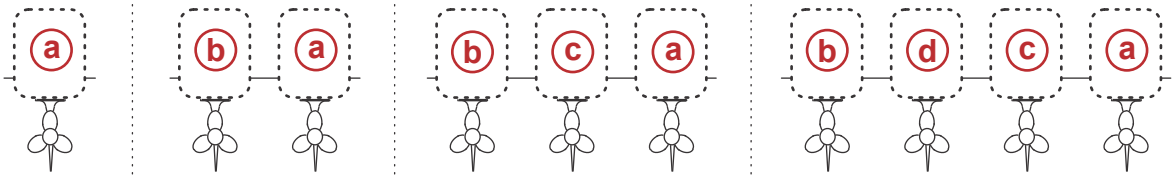


64235

Select the outboard or drive that will send paddle wheel data to the VesselView. Use the following images to determine the proper selection.



63242



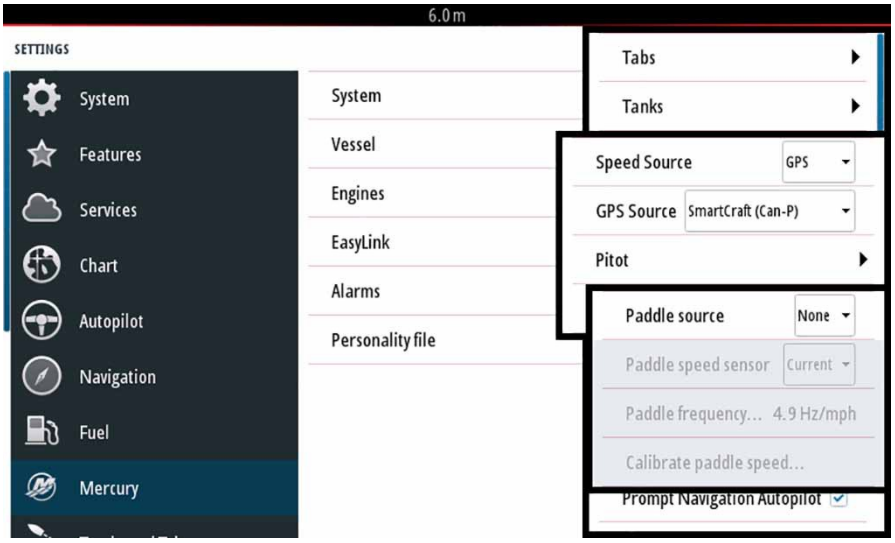
60056

Drive assignment options

a - PCM0 = starboard or starboard outer
b - PCM1 = port or port outer
c - PCM2 = starboard inner or center
d - PCM3 = port inner

Paddle wheel type can be chosen as either Legacy or Current depending on the model used on the vessel.

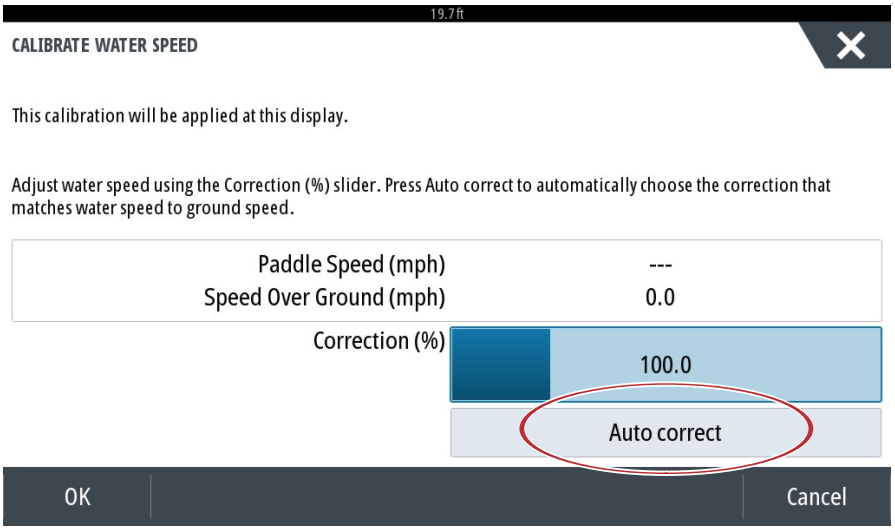
Paddle wheel frequency can be changed to match the requirements of different sensors. The frequency of the paddle wheel speed sensor offered by Mercury Marine is 4.9 Hz per mile or 5.7 Hz per knot. Check the instructions that came with the paddle wheel for specific information on the paddle wheel frequency output. Select the multiplier window and use the on-screen keypad to enter an amount. Selecting Auto correct will synchronize the paddle wheel to the output of the GPS. The slider bar can also be used to achieve that same result.



61688

Calibration of the paddle wheel is accomplished by using a GPS enabled device to help the operator adjust the reading of the paddle wheel. Using the slider allows the operator to increase or decrease the paddle wheel sender data.

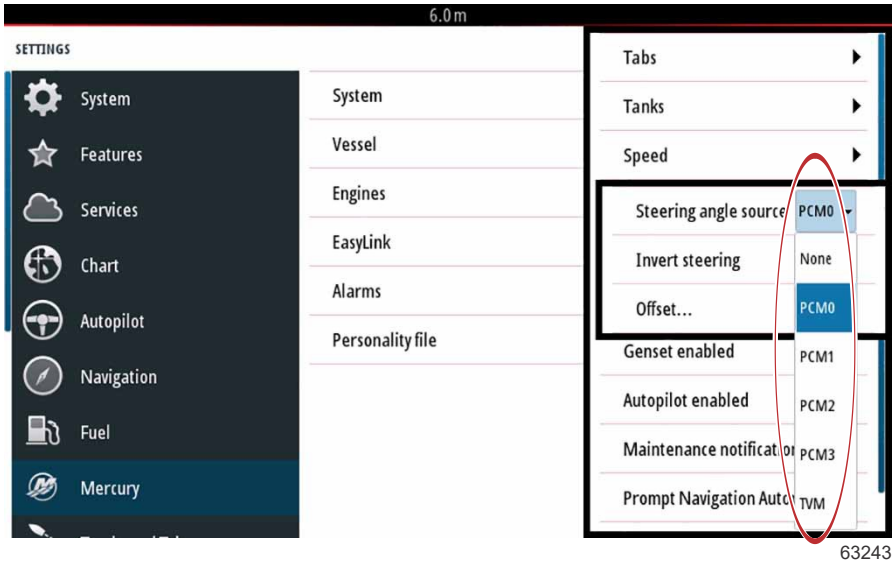
Selecting Auto correct will synchronize the paddle wheel to the output of the GPS (if installed on the network). The slider bar can also be used to achieve that same result.

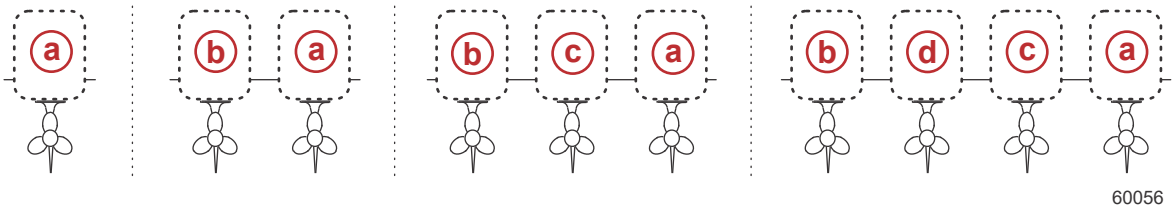


61689

Steering

Steering source data can be selected to come from either the PCM or the TVM—thrust vector module, with options to display the data on-screen, to invert steering input, and to establish a steering offset degree.

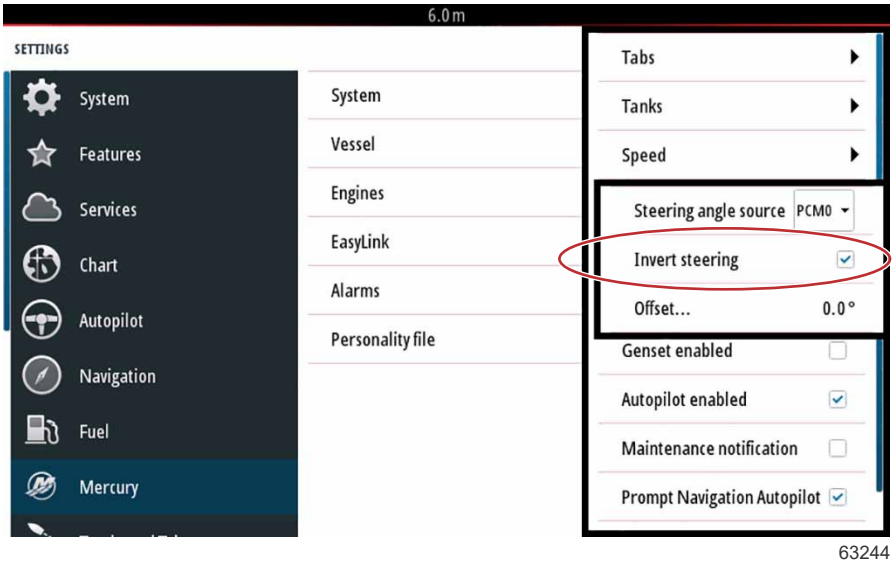




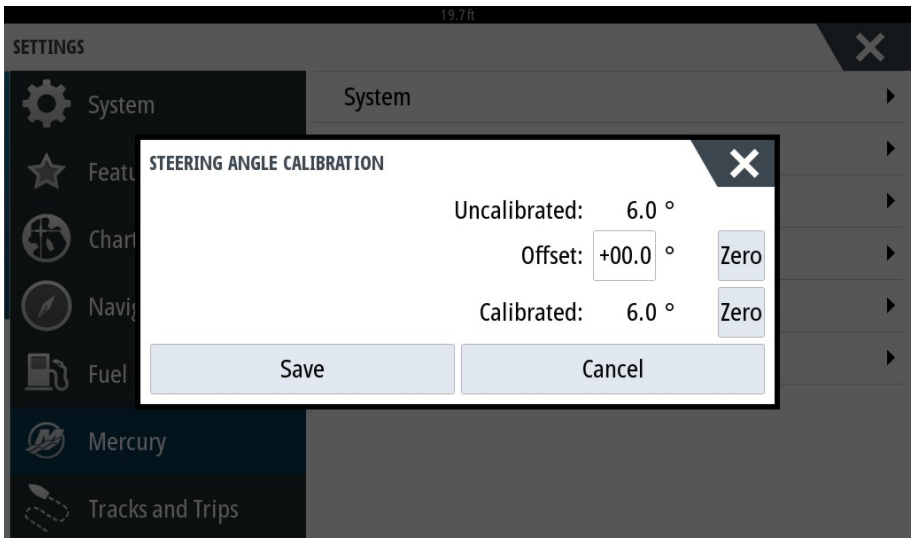
Drive assignment options

a - PCM0 = starboard or starboard outer
b - PCM1 = port or port outer
c - PCM2 = starboard inner or center
d - PCM3 = port inner

The Invert steering option is helpful when there is a VesselView which is rear-facing. In this case the steering data will match the operator's point of view.



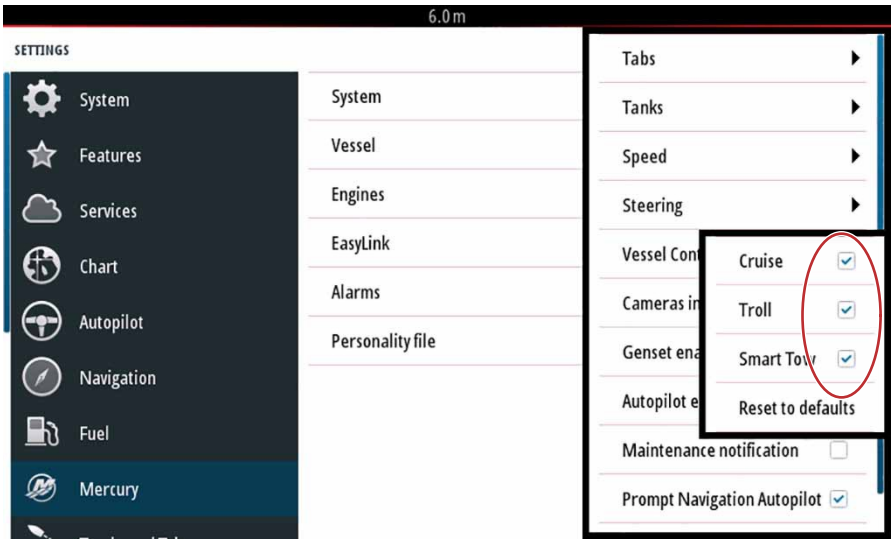
Steering Offset is used to align the outboard, sterndrive, or inboard to zero degrees. When the drive is positioned perpendicular to the hull, the steering angle displayed on-screen may not match the steering sensor on the drive. To adjust for this variance, select the **Offset** window. The Steering Angle Calibration box appears. Selecting the Calibrated row Zero button will apply the offset. Note that the offset does not change on the display screen until the Save button is selected.



61699

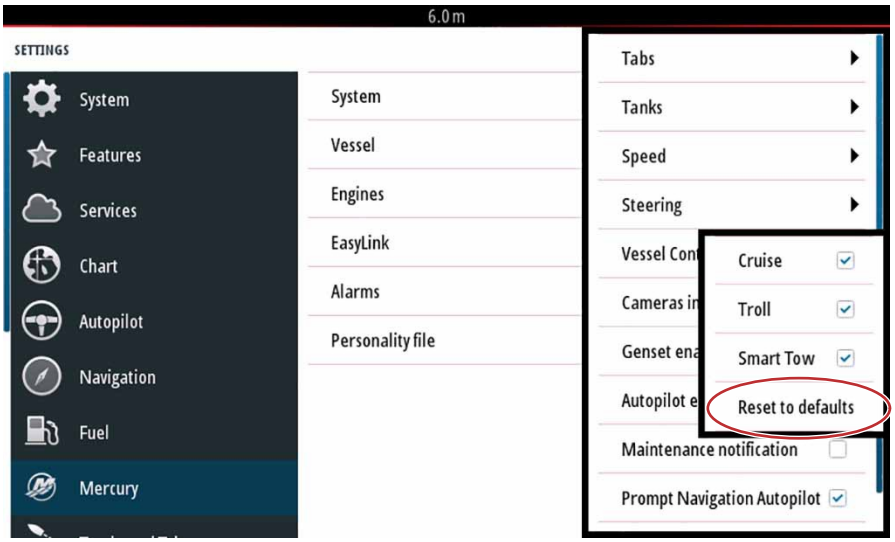
Vessel Control

Vessel Control settings allows the operator to activate the availability of the autopilot features.



63245

Selections for autopilot features are Cruise, Troll, and Smart Tow. A Reset to defaults will uncheck any or all of the autopilot features that are not available based on the power package of the vessel chosen in the Setup Wizard.

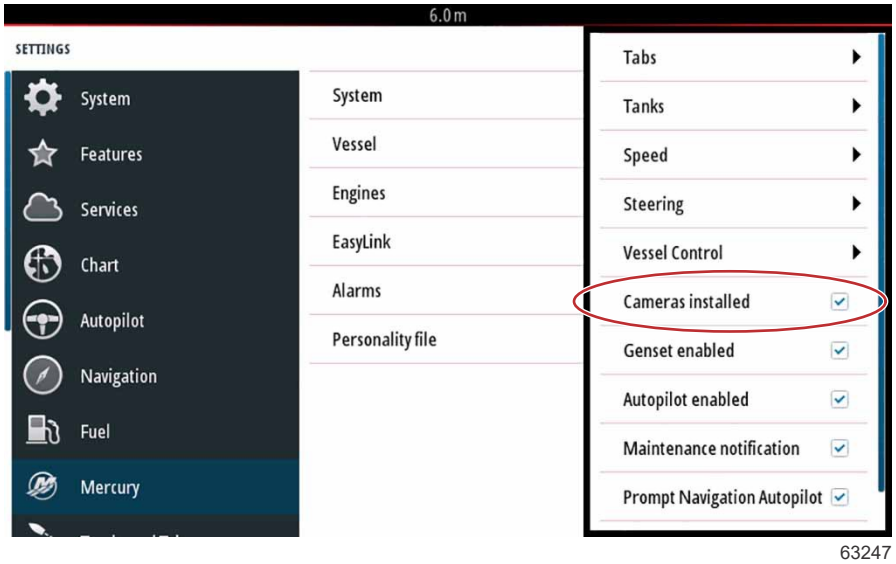


63246

NOTE: *If after the Reset to defaults option is chosen, all of the boxes are unchecked, your engine does not support the autopilot features of the VesselView.*

Cameras Installed

Cameras installed allow the user to view videos or camera sources on the VesselView screen. VesselView supports two video channels. You can select to view one channel only, or to cycle the screen between available video cameras. The cycle period can be set from 5 to 120 seconds. The display can be optimized by adjusting the video settings. The adjustments are individual to each source.

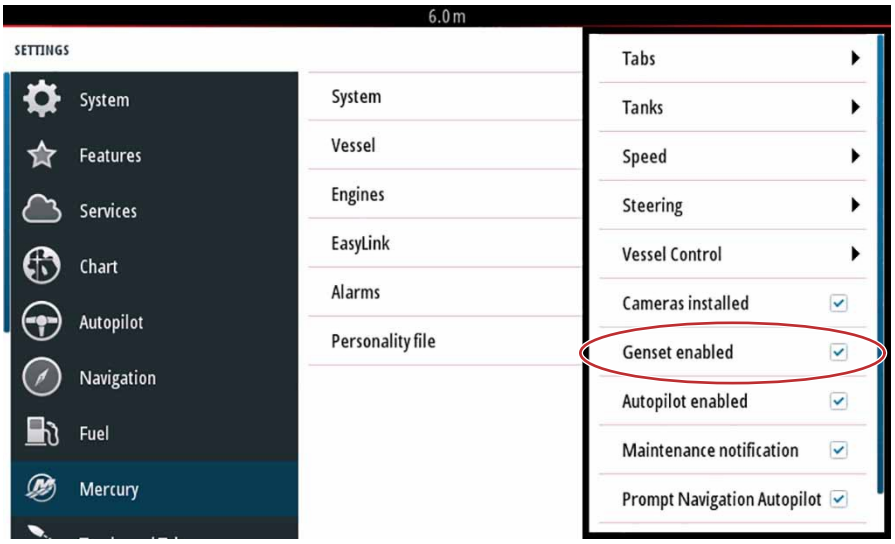


63247

IMPORTANT: If the vessel does not have cameras installed, make sure that this option is unchecked. In certain situations, the VesselView can experience disruptions in data display if the Cameras installed box is checked and the VesselView cannot locate camera sources.

Genset Enabled

Genset enabled allows the VesselView to query the network for genset data.



63283

With the genset enabled in VesselView, the operator can select the **Mercury** tab in the left-side menu bar.

63268

Select the **MORE** option.

64239

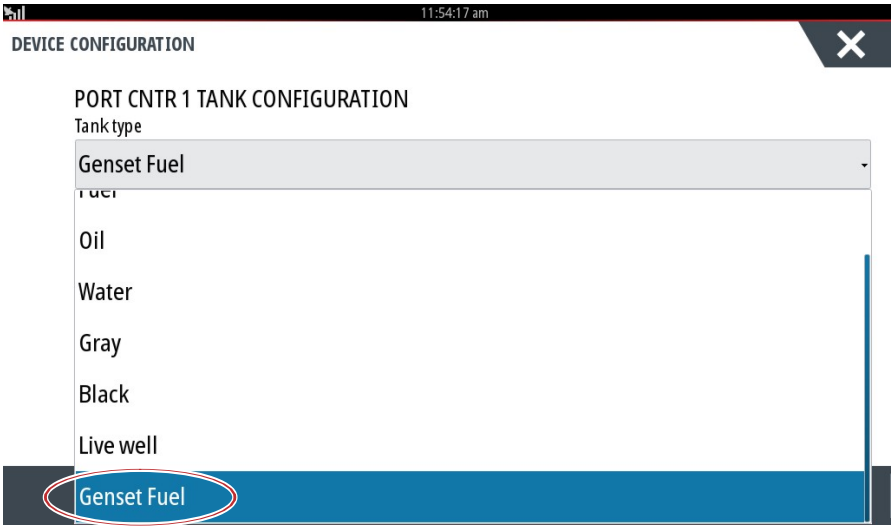
Select the **GENSET** option in the menu.

63269

VesselView will display genset data from the generator connected to the vessel's communication network.

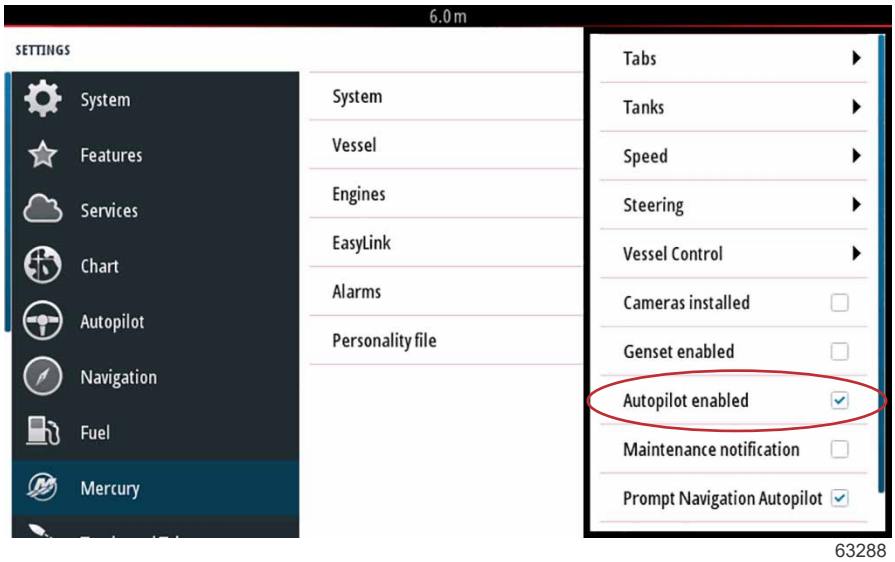
63270

NOTE: *To ensure that the correct genset fuel data is displayed, the* ***Genset Fuel*** *option must be selected during* ***Tank Configuration*** *in the* ***Setup Wizard*** *or the* ***Vessel Settings*** *menu.*



63271

Autopilot Enabled



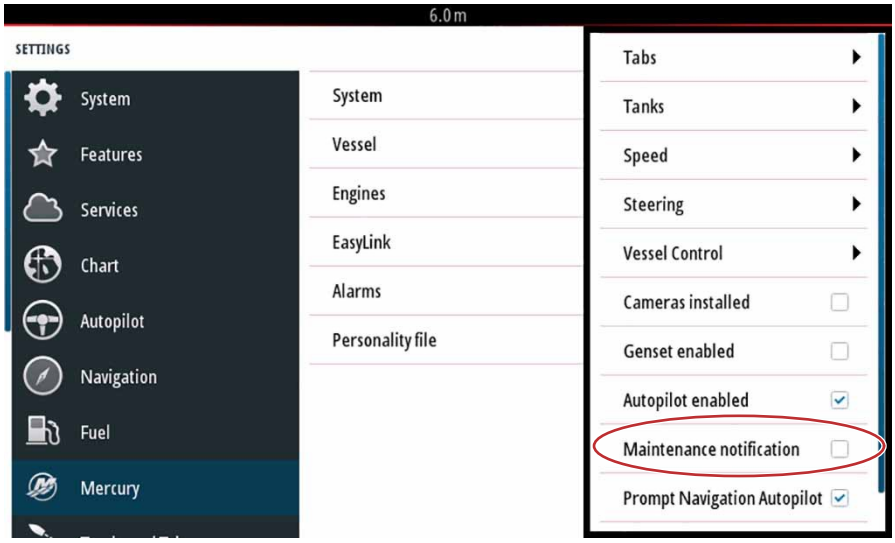
63288

The Autopilot enabled setting should only be checked if the vessel has a non-Mercury autopilot system. Boats with Mercury controls and the Joystick Piloting system, should not have this setting activated. Activating this setting on a Mercury autopilot featured vessel may cause adverse effects and improper display results.

IMPORTANT: If Mercury autopilot features are unresponsive or displaying improperly, make certain that this box is unchecked.

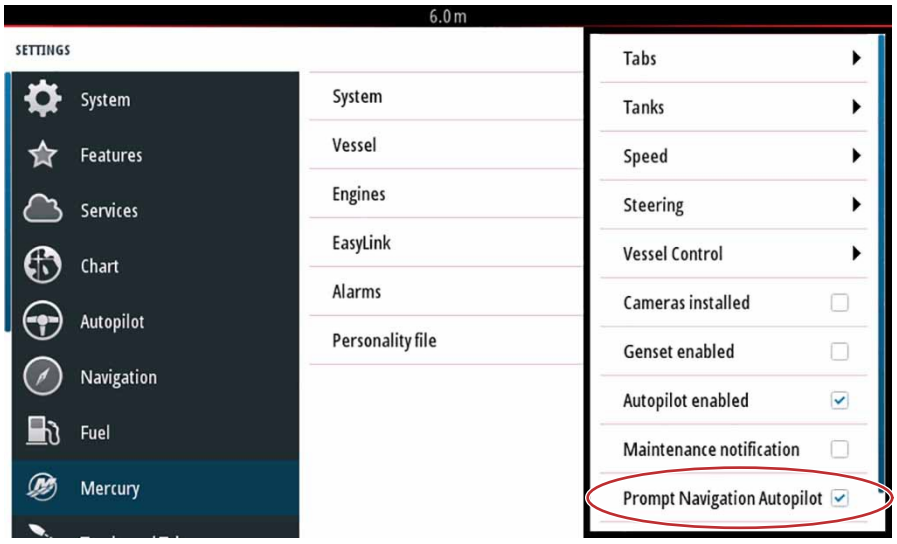
Maintenance Notification

The Maintenance notification checkbox will allow VesselView to display scheduled maintenance pop-ups on-screen.



63250

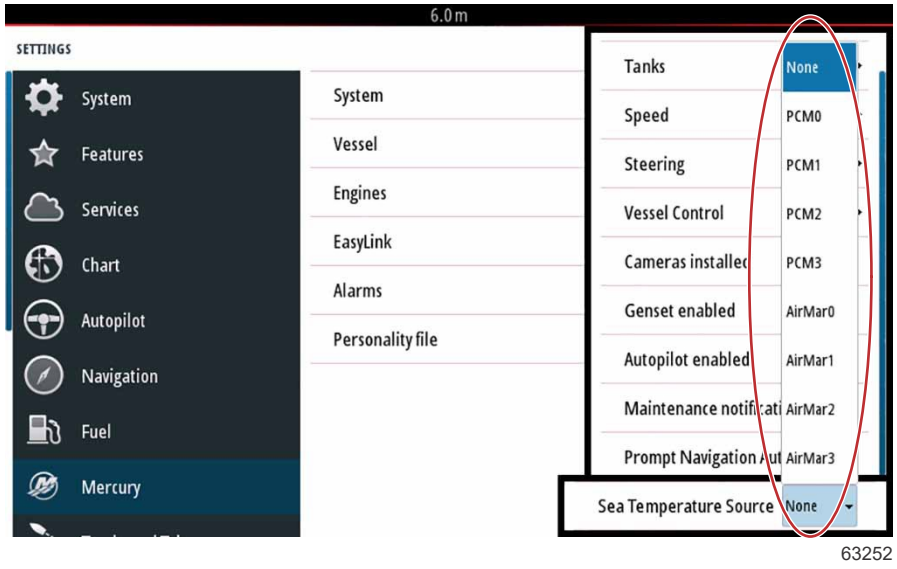
Prompt Navigation Autopilot



63251

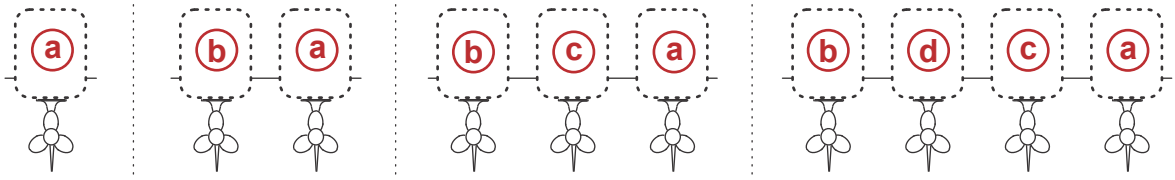
Sea Temp

The Sea Temperature Source can be selected by choosing the engine that will send the data or by selecting the appropriate sensor from the list.



63252

The following illustration shows the physical location of the PCMs.



60056

PCM locations

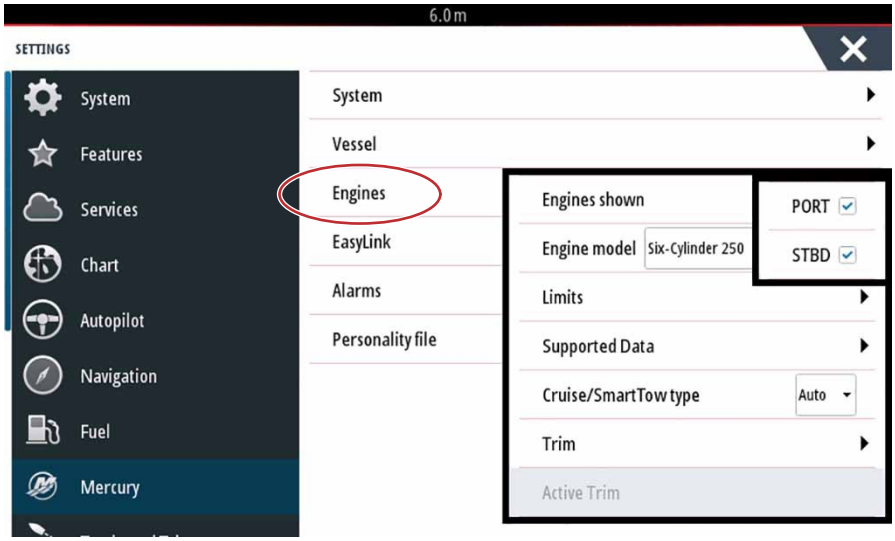
- **a -** PCM0 = starboard or starboard outer
- **b -** PCM1 = port or port outer
- **c -** PCM2 = starboard inner or center
- **d -** PCM3 = port inner

Engines Settings

Engines Shown

The Settings menu can be found by swiping downward from off the screen onto the upper portion of the screen. This will bring up the System Controls window. Select the **Settings** tile. A menu will appear on the left portion of the screen. Select **Mercury** from the list of options. The window of VesselView settings controlled by the Mercury side of the MFD will appear.

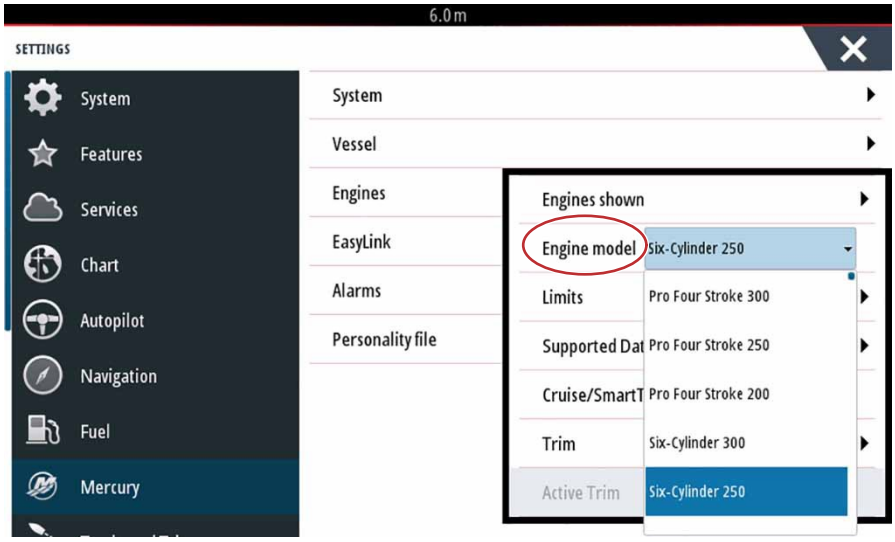
Engines shown is covered during the Setup Wizard process, but display options can be changed in the Engines settings menu at any time. VesselView can display up to four engines, depending on the number of engines chosen during the Setup Wizard process. The operator can select which engines are displayed. Checking or unchecking the engine selection will determine which engines are displayed on the VesselView.



61672

Engine Model

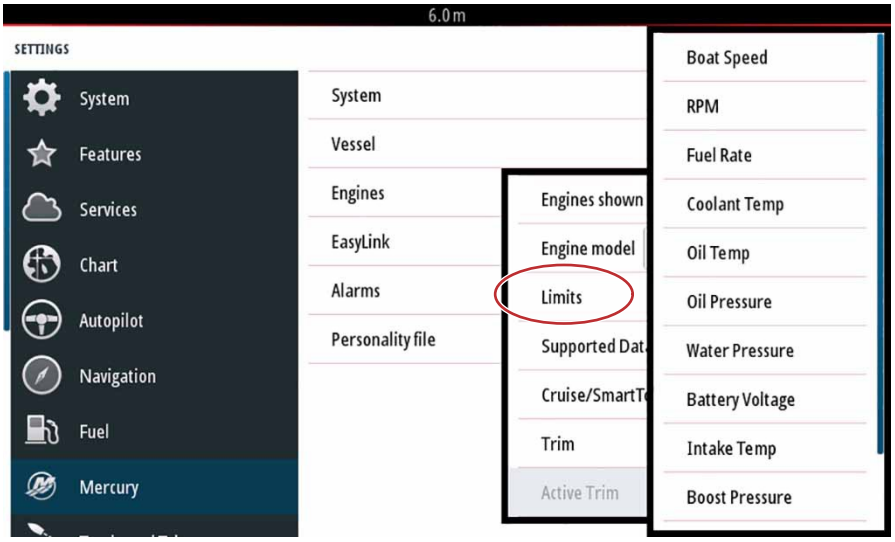
Engine model selection allows the user to change power package descriptions. Engine models is covered during the Setup Wizard, but changes can be made anytime. Any changes made here may make other settings and display options unavailable in VesselView.



61673

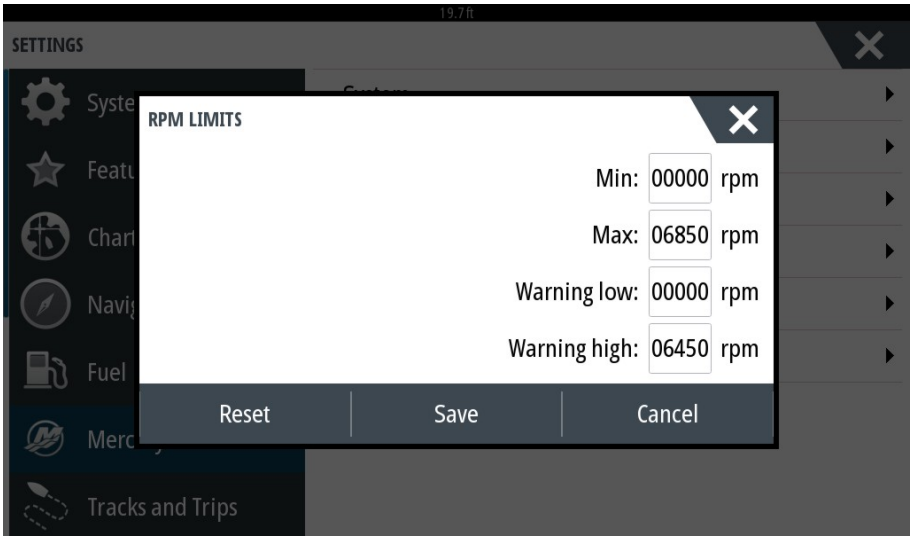
Limits

Limits helps set specific ranges for many engine data parameters, such as; RPM, coolant temperature, oil temperature, battery voltage, and boost pressure. Changes made to limits will not affect the engine package or the operation of Mercury's Engine Guardian programming. The actual engine limits are determined by the factory programmed control module on the engine.



61674

The following image shows a typical Engine Limits screen.



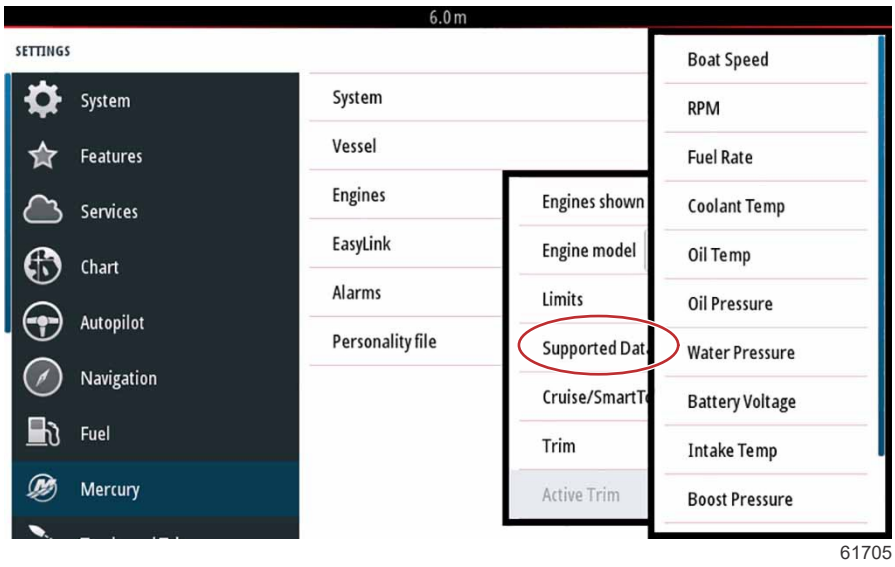
61675

Setting	Description
Min:	The value of the base of the on-screen graph
Max:	The value of the top of the on-screen graph
Warning low:	The value at the top of the lower color section of the on-screen graph
Warning high:	The value at the bottom of the upper color section of the on-screen graph

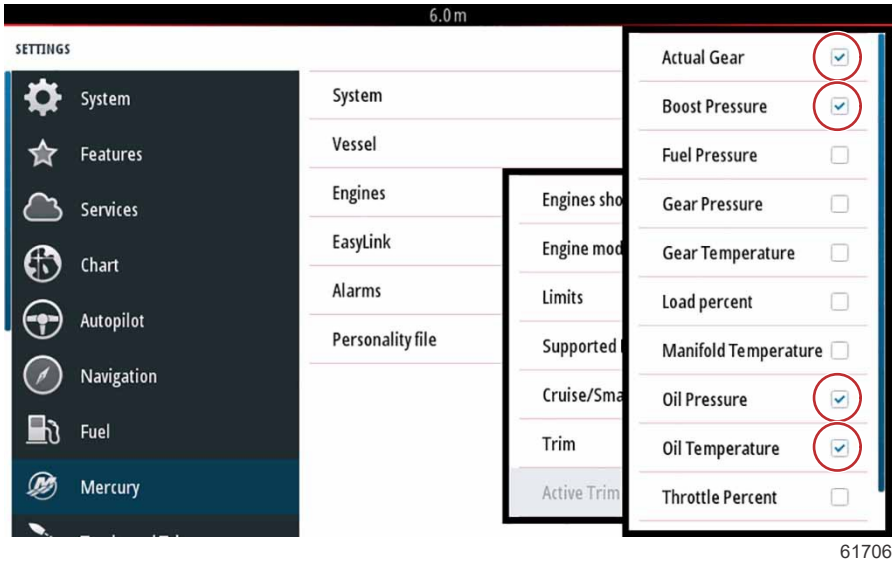
The default minimums and maximums are factory preset to the engine package chosen during the Setup Wizard or the Engines Setting menu. Increasing or decreasing the warning minimums and maximums is generally regarded as the boater's personal preference.

Supported Data

Supported Data allows the operator to select the types of data that the VesselView will display. The list of data sources is dependent on the power package selected during the Setup Wizard. Select the checkbox for each data item you want VesselView to be able to display.



61705

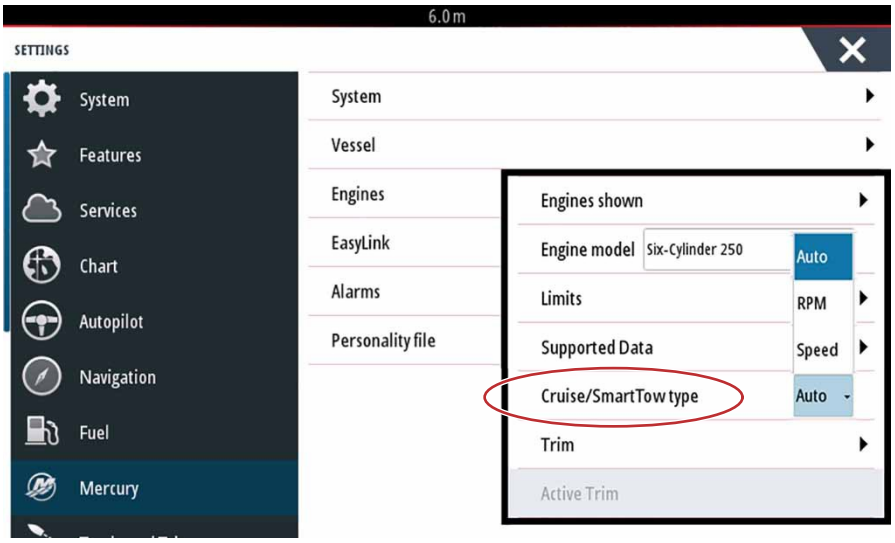


61706

Selected data items shown circled

Cruise/Smart Tow Type

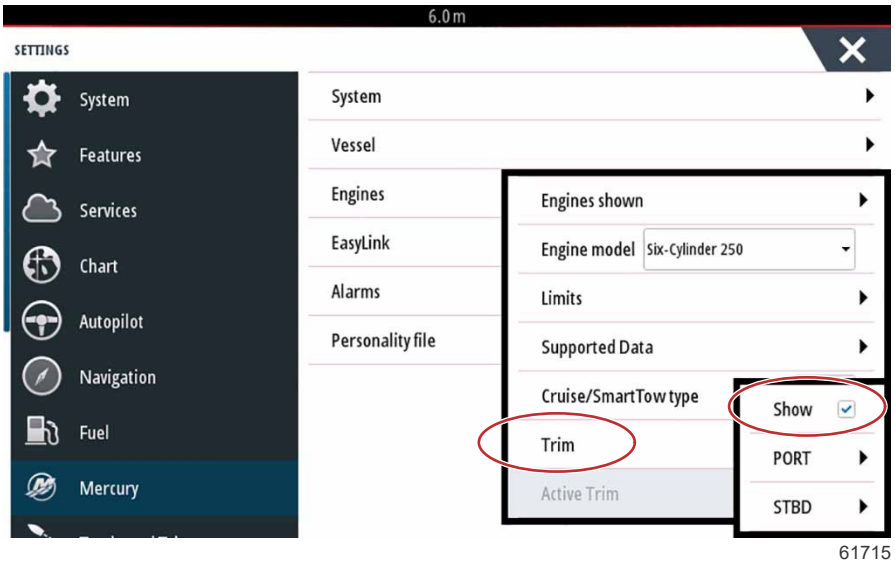
The Cruise/Smart Tow type setting allows the operator to select the sensor from which the Cruise autopilot program and the Smart Tow program launch profiles get their speed data. Engine RPM or GPS speed data are the options. Selecting Auto will make VesselView query the network for a source of speed based data and use that selection for the Cruise and Smart Tow features.



61712

Trim

Trim settings allow the operator to enable the Show checkbox, to display the trim status graphic on the screen.



61715

Trim calibration allows the operator to position the trim to the innermost and outermost positions and record the percentages. This is useful for determining the true 0° trim position—the point at which the propeller shaft thrust line is parallel with the bottom of the vessel. Correctly calibrated trim will show an accurate position of the sliders on the screen.

To calibrate the trim readings:

1. Trim the engine or drive to the full down position and continue to hold the trim button for 3 to 5 seconds after the full down position is reached. Now press **Record** next to the Full Down Position reading.
2. Trim the engine or drive to the full out until it stops. Now press **Record** next to the Maximum Tilt Position.

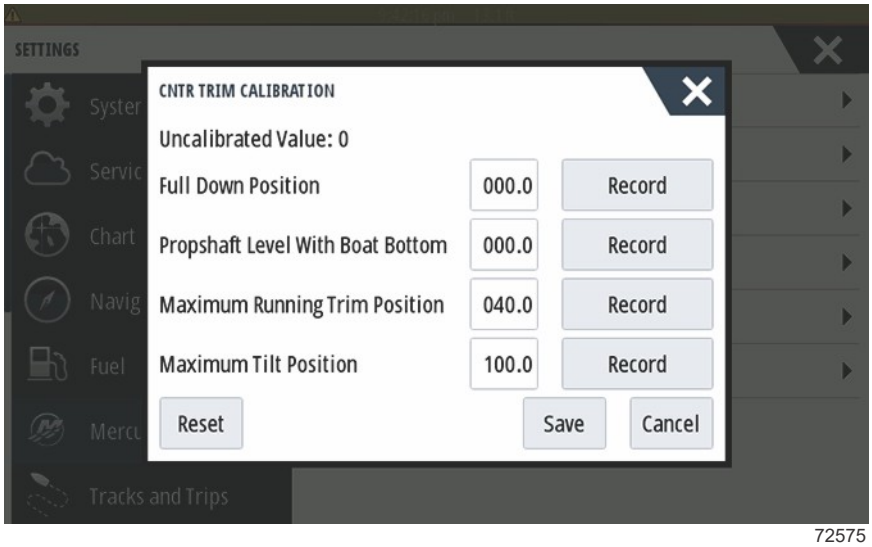
   NOTE: *The values on the display will read values between 0 and 100 in a scalar manner between the two entered positions.*

In addition to the previous steps, perform the following to set a value with a higher level of accuracy for the Maximum Running Trim Position value and Propshaft Level With Boat Bottom:

1. Validate the maximum running trim position and trim the drive or engine to that point. Press **Record** next to the Maximum Running Trim Position.

   NOTE: *The values from Full Down Position to Maximum Running Trim Position will be 0 to 40. The values displayed when the drive is trimmed beyond Maximum Running Trim Position will be 40 to 100.*

2. Validate the Propshaft Level With Boat Bottom position and trim the drive or engine to that point. Press **Record** next to the Propshaft Level With Boat Bottom.

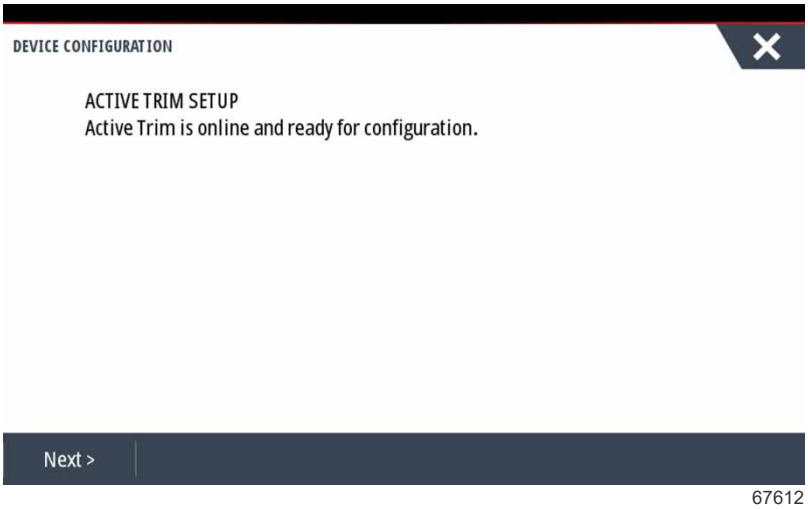


72575

NOTE: *The values between Full Down Position to Propshaft Level With Boat Bottom position will now be a negative value. The Propshaft Level With Boat Bottom is the new zero position. The values from Propshaft Level With Boat Bottom position to Maximum Running Trim Position will be 0 to 40. The values displayed when the drive is trimmed beyond Maximum Running Trim Position will be 40 to 100.*

Active Trim

Active Trim setup is covered during the Setup wizard process, but changes can be made at any time. Follow the on-screen messages and prompts to change and complete the Active Trim Setup. Refer to **Section 2 - Setup Wizard**.

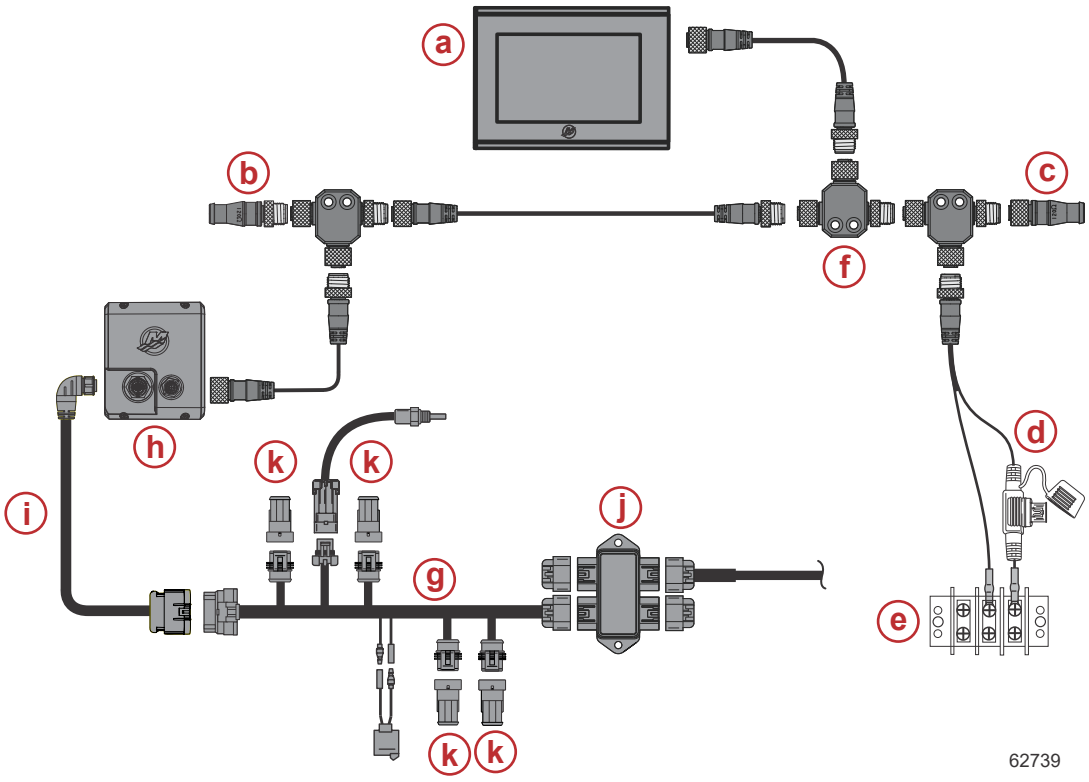


67612

EasyLink Settings

VesselView Link with Link Gauges Architectural Drawing

EasyLink settings configure the outputs of the VesselView Link to drive SC100 Link gauges. The use of Link gauges requires different VesselView Link harnessing than a standard installation.

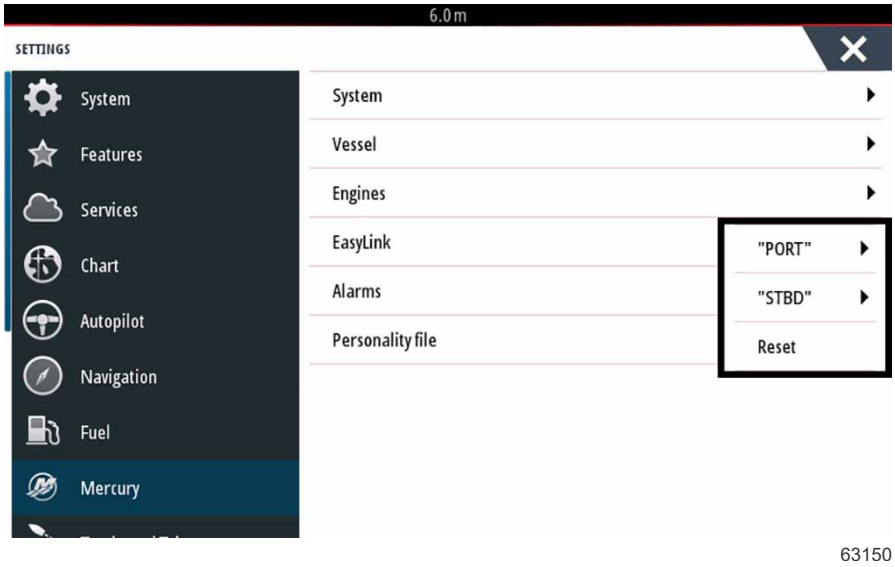


- **a -** Multifunction display (MFD)
- **b -** 120 ohm termination resistor, male
- **c -** 120 ohm termination resistor, female
- **d -** NMEA® 2000 fused power source
- **e -** Power bus
- **f -** NMEA® 2000 tee
- **g -** VesselView MFD harness (8M0075065)
- **h -** VesselView Link controller
- **i -** VesselView 4 harness
- **j -** Junction box
- **k -** Link gauge connections

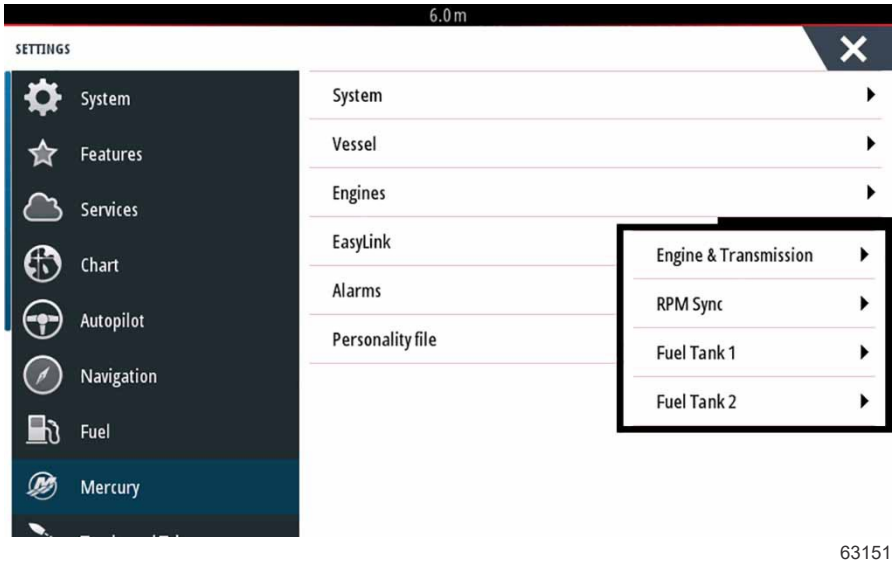
EasyLink Gauge Integration

Vessels with SC 100 gauges must have the EasyLink enabled (checkmark) in VesselView for data to be received at the SC 100 gauge.

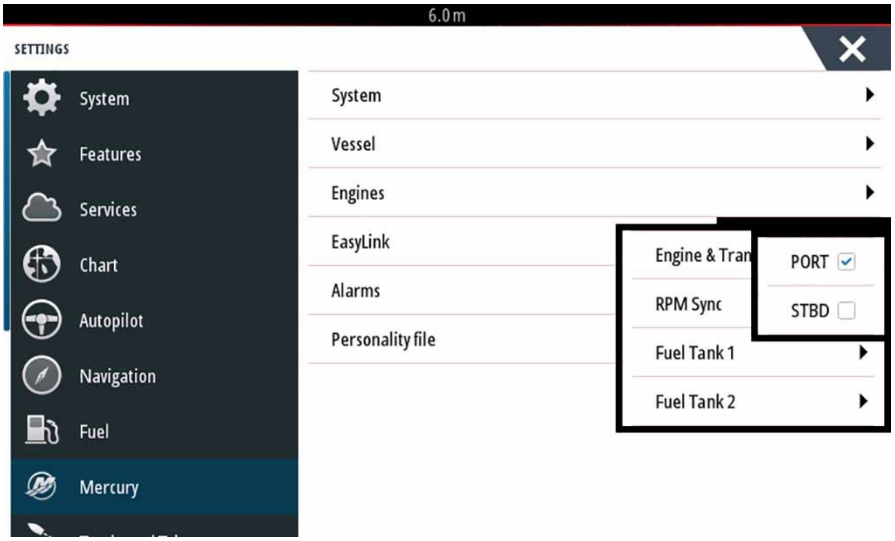
Easy Link		
Port and Starboard >	Engine and Transmission >	Port or Starboard–On (checkmark), off (no checkmark)
	RPM sync	On (checkmark), off (no checkmark)
	Fuel tank 1	On (checkmark), off (no checkmark)
	Fuel tank 2	On (checkmark), off (no checkmark)



EasyLink main menu screen



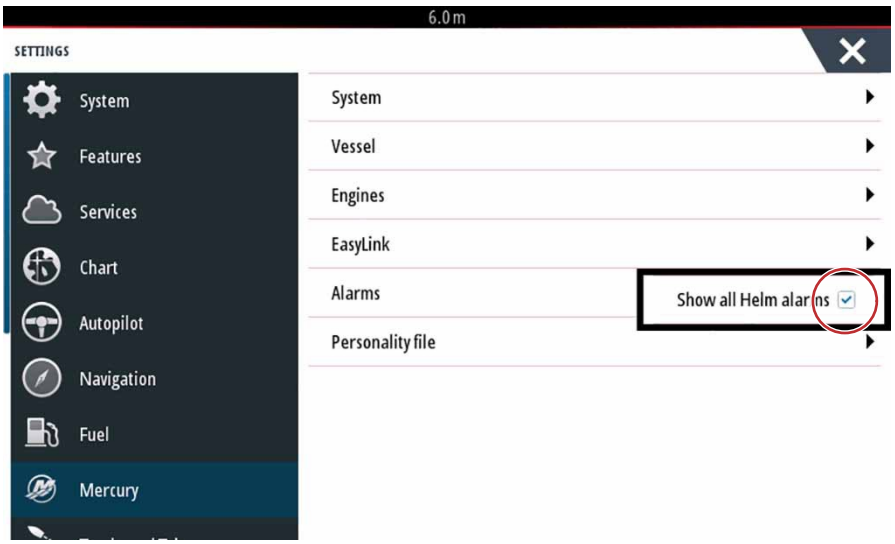
EasyLink option menu



EasyLink source data selection options

Alarms Setting

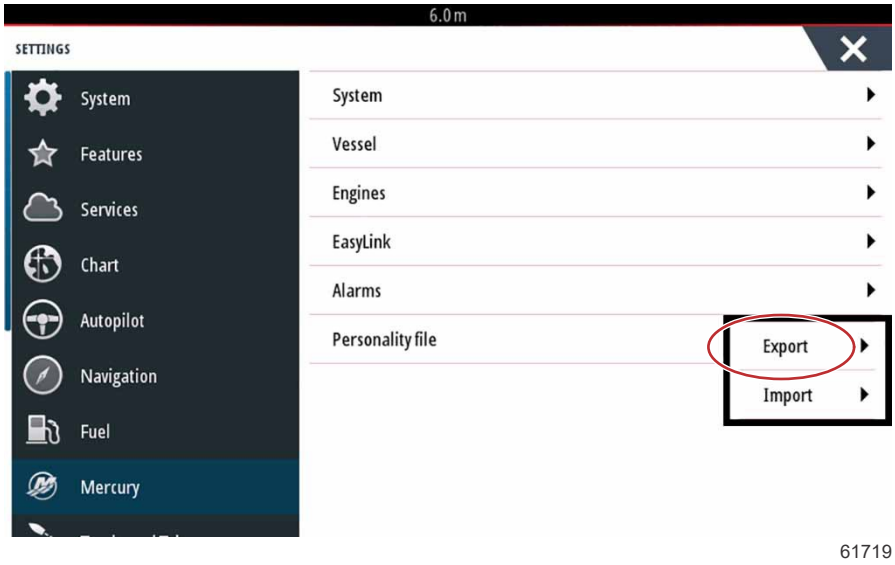
The Show all Helm alarms option can be checked to display all alarms on all VesselView screens. Unchecking the option will result in loss of notifications on additional VesselViews involving multiple device installations.



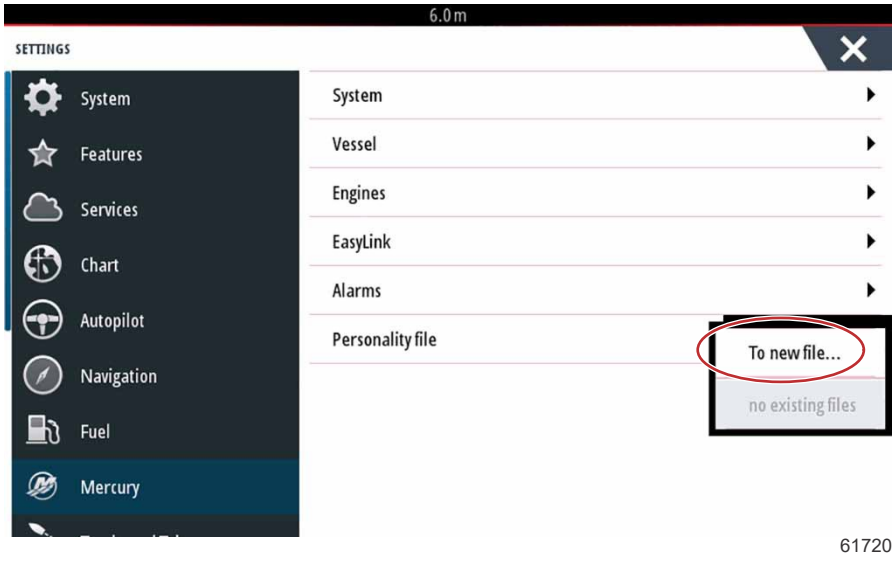
Personality File

Export

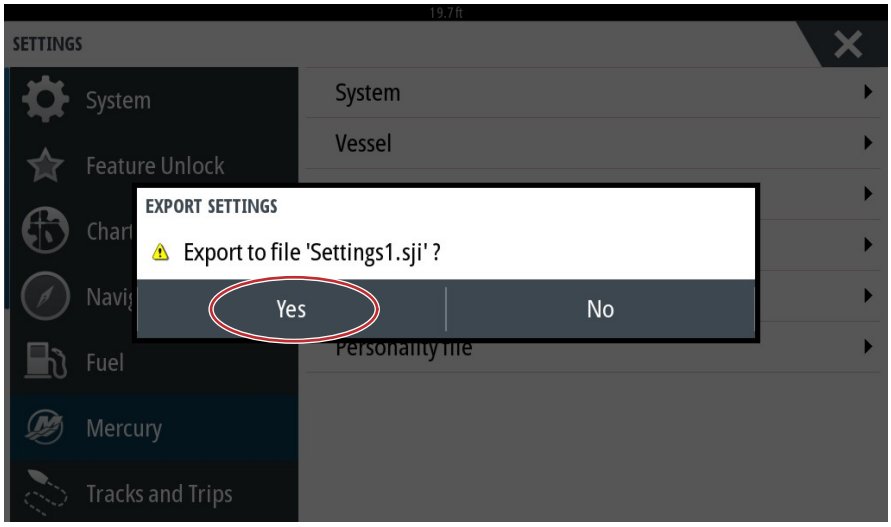
A vessel Personality file is made up of all of the settings that have been made within a VesselView device. To export this personality, insert a SD card into the card port slot and select **Export**. Remove the SD card and transfer that file to another VesselView device using the Import option.



Select Export



Select To new file...

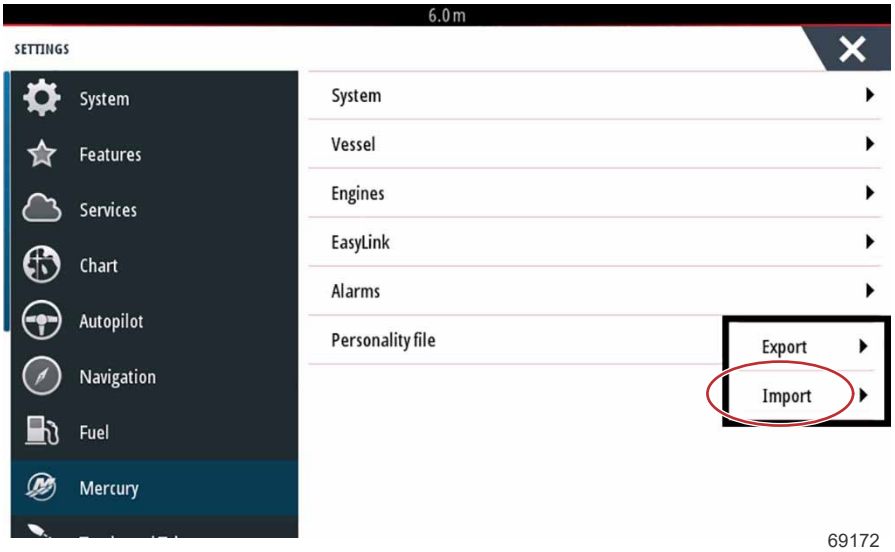


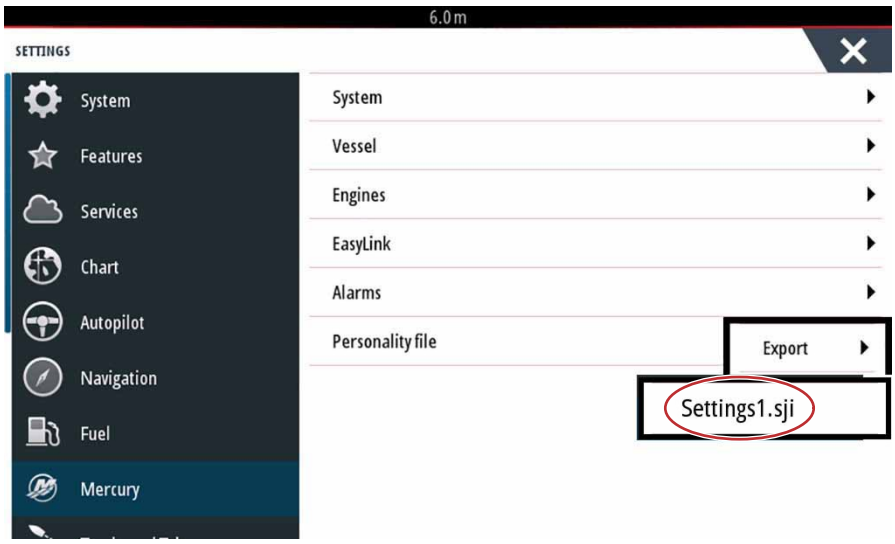
Select Yes

The new Personality file will be written to the top level of the memory card. It will not be placed inside any folders on the SD card.

Import

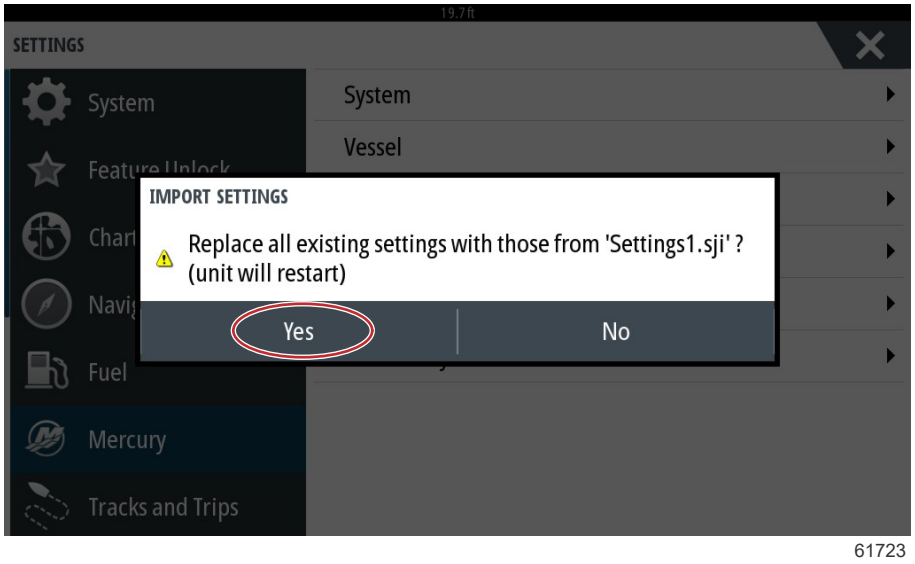
To Import a Personality file, insert an SD card into the card port that has a VesselView written Personality file stored on it. Select **Import**. A list of detected files will appear on the screen. Select the file and begin the import.





Personality file

You will be prompted one more time to replace all existing settings. Select **Yes**. The VesselView will import the new Personality file and the unit will restart.

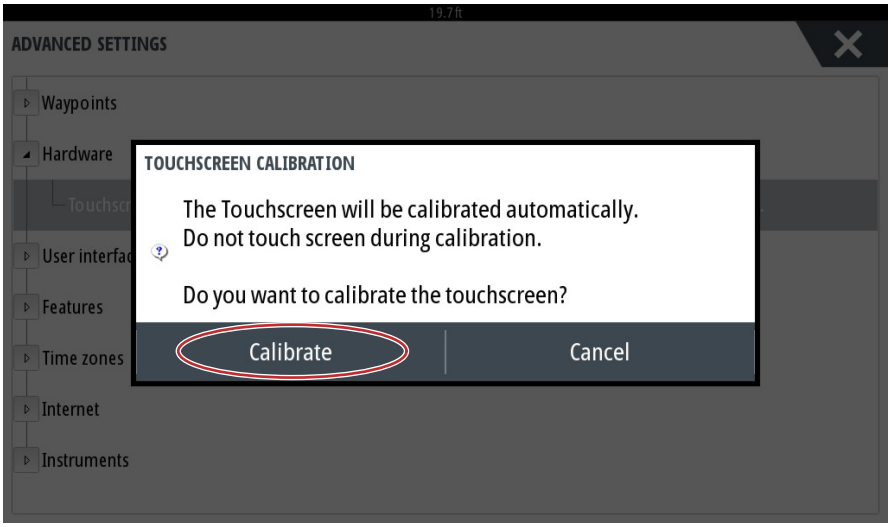


Touch Screen Calibration

The touch screen can be calibrated periodically. If swipes or touch districts seem unresponsive, activate the System Controls menu by swiping from the top of the unit onto the screen. Select the **Settings** option. Select **System**. Select the **Advanced** option. Select the **Hardware** menu option to bring up the Touchscreen calibration menu item.

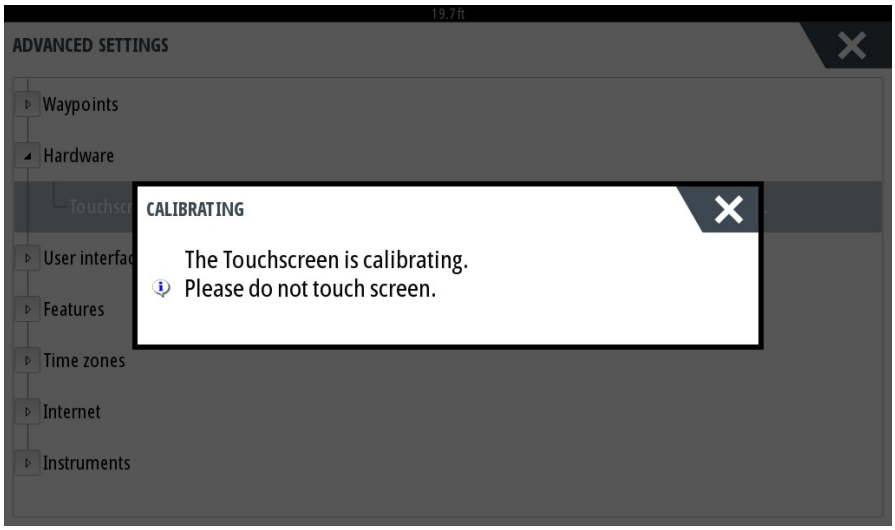
61493

VesselView will prompt the operator to confirm Touchscreen Calibration. To continue with the calibration, select **Calibrate**.



61494

It is important that the screen is not touched during the calibration process.



61496

A progress bar will be displayed, showing the operator that the process is taking place. After completing the calibration, the display will return to the Advanced Settings menu.

61499

Section 5 - Warning Alarms

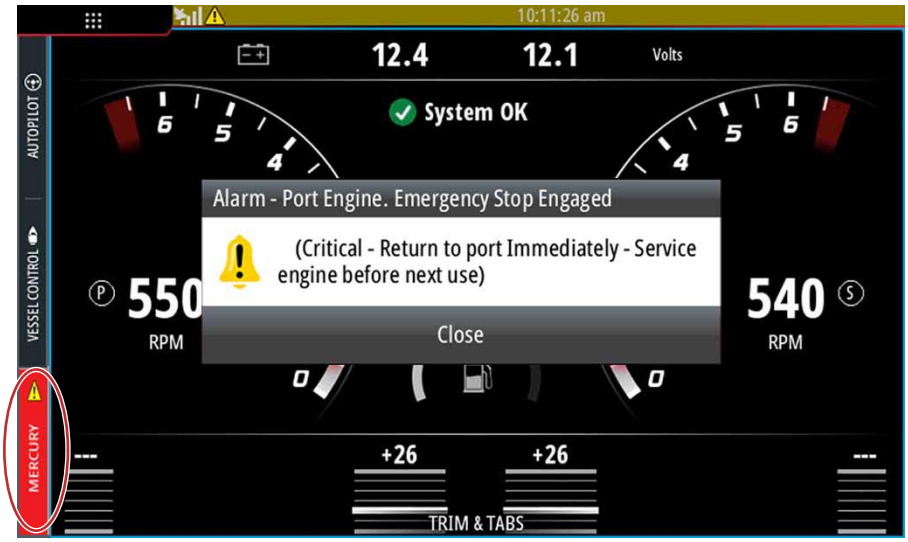
Table of Contents

Warnings—Faults and Alarms

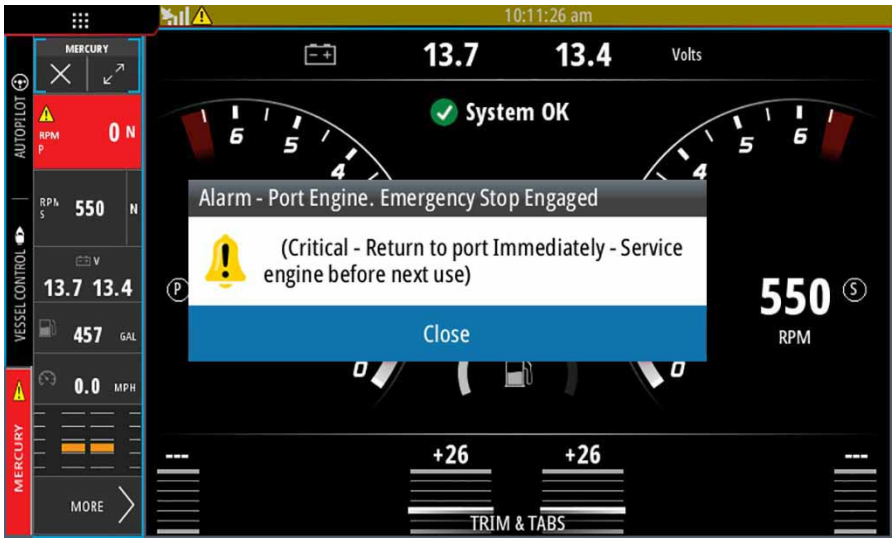
All Mercury warnings, faults, and alarms will be shown regardless of what screen is displayed at the time of the alarm. When an alarm is activated, the screen will display a window showing the alarm text and warning, along with a brief description of what action should be taken.

When an alarm fault is triggered, the Mercury tab on the left-hand side of the screen will display in red and contain the international warning symbol. When an alarm is activated, the screen will display a window showing the alarm text and warning, along with a brief description of what action should be taken.

The following images show the alarm window displayed in the center of the screen with the left-hand side bar in the closed and opened state.



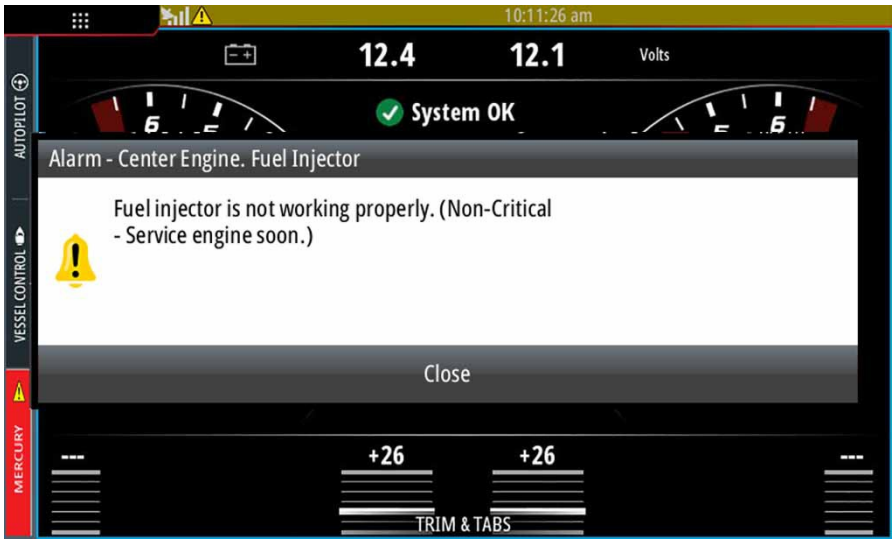
61773



61774

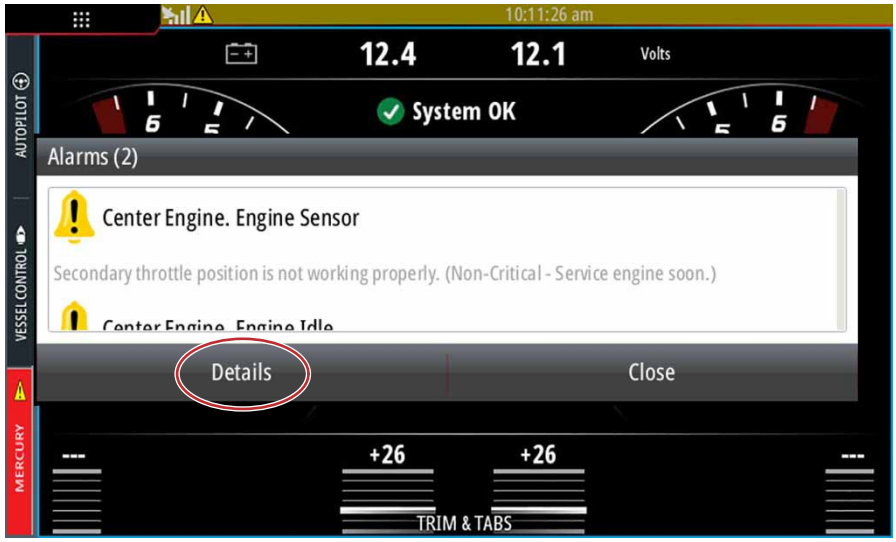
Critical alarms are usually accompanied with a response from the Mercury Engine Guardian System, which can include reduced power, reduced maximum RPM, or a forced idle condition. All critical faults give an audible notice to the operator. A critical fault will sound the warning horn for a continuous six seconds.

Noncritical alarms will display like critical alarms, but are accompanied by six short beeps from the warning horn.

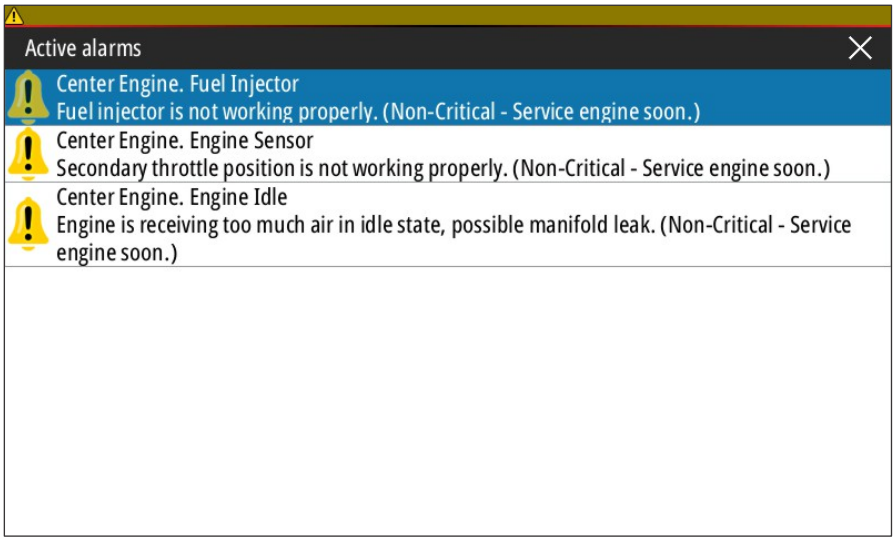


61545

Fault pop-ups allow the operator to get additional information regarding the individual faults. Select the **Details** option to view a more descriptive explanation of the fault.



61542



61548

To acknowledge the fault and return to the main VesselView screen, select the **X** in the upper right-hand corner of the Active alarms window, or select the **Close** option in the initial pop-up window.

Any active alarms and warning faults will remain accessible through the Mercury tab on the left-hand side of the screen.

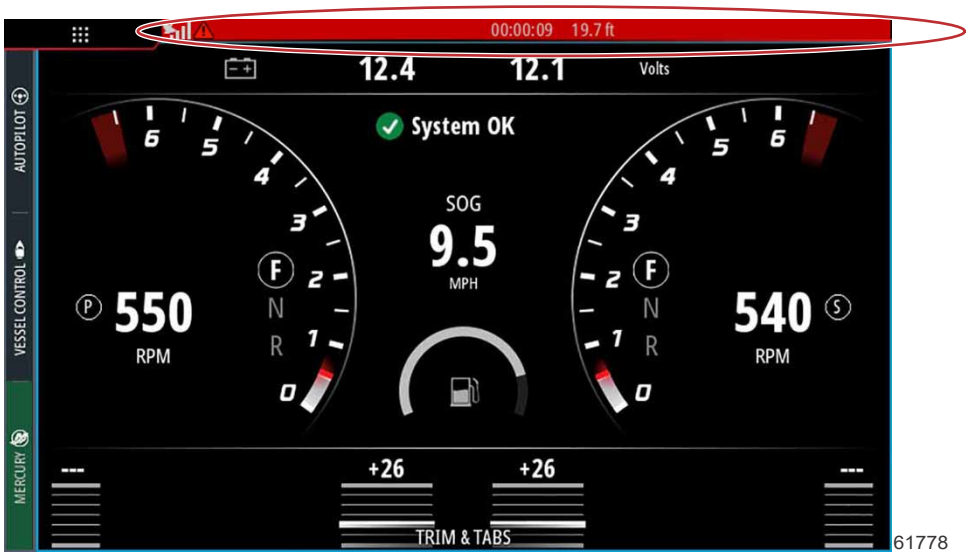
61546

To clear an active fault have the faulty or failed part inspected, repaired, or replaced and start-up the engines and VesselView and allow the unit to go through the system start-up scan. If the vessel passes the start-up scan the Mercury tab on the left-hand side of the screen will display in green. The alarm history can always be viewed by selecting the **main menu** screen, then selecting the **Alarms** option. Here, the fault history can be viewed.

Shallow Water and Low Fuel Alarms

For noncritical faults such as Shallow water and Low fuel, the six short beeps will sound and a pop-up will appear on-screen with a brief text description of the fault.

These types of faults will not turn the Mercury tab to red. Instead, the upper header bar will turn red and display the international warning symbol.

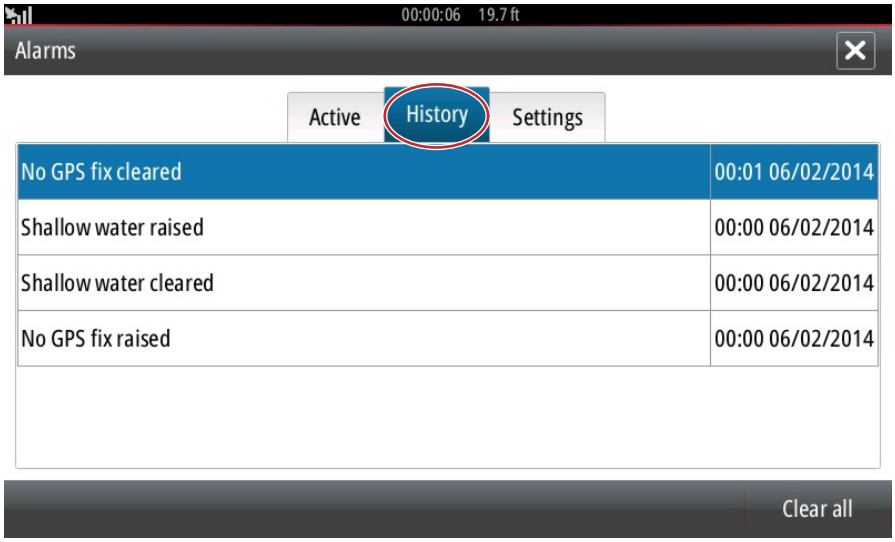


61778

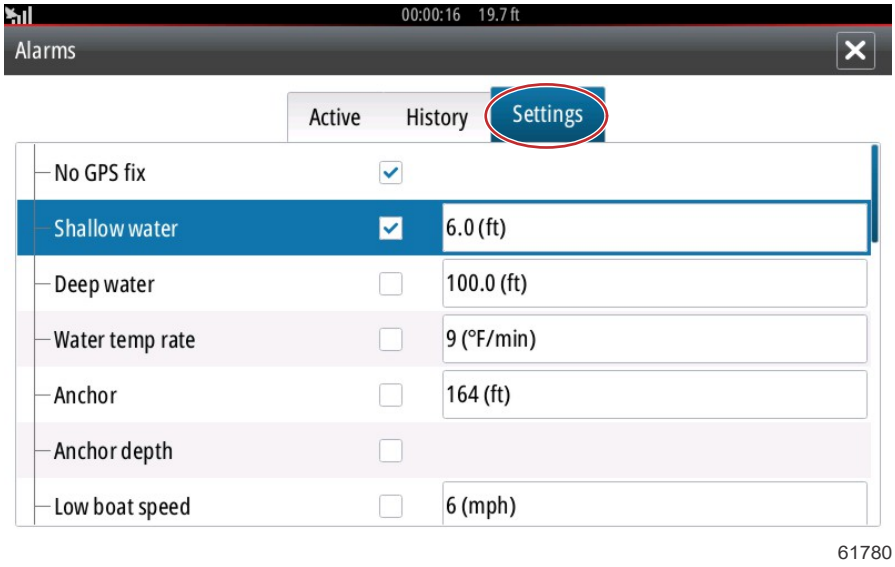
To view the fault select the **main menu** screen, then select the **Alarms** option. Here, the fault can be viewed, and the settings that raised the fault can be changed.

61781

Alarms selection



History tab



Settings tab

Section 6 - Software Update Procedures

Table of Contents

6

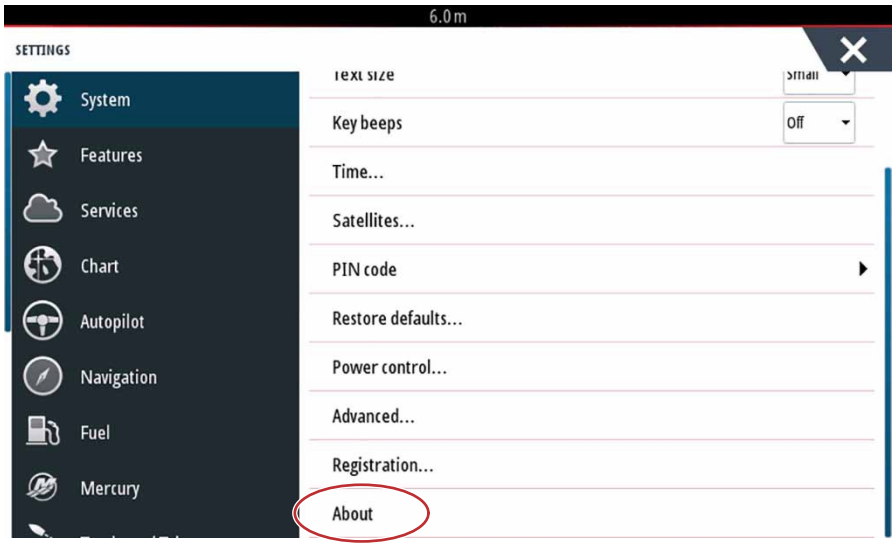
How to Update Your VesselView Display Software

There are two ways that the VesselView software can be updated. One is through the Wi-Fi connection, and the other is through the micro SD card reader in each unit.

Checking Current Software Version of MFD

The latest software for the VesselView and the Link Module is available on-line for general download at Mercury's website; https://www.mercurymarine.com. To understand what software version is in VesselView, power up VesselView. If VesselView is already powered up, swipe from the top of the unit down onto the screen to bring up the System Controls menu. Select **Settings>System>About** to see the current operating version of VesselView software.

61469



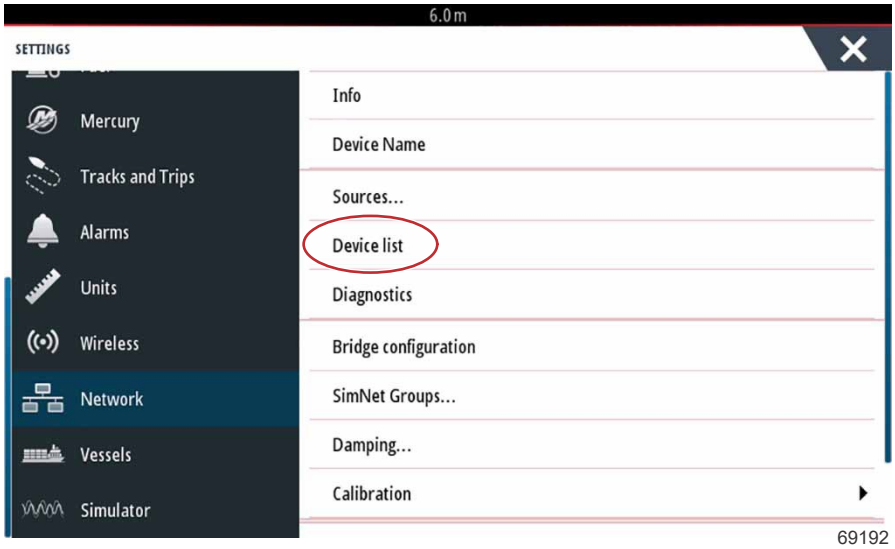
61470

61471

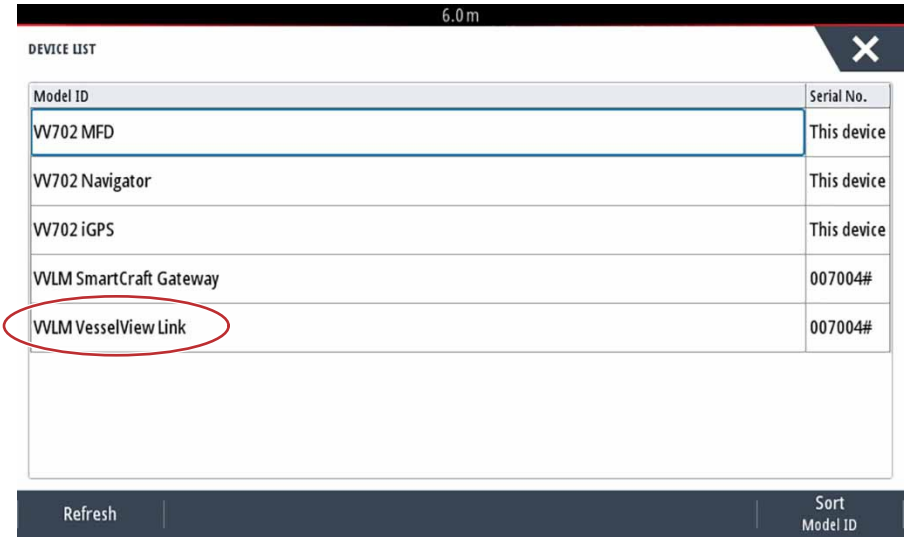
Checking Current Software Version of VesselView Link

To check what software version is in the VesselView Link, power up VesselView. If VesselView is already powered up, swipe from the top of the unit down onto the screen to bring up the System Controls menu. Select **Settings>Network>Device List>VesselView Link** to see the current operating version of VesselView Link software.

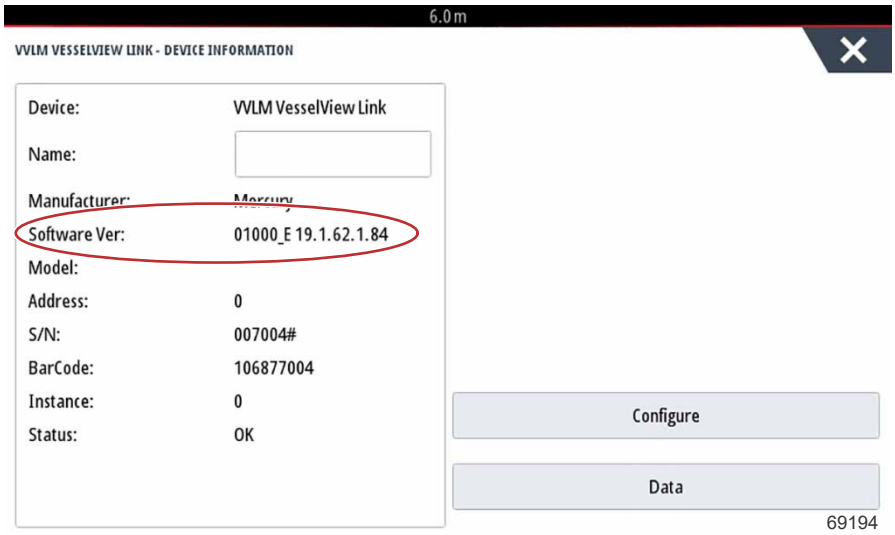
61469



69192



69193



69194

Update Through Wi-Fi

Downloading the Current Software

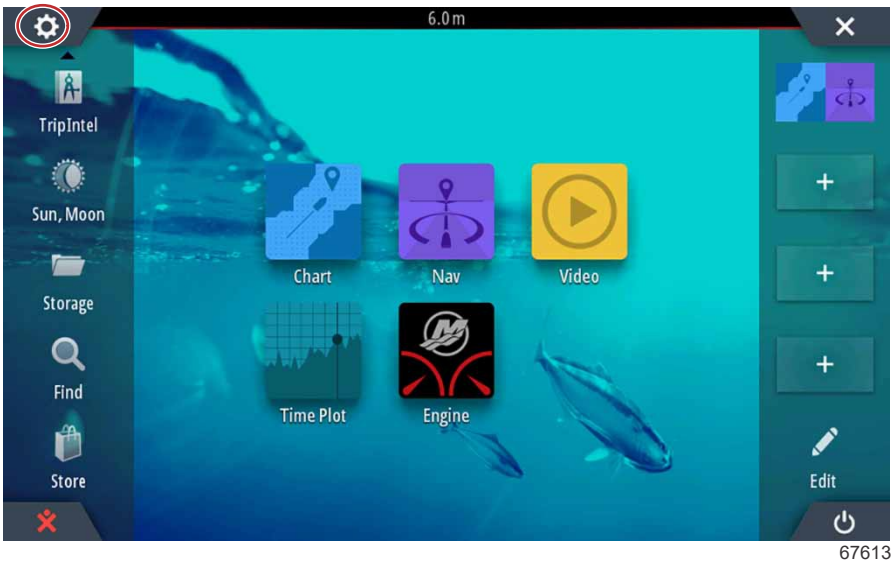
All VesselView software updates can be found on the Mercury Marine website at: https://www.mercurymarine.com.

A wireless internet connection is required to update the software through Wi-Fi.

Follow the procedure **Updating the VesselView MFD Software** to connect to the internet and perform the software update.

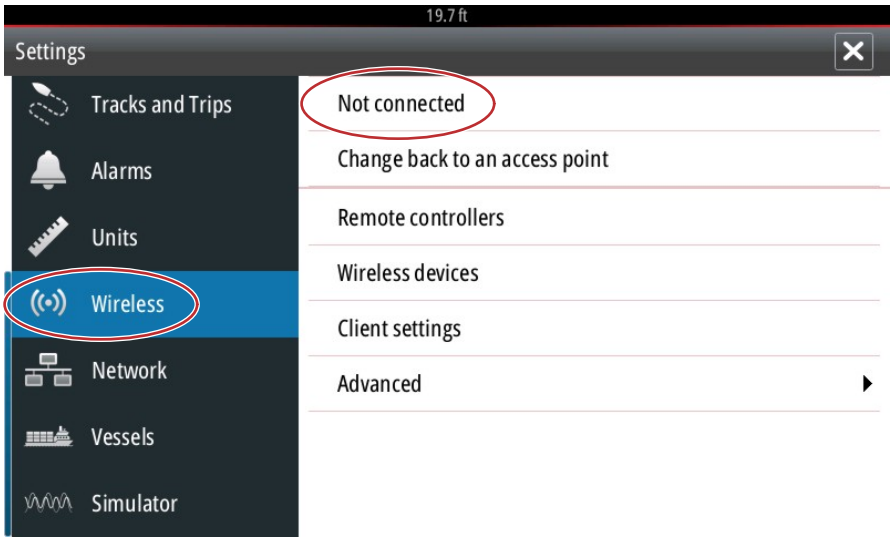
Updating the VesselView MFD Software

Select the **Settings** icon.



67613

Select **Wireless** and then **Not connected**.

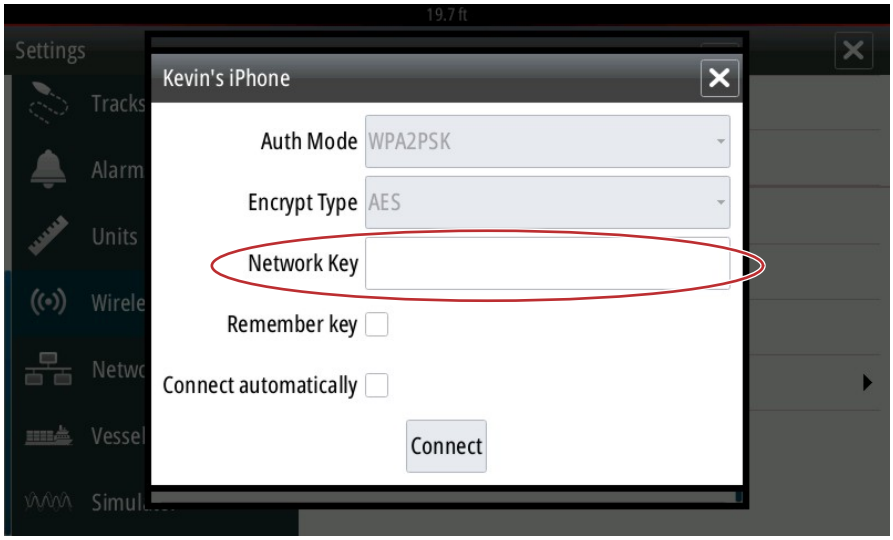


64271

Select a wireless network.

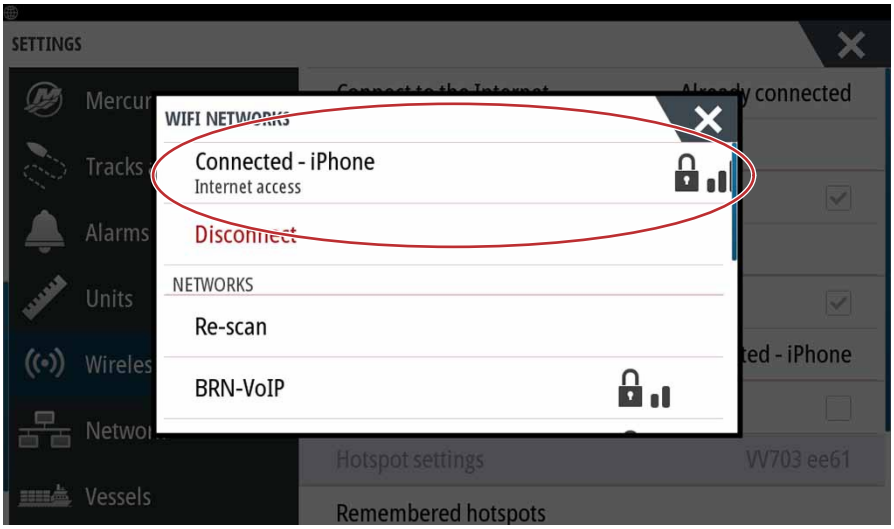
64272

Enter a **Network Key**—password, if needed and select **Connect**. The Network Key is case sensitive. The default case on the virtual keyboard is upper case, so be sure to use the proper keyboard entries when entering the password.



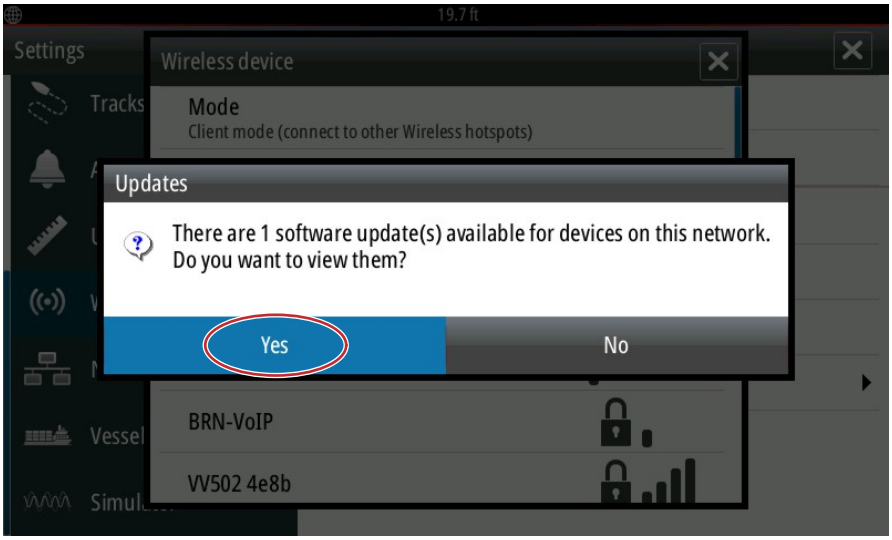
64273

The selected device should show **Connected**. You will also notice a globe icon in the upper left corner of the status bar. This lets the operator know that there is an established connection.



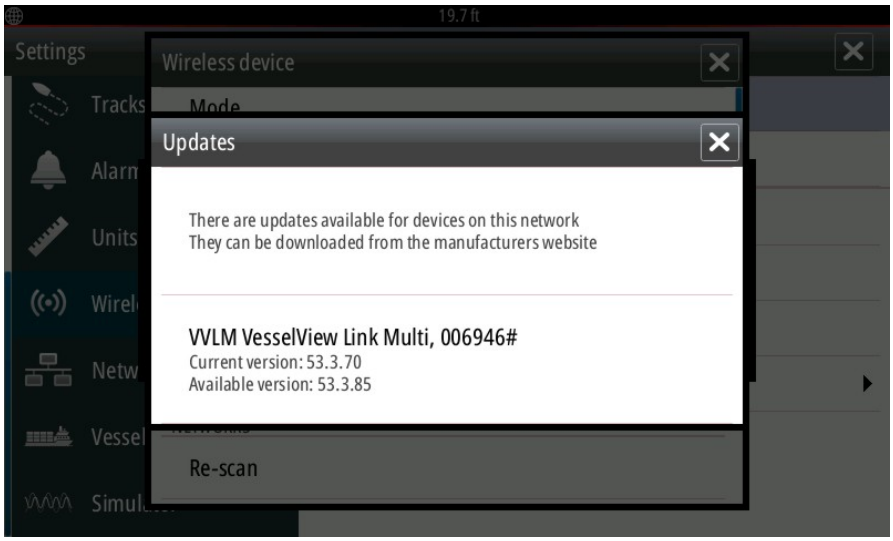
64274

Upon an established connection, the unit will automatically check for software updates. Select **Yes** to view.



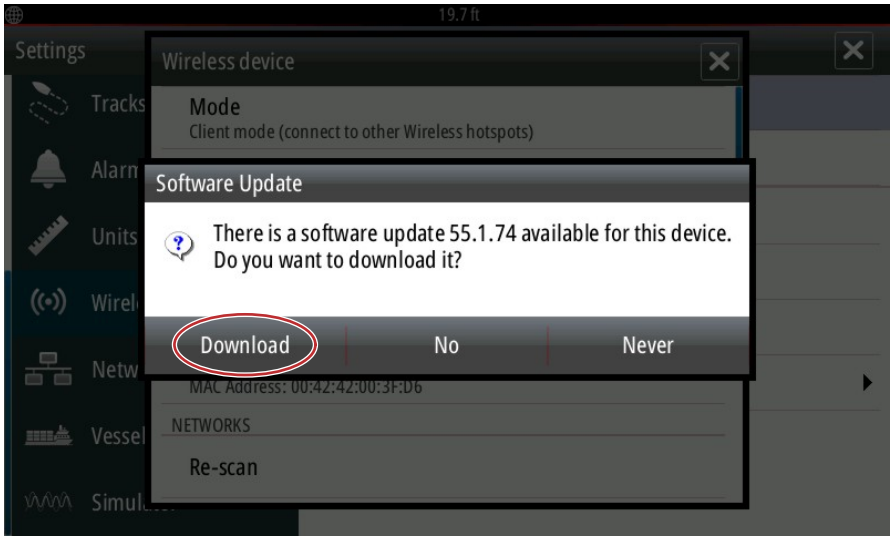
64275

VesselView Link updates can be downloaded from the Mercury website. After the VesselView update, another pop-up allows the unit to download the VesselView Link update through the unit to a micro SD card. The card would then be used in the VesselView Link to update the software. Select the **X** to close this pop-up.



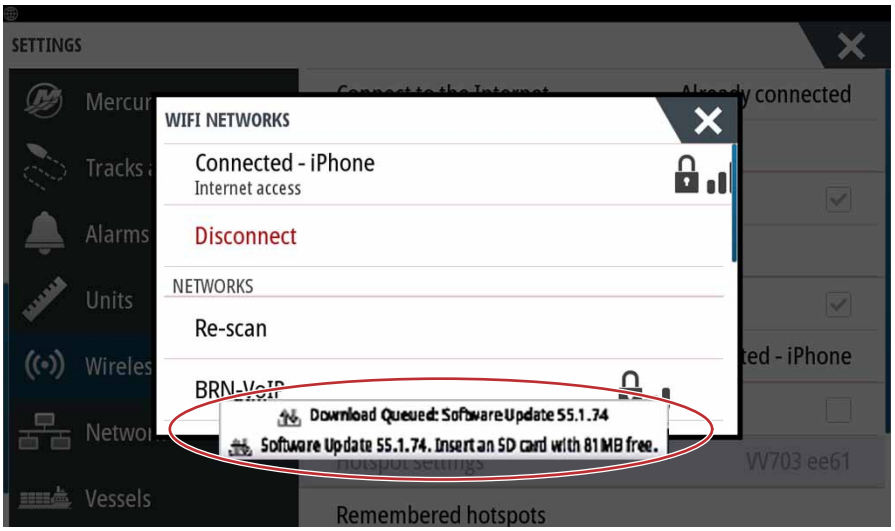
64276

The following screen image is an example of an update to a VesselView unit. The actual file notification will vary by unit and version. Select **Download**.



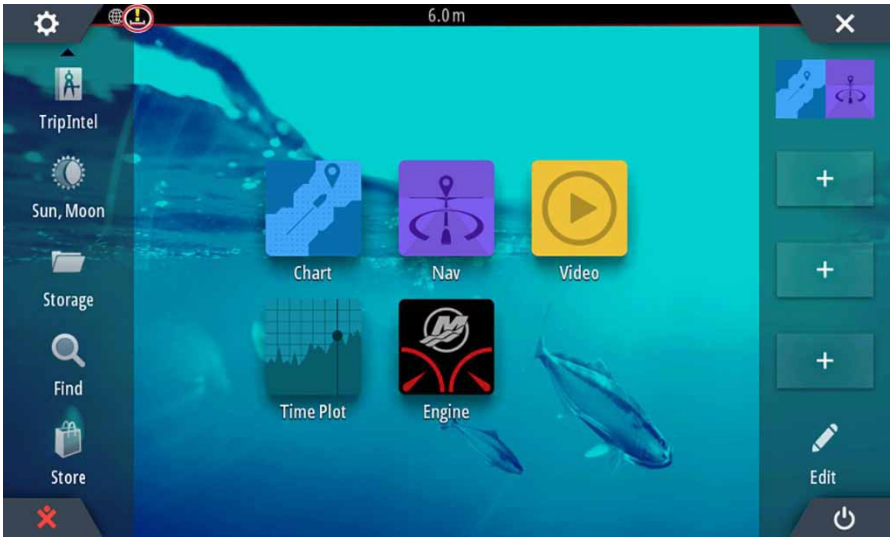
64277

A quick pop-up will appear at the bottom of the screen, prompting the insertion of a micro SD card if there is not one currently inserted into the VesselView unit.



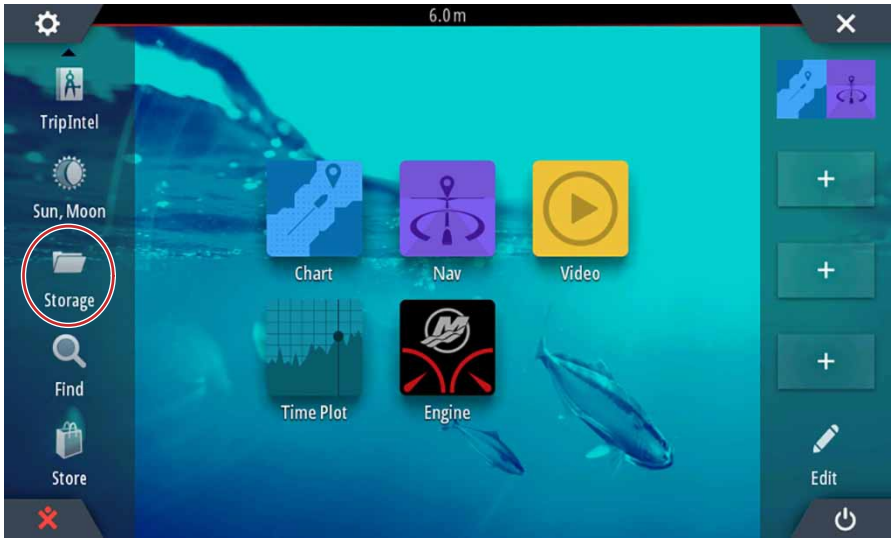
64278

There will also be a downloading icon in the uppermost status bar. An exclamation point is a visual indicator that a micro SD card needs to be inserted into the VesselView unit.



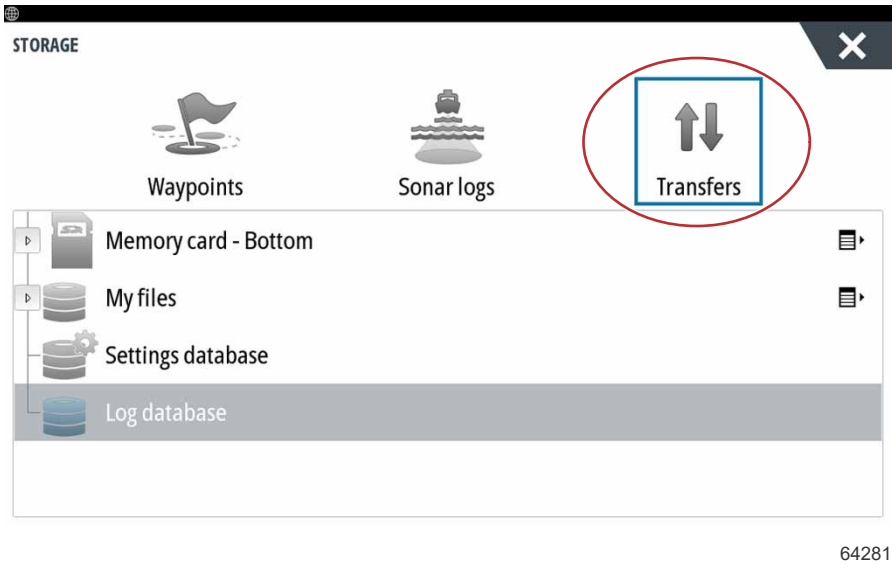
67614

To monitor the download, select the **Storage** icon. Scrolling or swiping may be required to navigate to the **Files** icon.



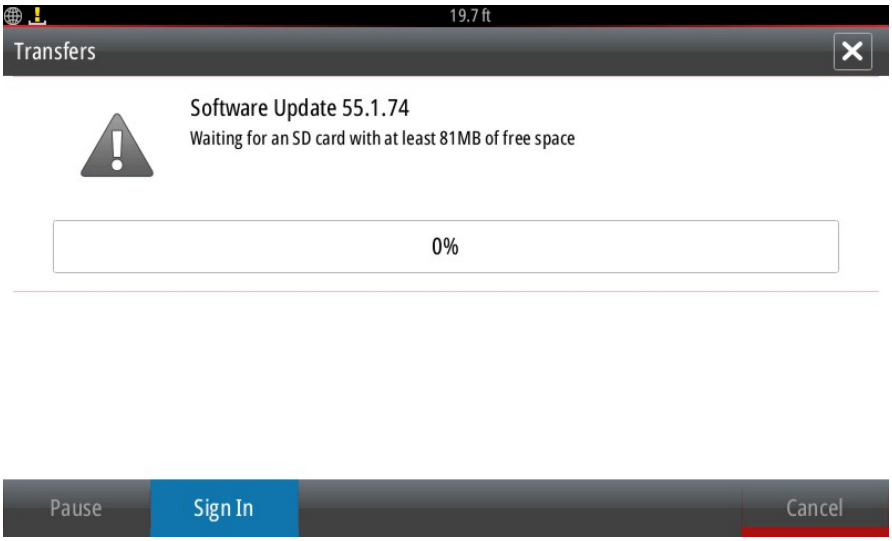
67615

Select **Transfers**.



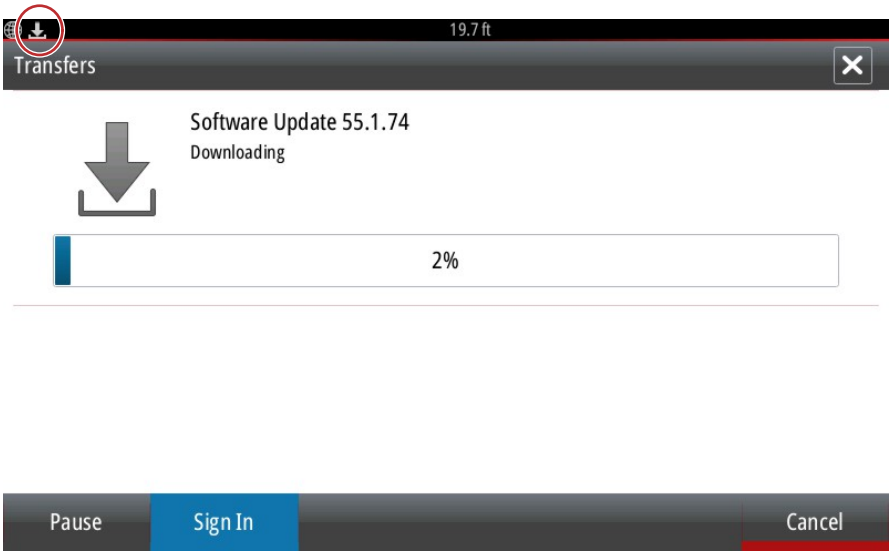
64281

The software update will be downloading if a micro SD card is present. If there is no micro SD card in the unit, there is a message stating that the unit is waiting for a card.



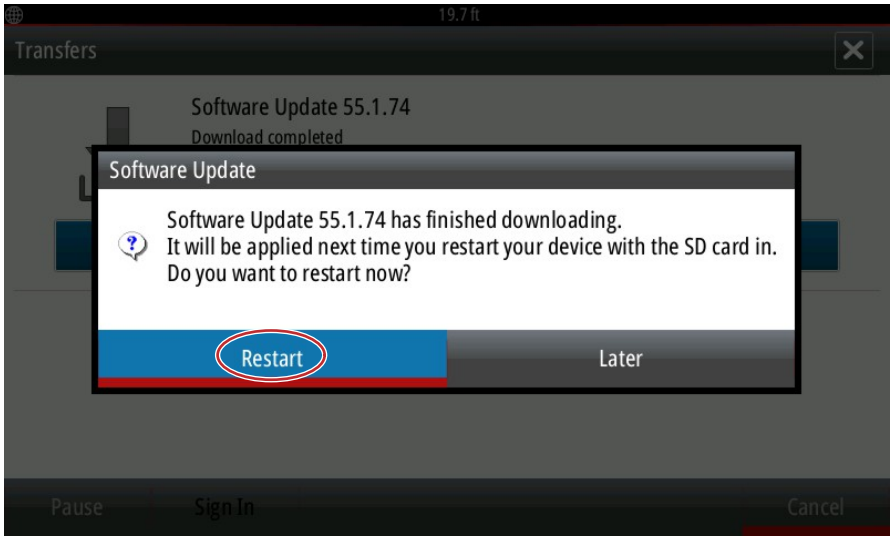
64282

Insert a micro SD card and the update will begin downloading. The downloading icon in the top status bar will change from an exclamation mark to a down arrow.



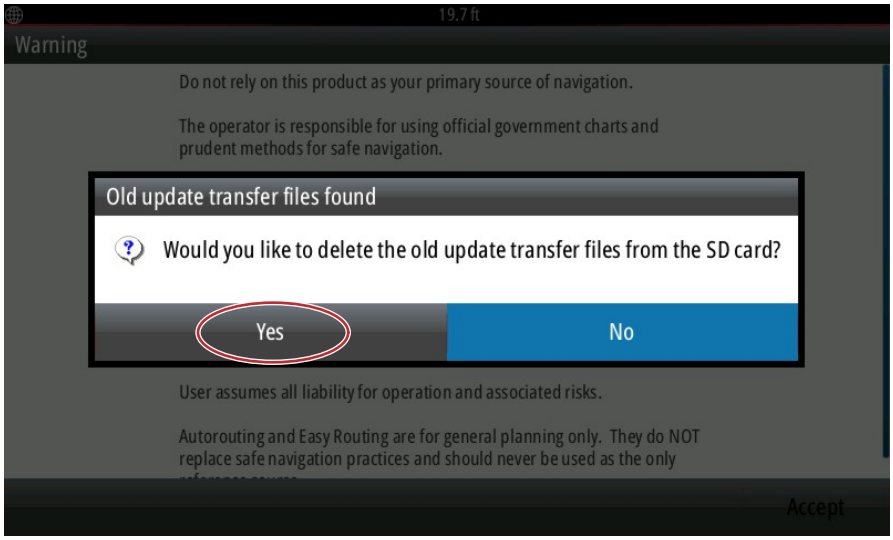
64283

Once the download is complete, a restart is required. Select **Restart** and the new update will run upon a restart.



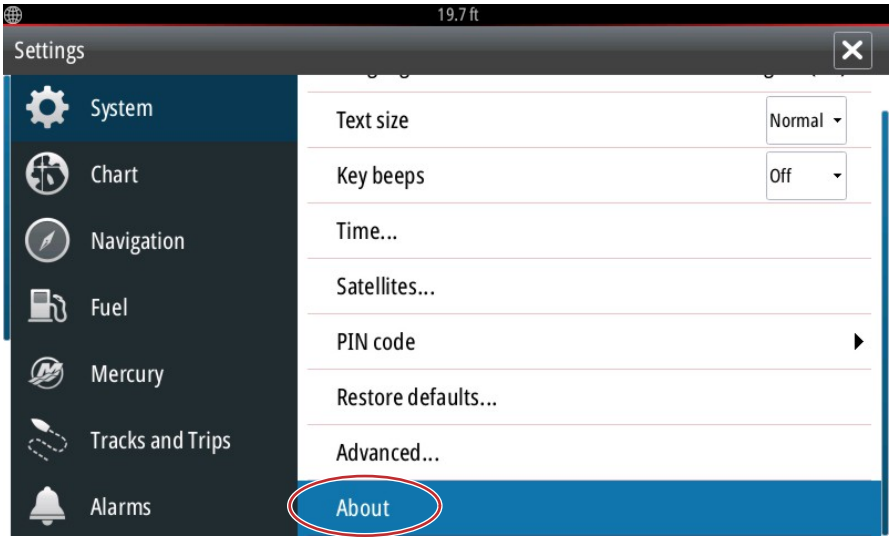
64284

Select **Yes** to delete the old software update from the micro SD card.



64285

To confirm that the software update is in place, select **Settings**, **System**, and **About**.



64286

The Version and Application numbers are listed in the upper left-side of the screen. Select **Support** to check for any additional updates. Make sure that the unit is still connected to a Wi-Fi source.

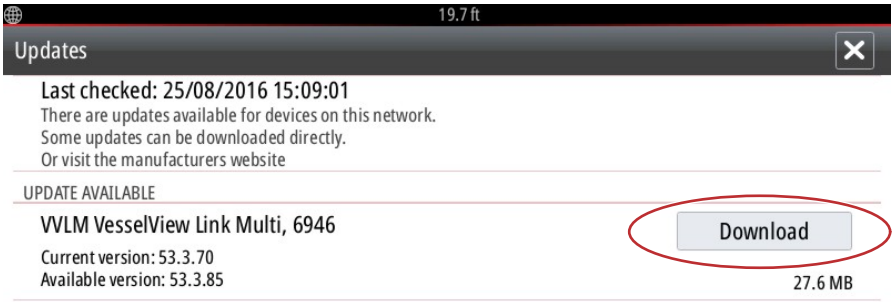
64287

Updating the VesselView Link Module Software

The VesselView Link cannot be updated through Wi-Fi but a Wi-Fi connection through the MFD will allow the MFD to download the VesselView Link update to a Micro SD card in the MFD. For a VesselView Link module update, there will be a message instructing the operator to insert a micro SD card into the VesselView. This will only occur on multifunctional displays without a micro SD card already in the VesselView. Compatible devices with a micro SD already inserted will begin all downloads automatically.

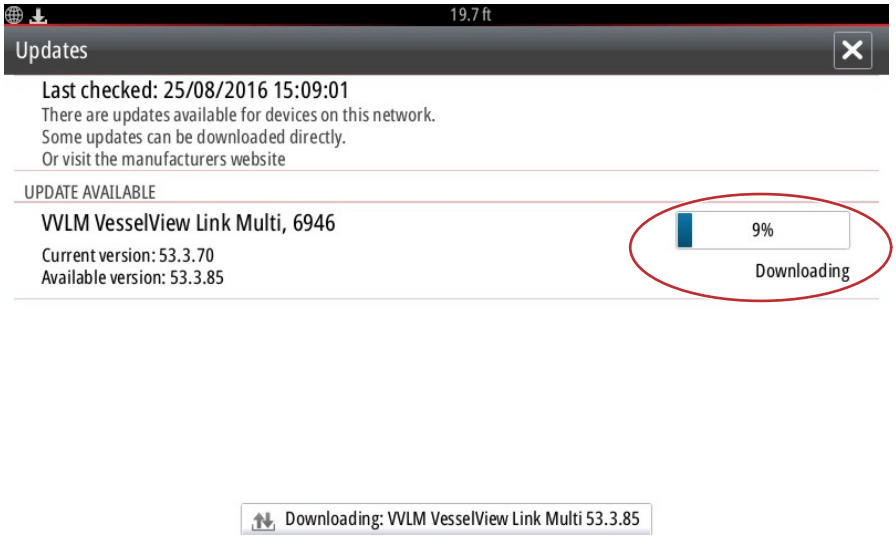
64288

Insert a micro SD card and select **Download**.



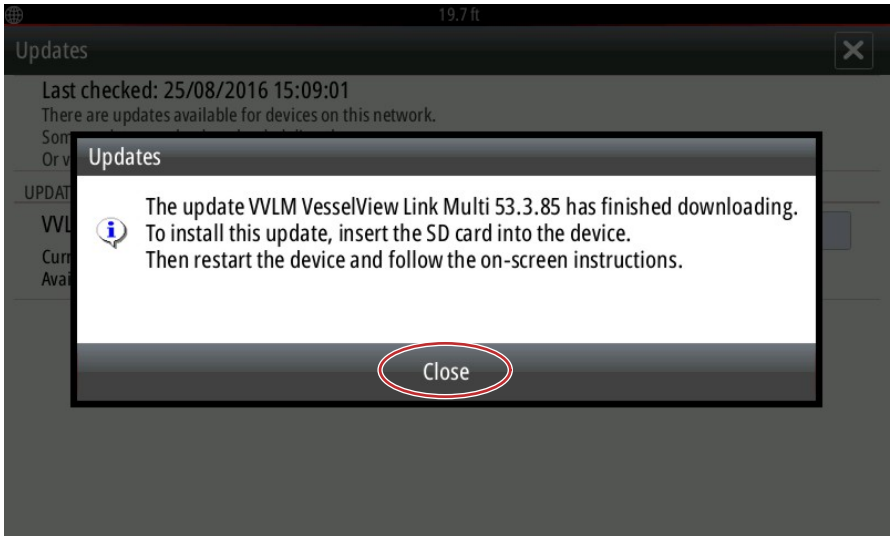
64289

VesselView will begin downloading the update for the VesselView Link from Wi-Fi to the micro SD card.



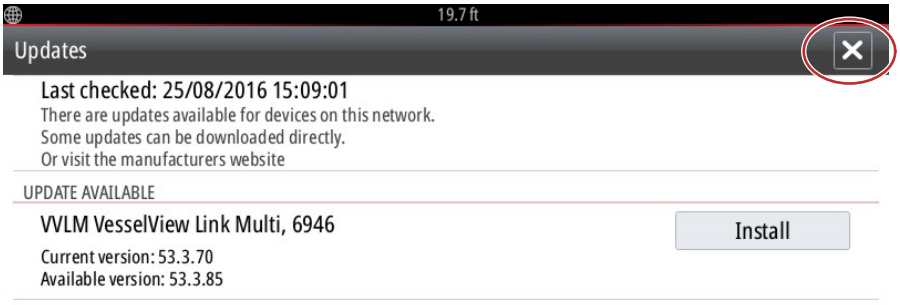
64290

The micro SD card must be removed from the VesselView and inserted into the VesselView Link card slot, VesselView 502 owners will need to remove the unit from the dash in order to access the card slot.



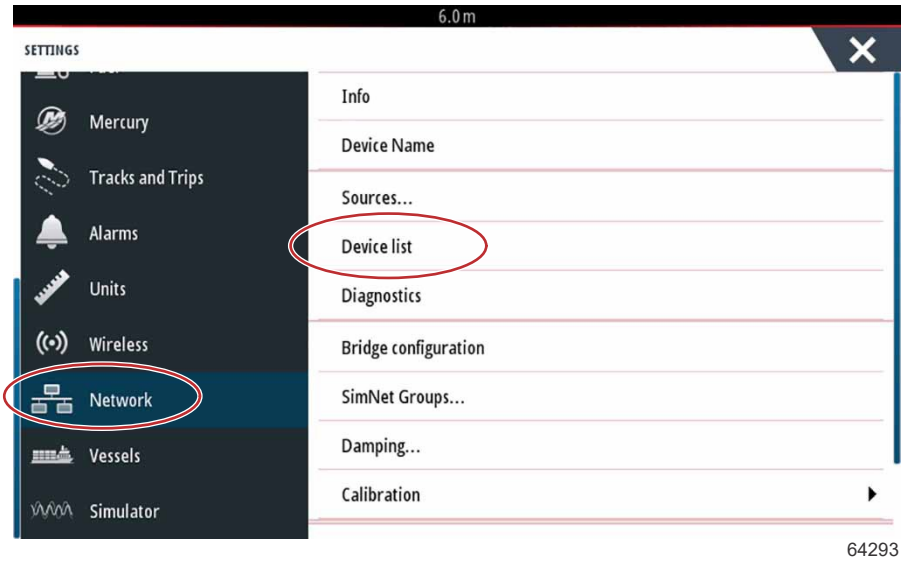
64291

Selecting **Install** will give instruction to insert the micro SD card into the VesselView Link module. Click the **X** to close this window.



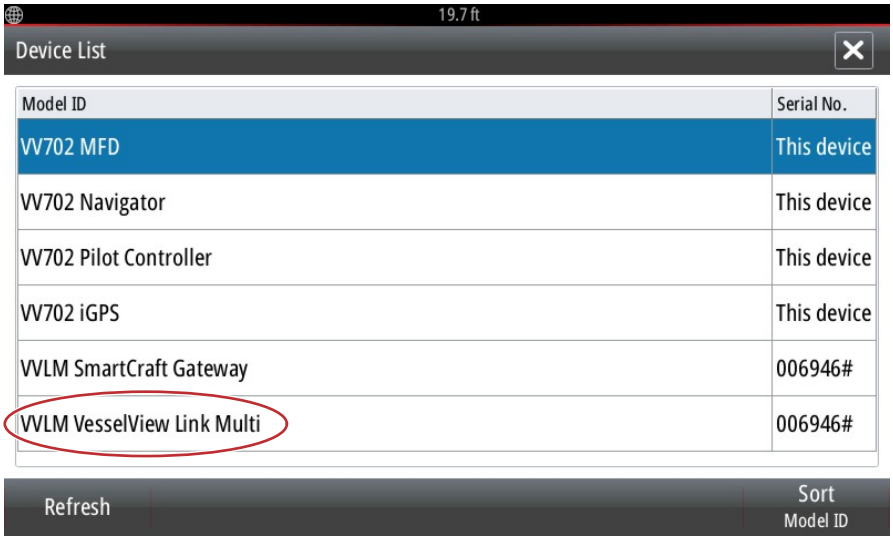
64292

Navigate to the **Settings** menu. Select **Network**, and then **Device list**.



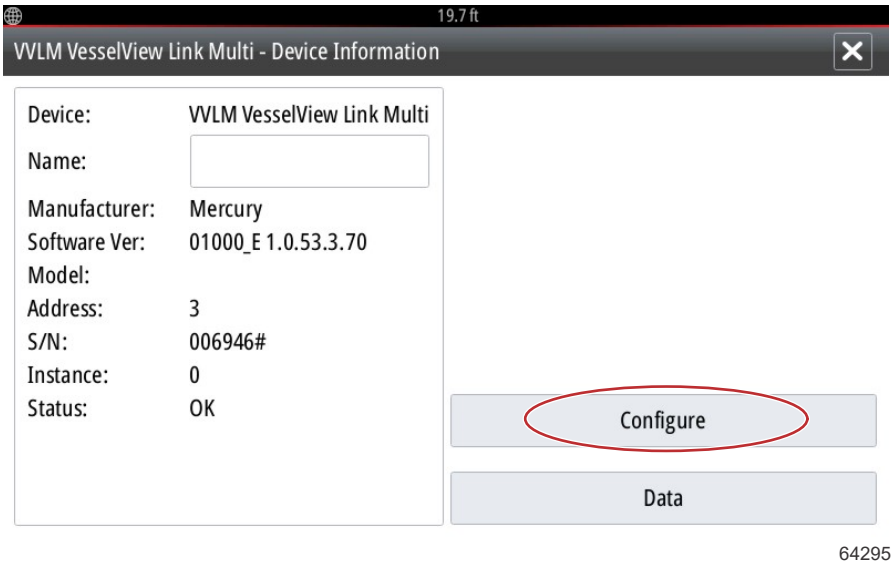
64293

Select the **VesselView Link** module from the list. The following image is for illustrative purposes only, your VesselView Link Module may show as Single, for a single-engine application.



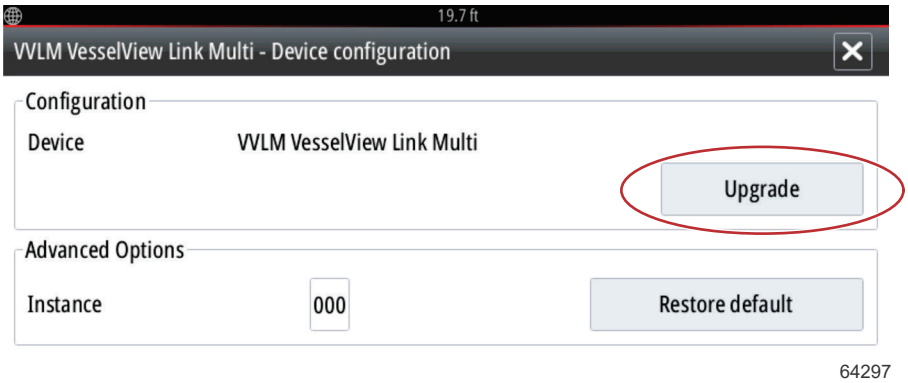
64294

Select **Configure**.



64295

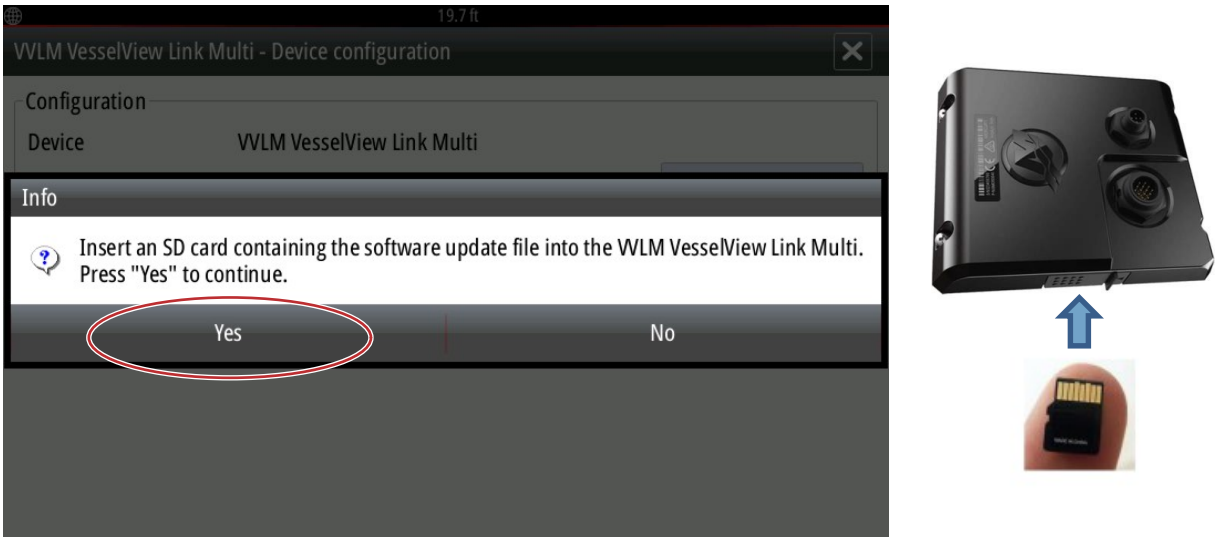
Select **Upgrade**.



64297

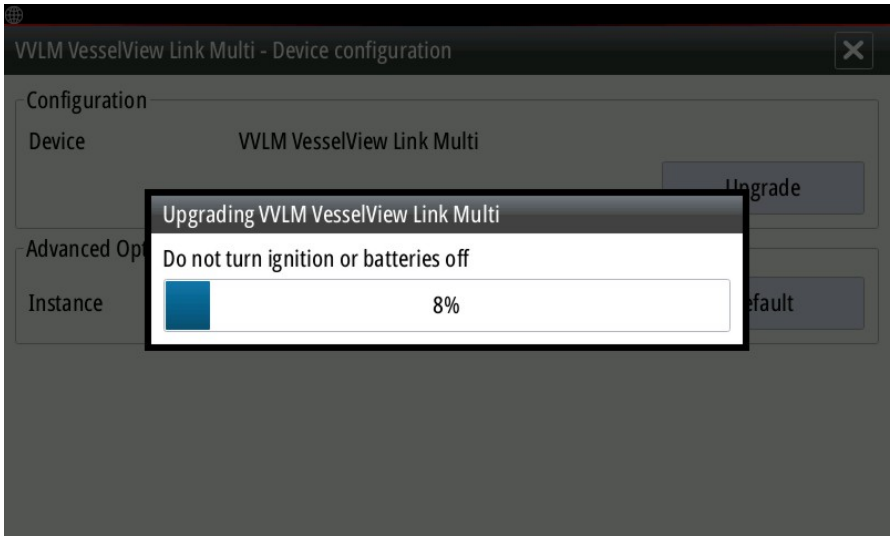
Insert the micro SD card into the VesselView Link. Select **Yes**.

NOTE: *The bottom of the micro SD card—the side with the metal contacts, faces up toward the top of the VesselView Link. The top of the VesselView Link is the side with the connections.*



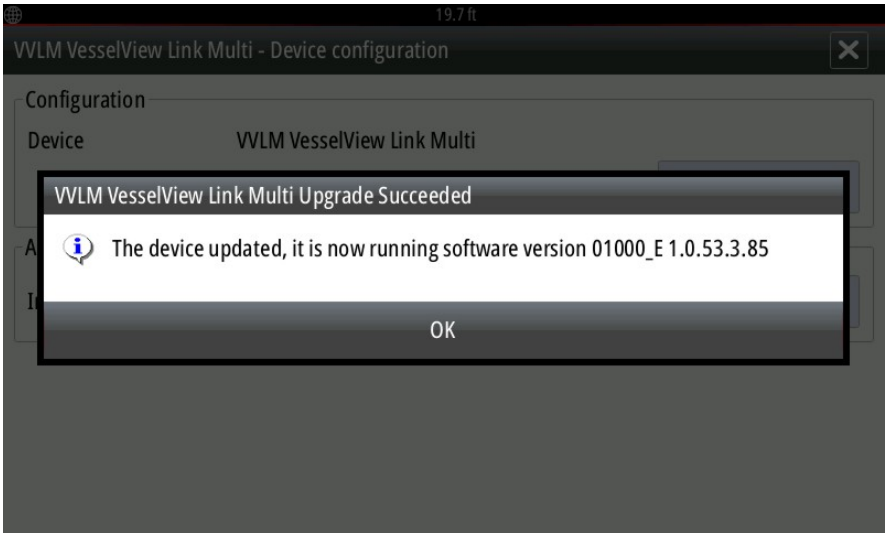
64298

The update will begin.



64299

The update should now be complete.



64300

The operator can now confirm the software version in the **Device list** window.

64301

Software version location

Update Through the Micro SD Card

Downloading the Current Software

All MFDs are equipped with a micro SD card reader slot. See **Section 1** for card reader locations. Some MFD models may require removal from the dash to access the card reader slot.

All VesselView software updates can be found on the Mercury Marine website at: https://www.mercurymarine.com.

Download the file to a 512 MB or higher capacity micro SD card with a FAT or FAT 32 format. To check the format of the micro SD card, from your computer bring up the properties of the card to confirm the format. Make certain that the file resides on the root level of the micro SD card. The root of the drive is the topmost level, where the file is not placed into a folder.

NOTE: *Ensure that the micro SD card is fully inserted into the slot. The card is properly inserted when a click is heard and the card remains seated in the slot.*

Updating the VesselView MFD Software

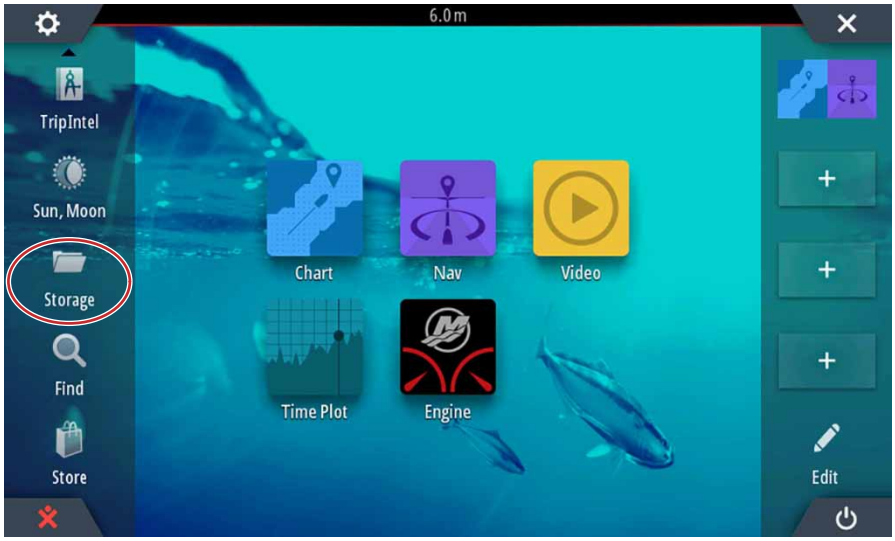
The following instructions explain how to upgrade the VesselView software using a micro SD card.

1. Turn the ignition key **ON** and verify that the VesselView is on.

2. Insert the micro SD card into the VesselView card port all the way until it clicks and stays in place.
3. Touch the **HOME** tab at the top of the screen to bring up the home screen.

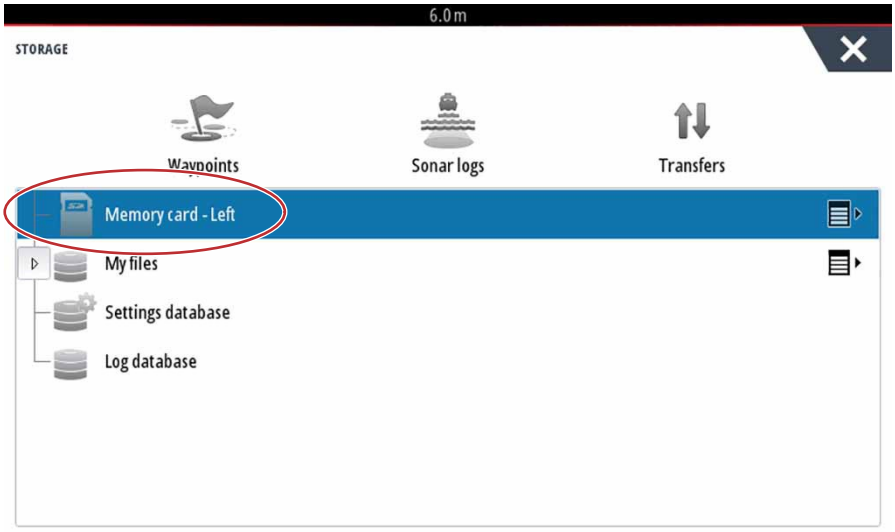
61450

4. On the Home screen, swipe the left-hand side window to the Storage icon.



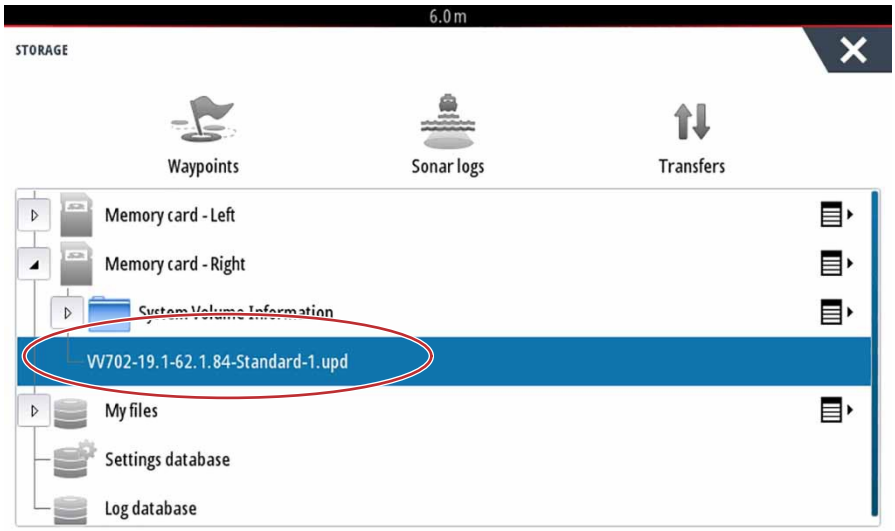
61451

5. Select **Memory card** from the options shown.



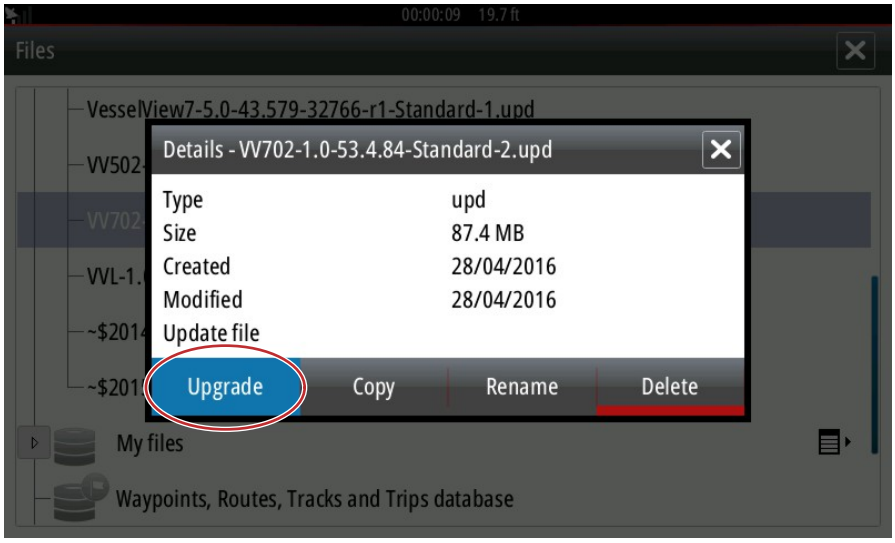
61453

6. Select the file that was downloaded from the Mercury website. The file shown in the following image is for illustrative purposes only, and does not represent the actual file name that you will be selecting.



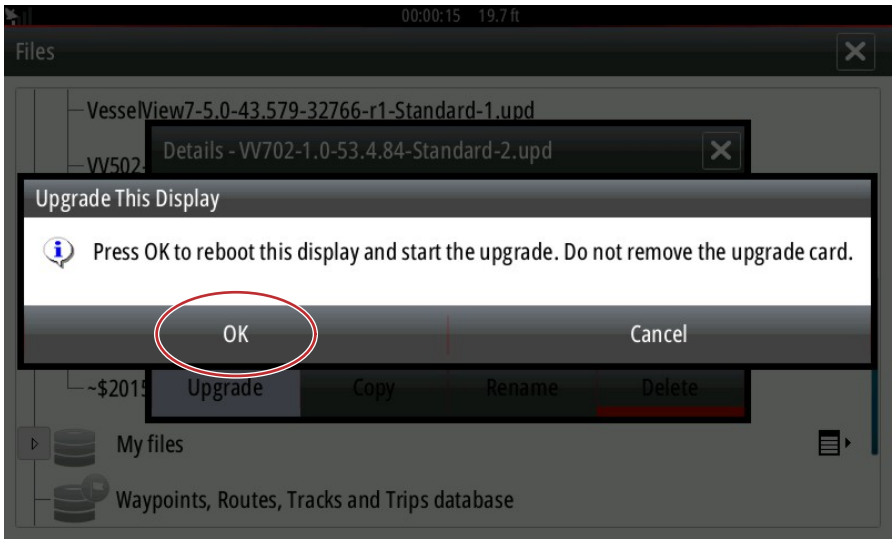
61455

7. Select the **Upgrade** option in the Details window.



61456

8. Select **OK** in the Upgrade This Display window. VesselView will display a progress bar, showing the upgrade progress. Do not power off the display during this step in the upgrade. VesselView will briefly display a Restarting screen. Following the rebooting process, the VesselView will be ready for operation with the upgraded software.



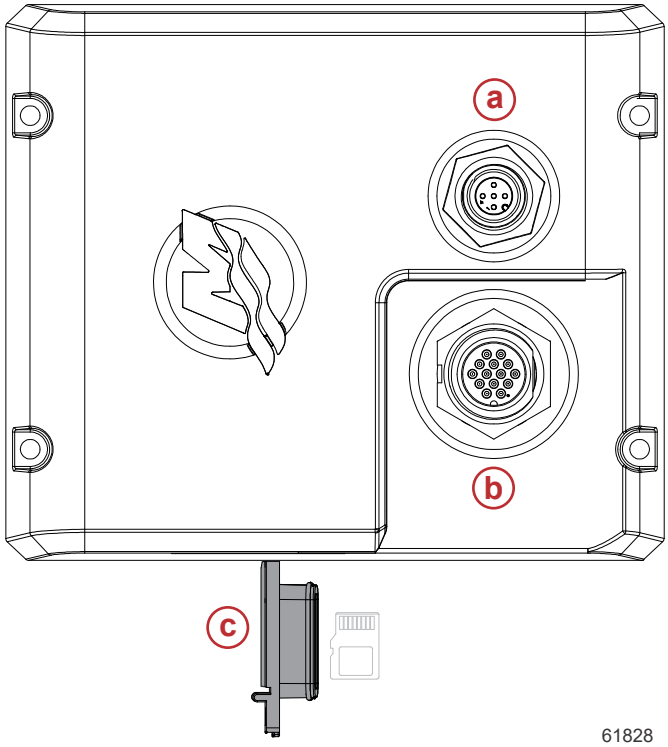
61458

9. Update the VesselView Link module software.

Updating the VesselView Link Module Software

1. Download the VesselView Link update file at Mercury's website; https://www.mercurymarine.com and save it to a Micro SD card
2. Turn the ignition key **ON** and verify that the VesselView is on.

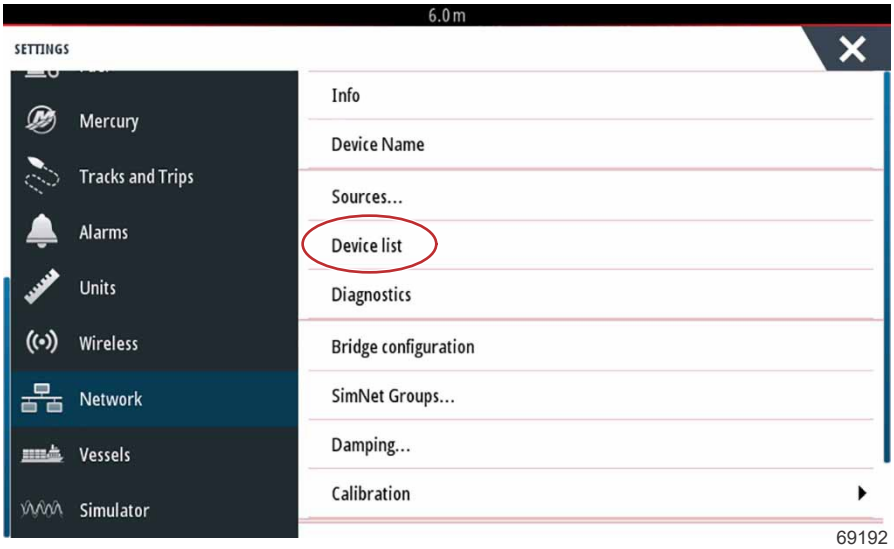
3. Insert the micro SD card into the VesselView Link Module card port all the way until it clicks and stays in place.



61828

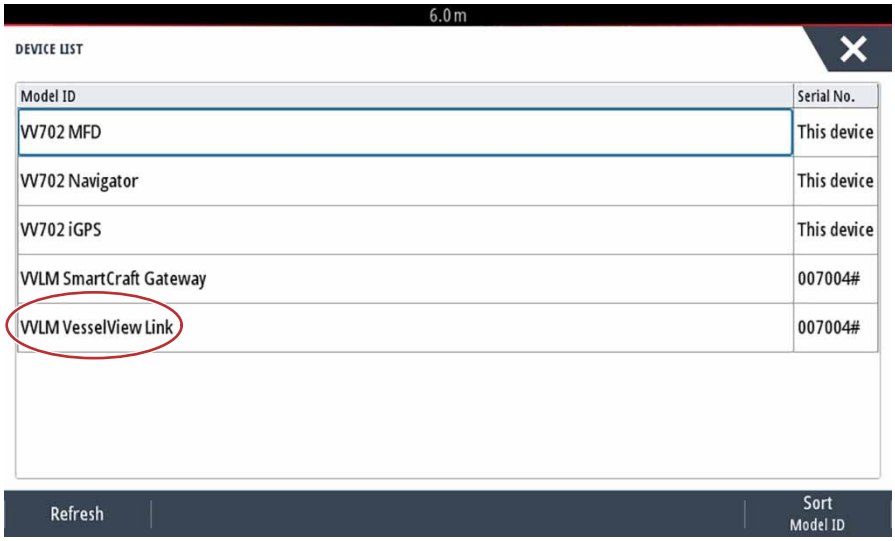
a - NMEA 2K connection
b - SmartCraft/Power connection
c - Micro SD card port

4. Touch the **HOME** tab at the top of the screen to bring up the Home screen. Navigate to the **Settings** option in the left-hand window. Select the **Network** option. Select **Device list**.



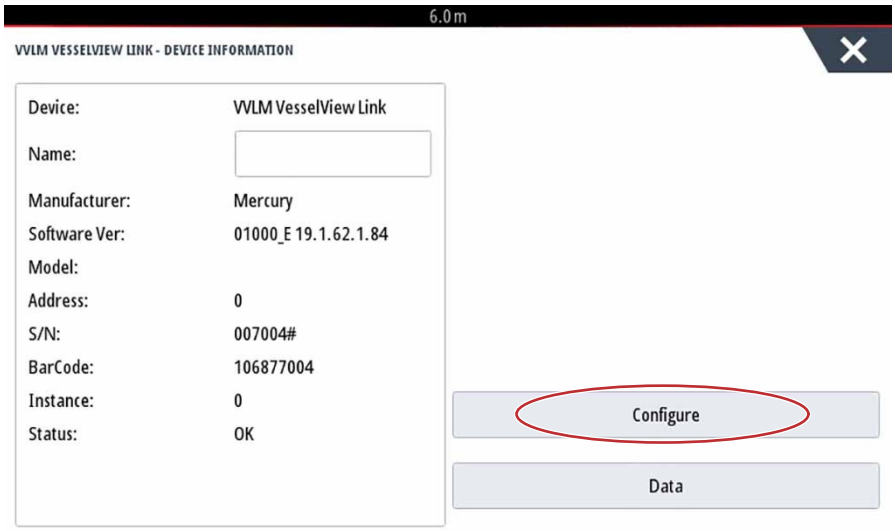
69192

5. Select the **VesselView Link** module from the list of available devices. The following image is for illustrative purposes only, your VesselView Link module may show as Single, for a single-engine application.



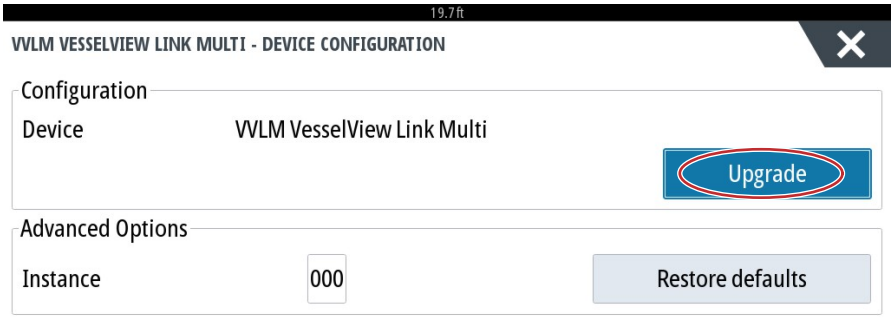
61460

6. Select the **Configure** option.



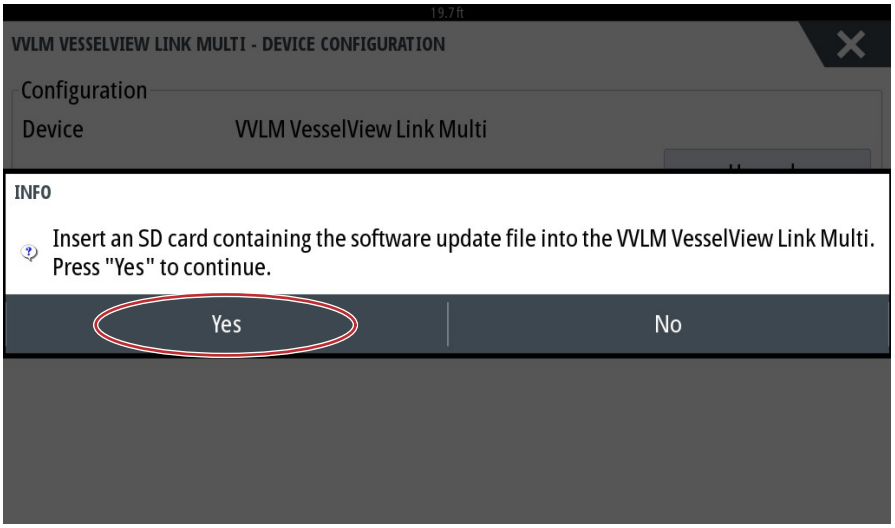
61461

7. Select the **Upgrade** option in the Device Configuration window.



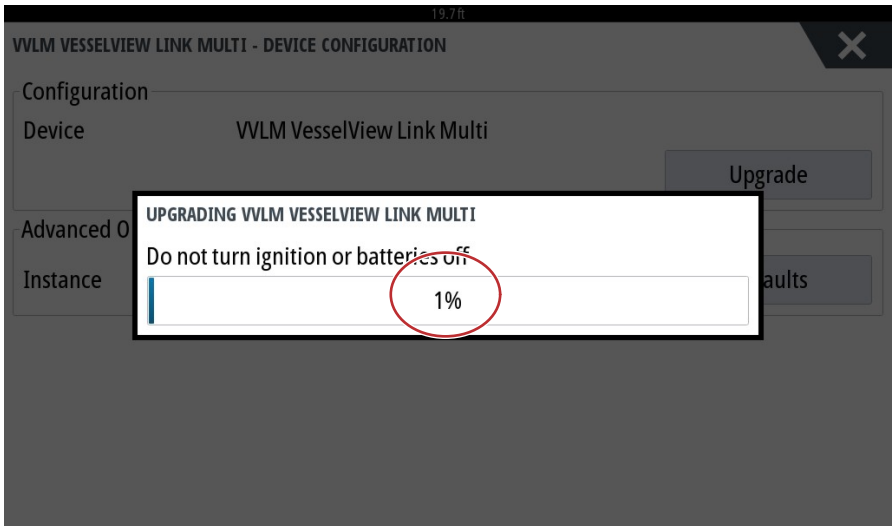
61840

8. Confirm that the micro SD card is properly inserted in the VesselView Link module, and select the **Yes** option.



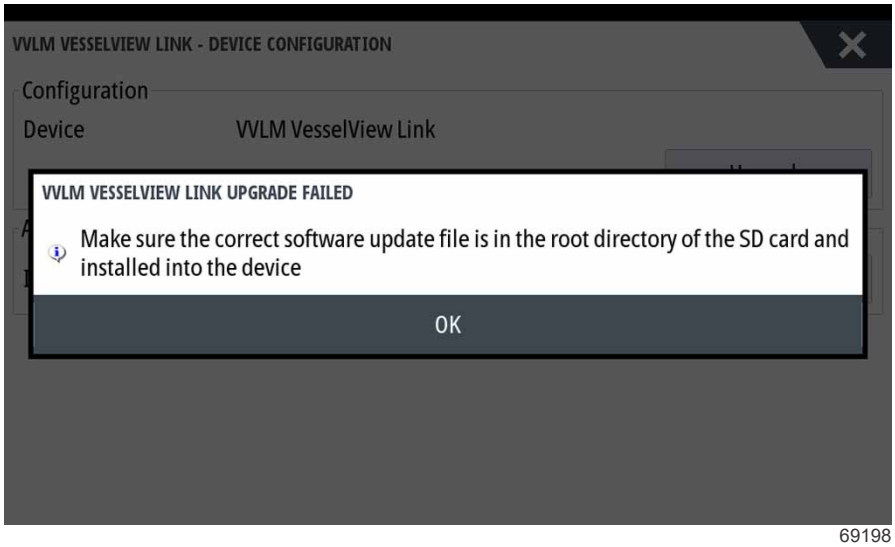
61463

9. VesselView will display a progress bar, showing the VesselView Link module upgrade progress. Do not power off the display during this step in the upgrade.



61465

If VesselView Link Upgrade Failed



69198

Some common issues that may be encountered when trying to update the VesselView link.

- The micro SD card format is not FAT or FAT32. Any card over 64 GB is not in FAT or FAT 32 format.
- The file is not on the top level of the micro SD card (located in a folder).
- The update file that is being used is not a newer version than the current software in the VesselView link.
- The micro SD card is in the VesselView display, but not in the VesselView link.
- The file name has been changed.
- There are other files on the micro SD card that are causing a conflict.

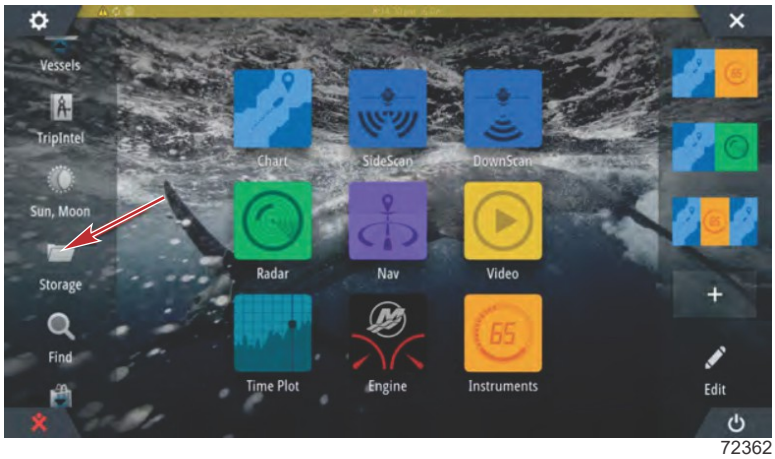
VesselView Link Update Through NMEA 2000

VesselView Link is a Mercury engine interface that bridges SmartCraft proprietary data onto the NMEA 2000 network. Traditionally, VesselView Link had been updated by inserting an SD card containing the software update package into the VesselView Link. VesselView Link can now be updated over NMEA 2000 from the MFD.

IMPORTANT: Any NMEA 2000 MFD that supports the Mercury user interface must be updated to 20.0 or newer to support this feature. VesselView Link must also be updated to 20.0 or newer.

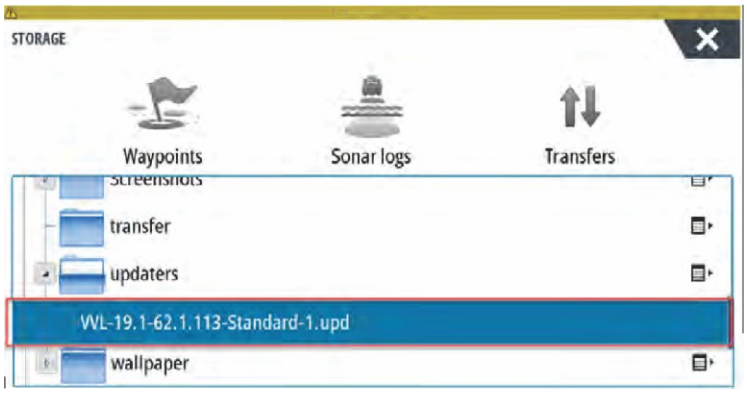
NOTE: *NMEA 2000 has low bandwidth for data transfer. It will take about 40 minutes to upgrade a VesselView Link over the NMEA 2000 . The update system supports simultaneous updates of multiple units. If the update is interrupted because of a power failure, it will continue after the power is re-established.*

1. Download the VesselView Link update file at Mercury's websitehttps://www.mercurymarine.com and save it to a Micro SD card.
2. Insert the Micro SD card into the MFD.
3. On the Home screen select **Storage**.



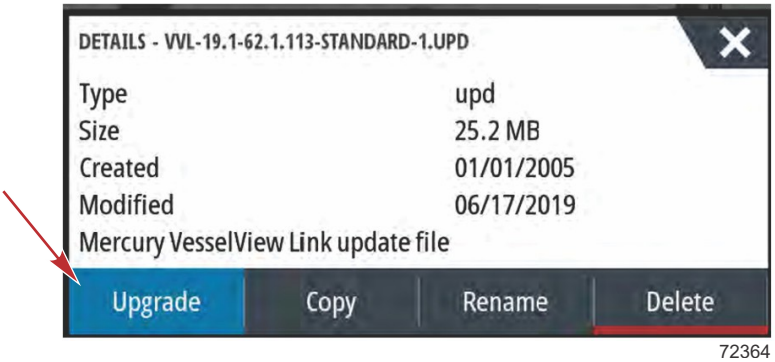
72362

4. Browse to the SD card and select the update file.



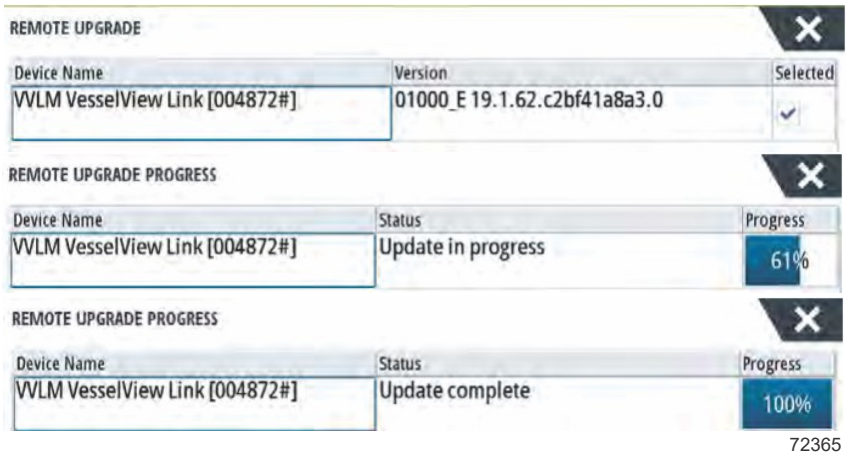
72363

5. Select **Upgrade**.



72364

6. Select the VesselView Link to upgrade by checking the box; more than one can be selected. Select **Start Upgrade**.



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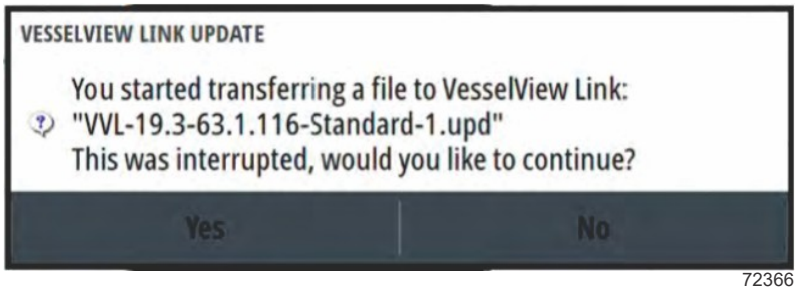
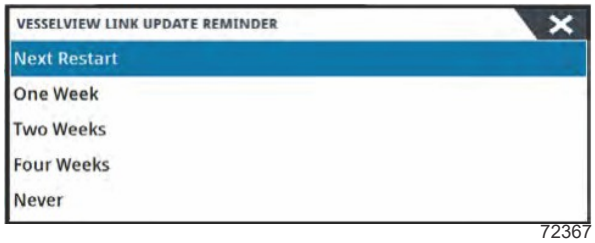
a. If the transfer is interrupted, you will be prompted to continue - **Yes**.



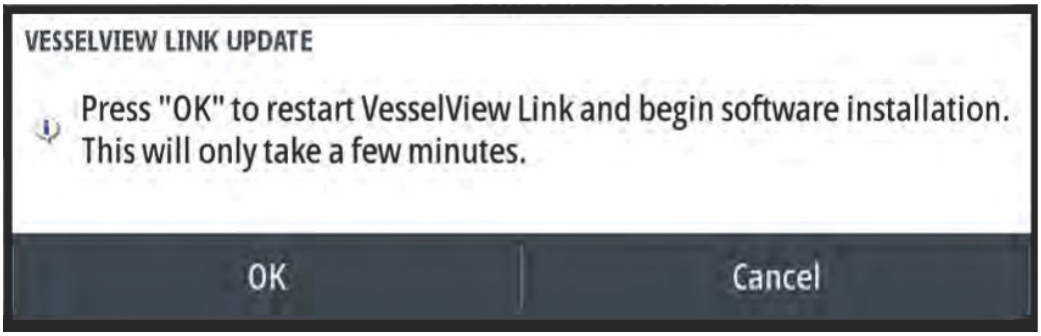
72366

b. If **No** is selected, you can choose when you will be reminded to continue the transfer.



72367

7. After the transfer is complete, press **OK** to begin the software installation.



72368

Section 7 - Troubleshooting

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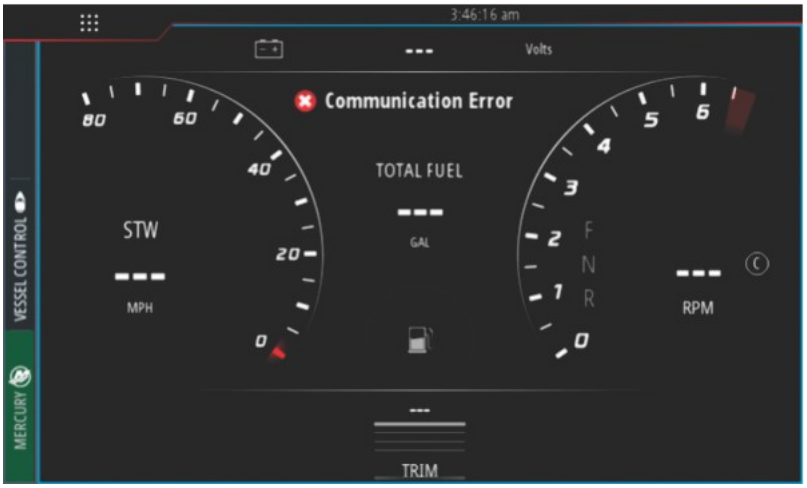
7

VesselView Communication Error or Missing Data

The problem: there is a communication error or missing data (- - -) on VesselView multifunction devices (MFD).



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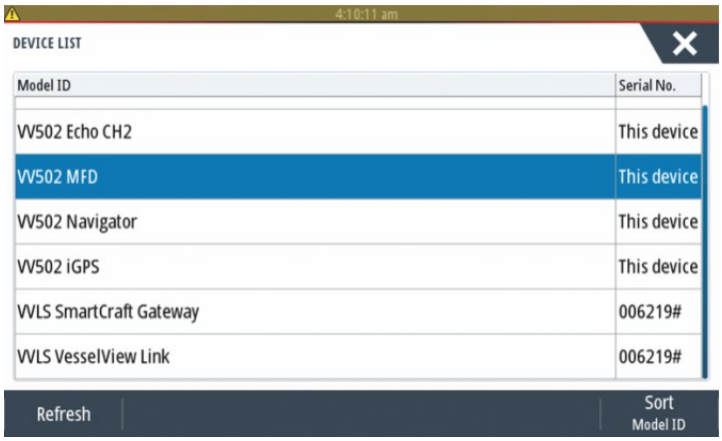
VesselView communication error screen

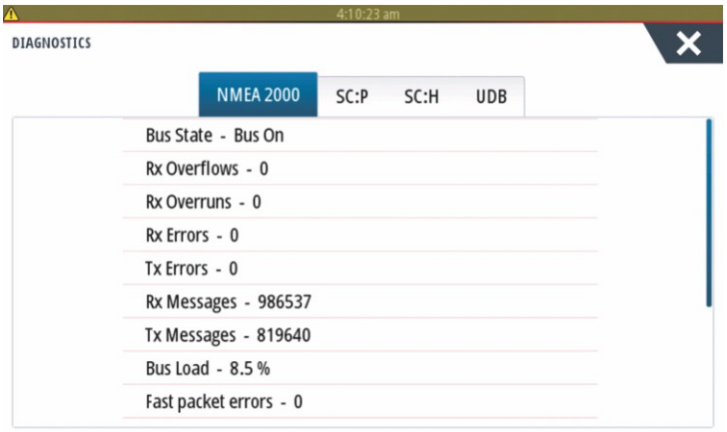
1. Verify the VesselView Link is on the NMEA 2000 bus.
   a. Go to **Settings>Network>Device List**.
   b. You should see **VVL_SmartCraft Gateway** and **VVL_VesselView Link**.
   c. **VVLS** is for single-engine application and **VVLM** for multiple engine applications. If neither are present, the VVLink is not on the NMEA 2000 bus. VVLink takes about 30 seconds to power up from key **ON**. During engine start up cranking events, it is possible for the VVLink to restart if the battery voltage drops low enough; this is a normal condition on some models.



72370

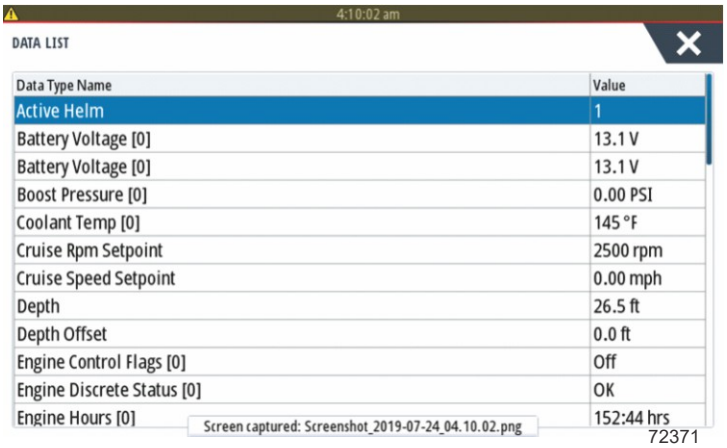
   d. Go to **Settings>Network>Diagnostics** and select the NMEA 2000 tab.

e. The Bus State should show **Bus ON**, indicating NMEA 2000 is powered. If **Bus OFF** is listed, there is a no power issue.



72372

2. Verify engine data is coming from the VVLink.
   a. Go to **Settings>VVL SmartCraft Gateway** and select **Data**.
   b. You should see the engine data (RPM, temp, battery voltage, etc.) coming through the Link. If engine data is present, then the communication error issue is likely to be with the Simrad MFD configuration setup.



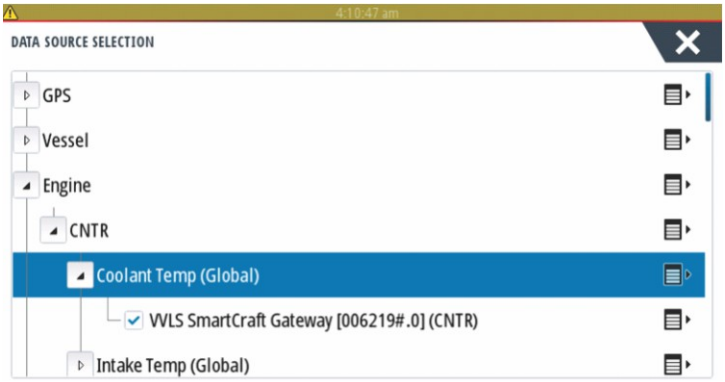
72371

   c. Select **VVL SmartCraft Gateway** and then select **Configure**.
   d. Make sure the **Is Generator** is set to **No** or **Auto**. Selecting **Yes** will configure the VVLink to transmit generator data and not engine data.

72373

3. Verify the engine data source is properly configured through the MFD.
   a. Go to **Settings>Network>Sources>Auto Select**. Select **Start** to auto select all data sources. This may solve the issue but if not, proceed to the next step.

b. Go to **Settings>Network>Sources>Advanced>Engine**. Pick the engine location and then a data item that you are attempting to fix. You will see a line item and checkbox for every source available. For example, a dual-engine should see two sources for Coolant Temp; one for the port engine and one for the starboard engine. The selection blue check mark indicates that data source is to that engine. Make sure the source is valid and present. If you have multiple engines and you only see one source, make sure it says **VVLM** (VVLink Multiple engine) and not **VVLS** (VVLink Single-engine).



72374

Fuel Level Not Following Fuel Tank Calibration

The problem: the fuel remaining is not following the calibrated fuel tanks level.

1. Go to **Settings>Fuel>Vessel Setup**.
2. Check that the fuel remaining measurement is set to **Fuel Tank Level Sensor** and not **Fuel Consumed By Engine**.

M Logo Missing on Home Page

The problem: the M logo is missing on the Home page.

1. Go to **Settings>System>Advanced** .
2. A checkmark must be in the box next to VesselView.

VesselView Stuck on Mercury M Logo Startup Screen

The following steps should be tried to recover the multifunction display (MFD) functionality.

1. Download the latest MFD software onto a micoSD card.
2. Insert the card into the MFD and turn the key to the **ON** position.
3. Watch the MFD screen to see if it starts to update. If it does not update, proceed to the next step.
4. Reset the MFD. There are three levels of reset: **Reboot**, **Reset**, **Hard Reset**.
   - **Reboot**: Switch the unit off and on. Disconnecting the power (key **OFF**) may be required.
   - **Reset**: Go to the **Systems Menu** and select **Restore Defaults**. This will return the MFD to the factory settings. User data, waypoints, routes and tracks, will remain unless selected to be reset.
   - **Hard Reset**:
     i. Turn off the unit.
     ii. Depending on the specific MFD model, press and hold the relevant key combinations while powering on. After approximately six seconds, there will be a double beep indicating the reset was activated. Release the keys.
     iii. **VV703**: Press and hold the √ and **X** keys while power is turned on.
     iv. **VV502 and 903**: There is no procedure to reset.
5. When the prompt for language appears, this confirms the reset is finished.