



**MERCURY**  
**GO BOLDLY.™**

8M0147197

518 eng



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SC 1000 Tachometer/Speedometer



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# PRODUCT OVERVIEW

## Basic Operation and Features

**NOTE:** Descriptive text alarm warning screens are displayed with 2007 and newer engines. Universal fault codes can be utilized with specific Outboard and MerCruiser products produced 2015 and newer.



**System Tachometer**

**System Speedometer**

**Power up:** Each gauge will power up when the ignition is turned on. The gauges will stay on as long as the ignition is on.

**Lights:** Adjusts the brightness and contrast of the gauge.

**Buttons:** The "MODE/SELECT" button is used for selecting information screens. The "+" and "-" buttons are used for setting engine speed for troll control, and setting gauge calibrations.

**Troll control:** Sets and controls the idle speed of the engine for trolling without using the throttle.

**Engine Guardian System:** Monitors the critical sensors on the engine for any early indication of problems. The system will respond to a problem by reducing engine speed and alerting the operator to a potentially damaging situation.

**Warning system:** The system sounds the warning horn and displays the warning with descriptive text or a fault code.

**IMPORTANT:** Optional sensors such as depth, fuel, paddle wheel, and steering angle, should always be connected to the starboard engine when using SmartCraft gauges version 4.0 or later.

# PRODUCT OVERVIEW

## PRODUCTS WITH EMISSIONS CONTROL

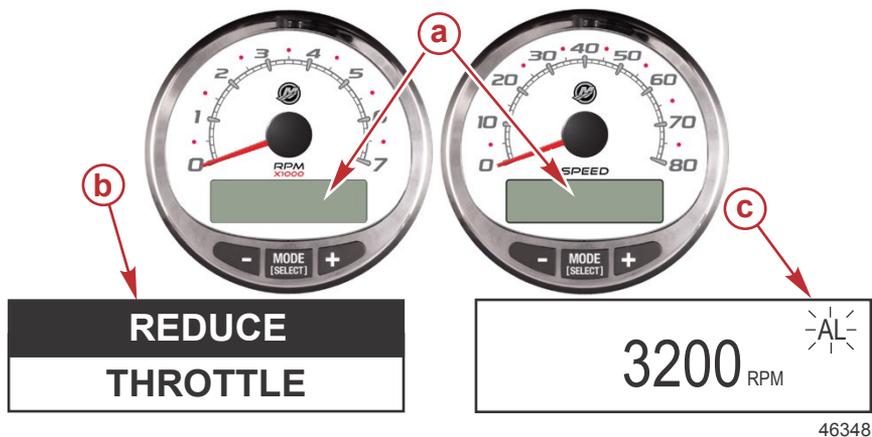
After the ignition is turned on, the tachometer will display the name of the gauge and the version of the software for approximately two seconds. In the upper left-hand corner of the display, a small engine icon will also be visible. The engine icon indicates the power package has emissions control onboard diagnostics, also known as OBD. The icon will only be seen during the key up process unless a system fault is detected. When a fault is detected, the OBD icon will be displayed in the upper left-hand corner on all system screens.



- a - OBD icon
- b - Software version

## Alarm Warnings with Descriptive Text

Descriptive text alarm warning screens are displayed with 2007 and newer engines.



- a - Display screen
- b - Engine Guardian System
- c - Alarm signal

When a problem is detected, the name of the offending alarm appears on the display.

# PRODUCT OVERVIEW

If the problem can cause immediate engine damage, the Engine Guardian System will respond to the problem by limiting engine power. Immediately reduce the throttle speed and refer to the warning messages on the following pages. Refer to the **Operation and Maintenance Manual** for further explanation of the problem and the correct action to take.

When a problem is detected, "SYS FAULT" screen will flash and the display will show the fault location and information.

If the "MODE/SELECT" button is pressed to display a different screen, the flashing alarm signal "AL" will appear in the upper-right corner to indicate there still is a problem.

Alarm Warning with Descriptive Text	
<p><b>SYS FAULT</b></p> <p>[ SHOW ]</p> <p>24184</p>	<p>The "SYS FAULT" flashing screen appears when there is a problem in the system. The screen will alternately flash the text in the top half of the screen, and in the bottom half of the screen.</p>
<p><b>STBD</b></p> <p>[EXIT] [NEXT] [MORE]</p> <p>58124</p>	<p>The text displays the fault location ("STBD," "PORT," "HELM 1," "HELM 2") and will flash the following screen with a general description of the fault.</p>
<p><b>&lt;FAULT COMPONENT&gt;</b></p> <p>[EXIT] [NEXT] [MORE]</p> <p>58125</p>	<p>The scrolling text displays a general description of the fault and will flash the previous screen. The flashing screens will continue until "NEXT" is selected. "MORE" displays a detailed description of the fault.</p>
<p><b>&lt;FAULT DESCRIPTION&gt;</b></p> <p>[EXIT] [NEXT] [ACTION]</p> <p>58117</p>	<p>The scrolling text displays a detailed description of the fault. "NEXT" displays the next fault. "ACTION" displays the corrective action.</p>
<p><b>&lt;CORRECTIVE ACTION&gt;</b></p> <p>[EXIT] [NEXT] [BACK]</p> <p>58126</p>	<p>The corrective action for the fault is displayed. "NEXT" displays the next fault. "BACK" returns to the previous screen.</p>

## EMISSION CONTROL FAULTS WITH DESCRIPTIVE TEXT

When a problem is detected with the emission control system, the screen will flash between an engine icon that shows the text "OBD SERVICE SOON" and the system fault screen. These two screens will flash and then display the fault.

# PRODUCT OVERVIEW

If the problem can cause immediate engine damage, the Engine Guardian System will respond to the problem by limiting engine power. Immediately reduce the throttle speed and refer to the warning messages on the following pages. Refer to the **Operation and Maintenance Manual** for further explanation of the problem and the correct action to take.

The alarm message will remain displayed until the "EXIT" button is pressed.

If the "MODE/SELECT" button is pressed to display a different screen, the engine emission fault alarm icon will appear in the upper left-hand corner. The engine icon will be visible on all screens. A servicing dealer must diagnose the emission control faults and correct the problem prior to the next use of the vessel.

Emission Control Faults With Descriptive Text	
 <p>OBD SERVICE SOON</p> <p>46456</p>	<p>An engine icon will appear in the middle of the screen with text stating "OBD SERVICE SOON." The screen will flash to the "SYS FAULT" screen approximately every three seconds.</p>
<p>STBD</p> <p>[EXIT]      [NEXT]      [MORE]</p> <p>58124</p>	<p>The text displays the fault location ("STBD," "PORT," "HELM 1," HELM 2") and will flash the following screen with a general description of the fault.</p>
<p>&lt;FAULT COMPONENT&gt;</p> <p>[EXIT]      [NEXT]      [MORE]</p> <p>58125</p>	<p>The scrolling text displays a general description of the fault and will flash the previous screen. The flashing screens will continue until "NEXT" is selected. "MORE" displays a detailed description of the fault.</p>
<p>&lt;FAULT DESCRIPTION&gt;</p> <p>[EXIT]      [NEXT]      [ACTION]</p> <p>58117</p>	<p>The scrolling text displays a detailed description of the fault. "NEXT" displays the next fault. "ACTION" displays the corrective action.</p>
<p>&lt;CORRECTIVE ACTION&gt;</p> <p>[EXIT]      [NEXT]      [BACK]</p> <p>58126</p>	<p>The corrective action for the fault is displayed. "NEXT" displays the next fault. "BACK" returns to the previous screen.</p>

## Alarm Warnings with Universal Codes

Universal fault codes are only available on specific Outboard and MerCruiser products produced 2015 and newer.

When a problem is detected, the name of the offending alarm appears on the display.

# PRODUCT OVERVIEW

If the problem can cause immediate engine damage, the Engine Guardian System will respond to the problem by limiting engine power. Immediately reduce the throttle speed and refer to the warning messages on the following pages. Refer to the **Operation and Maintenance Manual** for further explanation of the problem and the correct action to take.

When a problem is detected, "SYS FAULT" screen will flash and the display will show the fault location and information.

If the "MODE/SELECT" button is pressed to display a different screen, the flashing alarm signal "AL" will appear in the upper-right corner to indicate there still is a problem.

Alarm Warning with Universal Codes	
<div style="background-color: black; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">SYS FAULT</div> <div style="text-align: right; padding: 5px;">[ SHOW ]</div> <div style="text-align: right; padding: 5px;">24184</div>	<p>The "SYS FAULT" flashing screen appears when there is a problem in the system. The screen will alternately flash the text at the top half of the screen, and at the bottom half of the screen.</p>
<div style="text-align: center; padding: 5px; font-weight: bold; font-size: 1.5em;">STBD</div> <div style="display: flex; justify-content: space-between; padding: 5px;"> <span>[EXIT]</span> <span>[MORE ]</span> </div> <div style="text-align: right; padding: 5px;">58127</div>	<p>The text displays the fault location ("STBD," "PORT," "HELM 1," "HELM 2"). When there is more than one fault location, the text will scroll. "MORE" displays the fault code.</p>
<div style="text-align: center; padding: 5px; font-weight: bold; font-size: 1.5em;">621-25</div> <div style="display: flex; justify-content: space-between; padding: 5px;"> <span>[EXIT]</span> <span>[NEXT ]</span> </div> <div style="text-align: right; padding: 5px;">58128</div>	<p>The fault is displayed as a numerical code. The code description is listed in the operation manual included with the product. When there is more than one code, "NEXT" displays the sequential fault code.</p>

## Master Reset

Returns the gauge to the factory defaults through the Master Reset command.

**IMPORTANT: Performing a Master Reset will reset the unit to the factory defaults, thus eliminating any installation settings and calibrations performed during set up of product.**

# PRODUCT OVERVIEW

Press the "-" and "+" buttons simultaneously for approximately 10 seconds (until the graphic bars collide) to restore the unit to factory default settings. Press the "MODE/SELECT" button to confirm.



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## Descriptive Fault Text Warning Display Screens

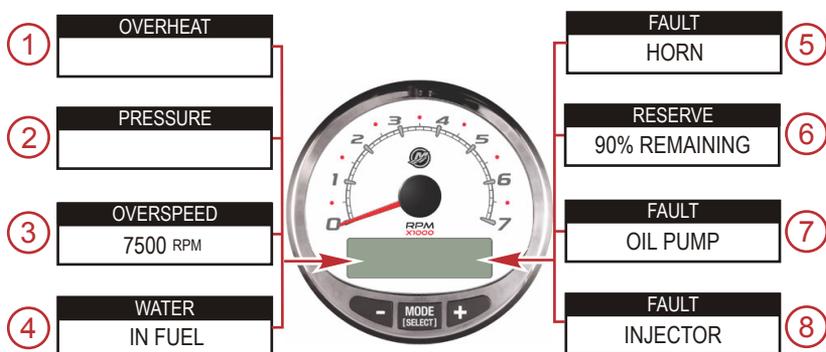
When a problem is detected with the engine, the warning display screens will alert the operator to the potential problem. Refer to the **Operation and Maintenance Manual** for an explanation of the problem and the correct action to take.

PROBLEM	TACHOMETER DISPLAY	SPEEDOMETER DISPLAY
BATTERY	x	
ENGINE DATA BUS	x	
FAULT - HORN	x	
FAULT - IGNITION	x	
FAULT - INJECTOR	x	
FAULT - OIL PUMP	x	
FAULT - SENSOR	x	
FAULT - WATER TEMP	x	
LOW FUEL		x
LOW OIL		x
FAULT - OIL TEMP	x	
OIL PSI	x	
OVERHEAT	x	
OVERSPEED	x	
FAULT - OIL PRESSURE	x	
RESERVE OIL	x	
SYSTEM FAULT – OBD SERVICE SOON	x	
WATER IN FUEL	x	
FAULT - MAP	x	

# PRODUCT OVERVIEW

PROBLEM	TACHOMETER DISPLAY	SPEEDOMETER DISPLAY
FAULT - MAT	x	
FAULT - TPS	x	
Oil level - OK	x	x
Oil level LOW - Check OIL	x	x

**NOTE:** Depending on the engine model and vessel options, not all screens will apply.



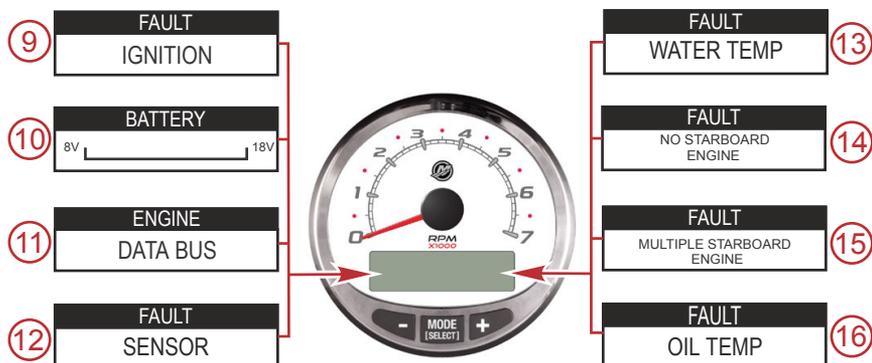
46351

**IMPORTANT:** Refer to the Operation and Maintenance Manual for further explanation of the problem and the correct action to take. Contact the dealer if the problem persists.

1. **OVERHEAT:** The engine has overheated.
2. **PRESSURE:** There is insufficient water pressure in the cooling system.
3. **OVERSPEED:** Engine speed exceeded the maximum allowable RPM.
4. **WATER IN FUEL:** Water in the water-separating fuel filter reached the full level.
5. **FAULT - HORN:** The warning horn is not functioning correctly.
6. **RESERVE OIL LOW - 2-Stroke outboard only:** Oil level is critically low in the engine-mounted oil reservoir tank.
7. **FAULT - OIL PUMP:** The oil pump has stopped functioning electrically. No lubricating oil is being supplied to the engine.
8. **FAULT - INJECTOR:** One or more of the fuel injectors have stopped functioning electrically.

# PRODUCT OVERVIEW

**NOTE:** Depending on the engine model and vessel options, not all screens will apply.



46353

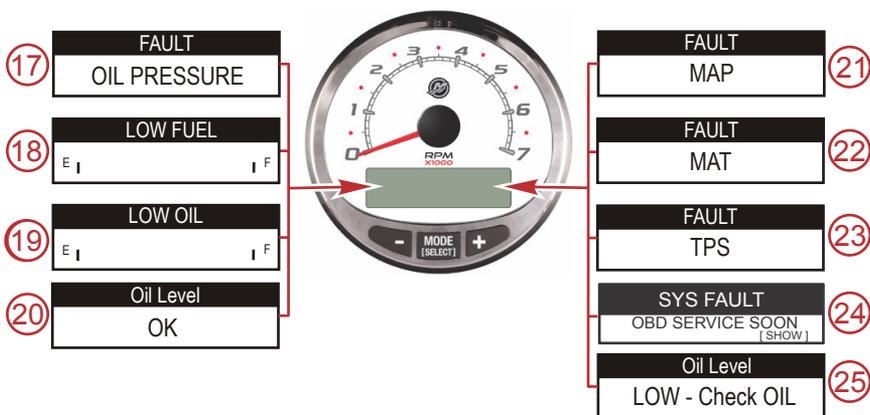
9. **FAULT - IGNITION:** A problem has developed in the ignition system.
10. **BATTERY:** The electrical system is not charging or the battery charge is low.
11. **ENGINE DATA BUS:** The data communication link between the tachometer and engine is not connected.
12. **FAULT - SENSOR:** One of the sensors is not functioning correctly.
13. **FAULT - WATER TEMP:** The sensor for measuring outside lake/seawater temperature is not functioning correctly.
14. **FAULT - NO STARBOARD ENGINE:** The instrument does not detect the starboard engine computer. This usually indicates that no data is being transferred from the engine's computer to the gauge. Check the wiring. Make sure both terminator resistors are installed in the bus. Make sure the PCM/ECM's are not configured for the same location using computer diagnostic system (CDS).
15. **FAULT - MULTIPLE STARBOARD ENGINE:** SmartCraft gauges are recognizing multiple engines as starboard.

**NOTE:** In multiple engine applications, each engine must be assigned a position (starboard, port, starboard2, or port2) by an authorized dealer before the system will function properly.

16. **FAULT - OIL TEMP:** The engine oil is overheating.

# PRODUCT OVERVIEW

**NOTE:** Depending on the engine model and vessel options, not all screens will apply.



67155

17. **FAULT - OIL PRESSURE:** There is insufficient oil pressure.
18. **LOW FUEL LEVEL:** The fuel level in the fuel tank is critically low. Stop for fuel immediately to avoid running out.
19. **LOW OIL LEVEL - 2-Stroke outboard only:** The oil level in the remote oil tank is low. Stop and fill the oil tank immediately to avoid running out.
20. **Oil Level - OK - 4-Stroke outboard only:** The oil level in the engine is OK.
21. **FAULT - MAP:** Engine problem occurred. Have the engine checked by a dealer.
22. **FAULT - MAT:** Engine problem occurred. Have the engine checked by a dealer.
23. **FAULT - TPS:** Engine problem occurred. Have the engine checked by a dealer.
24. **SYSTEM FAULT - OBD SERVICE SOON:** A problem has occurred with the engine emissions control system. Have the engine checked by a dealer.
25. **Oil Level - LOW - Check OIL - 4-Stroke outboard only:** The oil level in the engine is low. Check the engine oil level. Refer to the **Operation Manual** for the detailed procedure.

# PRODUCT OVERVIEW

## Display Screens

Tachometer Display Screen	Speedometer Display Screen
Engine Break-in (2-Stroke outboard only)	Clock - Air/Sea Temp
Engine Temperature	Fuel Used
Oil Temperature	Cog - If there is a GPS input
Oil PSI	Distance and Fuel to Waypoint
Trim and RPM	Speed
Trim and Water Pressure	Estimated Range
Water Pressure	Instant and Average Fuel Economy
Battery Voltage and Engine Hours	Trip Odometer
Fuel Flow and Fuel Used	Fuel Tank Levels
Speed and Sea Temperature	Oil Tank Levels
Battery Voltage	Fresh Water Levels
% Fuel Remaining (Fuel Tank 1)	Waste Water levels
Depth	Steering Angle (MerCruiser only)
Trim Position	Tabs
Fuel PSI	<b>Dual Engine</b>
RPM	Trim and RPM Synchronizer
Maintenance	
Quick Reference Screen Battery, Temperature, PSI	
Active Exhaust (if equipped)	
Active Trim (if equipped)	

# SC 1000 TACHOMETER

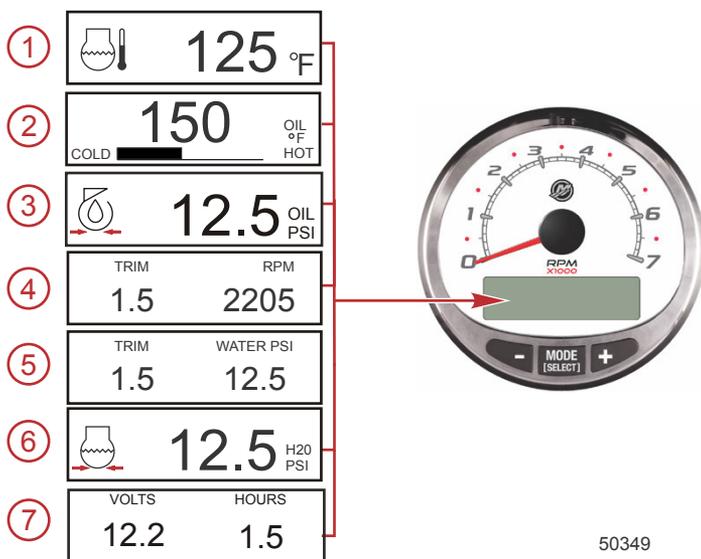
## System Tachometer Display Screens

When the ignition is turned on, the tachometer will display the last screen that was visible before the ignition was turned off.

Press "MODE/SELECT" to change display screens. Revert back to the previous screen by pressing and holding "MODE/SELECT" for two seconds.

**NOTE:** Readings can be displayed in English (U.S.) or metric. Refer to **Tachometer Screens**.

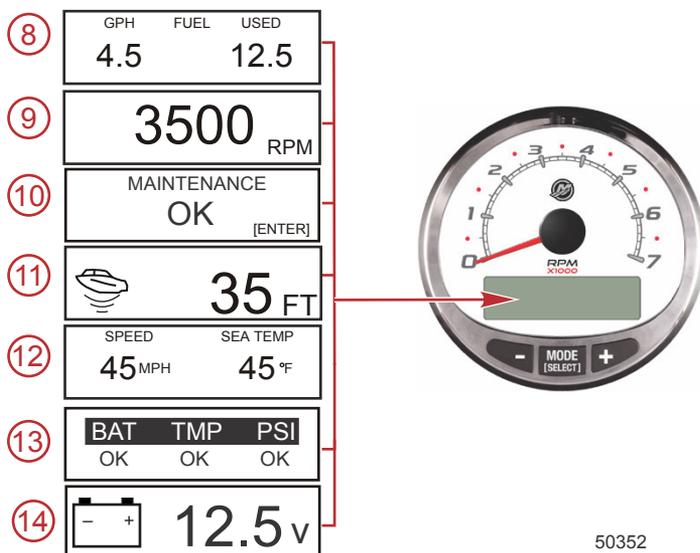
**NOTE:** Depending on the engine model and vessel options, not all screens will apply.



1. **Temperature:** Displays the engine coolant temperature.
2. **Oil Temperature:** Displays the engine oil temperature.
3. **Oil Pressure:** Displays the engine oil pressure in "PSI" or "BAR."
4. **Trim and RPM:** Displays the engine RPM and trim position.
5. **Power Trim Angle:** Displays the trim angle of the outboard or sterndrive up to the maximum trim angle and then displays the trailer angle. 0 = down, 10 = maximum trim, and 25 = full trailer.
6. **Water Pressure:** Displays the cooling system water pressure at the engine.

# SC 1000 TACHOMETER

7. **Battery Voltage:** Displays the voltage level (condition) of the battery. Also records the running time of the engine.



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8. **Fuel Flow:** Displays fuel use in gallons or liters per hour, and overall amount of fuel used.
9. **Digital Tachometer:** Displays the engine speed in revolutions per minute (RPM).
10. **Maintenance:** Displays if the engine is "OK" or that it requires scheduled maintenance. This maintenance screen is based on a 100 hour maintenance cycle. Follow the maintenance schedule recommendation in the owner's manual.

**NOTE:** The scheduled maintenance cycle should be reset following maintenance performed at the Once a Year and Before Storage recommendation that is indicated in the owner's manual.

11. **Water Depth:** Displays the water depth under the transducer if connected. The water depth screen can be turned on or off in **Tachometer Screens**. The alarm can be set to trigger whenever the boat moves into water shallower than the alarm level. Refer to **Tachometer Screens** for water depth alarm and offset settings.

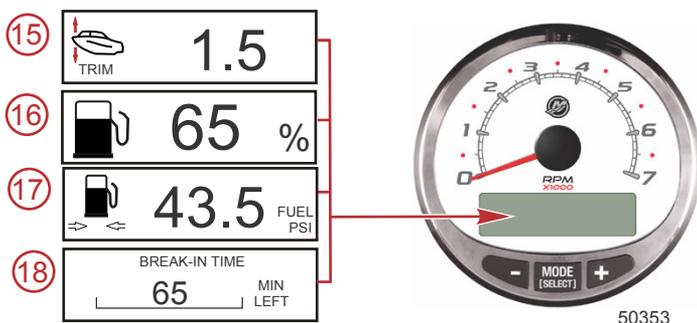
**NOTE:** A depth transducer (purchased separately) must be connected to the system for this screen to operate.

12. **Speed/Temp:** Displays a split screen of seawater temperature and vessel speed.

**NOTE:** A speed input sensor must be connected to the system for this screen to operate.

## SC 1000 TACHOMETER

- Quick Reference Screen:** Indicates that the battery, engine temperature, and pressures are operating properly.
- Battery Voltage:** Displays in large numbers the current voltage of the battery.



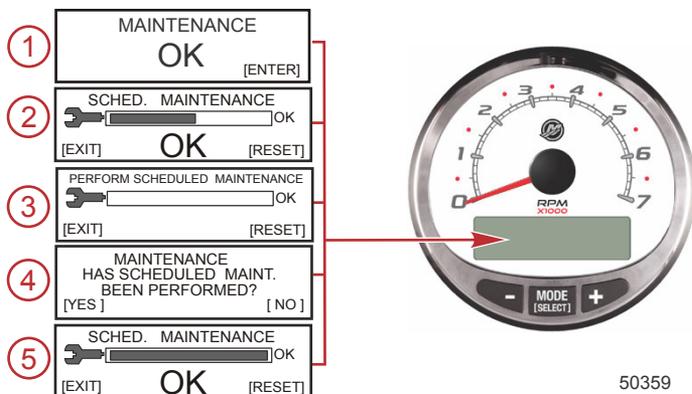
- Power Trim Angle/Water Pressure:** Displays the trim angle of the engine and cooling system water pressure.
- Fuel Percentage:** Displays the percentage of fuel that is in the fuel tank.
- Fuel Pressure:** Displays the engine fuel pressure.
- Engine Break-in:** Displays the time remaining on the break-in period of a new engine. This screen will automatically disappear after the break-in period is complete.

### Maintenance Screen

Some 4-stroke power package models have the ability to estimate the amount of run time the engine accumulated since the last scheduled maintenance. Normal scheduled maintenance for the engine is 100 hours. The maintenance screen shows a bar graph approximating the amount of time remaining before a scheduled maintenance is required. When the maintenance screen is reset, the bar graph will change to represent the scheduled maintenance has 100 hours remaining. The maintenance screen must be turned on for this screen to be displayed. Your owner's manual maintenance schedule should be followed regardless of what the gauge displays. To turn this feature on, refer to **Tachometer Display Screens**.

# SC 1000 TACHOMETER

1. When the maintenance screen is displayed, press "ENTER" to see the approximate amount of time remaining before a scheduled maintenance is recommended.



2. The scheduled maintenance screen displays a bar graph indicating the estimated time remaining on the scheduled maintenance cycle. Press "EXIT" to return to the previous screen or "RESET" after the scheduled maintenance has been performed.
3. If the amount of time since the last scheduled maintenance has passed 100 hours, the screen will show "PERFORM SCHEDULED MAINTENANCE" and the bar graph will not be visible. Press "EXIT" to return to the previous screen or "RESET."
4. After pressing "RESET" the screen goes to the "MAINTENANCE" screen. The "MAINTENANCE" screen will display "HAS SCHEDULED MAINT. BEEN PERFORMED?" Press "YES" to reset the maintenance schedule, or press "NO" to return to the previous screen.
5. After pressing "YES" the screen will show the bar graph has been reset to represent 100 hours of operation before the next scheduled maintenance. Press "EXIT" to return the "MAINTENANCE OK" screen.

## Sport Exhaust Screen

### SPORT EXHAUST OVERVIEW

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

### REQUIREMENTS

This feature is not available on all models. Refer to engine owner's manual for more information.

# SC 1000 TACHOMETER

## SPORT EXHAUST OPERATION

Sport Exhaust Display Screens	
<p>SPORT EXH. SCREEN ?</p> <p>( NO ) (SAVE) ( YES )</p> <p>67159</p>	<p>Select "YES" to enable the Sport Exhaust feature, or "NO" to disable the Sport Exhaust feature.</p>

## Tachometer Settings - MENU



1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately two seconds or until the "MENU" screen appears.
2. Press the "+" or "-" to change the settings.

MENU	
<p>MENU SPEED CONTROL ?</p> <p>[SKIP] [ EDIT ]</p> <p>67187</p>	<p>Selects how speed should be controlled. Press "+" to select "EDIT" or "MODE/SELECT" to bypass speed control.</p>
<p>SPEED CONTROL TROLL CONTROL ?</p> <p>ENABLED</p> <p>[ NO ] [SAVE] [ YES ]</p> <p>52680</p>	<p>Troll control must be enabled on the tachometer to use engine RPM. Using engine RPM to control the troll function will cause the vessel speed to vary based on conditions the vessel encounters: wind, waves, or current.</p>
<p>LIGHT</p> <p>[DOWN] [SAVE] [ UP ]</p> <p>23517</p>	<p>Adjusts the brightness of the gauge lighting.</p>

# SC 1000 TACHOMETER

MENU	
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>CONTRAST</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">[DOWN]      [SAVE]      [UP]</p> <p style="text-align: right;">23519</p> </div>	<p>Adjusts the contrast of the display screen.</p>
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">REMOTE LCD LIGHT ?</p> <p style="text-align: center;">[ NO ]      [SAVE]      [YES ]</p> <p style="text-align: right;">23532</p> </div>	<p>Adjusts the lighting levels on all gauges simultaneously from this gauge. If "YES" is selected, then lighting level changes made on this tachometer will effect all tachometers in the system. All tachometers need the screen set to "YES" for this function to work.</p>
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">REMOTE LCD CONTRAST ?</p> <p style="text-align: center;">[ NO ]      [SAVE]      [YES ]</p> <p style="text-align: right;">23533</p> </div>	<p>Adjusts the contrast of another System Tachometer simultaneously from this gauge. If "YES" is selected, then contrast level changes made on this tachometer will effect all tachometers in the system. All tachometers need the screen set to "YES" for this function to work.</p>
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">SPLASH SCREEN</p> <p style="text-align: center;"><b>MERCURY</b></p> <p style="text-align: center;">[SKIP]      [EDIT]</p> <p style="text-align: right;">46447</p> </div>	<p>You can edit the name of the splash screen. Press "+" to edit the name, or press "MODE/SELECT" to skip changing the splash screen name.</p>
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">SPLASH SCREEN</p> <div style="background-color: black; color: white; text-align: center; padding: 5px;"> <p style="font-size: 1.2em;"><b>MERCURY</b></p> </div> <p style="text-align: center;">[DOWN]      [NEXT]      [UP]</p> <p style="text-align: right;">30246</p> </div>	<p>The splash screen name has nine spaces for characters. 59 characters, including an empty character, is available for each space. Press the "-" or "+" button to change the character. Press the "MODE/SELECT" button to move to the next space. All nine splash screen name spaces must be selected before exiting the splash screen option.</p>
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>LOCAL LIGHT</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;">[DOWN]      [SAVE]      [UP]</p> <p style="text-align: right;">52644</p> </div>	<p>Allows you to control the light level of the local screen.</p>
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>UNIVERSAL FAULTS?</b></p> <p style="text-align: center; font-size: 1.5em;"><b>NO</b></p> <p style="text-align: center;">[NO]      [SAVE]      [YES]</p> <p style="text-align: right;">58130</p> </div>	<p>Allows you to turn the universal fault codes on ("YES") or off ("NO"). When universal fault codes are turned on, descriptive text is not available. The default setting is "NO."</p>

# SC 1000 TACHOMETER

## Tachometer Settings - SCREENS

This calibration turns the system screens on and off.

**NOTE:** Depending on the engine model and vessel options, not all screens will apply.

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately four seconds or until the "SCREENS" screen appears
2. Press the "+" or "-" to change the settings.
3. Press "MODE/SELECT" to save the setting and advance through the display screens.

SCREENS	
<p>QUICK REF SCREEN ?</p> <p>[ NO ]      [ SAVE ]      [ YES ]</p> <p>23978</p>	<p>The quick reference screen is displayed "YES" for on or "NO" for off.</p>
<p>ENGINE TEMP SCREEN ?</p> <p>[ NO ]      [ SAVE ]      [ YES ]</p> <p>23783</p>	<p>The engine temperature screen is displayed "YES" for on or "NO" for off.</p>
<p>OIL TEMP SCREEN ?</p> <p>[ NO ]      [ SAVE ]      [ YES ]</p> <p>23786</p>	<p>The oil temperature screen is displayed "YES" for on or "NO" for off.</p>
<p>OIL PRESS SCREEN ?</p> <p>[ NO ]      [ SAVE ]      [ YES ]</p> <p>23787</p>	<p>The oil pressure screen is displayed "YES" for on or "NO" for off.</p>
<p>TRIM AND PSI SCREEN ?</p> <p>[ NO ]      [ SAVE ]      [ YES ]</p> <p>23788</p>	<p>The split screen showing trim angle and water pressure is displayed "YES" for on or "NO" for off.</p>
<p>TRIM AND RPM SCREEN ?</p> <p>[ NO ]      [ SAVE ]      [ YES ]</p> <p>23979</p>	<p>The split screen showing trim angle and engine RPM is displayed "YES" for on or "NO" for off.</p>

# SC 1000 TACHOMETER

SCREENS	
<p>WATER PSI SCREEN ?</p> <p>[ NO ]      [SAVE]      [ YES ]</p> <p>23789</p>	<p>The water pressure screen is displayed "YES" for on or "NO" for off.</p>
<p>RPM SCREEN ?</p> <p>[ NO ]      [SAVE]      [ YES ]</p> <p>23980</p>	<p>The engine RPM screen is displayed "YES" for on or "NO" for off.</p>
<p>FUEL USED SCREEN ?</p> <p>( NO )      (SAVE)      ( YES )</p> <p>23544</p>	<p>The fuel used screen is displayed "YES" for on or "NO" for off.</p>
<p>FUEL SCREEN ?</p> <p>( NO )      (SAVE)      ( YES )</p> <p>67156</p>	<p>The fuel screen is displayed "YES" for on or "NO" for off.</p>
<p>FUEL PSI SCREEN ?</p> <p>( NO )      (SAVE)      ( YES )</p> <p>30236</p>	<p>Fuel pressure screen is displayed "YES" for on or "NO" for off.</p>
<p>VOLTS / HOURS SCREEN ?</p> <p>[ NO ]      [SAVE]      [ YES ]</p> <p>23982</p>	<p>The split screen showing volts and engine hours is displayed "YES" for on or "NO" for off.</p>
<p>SPEED / SEA SCREEN ?</p> <p>[ NO ]      [SAVE]      [ YES ]</p> <p>23983</p>	<p>The split screen showing speed and sea temperature is displayed "YES" for on or "NO" for off."</p>
<p>DEPTH SCREEN ?</p> <p>[ NO ]      [SAVE]      [ YES ]</p> <p>23984</p>	<p>The depth screen is displayed "YES" for on or "NO" for off.</p>
<p>MAINTENANCE SCREEN ?</p> <p>( NO )      (SAVE)      ( YES )</p> <p>67157</p>	<p>The maintenance screen is displayed "YES" for on or "NO" for off.</p>

# SC 1000 TACHOMETER

SCREENS	
ACTIVE TRIM SCREEN ? ( NO ) (SAVE) ( YES ) 67158	The active trim screen is displayed "YES" for on or "NO" for off. This screen requires additional hardware/software in order to function.
SPORT EXH. SCREEN ? ( NO ) (SAVE) ( YES ) 67159	The sport exhaust screen is displayed "YES" for on or "NO" for off. This screen requires additional hardware/software in order to function.
REMOTE SCREENS ? [ NO ] [SAVE] [ YES ] 52645	Allows all SC 1000 tachometers that are enabled (YES) to show the same screen. When station 1 tachometer has depth on the screen, station 2 tachometer will show the same screen.
HIGH RESOLUTION TRIM ? [ NO ] [SAVE] [ YES ] 23621	Enables the trim angle to be displayed in 0.1° increments if "YES" is selected.
TRIM POPUP ? [ NO ] [SAVE] [ YES ] 23641	The trim display screen pops up when the trim setting is changed if "YES" is selected.
SCREENS <b>EXIT ?</b> [ NO ] [ YES ] [ CAL ] 52646	Select "NO" to go through the screen selection again, "YES" to exit the screens, or "CAL" to calibrate the tank levels. Refer to Fuel Tank Calibration.

## Tachometer Settings - CALIBRATION

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately six seconds or until the "CALIBRATION" screen appears.
2. Press the "+" or "-" to change the settings.

CALIBRATION	
CALIBRATION FUEL TANK 1 CAPACITY CAPACITY = 26.2 G [DOWN] [SAVE] [ UP ] 52647	Enter the capacity of the tank. Select "DOWN" or "UP" to set the tank capacity. Then press "SAVE." This option is the same for tanks.

# SC 1000 TACHOMETER

CALIBRATION	
<p>CALIBRATION FUEL TANK 1 INVERTED TANK ? ► NO ( NO ) ( SAVE ) ( YES )</p> <p style="text-align: right;">67160</p>	<p>Select "YES" or "NO" to set the orientation of the tank. Then press "SAVE."</p>
<p>CALIBRATION FUEL TANK 1</p> <p style="text-align: right;">[SKIP] [EDIT]</p> <p style="text-align: right;">52648</p>	<p>Select "EDIT" to enter the calibration mode of the fuel tank. The calibration procedure is the same for all tanks. Select "EDIT" to begin tank level calibration.</p>
<p>TANK CALIBRATION : DEFAULT CALIBRATION, OR ADD FUEL ?</p> <p>[DFLT] [ADD]</p> <p style="text-align: right;">23994</p>	<p>Select "DFLT" to let SmartCraft calibrate the tank levels. Select "ADD" to calibrate the tank levels by adding fluid to the tank.</p>
<p>CALIBRATING : EMPTY TANK THEN PRESS PLUS BUTTON</p> <p style="text-align: right;">[SKIP] [SAVE]</p> <p style="text-align: right;">23995</p>	<p>Empty the tank. Press the "+" button to save the calibration level to empty.</p>
<p>FILL TANK TO 1/4 THEN PRESS PLUS BUTTON</p> <p style="text-align: right;">[SAVE]</p> <p style="text-align: right;">30427</p>	<p>Fill the tank to 1/4 full. Press the "+" button to save the calibration level to 1/4 full.</p>
<p>FILL TANK TO 1/2 THEN PRESS PLUS BUTTON</p> <p style="text-align: right;">[SAVE]</p> <p style="text-align: right;">30428</p>	<p>Fill the tank to 1/2 full. Press the "+" button to save the calibration level to 1/2 full.</p>
<p>FILL TANK TO 3/4 THEN PRESS PLUS BUTTON</p> <p style="text-align: right;">[SAVE]</p> <p style="text-align: right;">30429</p>	<p>Fill the tank to 3/4 full. Press the "+" button to save the calibration level to 3/4 full.</p>
<p>FILL TANK TO FULL THEN PRESS PLUS BUTTON</p> <p style="text-align: right;">[SAVE]</p> <p style="text-align: right;">30430</p>	<p>Fill the tank to full. Press the "+" button to save the calibration level to full.</p>

# SC 1000 TACHOMETER

CALIBRATION	
<p>CALIBRATION TANK 2 INPUT OIL TANK [DOWN] [SAVE] [ UP ] 52652</p>	<p>Select the type of tank; not installed, fuel tank 2, water tank, or waste tank. Oil tank is only available with the OptiMax outboard. <b>NOTE:</b> All tanks can be calibrated as described previously.</p>
<p>CALIBRATION OIL TANK CAPACITY CAPACITY = 3.0 G ( DOWN ) ( SAVE ) ( UP ) 67180</p>	<p>Adjust the oil tank capacity. Press "-" to select "DOWN," or "+" to select "UP."</p>
<p>CALIBRATION FUEL USED (SKIP) (EDIT) 52650</p>	<p>Selects how fuel used is calibrated. Press "+" to select "EDIT" or "MODE/SELECT" to bypass how the fuel used is calibrated.</p>
<p>FUEL USED CAL : ENTER MULTIPLIER, OR REFUELED ? [MULT] [FUEL] 30166</p>	<p>Selects how fuel used is calibrated with a multiplier or with refueling. Press "-" to select multiplier "MULT" or "+" to select refueling "FUEL."</p>
<p>FUEL USED CAL : MULTIPLIER = 1.0 [DOWN] [SAVE] [ UP ] 30167</p>	<p>Adjusts multiplier between 0.50 and 1.50. Press "-" to select "DOWN," or "+" to select "UP." The multiplier is used to fine-tune the fuel gauge sender to correct for fuel used errors. If the gauge indicates that 10 gallons of fuel was used, but the actual fuel that was added is 14 gallons, change the multiplier to 1.40. If the gauge indicates that 10 gallons of fuel was used, but the actual fuel that was added is only 8 gallons, change the multiplier to 0.80.</p>
<p>FUEL USED CAL : AMOUNT REFUELED = 0.0 G [DOWN] [SAVE] [ UP ] 30168</p>	<p>Adjusts fuel used calibration using the amount of fuel replaced. Press "-" to select "DOWN," or "+" to select "UP." The fuel option functions the same as the multiplier. If the gauge indicates that 10 gallons of fuel was used, but the actual fuel that was added is 14 gallons, change the amount refueled to 14.0. If the gauge indicates that 10 gallons of fuel was used, but the actual fuel that was added is only 8 gallons, change the amount refueled to 8.0 gallons. The gauge will calculate the multiplier and will automatically change the number in the multiplier option.</p>

# SC 1000 TACHOMETER

CALIBRATION	
<p>CALIBRATION EXTERNAL SENSORS ?</p> <p>[SKIP] [EDIT]</p> <p>52653</p>	<p>Selects and calibrates external sensors that are installed in the system. Select "SKIP" to proceed to the speed options. Select "EDIT" to proceed to external sensor selection.</p>
<p>CALIBRATION EXTERNAL SENSORS PITOT SENSOR ? ►YES</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52654</p>	<p>Is the boat equipped with a pitot sensor to measure boat speed? Press "-" to select "NO" or "+" to select "YES."</p>
<p>CALIBRATION EXTERNAL SENSORS PADDLE SENSOR ? ►YES</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52655</p>	<p>Is the boat equipped with a paddle wheel to measure boat speed? Press "-" to select "NO" or "+" to select "YES."</p> <p><b>NOTE:</b> <i>You must have this selected as yes to be able to set the speed transition.</i></p>
<p>CALIBRATION EXTERNAL SENSORS USE GPS SPEED ? ►YES</p> <p>( NO ) (SAVE) ( YES )</p> <p>52656</p>	<p>Use the GPS input to drive the speed display? Press "-" to select "NO" or "+" to select "YES."</p> <p><b>NOTE:</b> <i>GPS must be selected yes to use Smart Tow speed option.</i></p>
<p>CALIBRATION EXTERNAL SENSORS TRIM SENSOR ? ►YES</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52657</p>	<p>Is the boat equipped with a trim sensor? Press "-" to select "NO" or "+" to select "YES."</p>
<p>CALIBRATION EXTERNAL SENSORS SEA TEMP ? ►YES</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52658</p>	<p>Is the boat equipped with a seawater temperature sensor? Press "-" to select "NO" or "+" to select "YES."</p>
<p>CALIBRATION EXTERNAL SENSORS STEERING SENSOR ? ►YES</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52659</p>	<p>Is the boat equipped with a steering sensor? Press "-" to select "NO" or "+" to select "YES."</p>
<p>CALIBRATION EXTERNAL SENSORS INVERT STEERING ? ►YES</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52660</p>	<p>Changes the position (direction) of the steering display. Press "-" to select "NO" or "+" to select "YES."</p>

# SC 1000 TACHOMETER

CALIBRATION	
<p>CALIBRATION TRIM CALIBRATION</p> <p>[SKIP] [EDIT]</p> <p>52661</p>	<p>Select "EDIT" to calibrate the gauge to the standard 0–10° unit trim and 11–25° trailer position scale. Select "SKIP" to advance to the next selection.</p>
<p>CALIBRATION TRIM FULL DOWN THEN PRESS PLUS BUTTON</p> <p>[DFLT] [SKIP] [SAVE]</p> <p>52662</p>	<p>Trim the system to the full down position, then press the "+" button to save the setting.</p>
<p>CALIBRATION TRIM FULL UP THEN PRESS PLUS BUTTON</p> <p>[DFLT] [SKIP] [SAVE]</p> <p>52663</p>	<p>Trim the system to the full up position, then press the "+" button to save the setting.</p>
<p>CALIBRATION TRIM TO TRAILER POINT THEN PRESS PLUS BUTTON</p> <p>[DFLT] [SKIP] [SAVE]</p> <p>52664</p>	<p>Trim the system to the trailer point, then press the "+" button to save the setting.</p>
<p>CALIBRATION ACT. TRIM MAJOR PROFILE</p> <p>( SKIP ) ( EDIT )</p> <p>67161</p>	<p>Select "EDIT" to select an active trim major profile. Select "SKIP" to advance to the next selection.</p>
<p>CALIBRATION ACT. TRIM MAJOR PROFILE 1</p> <p>( SAVE ) ( UP )</p> <p>67162</p>	<p>Select an active trim major profile. Select "SAVE" to save the selection.</p>
<p>CALIBRATION SPEED OPTIONS</p> <p>[SKIP] [EDIT]</p> <p>52665</p>	<p>This section configures the following speed sensors. Select "EDIT" to calibrate the sensors. Select "SKIP" to proceed to the depth sensor screen.</p>
<p>CALIBRATION PITOT SENSOR 100 PSI TYPE</p> <p>[ NO ] [SAVE] [YES ]</p> <p>52671</p>	<p>Select pitot transducer type. Choose between 100 or 200 psi. (100 psi is the most common.)</p>
<p>CALIBRATION PITOT SENSOR MULTIPLIER = 1.00</p> <p>[DOWN] [SAVE] [ UP ]</p> <p>52672</p>	<p>Adjust the pitot pressure sensor to correct display readings that are too high/low. Press "-" or "+" to calibrate the pitot sensor multiplier "DOWN" or "UP."</p>

# SC 1000 TACHOMETER

CALIBRATION	
CALIBRATION PADDLE SENSOR PULSEFACTOR = 3.0 [DOWN] [SAVE] [UP] 52673	Adjust paddle wheel frequency to correct display readings that are too high/low. Press "-" or "+" to calibrate the paddle sensor pulse factor "DOWN" or "UP."
CALIBRATION TRANSITION SPEED TRANSITION = 30 MPH [DOWN] [SAVE] [UP] 52674	Set the speed at which the gauge stops reading the paddle wheel and starts using pitot sensor or GPS to measure boat speed. Press "-" or "+" to calibrate the transition speed "DOWN" or "UP."
CALIBRATION DEPTH SENSOR OFFSET = 3 FEET [DOWN] [SAVE] [UP] 52676	Electronically configure a depth offset. Entering a negative number gives you a waterline offset. A positive number gives you a keel offset. Press "-" or "+" to calibrate the depth sensor offset "DOWN" or "UP."
CALIBRATION DEPTH ALARM LEVEL = 2.5 FEET [DOWN] [SAVE] [UP] 52677	Enter a depth value. When the depth transducer reads that value or below, the shallow water alarm will sound. Press "-" or "+" to calibrate the depth alarm level "DOWN" or "UP."
CALIBRATION SEA TEMP OFFSET = 0° F (DOWN) (SAVE) (UP) 67240	An offset sea temperature can be adjusted up or down to correct a sensor that is known to be off a certain number of degrees.
SPEED UNITS <b>MPH</b> [DOWN] [SAVE] [UP] 23540	Changes the units in which speed is displayed. Choose from: MPH (Miles Per Hour), KN (Knots), or KMH (Kilometers Per Hour).
DISPLAY UNITS <b>ENGLISH</b> [DOWN] [SAVE] [UP] 23539	Changes units of measure between English or metric. Select "DOWN" or "UP" to change between "ENGLISH" or "METRIC" units of measure.
SIMULATOR MODE <b>NO</b> [ NO ] [SAVE] [ YES ] 23547	Enables the simulation mode. (Used for demonstration purposes only.)

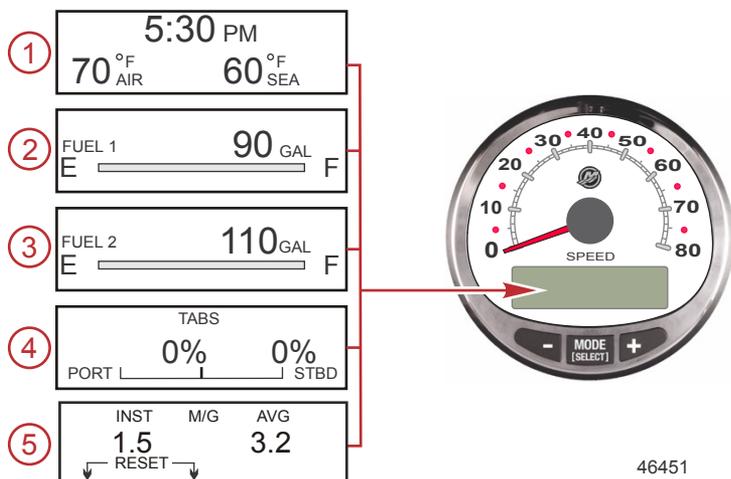
# SC 1000 TACHOMETER

CALIBRATION	
<p>CALIBRATION</p> <p><b>EXIT ?</b></p> <p>[ NO ]      [ YES ] [ SCREENS ]</p> <p>43372</p>	<p>Press "MODE/SELECT" to exit. Press "-" not to exit and go through the calibrations again or press "+" to go through the complete "SCREENS" menu.</p>

# SC 1000 SPEEDOMETER

## Speedometer Display Screens

**NOTE:** Depending on the engine model and vessel options, not all screens will apply.



When the ignition is turned on, the speedometer will show the last screen that was displayed before the ignition was turned off.

Press "MODE/SELECT" to change display screens. Revert back to the previous screen by pressing and holding "MODE/SELECT" for two seconds.

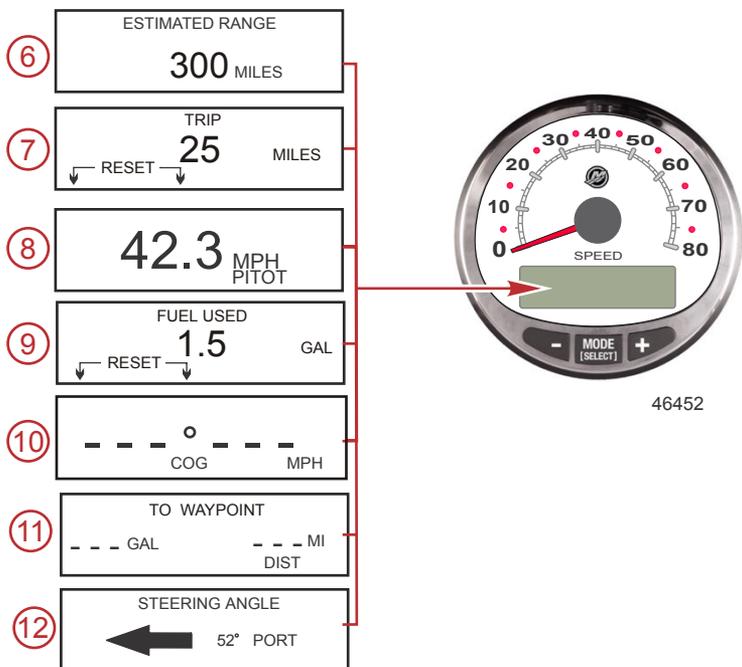
**NOTE:** Readings can be displayed in English (U.S.) or metric. Refer to **Speedometer Screens**.

**NOTE:** The descriptions may not be in order on the gauge. The order may change depending on engine type.

1. **Clock - Temp:** Clock, air temperature, and water temperature. The air and water temperature sensors must be connected to obtain display readings.
2. **Fuel 1:** Displays the amount of fuel remaining in fuel tank 1.
3. **Fuel 2:** Displays the amount of fuel remaining in fuel tank 2, water/waste tank level (if applicable.) This screen will automatically display engine oil tank for an OptiMax outboard.
4. **Tabs:** Shows the position of the port and starboard tab viewed as a percentage.
5. **Fuel Economy:** Displays the average "AVG" fuel consumption as well as instantaneous "INST" fuel economy. The numbers displayed indicate miles per gallon "M/G" or kilometers per liter "KM/L." **Fuel Reset:** To reset, select the display screen, press "MODE/SELECT" and "-" simultaneously.

# SC 1000 SPEEDOMETER

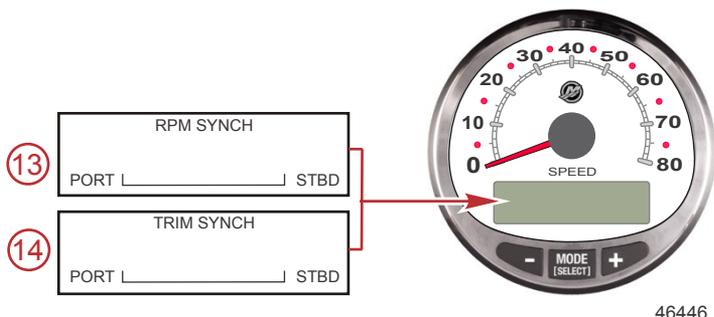
**NOTE:** Depending on the engine model and vessel options, not all screens will apply.



6. **Estimated Range:** The estimated range is based on boat speed, fuel consumption, and fuel remaining in the tank. The numbers displayed are an estimate of the distance you can travel with the remaining fuel. Speed input required (paddle wheel, pitot pressure, or GPS).
7. **Trip:** Displays the distance traveled since the gauge was last reset to zero. **Reset:** To reset, select the display screen and press "MODE/ SELECT" and "-" simultaneously.
8. **Speedometer:** Displays the boat speed in miles per hour, kilometers per hour, or nautical miles per hour. The speedometer will use the paddle wheel for its low-speed readings and will switch to the pitot or GPS (if connected) for high-speed readings.
9. **Fuel Used:** Displays the amount of fuel used since the gauge was last reset to zero. **Reset:** To reset the fuel used screen, press "MODE/ SELECT" and "-" simultaneously.
10. **Course Over Ground:** Displays the direction of travel and current speed through a GPS.
11. **To Waypoint:** Displays the amount of fuel to the waypoint and the distance to the waypoint. A GPS unit with waypoints capability must be installed to display the distance to the waypoint.

# SC 1000 SPEEDOMETER

- Steering Angle:** Displays the relative position of the steering system. Available on Mercury MerCruiser models only. A steering angle sensor must be installed on the engine.
- RPM Synchronizer:** Dual engines only - Monitors the revolutions of both engines.



- Trim Synchronizer:** Dual engines only - Displays the trim position of both engines. Simplifies keeping trim levels equal.

## Speedometer Settings - MENU



## SPEEDOMETER MENU

- Press the "MODE/SELECT" and "+" buttons simultaneously for approximately two seconds or until the "MENU" screen appears.
- Press the "+" or "-" to change the settings.

MENU	
<p>MENU SPEED CONTROL ?</p> <p>[SKIP] [EDIT]</p> <p>67187</p>	<p>Selects how speed should be controlled. Press "+" to select "EDIT" or "MODE/SELECT" to bypass speed control.</p>

# SC 1000 SPEEDOMETER

MENU	
<p>SPEED CONTROL TROLL CONTROL ? ENABLED [ NO ] [SAVE] [ YES ] 52680</p>	<p>Troll control must be enabled on the speedometer to use the vessel speed. Using the vessel speed to control the troll function will cause the engine RPM to vary based on conditions the vessel encounters; wind, waves, or current.</p>
<p>LIGHT [DOWN] [SAVE] [ UP ] 23517</p>	<p>Adjusts the brightness of the gauge lighting.</p>
<p>CONTRAST [DOWN] [SAVE] [ UP ] 23519</p>	<p>Adjusts the contrast of the display screen.</p>
<p>REMOTE LCD LIGHT ? [ NO ] [SAVE] [YES ] 23532</p>	<p>Adjusts the lighting levels on all gauges simultaneously from this gauge. If "YES" is selected, then lighting level changes made on this tachometer will effect all tachometers in the system. All tachometers need the screen set to "YES" for this function to work.</p>
<p>REMOTE LCD CONTRAST ? [ NO ] [SAVE] [YES ] 23533</p>	<p>Adjusts the contrast of another System Tachometer simultaneously from this gauge. If "YES" is selected, then contrast level changes made on this tachometer will effect all tachometers in the system. All tachometers need the screen set to "YES" for this function to work.</p>
<p>SPLASH SCREEN MERCURY [SKIP] [EDIT ] 46447</p>	<p>You can edit the name of the splash screen. Press "+" to edit the name, or press "MODE/SELECT" to skip changing the splash screen name.</p>
<p>SPLASH SCREEN MERCURY [DOWN] [NEXT] [ UP ] 30246</p>	<p>The splash screen name has nine spaces for characters. 59 characters, including an empty character, is available for each space. Press the "-" or "+" button to change the character. Press the "MODE/SELECT" button to move to the next space. All nine splash screen name spaces must be selected before exiting the splash screen option.</p>

# SC 1000 SPEEDOMETER

<b>MENU</b>	
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; font-size: 1.2em;"><b>LOCAL LIGHT</b></p> <p style="text-align: center;">[DOWN]   [SAVE]   [UP]</p> <p style="text-align: right; font-size: 0.8em;">52644</p> </div>	Allows you to control the light level of the local screen.

## Speedometer Settings - SCREENS

This calibration turns the system display screens on and off.

**NOTE:** Depending on the engine model and vessel options, not all screens will apply.

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately four seconds until "SCREENS" is the display screen.
2. Press the "-" or "+" button to select the option choice displayed in the [ ] brackets on the screen.
3. Press "MODE/SELECT" to save the setting and advance through the calibration selections.

<b>SCREENS</b>	
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">TO WAYPOINT SCREEN ?</p> <p style="text-align: center; font-size: 1.2em;"><b>YES</b></p> <p style="text-align: center;">( NO )   ( SAVE )   ( YES )</p> <p style="text-align: right; font-size: 0.8em;">46462</p> </div>	To waypoint screen is displayed "YES" for on or "NO" for off. GPS screens must be turned on for this screen to be activated.
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">WAYPOINT ALARM ?</p> <p style="text-align: center; font-size: 1.2em;"><b>YES</b></p> <p style="text-align: center;">( NO )   ( SAVE )   ( YES )</p> <p style="text-align: right; font-size: 0.8em;">46463</p> </div>	Waypoint alarm is displayed "YES" for on or "NO" for off. GPS screens must be turned on for this screen to be activated.
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">WAYPOINT ALARM</p> <p style="text-align: center;">DISTANCE = 0.3 MILES</p> <p style="text-align: center;">( DOWN )   ( SAVE )   ( UP )</p> <p style="text-align: right; font-size: 0.8em;">46464</p> </div>	Set the distance from the waypoint when the alarm will become active. Press the "-" button to decrease the distance or "+" to increase the distance. The default distance setting is 0.3 mile
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">STEERING ANG. SCREEN ?</p> <p style="text-align: center; font-size: 1.2em;"><b>YES</b></p> <p style="text-align: center;">[ NO ]   [SAVE]   [YES]</p> <p style="text-align: right; font-size: 0.8em;">23542</p> </div>	The steering angle is displayed "YES" for on or "NO" for off.
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">TEMP/CLOCK SCREEN ?</p> <p style="text-align: center; font-size: 1.2em;"><b>YES</b></p> <p style="text-align: center;">[ NO ]   [SAVE]   [YES]</p> <p style="text-align: right; font-size: 0.8em;">23543</p> </div>	The split screen showing air temperature and time is displayed "YES" for on or "NO" for off.

# SC 1000 SPEEDOMETER

SCREENS	
<p>FUEL USED SCREEN ?</p> <p>( NO ) (SAVE) ( YES )</p> <p>23544</p>	<p>The fuel used screen is displayed "YES" for on or "NO" for off.</p>
<p>TRIP SCREEN</p> <p><b>YES</b></p> <p>( NO ) (SAVE) ( YES )</p> <p>23545</p>	<p>The trip screen is displayed "YES" for on or "NO" for off.</p>
<p>FUEL MGMNT SCREEN</p> <p><b>YES</b></p> <p>( NO ) (SAVE) ( YES )</p> <p>23546</p>	<p>The fuel management screen is displayed "YES" for on or "NO" for off.</p>
<p>FUEL SCREEN ?</p> <p>( NO ) (SAVE) ( YES )</p> <p>67237</p>	<p>The fuel screen is displayed "YES" for on or "NO" for off.</p>
<p>TABS SCREEN ?</p> <p><b>YES</b></p> <p>( NO ) (SAVE) ( YES )</p> <p>46442</p>	<p>The tabs screen is displayed "YES" for on or "NO" for off.</p>
<p>ACTIVE TRIM SCREEN ?</p> <p><b>ON</b></p> <p>( OFF ) (NEXT) ( ON )</p> <p>67238</p>	<p>Active Trim is "ON" or "OFF."</p>
<p>SCREENS</p> <p><b>EXIT ?</b></p> <p>[ NO ] [ YES ] [CAL ]</p> <p>52646</p>	<p>Select "NO" to go through the screen selection again, "YES" to exit the screens, or "CAL" to go to the calibration screens.</p>

## Speedometer Settings - CALIBRATION

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately six seconds or until the "CALIBRATION" screen appears.
2. Press the "+" or "-" to change the settings.

# SC 1000 SPEEDOMETER

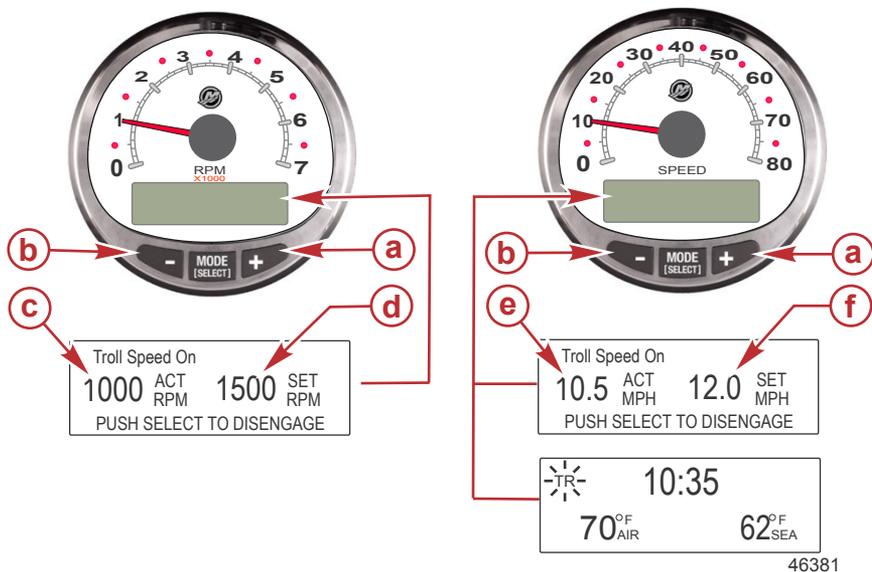
CALIBRATION	
<p>MENU <b>TIME</b> [ SKIP ] [ EDIT ]</p> <p>52693</p>	<p>Sets the time. Select "EDIT" to format the time or "SKIP" to advance to the next screen.</p>
<p>CALIBRATION TIME FORMAT 12H - M, D, Y (DOWN) (SAVE) (UP)</p> <p>23535</p>	<p>Formats the time as either 12 hour month-day-year or as 24 hour day-month-year. Select "DOWN" or "UP" to change the format.</p>
<p>CALIBRATION USE GPS TIME DISABLED ( NO ) ( SKIP ) ( YES )</p> <p>46461</p>	<p>When a GPS is installed and the GPS is enabled, the speedometer will display time received by the GPS. This is useful to automatically update the time when crossing time zones.</p>
<p>CALIBRATION UTC ZONE UTC CORRECTION = 0 H [DOWN] [SAVE] [ UP ]</p> <p>30197</p>	<p>When the GPS time is enabled, the UTC zone can be changed from -13 H to 13 H. Press "-" to select "DOWN," or "+" to select "UP."</p>
<p>CALIBRATION HOUR <b>1:42<sup>PM</sup></b> (DOWN) (SAVE) (UP)</p> <p>23536</p>	<p>Adjusts the hours to match your local time. Select "DOWN" or "UP" to change the hour setting.</p>
<p>CALIBRATION MINUTE <b>1:42<sup>PM</sup></b> (DOWN) (SAVE) (UP)</p> <p>23538</p>	<p>Adjusts the minutes to match your local time. Select "DOWN" or "UP" to change the minute setting.</p>
<p>CALIBRATION EXTERNAL SENSORS  (SKIP) (EDIT)</p> <p>52681</p>	<p>Selects and calibrates external sensors that are installed in the system. Select "SKIP" to proceed to the next selection. Select "EDIT" to proceed to external sensor selection.</p>
<p>CALIBRATION EXTERNAL SENSORS AIRTEMP ? ▶YES ( NO ) (SAVE) ( YES )</p> <p>52682</p>	<p>Is an air temperature sensor installed? Press "-" to select "NO" or "+" to select "YES."</p>
<p>CALIBRATION EXTERNAL SENSORS GPS ? ▶YES ( NO ) (SAVE) ( YES )</p> <p>52683</p>	<p>Is a GPS sensor installed? Press "-" to select "NO" or "+" to select "YES."</p>

# SC 1000 SPEEDOMETER

CALIBRATION	
<p>CALIBRATION EXTERNAL SENSORS USE GPS SPEED ? ▶YES ( NO ) (SAVE) ( YES )</p> <p>52684</p>	<p>Use the GPS input to drive the speed display? Press "-" to select "NO" or "+" to select "YES."</p>
<p>CALIBRATION SEA TEMP OFFSET = 0 °F (DOWN) (SAVE) ( UP )</p> <p>23592</p>	<p>Adjust the seawater temperature sensor to correct display readings that are too high/low. Press "-" or "+" to calibrate the temperature display "DOWN" or "UP."</p>
<p>SPEED UNITS <b>MPH</b> [DOWN] [SAVE] [ UP ]</p> <p>23540</p>	<p>Changes the units in which speed is displayed. Choose from: MPH (Miles Per Hour), KN (Knots), or KMH (Kilometers Per Hour).</p>
<p>DISPLAY UNITS <b>ENGLISH</b> [DOWN] [SAVE] [ UP ]</p> <p>23539</p>	<p>Changes units of measurement between English or metric. Select "DOWN" or "UP" to change between English or metric units.</p>
<p>SIMULATOR MODE <b>NO</b> [ NO ] [SAVE] [ YES ]</p> <p>46443</p>	<p>Enables the simulation mode. (Used for demonstration purposes only.)</p>
<p>CALIBRATION EXIT ? ( NO ) ( YES ) ( SCREENS )</p> <p>67265</p>	<p>Select "NO" to go through the screen selection again, "YES" to exit the screens, or "SCREENS" to go to the screens menu.</p>

# TROLL CONTROL

## Troll Control Operation



- a - Increase troll speed
- b - Decrease troll speed
- c - Actual RPM
- d - Set RPM
- e - Actual MPH
- f - Set MPH

**NOTE:** Troll control may not be available on all engine models.

**NOTE:** The troll control minimum and maximum range may change depending on engine type.

Set the troll control by using the System Tachometer or Speedometer. The speedometer will set the speed in MPH, KPH, or KN, while the tachometer will set the speed in RPM.

The troll control can be shut off at anytime by adjusting the throttle or by pressing the "MODE/SELECT" button when in the troll display screen.

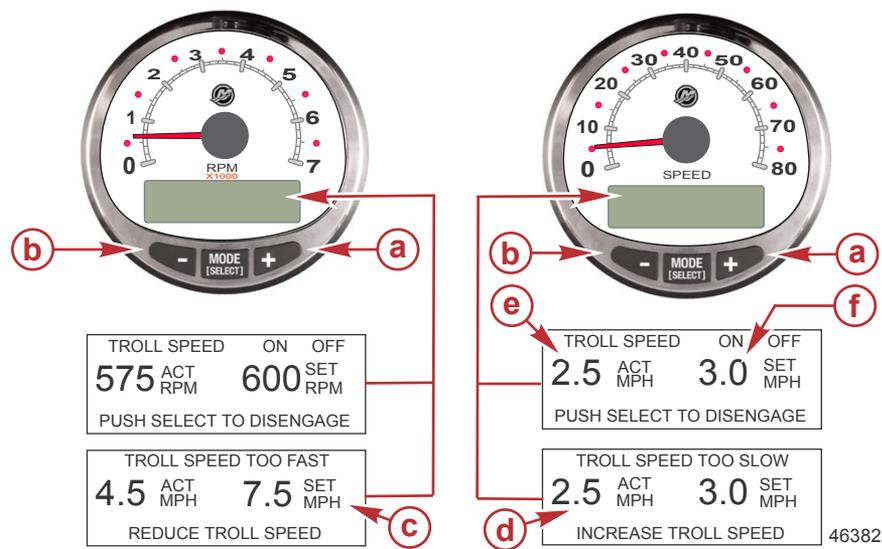
When the troll control is shut off, the system will remember the set speed. When the troll control is engaged, it will return to the set speed.

The display screen will revert back to the previous screen after five seconds of inactivity. Press the "+" or "-" button to reactivate the troll control display screen.

# TROLL CONTROL

When the troll control is engaged and not in the troll control display screen, a flashing "TR" signal will appear in the upper left corner of the screen to indicate the troll control is still active.

## SETTING TROLL CONTROL



46382

- a** - Increase troll set speed
- b** - Decrease troll set speed
- c** - Setting is too fast, reduce set troll speed
- d** - Setting is too slow, increase set troll speed
- e** - Actual speed
- f** - Set speed

1. With the engine running, shift the engine into gear. Set the engine speed at idle.
2. Press in either the "+" or "-" buttons to bring up the troll control display screen.
3. Press "MODE/SELECT" to engage the troll control.
4. Use the "+" and "-" buttons to set the desired speed. Use "+" to increase the set speed and use "-" to decrease the set speed.
5. If the troll speed is set to a higher speed than the troll control can maintain, the "TROLL SPEED TOO FAST" display will appear. Reduce the set troll speed.
6. If the troll speed is set to a slower speed than the troll control can maintain, the "TROLL SPEED TOO SLOW" display will appear. Increase the set troll speed.

# TROLL CONTROL

## **CANCELING TROLL CONTROL**

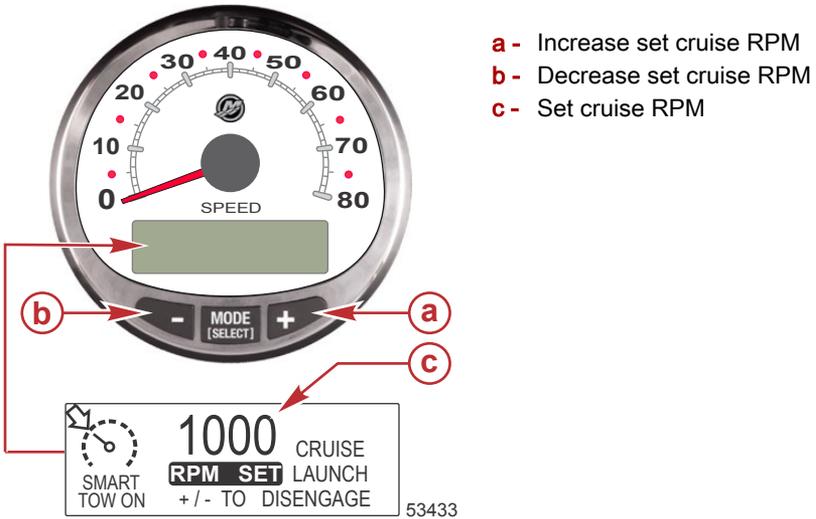
There are three ways to cancel the troll control:

- Press the "MODE/SELECT" button when in the troll display screen.
- Move the throttle to a different speed.
- Shift the engine into neutral.

# SMART TOW

## Cruise Control Operation

**NOTE:** Cruise control is only available with 2007 and newer DTS engines.



**NOTE:** The cruise control minimum maximum range may change depending on engine model.

There are two modes of cruise control: "RPM MODE" and "SPEED MODE." Set the cruise control to "RPM MODE" with either the Tachometer or Speedometer. Launch control will inherit the mode of control selected.

**IMPORTANT: Disengage Cruise/Smart Tow before making changes between "SPEED MODE" and "RPM MODE."**

Press and hold the "SELECT" button for approximately three seconds to toggle between "SPEED MODE" and "RPM MODE."

The cruise control can be shut off at anytime by pressing the "+" and "-" buttons simultaneously.

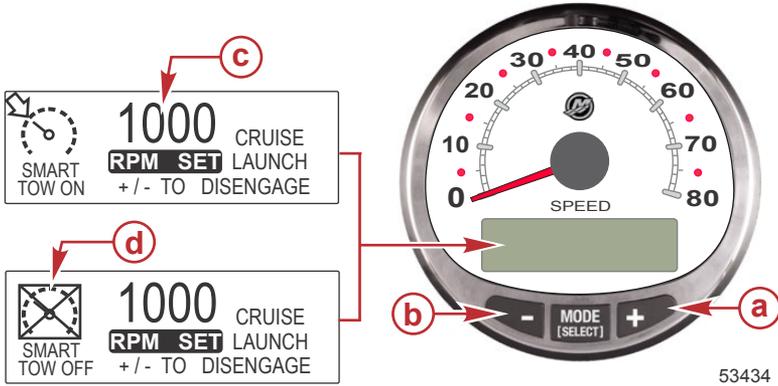
When the cruise control is engaged and the throttle is moved below the set cruise engine RPM or speed, the engine RPM will decrease with the throttle movement. When the throttle is moved above the set cruise speed, the cruise control will actively control the engine speed to the set cruise speed.

When the cruise control is disengaged it will remember the set speed. It will return to that speed when the cruise control is engaged and the throttle is positioned beyond the set cruise speed.

Press "SELECT" twice to exit the cruise control screen.

# SMART TOW

## TURNING THE SYSTEM ON/OFF



- a** - Increase set cruise RPM
- b** - Decrease set cruise RPM
- c** - Set cruise RPM
- d** - Cruise control off

## SETTING CRUISE CONTROL

To set the cruise control RPM:

1. Press either the "+" or "-" button to bring up the cruise control display screen.
2. Set desired cruise RPM. When the throttle is in the wide-open throttle position, the set RPM will be the maximum speed.
3. press "+" and "-" button simultaneously to engage the cruise control.

**NOTE:** The cruise control must be engaged for both gauges to display the active cruise control setting.

## CANCELING CRUISE CONTROL

To cancel the cruise control: press the "+" and "-" buttons simultaneously.

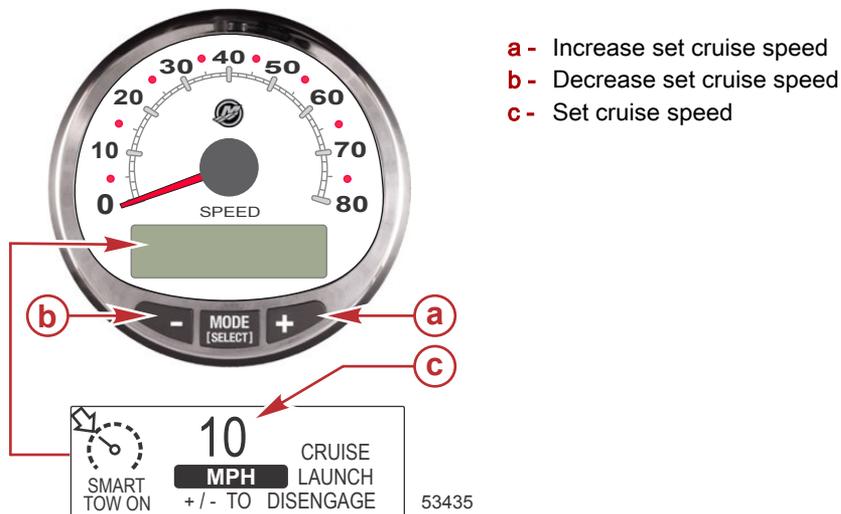
## Precise Speed Control Calibration (Optional)

The Smart Tow with a GPS source is capable of maintaining the speed within 0.8 km/h (0.5 MPH) of the cruise control setting. It is not mandatory to complete this tutoring exercise for the speed control to function, it will calibrate itself during normal operation.

# SMART TOW

## PRECISE SPEED CONTROL CALIBRATION

**NOTE:** Cruise control is only available with 2007 and newer DTS engines.



There are two modes of cruise control: "RPM MODE" and "SPEED MODE." Set the cruise control to "SPEED MODE" with the Speedometer. Launch control will inherit the mode of control selected.

**IMPORTANT: Disengage Cruise/Smart Tow before making changes between "SPEED MODE" and "RPM MODE."**

Press and hold the "SELECT" button for approximately three seconds to toggle between "SPEED MODE" and "RPM MODE."

### ENGAGING THE CRUISE CONTROL

1. Press either the "+" or "-" button to bring up the cruise control display screen.
2. Set the speed to 10 MPH.
3. Press "+" and "-" button simultaneously to engage the cruise control. When the throttle is in the wide-open throttle position, the engine RPM will increase until the set speed is attained.
4. After cruising at 10 MPH for 20 seconds, increase the speed 1 MPH.
5. After cruising at 11 MPH for 20 seconds, increase the speed 1 MPH.
6. Continue this speed increment process until the craft has reached its maximum speed.

### CANCELING THE CRUISE CONTROL

To cancel the cruise control: press the "+" and "-" buttons simultaneously. When the cruise control is disengaged, it will remember the set speed. It will return to that speed when the cruise control is engaged and the throttle is positioned beyond the set cruise speed.

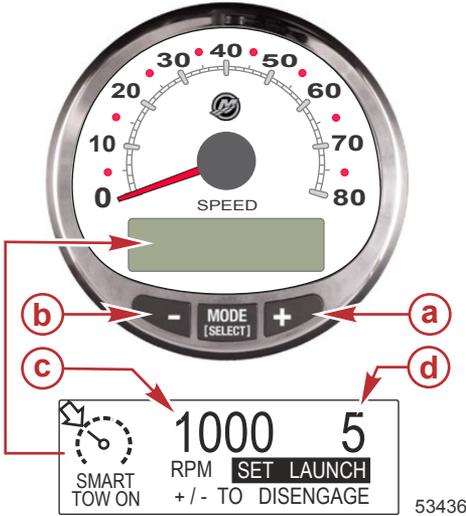
# SMART TOW

Press "SELECT" twice to exit the cruise control screen.

**IMPORTANT:** Performing a Master Reset will return all the calibrations to the factory default settings.

## Launch Control Operation

*NOTE:* Launch control is only available with 2007 and newer DTS engines.



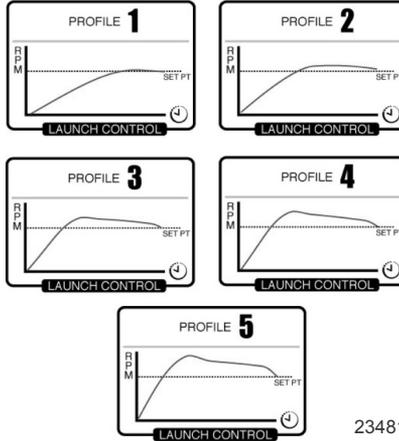
- a - Raise launch control setting
- b - Lower launch control setting
- c - Set cruise RPM
- d - Launch control setting

## BASIC OPERATION

Launch control determines how fast the engine accelerates to a set cruise speed.

# SMART TOW

Set the launch control with either the Tachometer or Speedometer. The settings are 1, 2, 3, 4, and 5, with 1 the most gradual acceleration and 5 the most aggressive. Press "SELECT" once to highlight the launch control setting. Press "+" to increase launch control setting and "-" to decrease the launch control setting. This can be accomplished in either "RPM MODE" or "SPEED MODE." The launch control setting will remain until changed.



23481

If the cruise control is engaged and none of the numerical launch control settings are selected ("CRUISE" is displayed), launch acceleration is controlled by the PCM up to the RPM set point.

The display screen will revert back to the "RPM SET" screen after five seconds of inactivity. Press the "SELECT" button to highlight the launch control display screen.

## SETTING LAUNCH CONTROL

There are two modes of launch control: "RPM MODE" and "SPEED MODE." Set the launch control to "SPEED MODE" with Speedometer. Cruise control will inherit the mode of control selected.

Press and hold the "SELECT" button for approximately three seconds to toggle between "SPEED MODE" and "RPM MODE."

1. Press "+" or "-" to bring up the cruise control display screen.
2. Press the "SELECT" button to highlight "SET LAUNCH."
3. Press "+" to raise the setting and press "-" to lower the setting.
4. Launch control will automatically turn on with the cruise control.

If the cruise control is engaged and none of the numerical or customized launch control settings are selected ("CRUISE" is displayed), launch acceleration is controlled by the throttle up to the RPM set point.

The display screen will revert back to the "RPM SET" screen after five seconds of inactivity. Press the "SELECT" button to highlight the "SET LAUNCH."

# SMART TOW

## CANCELING LAUNCH CONTROL

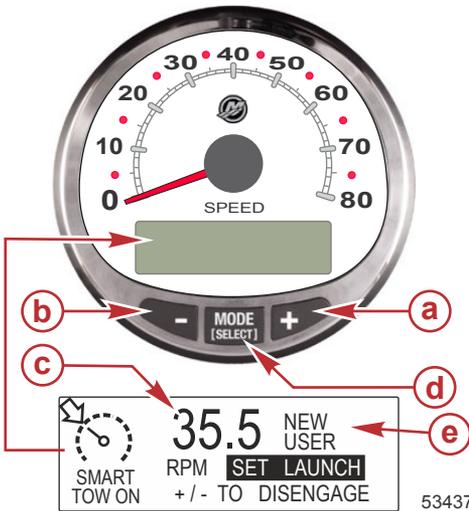
The launch control will turn off when the cruise control is turned off.

## Creating a Customized Launch Setting

Beyond launch setting number 5 are eight customized launch settings. Each customized launch setting name can have up to seven alpha characters to identify the custom launch. The custom launch setting can be controlled by RPM or speed. To use the speed setting control, GPS must be interfaced with the SmartCraft gauge through a junction box.

**NOTE:** If the Smart Tow set point is changed while the customized launch is active, the set point will automatically be saved for that user .

1. Press the "SELECT" button to highlight "SET LAUNCH."
2. Advance the launch control setting beyond number 5. After number 5 the "NEW USER" launch control setting will activate.
3. Press and hold the "SELECT" button for approximately three seconds to edit the customized launch setting.



Customized Launch Settings	
NAME	AAAAAAA
RPM SET	1000
MPH SET	10.0
[DOWN]	[EDIT]

30595

Press the "SELECT" button to edit the name.

# SMART TOW

Customized Launch Settings	
<p><b>AAAAAAA</b>            [ ↓ SAVE ↓ ]            [SCRL↓] [NEXT] [SCRL↑]            30597</p>	<p>Press the "-" or "+" to scroll through the alpha characters. Press the "SELECT" button to save the character and move to the next set of alpha characters. Press the "-" and "SELECT" buttons to save the customized launch name.</p>
<p>NAME AAAAAAA  <b>RPM SET</b> 1000            MPH SET 10.0            [DOWN] [EDIT] [ UP ]            30598</p>	<p>Press the "-" to move the cursor to "RPM SET." Press the "SELECT" button to edit the RPM.</p>
<p>RPM SET  <b>1000</b>            [DOWN] [ OK ] [ UP ]            30599</p>	<p>Press "-" or "+" to change the RPM set point. Press the "SELECT" button to exit the RPM edit.</p>
<p>NAME AAAAAAA            RPM SET 4225  <b>MPH SET</b> 10.0            [DOWN] [EDIT] [ UP ]            30601</p>	<p>Press the "-" to move the cursor to "MPH SET." Press the "SELECT" button to edit the speed.</p>
<p>MPH SET  <b>45.7</b>            [DOWN] [ OK ] [ UP ]            30609</p>	<p>Press "-" or "+" to change the speed setting. Press the "SELECT" button to exit the MPH edit.</p>
<p><b>LAUNCH</b> 1.0            OVERSHOOT 0 %            DURATION 0.0 S            [DOWN] [EDIT] [ UP ]            30614</p>	<p>Press the "-" to move the cursor to "LAUNCH." Press the "SELECT" button to edit the level of acceleration.</p>
<p>LAUNCH  <b>4.7</b>            [DOWN] [ OK ] [ UP ]            30612</p>	<p>Press "-" or "+" to edit the level of acceleration between 1.0 and 5.0. Press the "SELECT" button to exit the "LAUNCH" edit.</p>

# SMART TOW

Customized Launch Settings	
<p>LAUNCH 4.7 ↑  <b>OVERSHOOT</b> 0 % ↓            DURATION 0.0 S ↓            [DOWN] [EDIT] [ UP ]</p> <p>30615</p>	<p>Press the "-" to move the cursor to "OVERSHOOT." Press the "SELECT" button to edit the percentage.</p>
<p>OVERSHOOT  <b>12</b>            MAX : 20 %            [DOWN] [ OK ] [ UP ]</p> <p>30617</p>	<p>Press "-" or "+" to edit the percentage to exceed the level of speed or RPM between 0 and 20%. Press the "SELECT" button to exit the "OVERSHOOT" edit.</p>
<p>LAUNCH 4.7 ↑            OVERSHOOT 12 % ↓  <b>DURATION</b> 0.0 S ↓            [DOWN] [EDIT] [ UP ]</p> <p>30619</p>	<p>Press the "-" to move the cursor to "DURATION." Press the "SELECT" button to edit the seconds.</p>
<p>DURATION  <b>3.4 s</b>            [DOWN] [ OK ] [ UP ]</p> <p>30620</p>	<p>Press "-" or "+" to edit the duration of seconds the overshoot percentage is activated. The number of seconds is between 0 and 4. Press the "SELECT" button to exit the "DURATION" edit.</p>
<p>OVERSHOOT 12 % ↑            DURATION 0.0 S ↑  <b>EXIT</b>            [ OK ] [ UP ]</p> <p>30621</p>	<p>Press the "-" to move the cursor to "EXIT." Press the "SELECT" button to exit the launch setting or press the "+" to review and edit the customized launch settings.</p>

# ACTIVE TRIM

## Requirements

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.

## 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.

## HOW IT WORKS

The Active Trim system has four modes of operation:



### 1. Idle speeds

Maintains the existing trim position.



### 2. Acceleration (hole shot)

Tucks the engine or drive under to minimize bow rise and improve time-to-plane.



### 3. Planing speeds

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

# ACTIVE TRIM



## 4. Override

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

At boat startup, Active Trim resumes the on/off state from the previous shut down. For example, if Active Trim was on at the previous shut down, it will be on at the next startup.

## 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.

## 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 AND ACTIVE TRIM

Placing the engine or drive in the trailer position (over 50% of the adapted trim range) will prevent the 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.

## Active Trim Operation

The Active Trim feature can be turned on or off from the tachometer display screen. The gauge has a range of five user adjustable trim profiles. This allows the operator to fine tune the trim curve during boat operation to compensate for differences in environmental conditions or boat loading. If there is not enough adjustment to get the boat to trim properly, a major profile adjustment may need to be made. Refer to **Active Trim Setup and Configuration**.

Active Trim Display Screens	
	Select "ON" to enable Active Trim, or "OFF" to disable the Active Trim feature.

# ACTIVE TRIM

Active Trim Display Screens	
<p>ACTIVE TRIM PROFILE 1 ( DOWN ) ( NEXT ) ( UP ) 67263</p>	<p>Select an active trim minor profile. Select "NEXT" to save the selection.</p>

## Setup and Configuration

### CONFIGURATION NOTES

**IMPORTANT:** Always configure Active Trim with a major profile that will allow the operator to select an adjustable profile with additional trim in. That is, avoid selecting a major profile that results in normal operation in adjustable trim profile 1. This will ensure that the operator can always bring the bow down to correct porpoising without having to manually trim the engine or drive.

### CONFIGURATION PROCEDURE

1. Turn the ignition key switch to the on position.
2. Use the remote control handle trim switch to establish the full trim and tilt range in the Active Trim module:
  - a. Trim the engine or sterndrive to the full down position and hold the switch for five seconds after the engine or sterndrive reaches the full down position.
  - b. Trim the engine or sterndrive to the full up (trailer) position and continue to hold the trim up switch for five seconds after the engine or sterndrive reaches the full up (trailer) position.
3. Return the engine or sterndrive to the down position before starting the engine.

### *NOTICE*

**Avoid damaging the engine and drive from overheating. Never start or run the power package without water circulating through the cooling system.**

4. Operate the vessel in open, navigable water.
5. From the tachometer, press and hold the "MODE/SELECT" and "+" buttons for approximately six seconds until "CALIBRATION" appears.
6. Press "MODE/SELECT" to advance through the selections to Calibration - Act. Trim Major Profile.
7. Press the "+" to EDIT the profile, but do not press "SAVE."

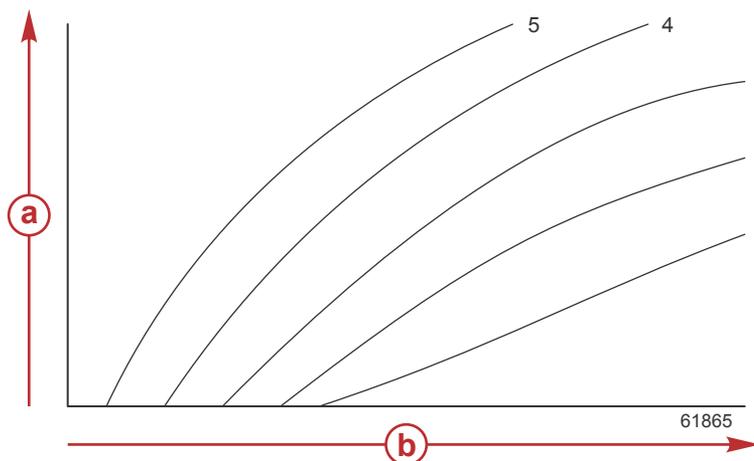
# ACTIVE TRIM

Calibration - Active Trim Major Profile	
CALIBRATION ACT. TRIM MAJOR PROFILE ( SKIP ) ( EDIT ) 67161	Select "EDIT" to select an Active Trim major profile.
CALIBRATION ACT. TRIM MAJOR PROFILE 1 ( SAVE ) ( UP ) 67162	Select an Active Trim major profile.

8. Accelerate until the vessel is on plane and cruising at the approximate desired speed. A comfortable cruising speed for most applications is typically achieved between 48 and 64 km/h (30 and 40 mph). Pick the profile that works best for the boat. As a general rule, increase the major profile level until the boat begins to porpoise. Then decrease one level.

**IMPORTANT: RPM will increase as the sterndrive or engine is trimmed out.**

**NOTE:** The Active Trim system can be configured to any of five unique major trim profiles. The following illustration shows how the trim angle versus boat speed curves will differ for each of the five major profiles.



**Example major trim profile curves; actual curves will vary**

- a** - Trim angle
- b** - Boat speed

9. Press "MODE" to save the major profile and then continue to press "MODE" to exit CALIBRATION. Active Trim is now ready to use. Minor profile adjustments can be made from the main display screens. Refer to **Active Trim Operation**.