SC 1000 Tachometer/Speedometer

Product Overview

SC 1000 Tachometer

SC 1000 Speedometer

Troll Control

Smart Tow

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PRODUCT OVERVIEW

Basic Operation and Features

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

46346
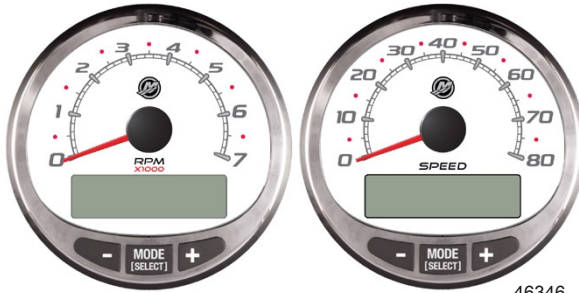
System Tachometer   **System Speedometer**

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.

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 icon is a representation 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 → 🔧 **MERCURY**
S**mart**C**raft** v X.X ← **b**
13469

a - OBD icon
b - Software version

Automatic Engine Detection Feature

The System Tachometer/Speedometer has an automatic engine detection feature. This feature automatically detects which engine type is used and configures the gauge to match that engine type.

The first power up of the gauge, or after a Master Reset, the gauge will display "AUTODETECT". Press the "MODE/SELECT" button to start the automatic engine detection feature and the gauge will determine the engine type. This will preset the data monitoring screens to make the initial setup easier.

AUTODETECT
ENGINE SMARTSCREEN
PRESS MODE/SELECT TO START
24298
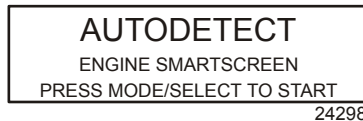
If the gauge shows a warning of "NO STARBOARD ENGINE" or "MULTIPLE STARBOARD ENGINES", the engine location (port and starboard) must be selected by an authorized dealer equipped with the computer diagnostic system (CDS) tool.
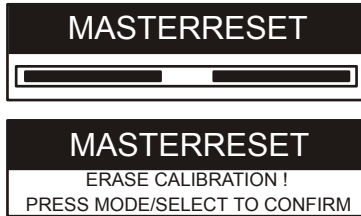
PRODUCT OVERVIEW

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 and calibrations performed during set up of product.

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.
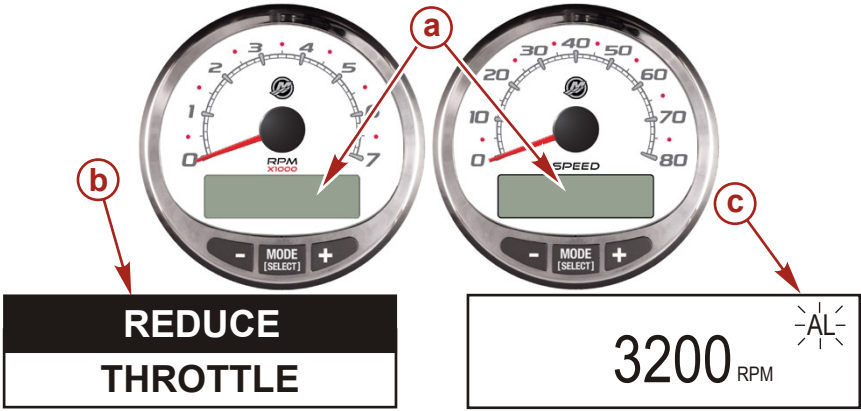
MASTERRESET

MASTERRESET
ERASE CALIBRATION !
PRESS MODE/SELECT TO CONFIRM

22660

PRODUCT OVERVIEW

Alarm Warnings With Descriptive Text

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

46348

   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.

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 engine **Operation, Maintenance, and Warranty Manual** for further explanation of the problem and the correct action to take.

The alarm message will stay displayed until the "MODE/SELECT" button is pressed. If there are multiple alarms, these will cycle on the display at five second intervals.

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	
SYS FAULT [SHOW] 24184	The "SYS FAULT" bar indicates there is a problem in the system. "SHOW" displays the faulty component.
STBD SYSTEM FAULT <FAULTY COMPONENT> [EXIT] [NEXT] [MORE] 24186	The top bar indicates the system with the faulty component. The scrolling text displays the faulty component. "NEXT" displays the next fault. "MORE" displays a detailed description of the fault.
STBD SYSTEM FAULT <FAULT DESCRIPTION> [EXIT] [NEXT] [ACTION] 24187	The scrolling text explains in detail the description of the fault. "ACTION" displays the course of action required by the operator.
STBD SYSTEM FAULT <CORRECTIVE ACTION> [EXIT] [NEXT] [BACK] 24189	The scrolling text displays the course of action required by the operator.

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 continue to flash until the "+" button is pressed to display the control fault.

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 engine **Operation, Maintenance, and Warranty Manual** for further explanation of the problem and the correct action to take.

The alarm message will stay displayed until the "MODE/ SELECT" button is pressed. If there are multiple alarms, these will cycle on the display at five-second intervals.

PRODUCT OVERVIEW

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	
OBD SERVICE SOON 46456	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
SYS FAULT OBD SERVICE SOON [SHOW] 46455	The "SYS FAULT" bar indicates there is a problem in the system. Under the bar "OBD SERVICE SOON" is displayed. "SHOW" displays the faulty component.
STBD SYSTEM FAULT 114 <CRITICAL – IDLE AIR > [EXIT] [MORE] 46457	The top bar indicates the system with the faulty component and the fault number. The scrolling text displays the severity of the fault and the faulty component. "MORE" displays a detailed description of the fault.
STBD SYSTEM FAULT 114 <CRITICAL – IDLE AIR > [EXIT] [ACTION] 46458	The scrolling text explains in detail the description of the fault. "ACTION" displays the course of action required by the operator.
STBD SYSTEM FAULT 114 < RETURN TO PORT > [EXIT] [BACK] 46459	The scrolling text displays the course of action required by the operator.

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 engine **Operation, Maintenance, and Warranty Manual** for an explanation of the problem and the correct action to take.

PRODUCT OVERVIEW

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

PRODUCT OVERVIEW

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

46351

IMPORTANT: Refer to the engine Operation, Maintenance, and Warranty 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.

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PRODUCT OVERVIEW

NOTE: Depending on the engine model and vessel options, not all screens will apply.
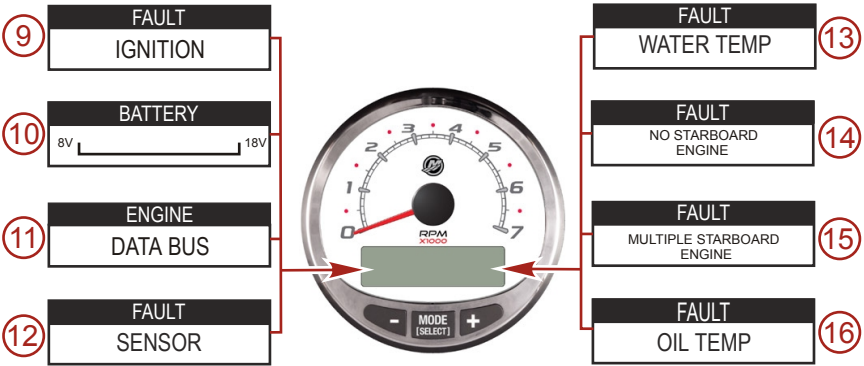
46353

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) with a CDS before the system will function properly.

PRODUCT OVERVIEW

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

NOTE: Depending on the engine model and vessel options, not all screens will apply.
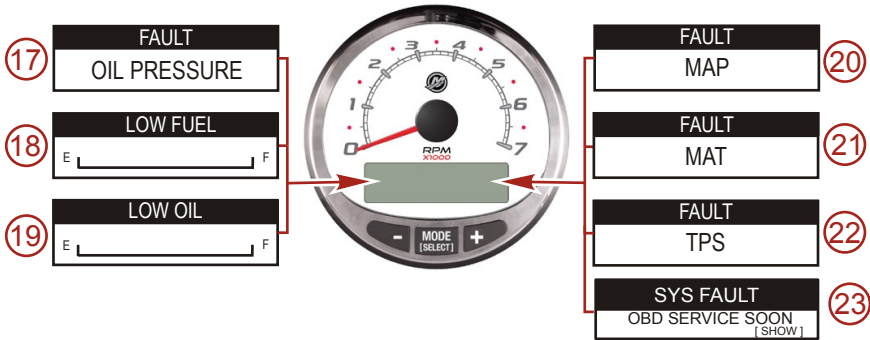
46354

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. **FAULT - MAP**: Engine problem occurred. Have the engine checked by a dealer.

21. **FAULT - MAT**: Engine problem occurred. Have the engine checked by a dealer.

22. **FAULT - TPS**: Engine problem occurred. Have the engine checked by a dealer.

23. **SYSTEM FAULT - OBD SERVICE SOON**: A problem has occurred with the engine emissions control system. Have the engine check by a dealer.

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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	**Dual Engine**
RPM	Trim and RPM Synchronizer
Maintenance	
Quick Reference Screen Battery, Temperature, PSI	

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.

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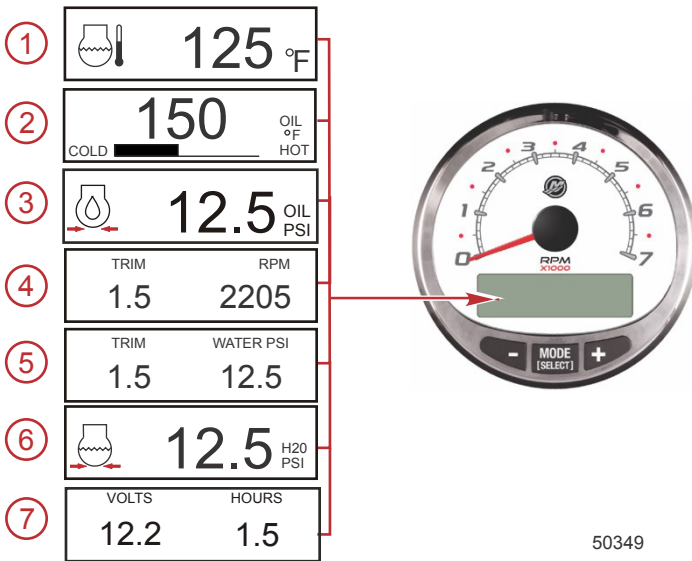
1. **Temperature:** Displays the engine coolant temperature.
2. **Oil Temperature:** Displays the engine oil temperature.
3. **Oil Pressure:** Displays the engine oil pressure in "PSI" or "BAR."
4. **Trim and RPM:** Displays the engine RPM and trim position.
5. **Power Trim Angle:** Displays the trim 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.

SC 1000 TACHOMETER

6. **Water Pressure:** Displays the cooling system water pressure at the engine.

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

50352
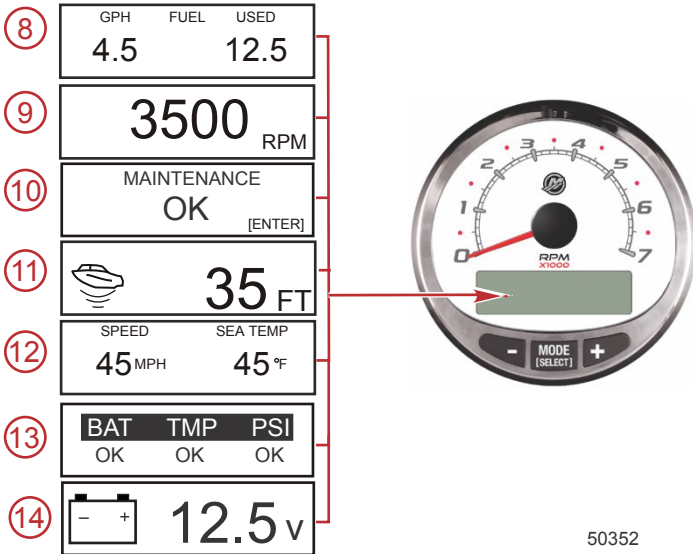
8. **Fuel Flow:** Displays fuel use in gallons or liters per hour, and overall amount of fuel used.

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.

SC 1000 TACHOMETER

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.*

13. **Quick Reference Screen:** Indicates that the battery, engine temperature, and pressures are operating properly.

14. **Battery Voltage:** Displays in large numbers the current voltage of the battery.
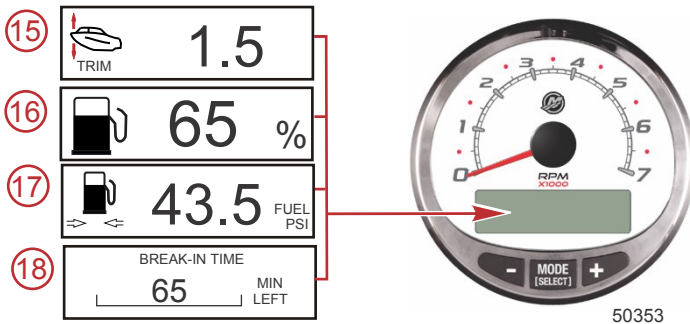
15. **Power Trim Angle/Water Pressure:** Displays the trim angle of the engine and cooling system water pressure.

16. **Fuel Percentage:** Displays the percentage of fuel that is in the fuel tank.

17. **Fuel Pressure:** Displays the engine fuel pressure.

18. **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.

SC 1000 TACHOMETER

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**.

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

50359
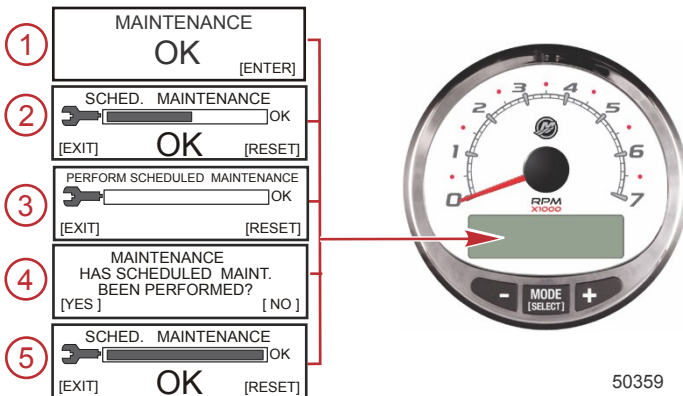
2. The scheduled maintenance screen displays a bar graph indicating the estimated time remaining on the scheduled maintenance cycle. Press "EXIT" to return to the previous screen or "RESET" after the scheduled maintenance has been performed.

SC 1000 TACHOMETER

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.

Tachometer Calibration Menu–Speed Control, Light, and Contrast

46369

TACHOMETER MENU

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

2. Press "MODE/SELECT" to "SKIP" the speed control and advance through the calibration menu.

3. Press the "+" or "–" to change the settings.

SC 1000 TACHOMETER

Tachometer Menu	
SPEED CONTROL TROLL CONTROL ? ENABLED [NO] [SAVE] [YES] 52680	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.
LIGHT [DOWN] [SAVE] [UP] 23517	Adjusts the brightness of the gauge lighting.
CONTRAST [DOWN] [SAVE] [UP] 23519	Adjusts the contrast of the display screen.
REMOTE LCD LIGHT ? [NO] [SAVE] [YES] 23532	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.
REMOTE LCD CONTRAST ? [NO] [SAVE] [YES] 23533	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.
SPLASH SCREEN MERCURY [SKIP] [EDIT] 46447	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.
SPLASH SCREEN _MERCURY [DOWN] [NEXT] [UP] 30246	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.

SC 1000 TACHOMETER

Tachometer Menu	
LOCAL LIGHT ▬▬▬▬▬▬▬▬ [DOWN] [SAVE] [UP] 52644	Allows you to control the light level of the local screen.

Tachometer 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 and hold the "MODE/SELECT" and "+" buttons for approximately seven seconds until "SCREENS" appear.

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 screens.

Tachometer–Display Screens	
QUICK REF SCREEN ? [NO] [SAVE] [YES] 23978	The quick reference screen is displayed "YES" for on or off "NO."
ENGINE TEMP SCREEN ? [NO] [SAVE] [YES] 23783	The engine temperature screen is displayed "YES" for on or off "NO."
OIL TEMP SCREEN ? [NO] [SAVE] [YES] 23786	The oil temperature screen is displayed "YES" for on or off "NO."
OIL PRESS SCREEN ? [NO] [SAVE] [YES] 23787	The oil pressure screen is displayed "YES" for on or off "NO."

SC 1000 TACHOMETER

Tachometer–Display Screens	
TRIM AND PSI SCREEN ? [NO] [SAVE] [YES] 23788	The split screen showing trim angle and water pressure is displayed "YES" for on or off "NO."
WATER PSI SCREEN ? [NO] [SAVE] [YES] 23789	The water pressure screen is displayed "YES" for on or off "NO."
TRIM AND RPM SCREEN ? [NO] [SAVE] [YES] 23979	The split screen showing trim angle and engine RPM is displayed "YES" for on or off "NO."
RPM SCREEN ? [NO] [SAVE] [YES] 23980	The engine RPM screen is displayed "YES" for on or off "NO."
FUEL USED SCREEN ? (NO) (SAVE) (YES) 23544	The fuel used screen is displayed "YES" for on or off "NO."
FUEL PSI SCREEN ? (NO) (SAVE) (YES) 30236	Fuel pressure screen is displayed "YES" for on or off "NO."
VOLT / HOUR SCREEN ? [NO] [SAVE] [YES] 23982	The split screen showing volts and engine hours is displayed "YES" for on or off "NO."
SPEED / SEA SCREEN ? [NO] [SAVE] [YES] 23983	The split screen showing speed and sea temperature is displayed "YES" for on or off "NO."

SC 1000 TACHOMETER

Tachometer–Display Screens	
SEA TEMP OFFSET = °F (DOWN) (SAVE) (UP) 30242	Sea temperature sensor error correction. Press "DOWN" or "UP."
DEPTH SCREEN ? [NO] [SAVE] [YES] 23984	The depth screen is displayed "YES" for on or off "NO."
REMOTE SCREENS ? [NO] [SAVE] [YES] 52645	Allows all SC1000 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 EXIT ? [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.

FUEL TANK CALIBRATION

1. Press and hold the "MODE/SELECT" and "+" buttons for approximately seven seconds until "SCREENS" appear.
2. Press "MODE/SELECT" to advance through the selections to the exit screen and press the "+" button to enter Fuel Tank Calibration.

There are three methods for calibrating the fuel tank level monitoring feature:

• Do nothing. The linear readout is based on raw sensor values. This mode does not factor in irregular tank shapes.

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SC 1000 TACHOMETER

- Performing the tank calibration procedure without adding fuel; the system will supply an estimated range value based on linear interpolation of the sensor range values. This mode does not factor in irregular tank shapes. You must edit the tank calibration by entering a numerical value for the capacity of the fuel tank. The linear readout is based on raw sensor values.

- Performing the tank calibration procedure with adding fuel at each calibration point; the system will display an estimated range value that factors in the tank shape. You must edit the tank calibration by adding fuel for 1/4, 1/2, 3/4, and full. Failure to edit the tank calibration will automatically default the fuel level to the liter/gallon capacity.

Tank 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.
CALIBRATION FUEL TANK 1 [SKIP] [EDIT] 52648	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.
TANK CALIBRATION : DEFAULT CALIBRATION, OR ADD FUEL ? [DFLT] [ADD] 23994	Select "DFLT" to let SmartCraft calibrate the tank levels. Select "ADD" to calibrate the tank levels by adding fluid to the tank.
CALIBRATING : EMPTY TANK THEN PRESS PLUS BUTTON [SKIP] [SAVE] 23995	Empty the tank. Press the "+" button to save the calibration level to empty.
FILL TANK TO 1/4 THEN PRESS PLUS BUTTON [SAVE] 30427	Fill the tank to 1/4 full. Press the "+" button to save the calibration level to 1/4 full.

SC 1000 TACHOMETER

Tank Calibration	
FILL TANK TO ½ THEN PRESS PLUS BUTTON [SAVE] 30428	Fill the tank to 1/2 full. Press the "+" button to save the calibration level to 1/2 full.
FILL TANK TO 3/4 THEN PRESS PLUS BUTTON [SAVE] 30429	Fill the tank to 3/4 full. Press the "+" button to save the calibration level to 3/4 full.
FILL TANK TO FULL THEN PRESS PLUS BUTTON [SAVE] 30430	Fill the tank to full. Press the "+" button to save the calibration level to full.
CALIBRATION TANK 2 INPUT OIL TANK [DOWN] [SAVE] [UP] 52652	Select the type of tank; not installed, fuel tank 2, water tank, or waste tank. Oil tank is only available with the OptiMax outboard. *NOTE: All tanks can be calibrated as described previously.*

CALIBRATION–FUEL USED

1. Press and hold the "MODE/SELECT" and "+" buttons for approximately seven seconds until "SCREENS" appear.

2. Press "MODE/SELECT" to advance through the screen selections to the exit screen and press the "+" button to enter Fuel Tank Calibration.

3. Press "MODE/SELECT" to advance through the selections to Calibration–Fuel Used.

Fuel Used Calibration	
CALIBRATION FUEL USED (SKIP) (EDIT) 52650	Selects how fuel used is calibrated. Press "+" to select "EDIT" or "MODE/SELECT" to bypass how the fuel used is calibrated.
FUEL USED CAL : ENTER MULTIPLIER, OR REFUELED ? [MULT] [FUEL] 30166	Selects how fuel used is calibrated with a multiplier or with refueling. Press "–" to select multiplier "MULT" or "+" to select refueling "FUEL."

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SC 1000 TACHOMETER

Fuel Used Calibration	
FUEL USED CAL : MULTIPLIER = 1.0 [DOWN] [SAVE] [UP] 30167	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.
FUEL USED CAL : AMOUNT REFUELED = 0.0 G [DOWN] [SAVE] [UP] 30168	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.

CALIBRATION–EXTERNAL SENSORS

1. Press and hold the "MODE/SELECT" and "+" buttons for approximately seven seconds until "SCREENS" appear.

2. Press "MODE/SELECT" to advance through the screen selections to the exit screen and press the "+" button to enter Fuel Tank Calibration.

3. Press "MODE/SELECT" to advance through the selections to Calibration–External Sensors.

Tachometer Calibration - External Sensors	
CALIBRATION EXTERNAL SENSORS ? [SKIP] [EDIT] 52653	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.

SC 1000 TACHOMETER

Tachometer Calibration - External Sensors

CALIBRATION EXTERNAL SENSORS PITOT SENSOR ? ▶ YES [NO] [SAVE] [YES] 52654	Is the boat equipped with a pitot sensor to measure boat speed? Press "–" to select "NO" or "+" to select "YES."
CALIBRATION EXTERNAL SENSORS PADDLE SENSOR ? ▶YES [NO] [SAVE] [YES] 52655	Is the boat equipped with a paddle wheel to measure boat speed? Press "–" to select "NO" or "+" to select "YES." NOTE: You must have this selected as yes to be able to set the speed transition.
CALIBRATION EXTERNAL SENSORS USE GPS SPEED ? ▶YES (NO) (SAVE) (YES) 52656	Use the GPS input to drive the speed display? Press "–" to select "NO" or "+" to select "YES". NOTE: GPS must be selected yes to use Smart Tow speed option.
CALIBRATION EXTERNAL SENSORS TRIM SENSOR ? ▶YES [NO] [SAVE] [YES] 52657	Is the boat equipped with a trim sensor? Press "–" to select "NO" or "+" to select "YES."
CALIBRATION EXTERNAL SENSORS SEA TEMP ? ▶YES [NO] [SAVE] [YES] 52658	Is the boat equipped with a seawater temperature sensor? Press "–" to select "NO" or "+" to select "YES."
CALIBRATION EXTERNAL SENSORS STEERING SENSOR ? ▶YES [NO] [SAVE] [YES] 52659	Is the boat equipped with a steering sensor? Press "–" to select "NO" or "+" to select "YES."
CALIBRATION EXTERNAL SENSORS INVERT STEERING ? ▶YES [NO] [SAVE] [YES] 52660	Changes the position (direction) of the steering display. Press "–" to select "NO" or "+" to select "YES."
CALIBRATION TRIM CALIBRATION [SKIP] [EDIT] 52661	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.

SC 1000 TACHOMETER

Tachometer Calibration - External Sensors	
CALIBRATION TRIM FULL DOWN THEN PRESS PLUS BUTTON [DFLT] [SKIP] [SAVE] 52662	Trim the system to the full down position, then press the "+" button to save the setting.
CALIBRATION TRIM FULL UP THEN PRESS PLUS BUTTON [DFLT] [SKIP] [SAVE] 52663	Trim the system to the full up position, then press the "+" button to save the setting.
CALIBRATION TRIM TO TRAILER POINT THEN PRESS PLUS BUTTON [DFLT] [SKIP] [SAVE] 52664	Trim the system to the trailer point, then press the "+" button to save the setting.
CALIBRATION SPEED OPTION [SKIP] [EDIT] 52665	This section configures the following speed sensors. Select "EDIT" to calibrate the sensors. Select "SKIP" to proceed to the depth sensor screen.
CALIBRATION PITOT SENSOR 100 PSI TYPE [NO] [SAVE] [YES] 52671	Select pitot transducer type. Choose between 100 or 200 psi. (100 psi is the most common.)
CALIBRATION PITOT SENSOR MULTIPLIER = 1.00 [DOWN] [SAVE] [UP] 52672	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."
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."

SC 1000 TACHOMETER

| Tachometer Calibration - External Sensors	
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."
SPEED UNITS MPH [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 ENGLISH [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 NO [NO]　　[SAVE]　　[YES] 23547	Enables the simulation mode. (Used for demonstration purposes only.)
CALIBRATION EXIT ? [NO]　　[YES]　　[SCREENS] 43372	Press "MODE/SELECT" to exit. Press "–" not to exit and go through the calibrations again or press "+" to go through the complete "SCREENS" menu.

SIMULATOR MODE

NOTE: Simulator mode can only be use when the gauge is not connected to a power package and is used for visual display purposes.

Simulator Mode	
SIMULATOR MODE NO [NO]　　[SAVE]　　[YES] 46443	Enables the simulation mode. (Used for demonstration purposes only.)

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SC 1000 SPEEDOMETER

Speedometer Display Screens

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

46451
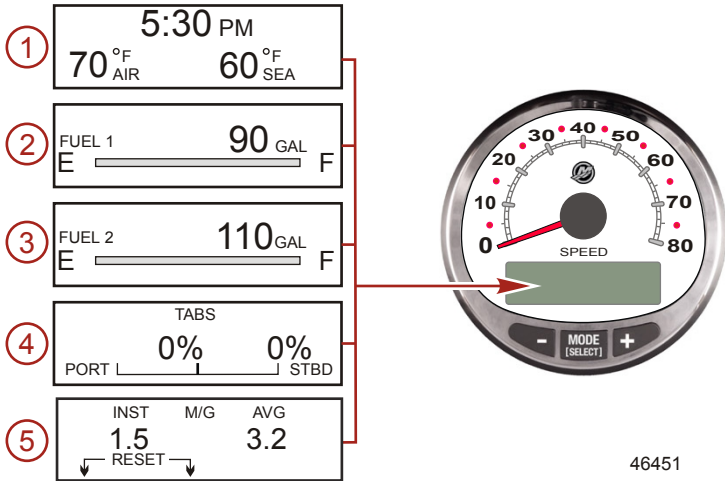
When the ignition is turned on, the speedometer will show the last screen that was displayed before the ignition was turned off.

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.

SC 1000 SPEEDOMETER

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.

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

46452
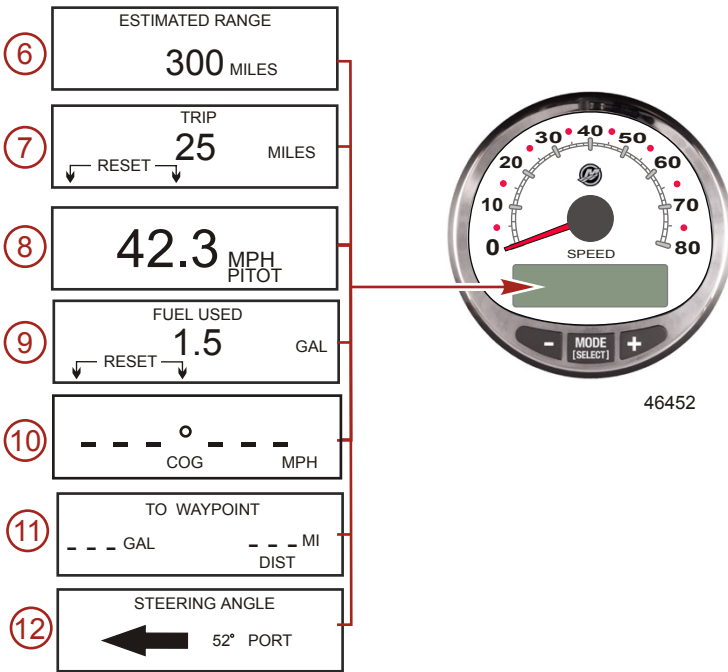
6. **Estimated Range:** The estimated range is based on boat speed, fuel consumption, and fuel remaining in the tank. The numbers displayed are an estimate of the distance you can travel with the remaining fuel. Speed input required (paddle wheel, pitot pressure, or GPS).

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.

SC 1000 SPEEDOMETER

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.

12. **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.

13. **RPM Synchronizer:** Dual engines only - Monitors the revolutions of both engines.

46446
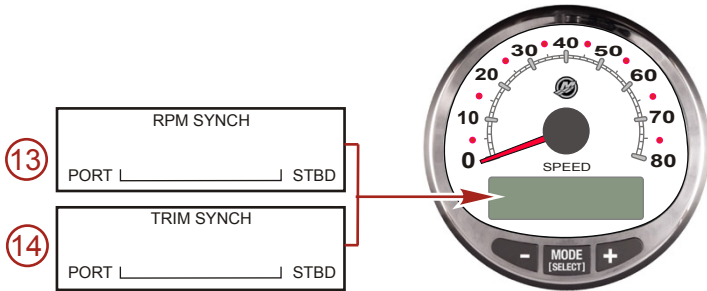
14. **Trim Synchronizer:** Dual engines only - Displays the trim position of both engines. Simplifies keeping trim levels equal.

SC 1000 SPEEDOMETER

Speedometer Calibration Menu–Speed Control, Light, Contrast, and Time
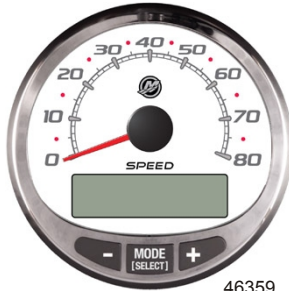
46359

SPEEDOMETER CALIBRATION MENU

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

2. Press "MODE/SELECT" to "SKIP" the speed control and advance through the calibration menu.

3. Press the "+" or "–" to change the settings.

Calibration Menu	
SPEED CONTROL TROLL CONTROL ? ENABLED [NO] [SAVE] [YES] 52680	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.
LIGHT [DOWN] [SAVE] [UP] 23517	Adjusts the brightness of the gauge lighting.
CONTRAST [DOWN] [SAVE] [UP] 23519	Adjusts the contrast of the display screen.

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SC 1000 SPEEDOMETER

Calibration Menu	
REMOTE LCD LIGHT ? [NO] [SAVE] [YES] 23532	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.
REMOTE LCD CONTRAST ? [NO] [SAVE] [YES] 23533	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.
SPLASH SCREEN **MERCURY** [SKIP] [EDIT] 46447	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.
SPLASH SCREEN _MERCURY [DOWN] [NEXT] [UP] 30246	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.
LOCAL LIGHT [DOWN] [SAVE] [UP] 52644	Allows you to control the light level of the local screen.
MENU TIME [SKIP] [EDIT] 52693	Sets the time. Select "EDIT" to format the time or "SKIP" to advance to the next screen.
CALIBRATION TIME FORMAT 12H - M, D, Y (DOWN) (SAVE) (UP) 23535	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.

SC 1000 SPEEDOMETER

Calibration Menu	
CALIBRATION USE GPS TIME DISABLED (NO)　(SKIP)　(YES) 46461	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.
CALIBRATION UTC　ZONE UTC CORRECTION = 0 H [DOWN]　[SAVE]　[UP] 30197	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."
CALIBRATION HOUR 1:42PM (DOWN)　(SAVE)　(UP) 23536	Adjusts the hours to match your local time. Select "DOWN" or "UP" to change the hour setting.
CALIBRATION MINUTE 1:42PM (DOWN)　(SAVE)　(UP) 23538	Adjusts the minutes to match your local time. Select "DOWN" or "UP" to change the minute setting.

Speedometer 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 seven seconds until "SCREENS" is 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.

SCREENS

Speedometer Display Screens	
TO WAYPOINT SCREEN ? YES (NO)　(SAVE)　(YES) 46462	To waypoint screen is displayed "YES" for on or off "NO." GPS screens must be turned on for this screen to be activated.

SC 1000 SPEEDOMETER

Speedometer Display Screens	
WAYPOINT ALARM ? **YES** (NO) (SAVE) (YES) 46463	Waypoint alarm is displayed "YES" for on or off "NO." GPS screens must be turned on for this screen to be activated.
WAYPOINT ALARM DISTANCE = 0.3 MILES (DOWN) (SAVE) (UP) 46464	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
STEERING ANG. SCREEN ? **YES** [NO] [SAVE] [YES] 23542	The steering angle is displayed "YES" for on or off "NO."
TEMP/CLOCK SCREEN ? **YES** [NO] [SAVE] [YES] 23543	The split screen showing air temperature and time is displayed "YES" for on or off "NO."
FUEL USED SCREEN ? (NO) (SAVE) (YES) 23544	The fuel used screen is displayed "YES" for on or off "NO."
TRIP SCREEN **YES** (NO) (SAVE) (YES) 23545	The trip screen is displayed "YES" for on or off "NO."
FUEL MGMNT SCREEN **YES** (NO) (SAVE) (YES) 23546	The fuel management screen is displayed "YES" for on or off "NO."
TABS SCREEN ? **YES** (NO) (SAVE) (YES) 46442	The tabs screen is displayed "YES" for on or off "NO."

SC 1000 SPEEDOMETER

Speedometer Display Screens	
SCREENS EXIT ? [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 Calibration–Fuel Used.

CALIBRATION–FUEL USED

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately seven seconds until "SCREENS" is display screen.

2. Press "MODE/SELECT" to advance through the screen selections to the exit screen and press the "+" button to enter Calibration–Fuel Used.

Fuel Used	
CALIBRATION FUEL USED (SKIP) (EDIT) 52687	Selects how fuel used is calibrated. Press "+" to select "EDIT" or "SELECT" to bypass how the fuel used is calibrated.
FUEL USED CAL : ENTER MULTIPLIER, OR REFUELED ? [MULT] [FUEL] 30166	Selects how fuel used is calibrated with a multiplier or with refueling. Press "–" to select multiplier "MULT" or "+" to select refueling "FUEL."
FUEL USED CAL : MULTIPLIER = 1.0 [DOWN] [SAVE] [UP] 30167	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.

eng

SC 1000 SPEEDOMETER

Fuel Used	
FUEL USED CAL : AMOUNT REFUELED = 0.0 G [DOWN] [SAVE] [UP] 30168	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.

CALIBRATION–EXTERNAL SENSORS

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately seven seconds until "SCREENS" is display screen.

2. Press "MODE/SELECT" to advance through the selections to the exit screen and press the "+" button.

3. Press the "MODE/SELECT" to advance to Calibration–External Sensors.

External Sensors	
CALIBRATION EXTERNAL SENSORS (SKIP) (EDIT) 52681	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.
CALIBRATION EXTERNAL SENSORS AIRTEMP ? ▸YES (NO) (SAVE) (YES) 52682	Is an air temperature sensor installed? Press "–" to select "NO" or "+" to select "YES".
CALIBRATION EXTERNAL SENSORS GPS ? ▸YES (NO) (SAVE) (YES) 52683	Is a GPS sensor installed? Press "–" to select "NO" or "+" to select "YES".

SC 1000 SPEEDOMETER

External Sensors	
CALIBRATION EXTERNAL SENSORS USE GPS SPEED ? ▸YES (NO) (SAVE) (YES) 52684	Use the GPS input to drive the speed display? Press "–" to select "NO" or "+" to select "YES".
CALIBRATION SEA TEMP OFFSET = 0 ℉ (DOWN) (SAVE) (UP) 23592	Adjust the seawater temperature sensor to correct display readings that are too high/low. Press "–" or "+" to calibrate the temperature display "DOWN" or "UP".

DISPLAY UNITS

1. Press the "MODE/SELECT" and "+" buttons simultaneously for approximately seven seconds until "SCREENS" is display screen.

2. Press "MODE/SELECT" to advance through the selections to the exit screen and press the "+" button.

3. Press the "MODE/SELECT" to advance to the display units.

Display Units	
SPEED UNITS MPH [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 ENGLISH [DOWN] [SAVE] [UP] 23539	Changes units of measurement between English or metric. Select "DOWN" or "UP" to change between English or metric units.
Simulator Mode	Refer to **Simulator Mode**.
CALIBRATION EXIT ? [NO] [YES] [SCREENS] 52691	Select "NO" to go through the calibrations again, "YES" to exit, or "SCREENS" to go through the screens selection.

SIMULATOR MODE

NOTE: Simulator mode can only be use when the gauge is not connected to a power package and is used for visual display purposes.
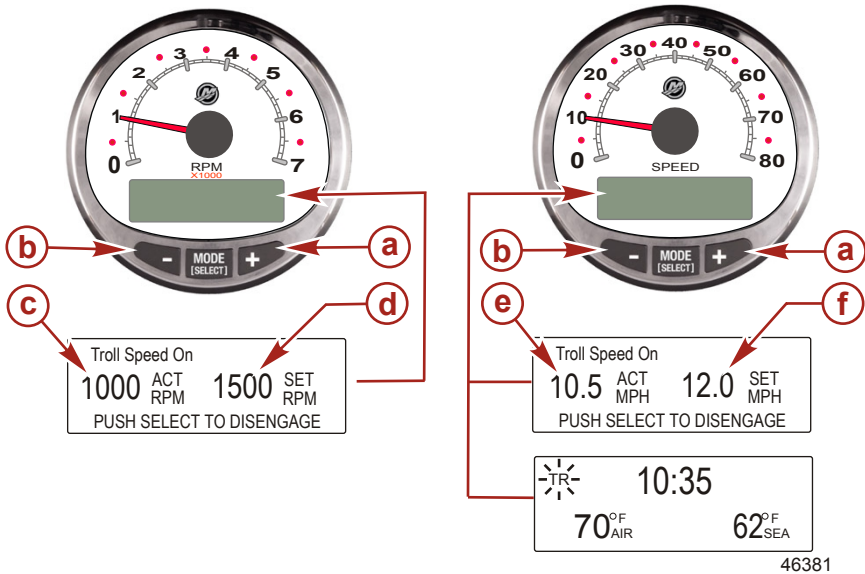
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SC 1000 SPEEDOMETER

Simulator Mode	
SIMULATOR MODE NO [NO] [SAVE] [YES] 46443	Enables the simulation mode. (Used for demonstration purposes only.)

TROLL CONTROL

Troll Control Operation

NOTE: The troll control feature is only available on the System Tachometer and Speedometer.

Troll Speed On
1000 ACT RPM   1500 SET RPM
PUSH SELECT TO DISENGAGE

Troll Speed On
10.5 ACT MPH   12.0 SET MPH
PUSH SELECT TO DISENGAGE

-TR- 10:35
70°F AIR   62°F SEA

46381

- **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 pushing the "MODE/SELECT" button when in the troll display screen.

eng

TROLL CONTROL

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. Push the "+" or "–" button to reactivate the troll control display screen.

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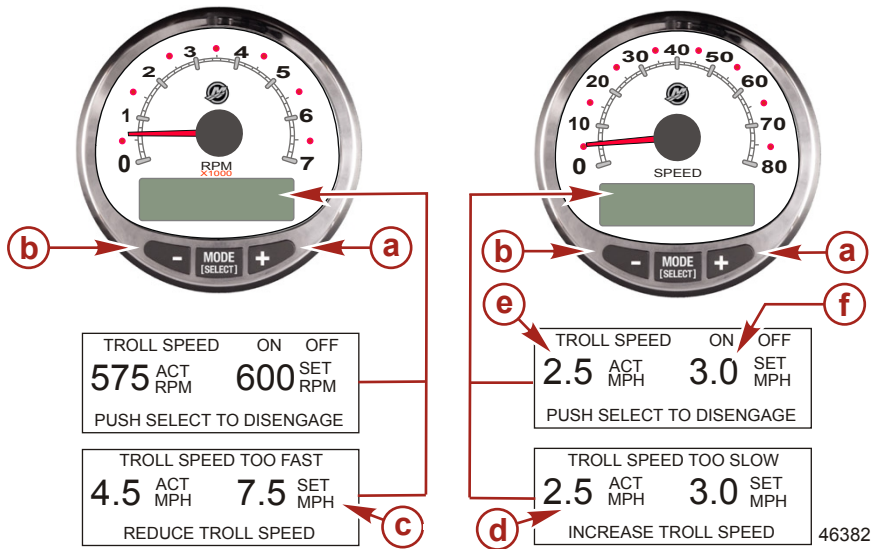
a - Increase troll set speed
b - Decrease troll set speed
c - Setting is too fast, reduce set troll speed
d - Setting is too slow, increase set troll speed
e - Actual speed
f - Set speed

1. With the engine running, shift the engine into gear. Set the engine speed at idle.

TROLL CONTROL

2. Push 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.

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.

eng

SMART TOW

Cruise Control Operation

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

a - Increase set cruise RPM
b - Decrease set cruise RPM
c - Set cruise RPM
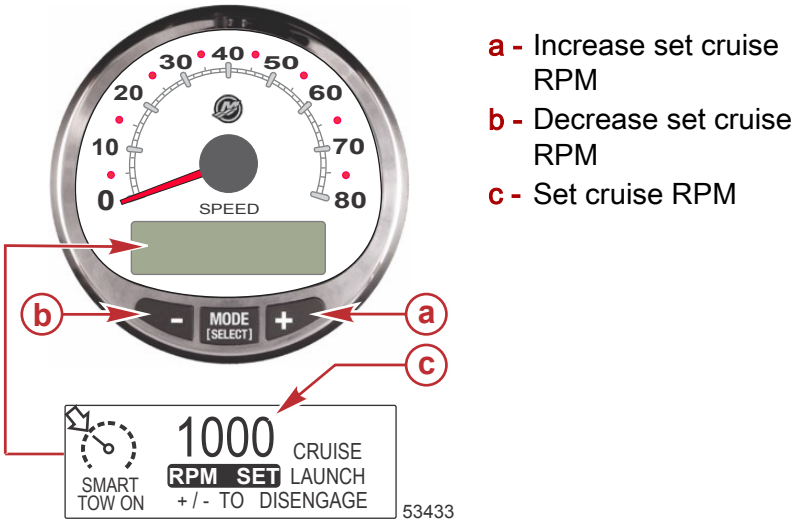
NOTE: The cruise control minimum maximum range may change depending on engine model.

There are two modes of cruise control: "RPM MODE" and "SPEED MODE". Set the cruise control to "RPM MODE" with either the Smart Tow Tachometer or Smart Tow Speedometer. Launch 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".

IMPORTANT: Only the Smart Tow Speedometer can toggle between cruise control "RPM MODE" and "SPEED MODE". Smart Tow Tachometer can change from "SPEED MODE" to "RPM MODE" only.

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

SMART TOW

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.

TURNING THE SYSTEM ON/OFF

53434
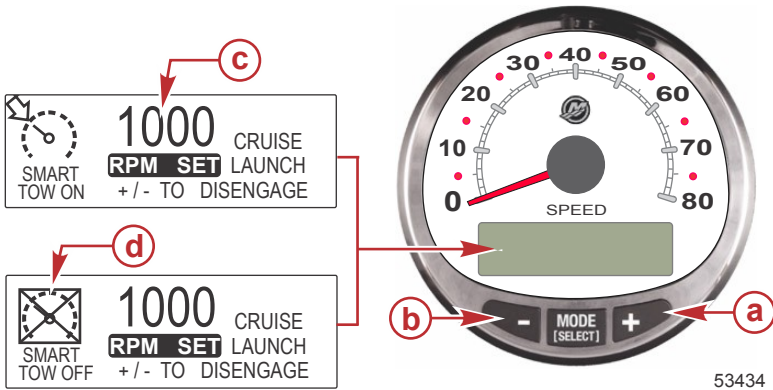
a - Increase set cruise RPM
b - Decrease set cruise RPM
c - Set cruise RPM
d - Cruise control off

SETTING CRUISE CONTROL

To set the cruise control RPM:

1. Push 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.

42

SMART TOW

3. Push "+" 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 GPS speedometer 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.

PRECISE SPEED CONTROL CALIBRATION

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

a - Increase set cruise speed
b - Decrease set cruise speed
c - Set cruise speed
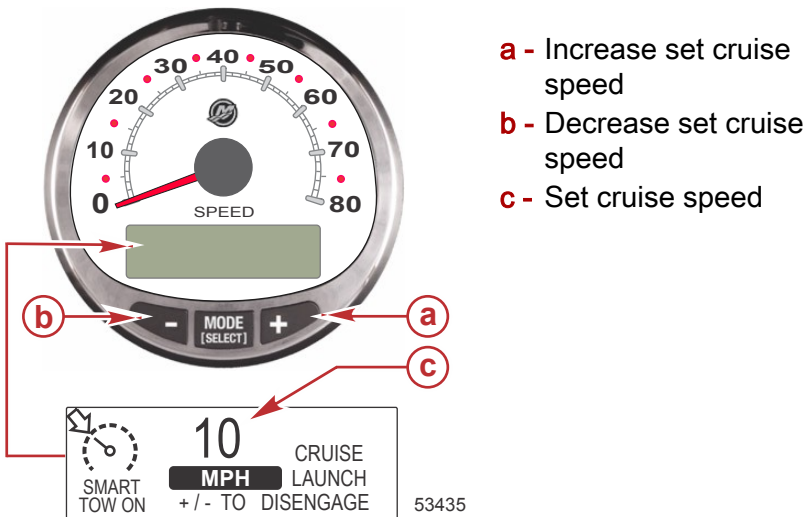
There are two modes of cruise control: "RPM MODE" and "SPEED MODE". Set the cruise control to "SPEED MODE" with the Smart Tow Speedometer. Launch control will inherit the mode of control selected.

SMART TOW

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

IMPORTANT: Only the Smart Tow Speedometer can toggle between cruise control "RPM MODE" and "SPEED MODE". Smart Tow Tachometer can change from "SPEED MODE" to "RPM MODE" only.

ENGAGING THE CRUISE CONTROL

1. Push either the "+" or "–" button to bring up the cruise control display screen.

2. Set the speed to 10 MPH.

3. Push "+" 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.
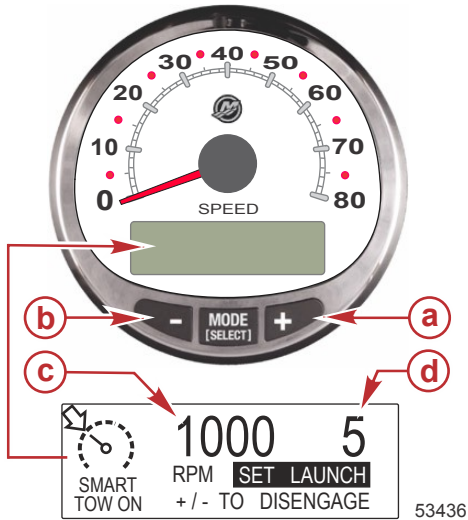
Press "SELECT" twice to exit the cruise control screen.

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

SMART TOW

Launch Control Operation

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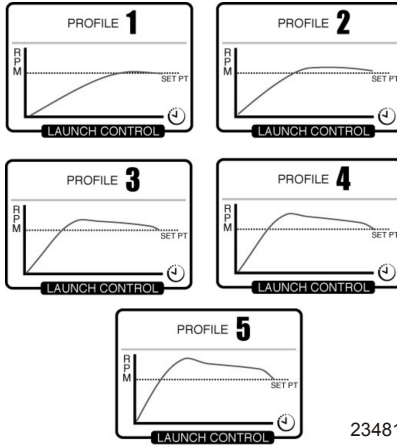

a - Raise launch control setting
b - Lower launch control setting
c - Set cruise RPM
d - Launch control setting

53436

BASIC OPERATION

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

SMART TOW

Set the launch control with either the Smart Tow Tachometer or Smart Tow 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. Push 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 Smart Tow 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."

SMART TOW

IMPORTANT: Only the Smart Tow Speedometer can toggle between cruise control "RPM MODE" and "SPEED MODE." Smart Tow Tachometer can change from "SPEED MODE" to "RPM MODE" only.

1. Press "+" or "–" to bring up the cruise control display screen.
2. Push the "SELECT" button to highlight "SET LAUNCH."
3. Push "+" to raise the setting and push "–" 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. Push the "SELECT" button to highlight the "SET LAUNCH."

CANCELING LAUNCH CONTROL

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

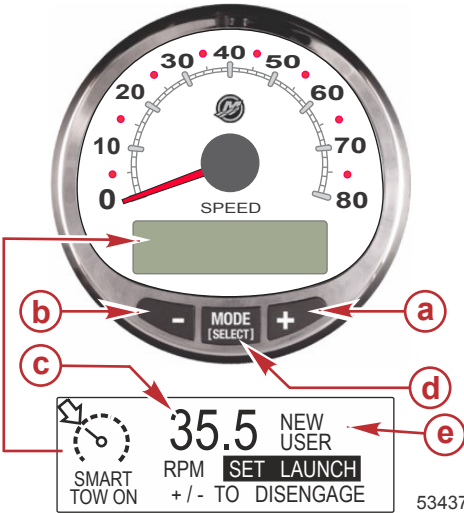# Creating a Customized Launch Setting

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.

SMART TOW

3. Press and hold the "SELECT" button for approximately three seconds to edit the customized launch setting.

a - Raise launch control setting
b - Lower launch control setting
c - Set cruise RPM
d - "SELECT" button
e - Launch control setting

53437

Customized Launch Settings	
NAME AAAAAAA RPM SET 1000 MPH SET 10.0 [DOWN] [EDIT] 30595	Press the "SELECT" button to edit the name.
AAAAAAA [↓ SAVE ↓] [SCRL↓] [NEXT] [SCRL↑] 30597	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.
NAME AAAAAAA **RPM SET** 1000 MPH SET 10.0 [DOWN] [EDIT] [UP] 30598	Press the "–" to move the cursor to "RPM SET". Press the "SELECT" button to edit the RPM.
RPM SET **1000** [DOWN] [OK] [UP] 30599	Press "–" or "+" to change the RPM set point. Press the "SELECT" button to exit the RPM edit.

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SMART TOW

Customized Launch Settings	
NAME AAAAAAA RPM SET 4225 MPH SET 10.0 ↓ [DOWN] [EDIT] [UP] 30601	Press the "–" to move the cursor to "MPH SET". Press the "SELECT" button to edit the speed.
MPH SET **45.7** [DOWN] [OK] [UP] 30609	Press "–" or "+" to change the speed setting. Press the "SELECT" button to exit the MPH edit.
LAUNCH 1.0 ↑ OVERSHOOT 0 % DURATION 0.0 S ↓ [DOWN] [EDIT] [UP] 30614	Press the "–" to move the cursor to "LAUNCH". Press the "SELECT" button to edit the level of acceleration.
LAUNCH **4.7** [DOWN] [OK] [UP] 30612	Press "–" or "+" to edit the level of acceleration between 1.0 and 5.0. Press the "SELECT" button to exit the "LAUNCH" edit.
LAUNCH 4.7 ↑ OVERSHOOT 0 % DURATION 0.0 S ↓ [DOWN] [EDIT] [UP] 30615	Press the "–" to move the cursor to "OVERSHOOT". Press the "SELECT" button to edit the percentage.
OVERSHOOT **12** MAX : 20% [DOWN] [OK] [UP] 30617	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.
LAUNCH 4.7 ↑ OVERSHOOT 12 % DURATION 0.0 S ↓ [DOWN] [EDIT] [UP] 30619	Press the "–" to move the cursor to "DURATION". Press the "SELECT" button to edit the seconds.

SMART TOW

Customized Launch Settings	
DURATION **3.4 s** [DOWN] [OK] [UP] 30620	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.
OVERSHOOT 12 % ↑ DURATION 0.0 S EXIT [OK] [UP] 30621	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.