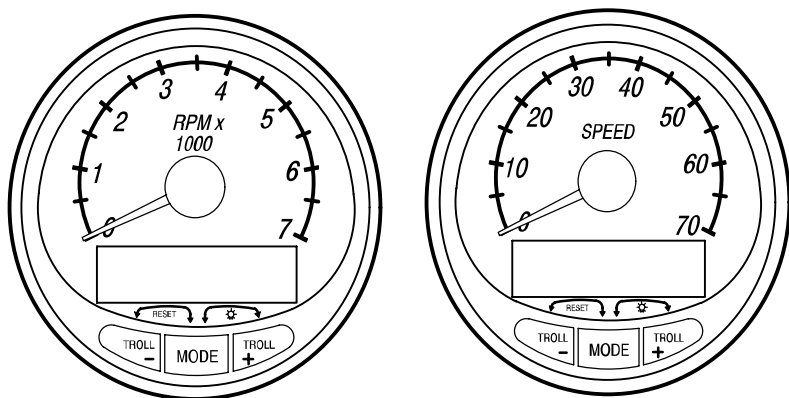


# **MERCURY**

## **SmartCraft**

### **System Speedometer and Tachometer**



## **Operation Manual**

**THIS MANUAL DESCRIBES THE SMARTCRAFT GAUGE  
SYSTEMS AVAILABLE FOR YOUR BOAT**



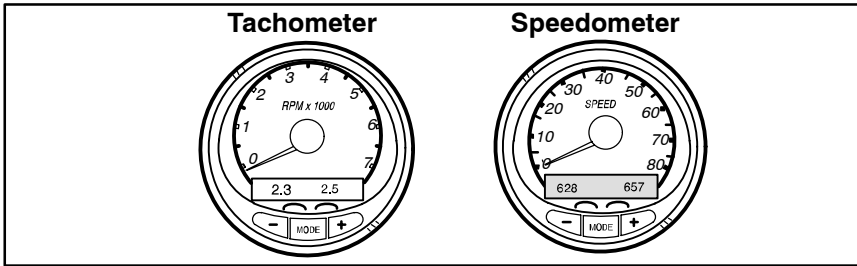
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**NOTE:** *This section shows all of the display screens that are available for System Tach and Speedometer gauges. Depending on your type of engine, not all these screens will apply.*



# BASIC OPERATION AND FEATURES



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

**Lights:** The brightness and contrast are adjustable.

**Buttons:** The **MODE** button is used for selecting information screens. The “+” and “-” buttons are used for setting engine speed during troll control and setting gauge calibrations.

**Troll Control:** Allows the operator to set and control 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 indications of problems. The system will respond to a problem by reducing engine speed in order to maintain a safe operating condition.

**Warning System:** The system will sound the warning horn and display the warning message.

# BASIC OPERATION AND FEATURES

**Digital Display Screen:** Displays the following engine information.

| <b>Tachometer Display Screen:</b>   | <b>Speedometer Display Screen:</b>  |
|---|---|
| <p><b><i>DEPENDING ON ENGINE TYPE</i></b><br/>           Engine Break-in<br/>           Engine Temperature<br/>           Oil Psi<br/>           Trim and RPM<br/>           Trim and Water Pressure<br/>           Water Pressure<br/>           Battery Voltage and Engine Hours<br/>           Fuel Flow and Fuel Used<br/>           RPM<br/>           Depth<br/>           Speed / Sea temp</p> | <p><b><i>DEPENDING ON ENGINE TYPE</i></b><br/>           Speed<br/>           Fuel Used<br/>           COG/SOG – If there is a GPS Input<br/>           Distance and fuel to waypoint – <i>if waypoint programmed into optional GPS</i><br/>           Clock – Air/Sea Temp<br/>           Inst. and Avg. Fuel Economy<br/>           Trip Odometer<br/>           Fuel Tank Levels<br/>           Oil Tank Levels<br/>           Fresh Water Levels<br/>           Waste Water Levels<br/> <i>Dual Engine</i><br/>           Trim and RPM Synchronizer –<br/>           Fuel Range<br/>           Fuel Flow<br/>           Trip Odometer<br/>           Steering Angle</p> |

## AUTO-DETECTION ENGINE FUNCTION

On first time power up of gauge or after a “Master Reset”, gauge will display “**Auto detect**”. Upon pressing the mode button, gauge will automatically determine engine type. This will preset the data monitoring screens accordingly. The intention is to make initial setup easier.



If the gauge shows a warning of “No Starboard Engine” or “Multiple Starboard Engines”, engine location must be properly selected (Port and Stbd) at the engine using a Mercury engine diagnostic tool. “Master Reset” and “Auto detect” again. (Refer to “Master Reset”).

System tach and speed come standard with an “**Engine Auto-detection Screen**” this screen lets the gauge on its initial power up automatically detect which engine type you are using and configure the gauge to match that vessel type.

# MASTER RESET

You can return the gauge back to factory presets through the Master Reset command.

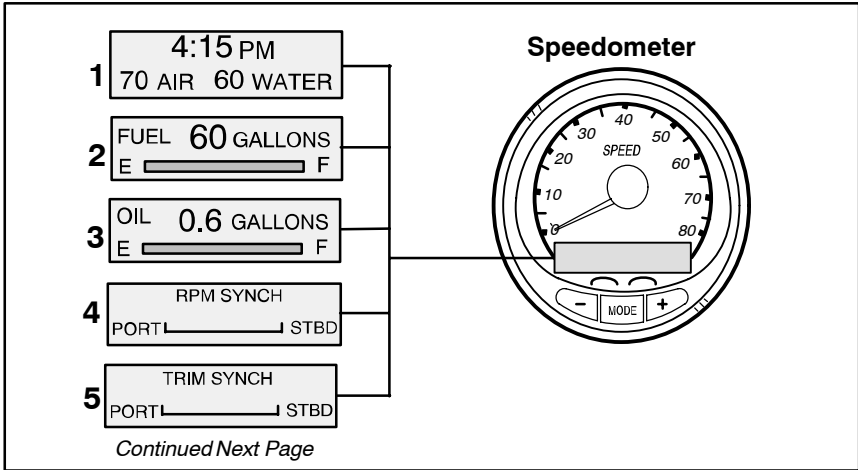
**IMPORTANT: Performing a master reset will reset the unit back to all factory defaults, thus eliminating any installation calibrations performed during set up of product.**

By pressing  and  simultaneously for approximately 10 seconds (Until the graphic bars “collide”), you will be able to restore the unit back to factory presets.





# SPEEDOMETER DISPLAY SCREENS



## NOT ALL SCREENS MAY APPLY TO YOUR ENGINE TYPE.

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

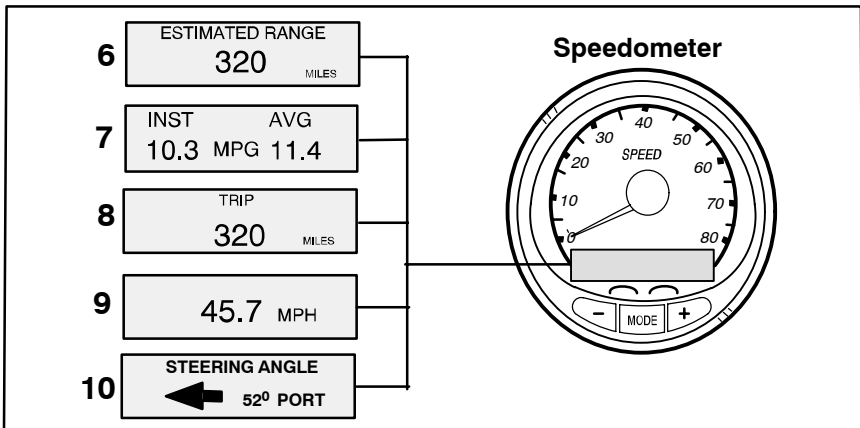
Press **MODE** to change display screens. You can revert back to the previous screen by pressing and holding **MODE** for 2 seconds. This will reverse the display rotation.

**NOTE:** Readings can be displayed in English (U.S.) or Metric. Refer to Calibrations.

**NOTE:** Descriptions are not necessarily in order on the gauge. Order changes depending on engine type.

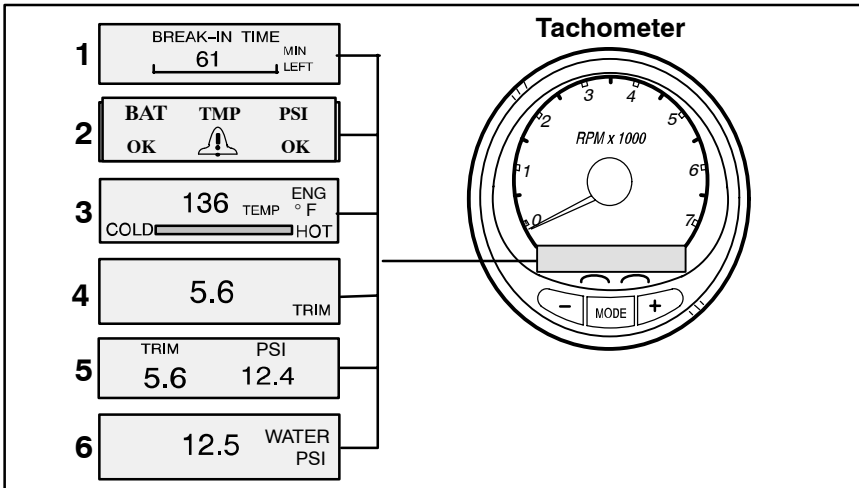
1. **Clock - Temp** – Clock, air temperature and water temperature. The air and water temperature sensors will have to be connected to obtain display readings.
2. **Fuel Level** – Displays the amount of fuel remaining.
3. **Oil Level** – Displays the amount of engine oil remaining, or water/waste tank level (if attached).
4. **RPM Synchronizer** – Dual Engines Only – Monitors the revolutions of both engines.
5. **Trim Synchronizer** – Dual Engines Only – Displays the trim position of both engines. Simplifies keeping trim levels equal.

## SPEEDOMETER DISPLAY SCREENS



6. **Range** – The estimated range is based on boat speed, fuel consumption and fuel remaining in the tank. The numbers displayed indicates an estimate of the distance you can travel with the remaining fuel. Speed input required (Paddle Wheel, Pitot Pressure or GPS).
7. **Fuel Economy** – The display shows average “**AVG**” fuel consumption as well as Instantaneous “**INST**” fuel economy. The numbers displayed indicate miles per gallon “**MPG**” or kilometer per liter “**KM/L**”.  
**Fuel Reset** – To reset, select the display screen and press **MODE** and **TROLL** buttons.
8. **Trip Odometer** – Tells how far you’ve gone since you last reset the gauge to zero. **Trip Reset** – To reset, select the display screen and press **MODE** and **TROLL** buttons.
9. **Digital Speedometer** – Can display boat speed in miles per hour, kilometer per hour, or nautical miles per hour. The speedometer will use the paddle wheel for its low speed readings but will switch to the speedo or GPS (if connected) for high speed readings. (Transition point setting is described in Cal2).
10. **Steering Angle** – Shows the relative position of the steering system. Available on Mercury MerCruiser models only. A steering angle sensor must be installed on the engine.

# TACHOMETER DISPLAY SCREENS



**NOT ALL SCREENS MAY APPLY TO YOUR ENGINE TYPE.**

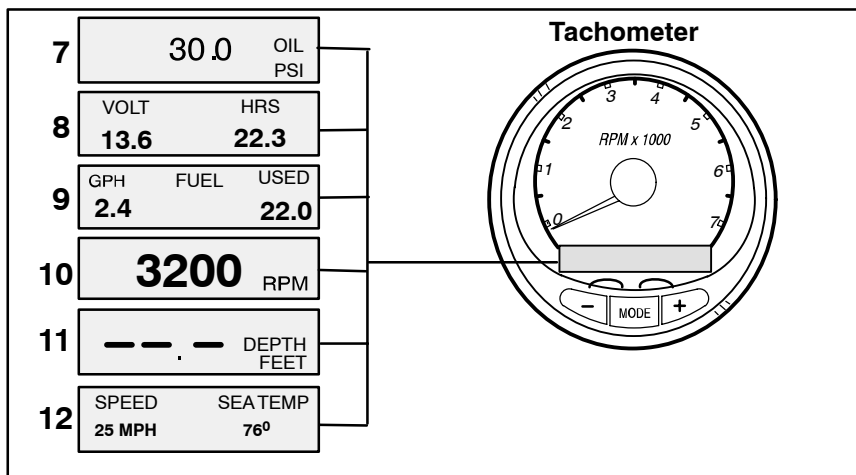
When the ignition is turned on, the tachometer will display the last screen that was displayed before the ignition was turned off.

Press **MODE** to change display screens. You can revert back to the previous screen by pressing and holding **MODE** for 2 seconds. This will reverse the display rotation.

**NOTE:** Readings can be displayed in English (U.S.) or Metric. Refer to Calibration.

- 1. Engine Break-in** – Displays time remaining on the break-in period of a new engine. This screen will automatically disappear after the break-in period is complete.
- 2. Quick Reference Screen** – Displays that the battery, engine temperature and pressures are operating properly.
- 3. Temperature** – Displays engine coolant temperature.
- 4. Power Trim Angle** – Displays 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.
- 5. Power Trim Angle - Water Pressure** – Displays trim angle of the engine and cooling system water pressure.
- 6. Water Pressure** - Displays cooling system water pressure at the engine.

## TACHOMETER DISPLAY SCREENS



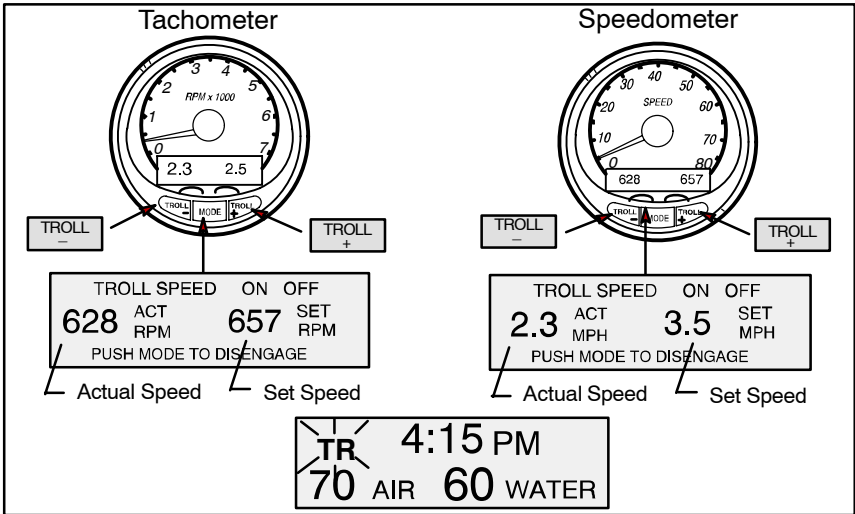
- 7. Oil Pressure** – Displays engine oil pressure in units of Psi or Bar.
- 8. Battery Voltage** – Displays voltage level (condition) of battery. Also records the running time of engine.
- 9. Fuel Flow** – Displays engine fuel use in gallons per hour or liters per hour.
- 10. Digital Tachometer** – Displays engine speed in Revolutions Per Minute (RPM).
- 11. Water Depth** – Displays the depth of water under the transducer if connected. The water depth screen can be turned on or off in CAL 1 Calibration. You can set an alarm to trigger whenever the boat moves into water shallower than the alarm level. Refer to CAL 2 Calibration for water depth alarm and offset settings.

**NOTE:** You must have a depth transducer (purchased separately) connected to the system in order for this screen to operate.

- 12. Speed / Temp** – Displays a split screen of water temperature and vessel speed.

**NOTE:** You must have speed input installed (purchased separately).

# TROLL CONTROL



## Basic Operation

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

**NOTE:** Troll control min/max range may change depending on engine type.

You can set the troll control by using either the tachometer or speedometer. Tachometer will set the speed in RPM and speedometer will set the speed in MPH, Kph or KN.

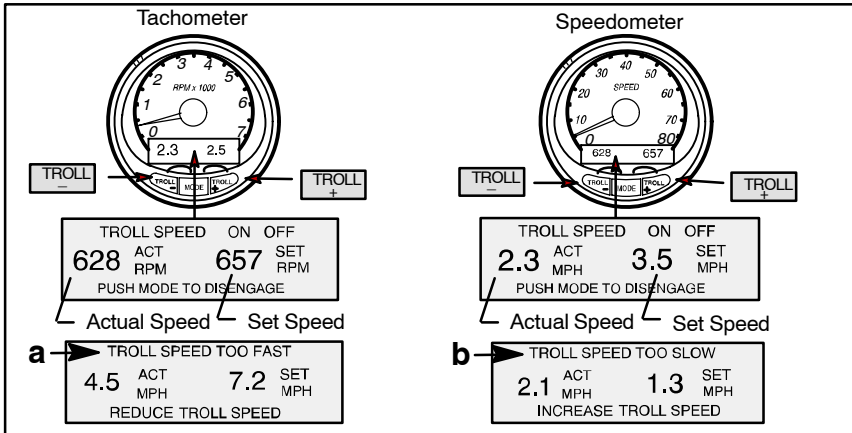
You can shut off troll control anytime by pushing the **MODE** button when in the troll display screen or by moving the throttle.

If you have troll control set at a desired speed and then you shut off the troll control, the system remembers the set speed and will return to that speed when re-engaged.

The display screen will revert back to the previous screen after 10 seconds of no activity. Push the **TROLL +** or **TROLL -** button to reactivate the display screen.

When the troll control is engaged and you are out of the troll control screen, a flashing signal "TR" will appear in the upper left corner of the display to indicate troll control is still running.

# TROLL CONTROL



## To Set Troll Control

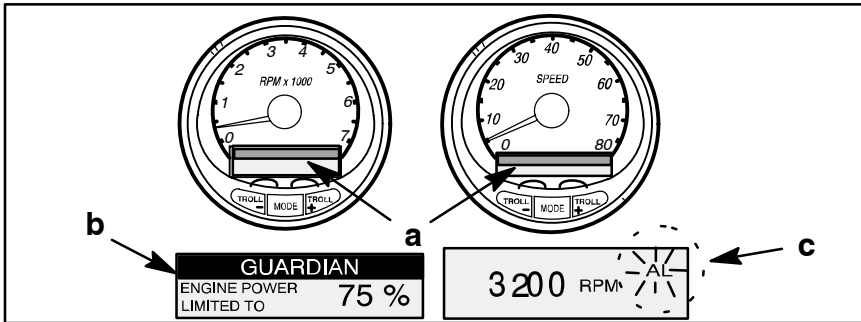
1. With the engine running, shift engine into gear. Set engine speed at idle.
2. Push in the  or  button to bring up the troll control display screen.
3. Press  to engage (turn on) the troll control.
4. Use the   buttons to set the desired speed. Use (+) to increase speed and (-) to decrease speed.
5. If you set troll control to a higher speed than the troll rpm can bring the boat to, the **TARGET SPEED TOO FAST** (a) message will appear. Reduce troll speed.
6. If you set troll control to a slower speed than the troll rpm can bring the boat to, the **TARGET SPEED TOO SLOW** (b) message will appear. Increase troll speed.

## To Get Out of Troll Control

There are three ways to turn off the troll control:

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

## WARNING SYSTEM



**Alarms Warnings** – When a problem is detected, the name of the offending alarm appears on the display (a).

If problem can cause immediate engine damage, the Engine Guardian System (b) will respond to the problem by limiting engine power. Immediately reduce throttle speed to idle 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 button is pressed. If there are multiple alarms, these will cycle on the display at five-second intervals.

If the mode button is pressed to a different screen, the flashing alarm signal “AL” (c) will appear in the upper right corner to indicate there still is a problem.

# WARNING SYSTEM

## 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 explanation of the problem and the correct action to take.

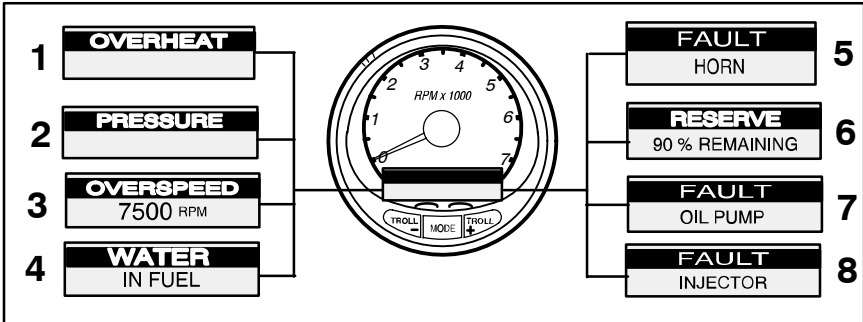
### WARNING DISPLAY SCREENS

| 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            |                    | ●                   |
| OIL TEMP           | ●                  |                     |
| OIL PSI            | ●                  |                     |
| OVERHEAT           | ●                  |                     |
| OVER SPEED         | ●                  |                     |
| PRESSURE           | ●                  |                     |
| RESERVE OIL        | ●                  |                     |
| WATER IN FUEL      | ●                  |                     |
| MAP                | ●                  |                     |
| MAT                | ●                  |                     |
| TPS                | ●                  |                     |



# WARNING SYSTEM

## Warning Display Screens

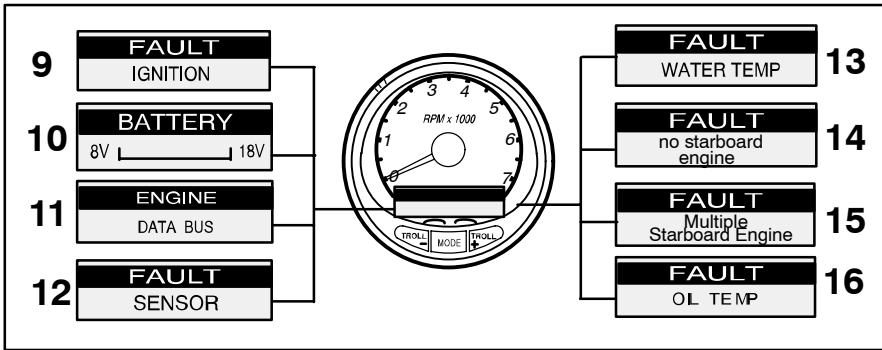


**IMPORTANT:** Refer to the Engine Operation, Maintenance and Warranty Manual for further explanation of the problem and the correct action to take.

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** – 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** – 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.

# WARNING SYSTEM

## Warning Display Screens



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/sea water temperature is not functioning correctly.
14. **NO STARBOARD ENGINE** – Informs you that the Instrument does not see the starboard engine computer. Usually indicates that no data is being transferred from the engine's computer to the gauge. (Check wiring, also make sure both terminator resistors are installed in the bus). Make sure both ECMs are not configured for port location using a DDT or Quicksilver Diagnostic Tool.
15. **MULTIPLE STARBOARD ENGINE** – SmartCraft Gauges are recognizing multiple engines as starboard.

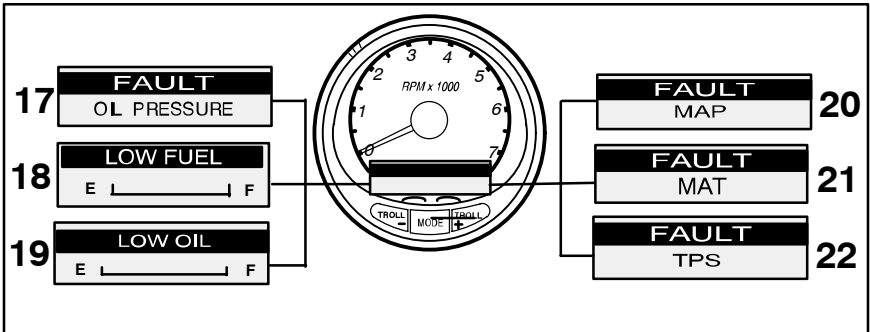
In multiple engine applications, each engine must first be assigned a position (starboard, port, starboard2 or port2) with a Quicksilver Diagnostic Tool before the system will function properly.

If you have a dual engine application, you must first program the port engine with a Quicksilver Diagnostic Tool.

16. **OIL TEMPERATURE** – Engine oil is overheating.

# WARNING SYSTEM

## Warning Display Screens



- 17. OIL PRESSURE** – There is insufficient oil pressure.
- 18. LOW FUEL LEVEL** – This message serves as a warning that the fuel level in the fuel tank is critically low. You should stop for fuel immediately to avoid running out.
- 19. LOW OIL LEVEL – OUTBOARD 2 STROKE ONLY** – Oil level in the remote oil tank is low. You should stop and refill the oil tank immediately to avoid running out.
- 20. FAULT-MAP** – Engine problem occurred. Have the engine checked by your dealer.
- 21. FAULT-MAT** – Engine problem occurred. Have the engine checked by your dealer.
- 22. FAULT-TPS** – Engine problem occurred. Have the engine checked by your dealer.

# TACHOMETER CALIBRATION

## Quick Cal Calibration

**Quick Cal** – This calibration is for setting lighting and contrast.

1. Press in the **[MODE]** and **[TROLL +]** buttons for up to 2 seconds to get to Quick Cal screen.
2. Press **[MODE]** to advance through the calibration selections.

## CAL 1 Tachometer Calibration

**Cal 1** – This calibration lets you turn on and off the system screens.

**NOTE:** Screens may vary depending upon the version of the gauge.

1. Press in the **[MODE]** and **[TROLL +]** buttons and hold for approximately 7 seconds until you see the *Cal 1* screen.
2. Press **[MODE]** to advance through the calibration selections.

|   |   |
|---|---|
| REMOTE SCREENS?<br>[NO] [SAVE] [YES]      | If yes is selected, then screen changes made on this SC1000 tach will effect any other SC1000 tach in the system.<br><b>NOTE:</b> All tachs will need to have this screen turned to "Yes" for this function to work.  |
| REMOTE LCD LIGHT?<br>[NO] [SAVE] [YES]    | If yes is selected, then lighting levels made on this SC1000 tach will effect any other SC1000 tach in the system.<br><b>NOTE:</b> All tachs will need to have this screen turned to "Yes" for this function to work. |
| REMOTE LCD CONTRAST?<br>[NO] [SAVE] [YES] | If yes is selected, then contrast levels made on this SC1000 tach will effect any other SC1000 tach in the system.<br><b>NOTE:</b> All tachs will need to have this screen turned to "Yes" for this function to work. |
| TRIM POPUP?<br>[NO] [SAVE] [YES]          | Do you want power trim display screen to pop up momentarily when you trim the engine?   |

(continued on next page)

# TACHOMETER CALIBRATION

## CAL 1 Tachometer Calibration

|   |  |
|---|--|
| <p>TRIM CALIBRATION</p> <p>[SKIP] [EDIT]</p>  | <p>Choosing edit allows you to calibrate the gauge to the standard 0–10 unit trim and 11–25 trailer position scale.</p>                  |
| <p>TRIM FULL DOWN THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT] [SKIP] [SAVE]</p>        |  |
| <p>TRIM FULL UP THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT] [SKIP] [SAVE]</p>          |  |
| <p>TRIM TO TRAILER POINT<br/>THEN PRESS PLUS BUTTON</p> <p>[DFLT] [SKIP] [SAVE]</p> |  |
| <p>DISPLAY UNITS</p> <p>[DOWN] [SAVE] [UP]</p>                                      | <p>Lets you change units of measure between English (standard) or Metric.</p>  |
| <p>SPEED UNITS</p> <p>[DOWN] [SAVE] [UP]</p>  | <p>Lets you select speed units. You can choose from MPH (Miles Per Hour), KN (Nautical Miles Per Hour) or KMH (Kilometers Per Hour).</p> |
| <p>QUICK REF SCREEN?</p> <p>[NO] [SAVE] [YES]</p>                                   | <p>Do you want to turn on the quick reference screen?</p>  |
| <p>ENGINE TEMP SCREEN?</p> <p>[NO] [SAVE] [YES]</p>                                 | <p>Do you want to turn on the engine temp screen?</p>  |

(continued on next page)

# TACHOMETER CALIBRATION

## CAL 1 Tachometer Calibration

|  |   |
|--|---|
| <p>OIL TEMP SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>     | <p>Do you want to turn on the oil temp screen?</p>                      |
| <p>OIL PRESS SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>    | <p>Do you want to turn on the oil pressure screen?</p>                  |
| <p>TRIM AND PSI SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p> | <p>Do you want to turn on the trim and water pressure split screen?</p> |
| <p>WATER PSI SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>    | <p>Do you want to turn on the water pressure screen?</p>                |
| <p>TRIM AND RPM SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p> | <p>Do you want to turn on the trim and RPM split screen?</p>            |
| <p>RPM SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>          | <p>Do you want to turn on the digital RPM screen?</p>                   |
| <p>FUEL USED SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>    | <p>Do you want to turn on the fuel used screen?</p>                     |

(continued on next page)

# TACHOMETER CALIBRATION

## CAL 1 Tachometer Calibration

|  |  |
|--|--|
| <p>VOLT / HOUR SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>        | <p>Do you want to turn on the split screen that displays battery voltage and engine run time?</p>  |
| <p>SPEED / SEA TEMP SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>   | <p>Do you want to turn on the split screen that displays the temperature of the water and the speed of the vessel?</p>                                       |
| <p>SEA TEMP<br/>OFFSET = 0°?</p> <p>[DOWN]                      [SAVE]                      [UP]</p> | <p>This screen allows you to calibrate the display and the water temperature sensor?</p>   |
| <p>DEPTH SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>              | <p>Do you want to turn on the depth screen? (Remember: You must have a Smart Craft depth transducer connected to the system for this screen to operate.)</p> |
| <p>SIMULATOR MODE?</p> <p>[NO]                      [SAVE]                      [YES]</p>            | <p>Do you want to turn on a simulation mode? (used for demonstration purposes).</p>  |
| <p>CALIBRATION 1<br/>EXIT?</p> <p>[NO]                      [SAVE]                      [CAL2]</p>   | <p>Do you want to exit calibration? Or go to calibration 2?</p>  |

# TACHOMETER CALIBRATION

## CAL 2 Tachometer Calibration

**CAL 2** – This calibration lets you configure the system sensor inputs.

**NOTE:** Screens may vary depending upon the version of the gauge.

1. Press in the **MODE** and **TROLL +** buttons and hold for approximately 10 seconds for calibration2 (Cal2) screen.
2. Press **MODE** to advance through the calibration selections.

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

**First:** Do nothing. Linear readout based on raw sensor values. This mode does not factor in irregular tank shapes.

**Second:** By following the tank calibration procedure described on next page, but without actually adding fuel. System Tach will supply an estimated range value based on linear interpolation of the sensor range values. This mode does not factor in irregular tank shapes.

**Third:** By following the tank calibration procedure described on next page completely, which means adding fuel at each calibration point. System Tach will display an estimated range value that factors in the tank shape.



# TACHOMETER CALIBRATION

## CAL 2 Tachometer Calibration

|  |  |
|--|--|
| <p>FUEL TANK CAPACITY</p> <p>[DOWN]                      [SAVE]                      [UP]</p>                        | <p>Lets you enter the capacity of your boats fuel tank. This option is the same for tank 1 as it is for tank 2.</p>                                |
| <p>CALIBRATION FUEL TANK</p> <p>[SKIP]                      [EDIT]</p>   | <p>Lets you enter the mode where you can calibrate your fuel tank. Fuel tank calibration procedure is the same for tank 1 as it is for tank 2.</p> |
| <p>EMPTY TANK THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT]                      [SKIP]                      [SAVE]</p>   | <p>You can choose to have an empty tank and hit SAVE, or hit DFLT and a default value will be entered based on the capacity of the tank.</p>       |
| <p>FILL TO 1/4 THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT]                      [SKIP]                      [SAVE]</p>  | <p>You can choose to have tank at 1/4 and hit SAVE, or hit DFLT and a default value will be entered based on the capacity of the tank.</p>         |
| <p>FILL TO 1/2 THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT]                      [SKIP]                      [SAVE]</p>  | <p>You can choose to have tank at 1/2 and hit SAVE, or hit DFLT and a default value will be entered based on the capacity of the tank.</p>         |
| <p>FILL TO 3/4 THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT]                      [SKIP]                      [SAVE]</p>  | <p>You can choose to have tank at 3/4 and hit SAVE, or hit DFLT and a default value will be entered based on the capacity of the tank.</p>         |
| <p>FILL TO FULL THEN<br/>PRESS PLUS BUTTON</p> <p>[DFLT]                      [SKIP]                      [SAVE]</p> | <p>You can choose to have tank at full and hit SAVE, or hit DFLT and a default value will be entered based on the capacity of the tank.</p>        |

(continued on next page)

# TACHOMETER CALIBRATION

## CAL 2 Tachometer Calibration

|  |   |
|--|---|
| <p>EXTERNAL SENSORS</p> <p>[SKIP] [EDIT]</p>     | <p>This section lets you enable or disable the following external sensor inputs.</p>  |
| <p>PITOT SENSOR?</p> <p>[NO] [SAVE] [YES]</p>    | <p>Is the boat equipped with a pitot sensor to measure boat speed?</p>  |
| <p>PADDLE SENSOR?</p> <p>[NO] [SAVE] [YES]</p>   | <p>Is the boat equipped with a paddle wheel to measure boat speed?</p>  |
| <p>TRIM SENSOR?</p> <p>[NO] [SAVE] [YES]</p>     | <p>Is the boat equipped with a trim sensor?</p>   |
| <p>SEA TEMP?</p> <p>[NO] [SAVE] [YES]</p>        | <p>Is the boat equipped with a water temperature sensor?</p>  |
| <p>STEERING SENSOR?</p> <p>[NO] [SAVE] [YES]</p> | <p>Is the boat equipped with a steering sensor?</p>   |
| <p>INVERT STEERING?</p> <p>[NO] [SAVE] [YES]</p> | <p>Is steering angle showing in the opposite direction than it should be? If it is then this feature will reverse the signal so it is displayed properly.</p> |

(continued on next page)

# TACHOMETER CALIBRATION

## CAL 2 Tachometer Calibration

|   |   |
|---|---|
| <p>TROLL CONTROL?</p> <p>[NO]                      [SAVE]                      [YES]</p>              | <p>Is troll control enabled or disabled on this boat?</p>   |
| <p>SPEED OPTION</p> <p>[SKIP]                      [EDIT]</p>   | <p>This section lets you configure the following speed sensors.</p>   |
| <p>PITOT SENSOR?</p> <p>[NO]                      [SAVE]                      [YES]</p>               | <p>Select pitot transducer type. You can choose 100 or 200 PSI. (100 PSI is the most common)</p>                        |
| <p>PITOT SENSOR MULTIPLIER</p> <p>[DOWN]                      [SAVE]                      [UP]</p>    | <p>Adjust the pitot pressure sensor for correcting display readings that are too high/low.</p>                          |
| <p>PADDLE SENSOR PULSE FACTOR</p> <p>[DOWN]                      [SAVE]                      [UP]</p> | <p>Adjust paddle wheel frequency for display readings that are too high/low.</p>  |
| <p>PADDLE TO PITOT TRANSITION</p> <p>[DOWN]                      [SAVE]                      [UP]</p> | <p>Set the speed at which the gauge stops looking at the paddle wheel and starts using pitot to measure boat speed.</p> |

(continued on next page)

# TACHOMETER CALIBRATION

## CAL 2 Tachometer Calibration

|  |   |
|--|---|
| <p>DEPTH SENSOR OFFSET</p> <p>[DOWN]            [SAVE]            [UP]</p>             | <p>Lets you electronically configure a depth offset. Entering a negative number gives you a water line offset. A positive number gives you a keel offset.</p> |
| <p>DEPTH ALARM</p> <p>[DOWN]            [SAVE]            [UP]</p>                     | <p>Lets you enter a depth value. When the depth transducer reads that value or below, the shallow water alarm will sound.</p>                                 |
| <p>CALIBRATION 2<br/>EXIT?</p> <p>[NO]                [SAVE]                [CAL1]</p> | <p>Do you want to exit calibration? Or go to calibration 1?</p>   |

# SPEEDOMETER CALIBRATION

## Quick Cal Calibration

**Quick Cal** – This calibration is for setting lighting and contrast.

1. Press in the **[MODE]** and **[TROLL +]** buttons for up to 2 seconds to get to Quick Cal screen.
2. Press **[MODE]** to advance through the calibration selections.

## CAL 1 Speedometer Calibration

**Cal 1** – This calibration lets you turn on and off the system screens.

**NOTE:** Screens may vary depending upon the version of the gauge.

1. Press in the **[MODE]** and **[TROLL +]** buttons and hold for approximately 7 seconds until you see the *Cal 1* screen.
2. Press **[MODE]** to advance through the calibration selections.

|   |  |
|---|--|
| REMOTE LCD LIGHT?<br>[NO] [SAVE] [YES]    | Enables you to set the lighting levels on all the SC1000 simultaneously from this gauge.   |
| REMOTE LCD CONTRAST?<br>[NO] [SAVE] [YES] | Enables you to control the contrast from another System TACH/Speed simultaneously from this gauge.   |
| TIME<br>[NO] [SKIP] [EDIT]                | Allows you to set the time. You must select edit to format the time. If a GPS is connected to the system you cannot edit time using this function.           |
| TIME FORMAT<br>[DOWN] [SAVE] [UP]         | Choose between a 12 hour and 24 hour format. The 12 hour format displays the date as month-day-year. The 24 hour format displays the date as day-month-year. |

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# SPEEDOMETER CALIBRATION

## CAL 1 Speedometer Calibration

|   |  |
|---|--|
| <p>CALIBRATION<br/>HOUR 12:00 AM</p> <p>[DOWN]                      [SAVE]                      [UP]</p>        | <p>Adjust the gauges internal clock to match your local time. First set the hours then press MODE button to set the minutes.</p>                   |
| <p>DISPLAY UNITS</p> <p>[DOWN]                      [SAVE]                      [UP]</p>                        | <p>Lets you change units of measurement between English (standard) or Metric.</p>  |
| <p>SPEED UNITS</p> <p>[DOWN]                      [SAVE]                      [UP]</p>                          | <p>Lets you select the units at which speed is displayed. You can choose from MPH (Miles Per Hour), KTS (Knots), or KMH (Kilometers Per Hour).</p> |
| <p>STEERING ANG. SCREEN?</p> <p>[NO]                              [SAVE]                              [YES]</p> | <p>Do you want to turn on the steering angle screen?</p>   |
| <p>TEMP / CLOCK SCREEN?</p> <p>[NO]                              [SAVE]                              [YES]</p>  | <p>Do you want to display the split screen showing air temperature and the time?</p>   |
| <p>FUEL USED SCREEN?</p> <p>[NO]                              [SAVE]                              [YES]</p>     | <p>Do you want to turn on the fuel used screen? This screen displays the fuel used in a trip.</p>  |

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# SPEEDOMETER CALIBRATION

## Quick Cal Calibration

|   |   |
|---|---|
| <p>TRIP SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p>        | Do you want to turn on the trip screen?   |
| <p>FUEL MANAGE SCREEN?</p> <p>[NO]                      [SAVE]                      [YES]</p> | Do you want to turn on the fuel manage screen?                                    |
| <p>SIMULATOR MODE?</p> <p>[NO]                      [SAVE]                      [YES]</p>     | Do you want to turn on a simulation mode? (Used for demonstration purposes only). |
| <p>EXIT?</p> <p>[NO]                      [YES]                      [CAL2]</p>               | Do you want to exit calibration? Or go to calibration 2?                          |

# SPEEDOMETER CALIBRATION

## CAL 2 Speedometer Calibration

**CAL 2** – This calibration lets you configure the system sensor inputs.

**NOTE:** Screens may vary depending upon the version of the gauge.

1. Press in the **[MODE]** and **[TROLL +]** buttons and hold for approximately 10 seconds for calibration2 (*Cal2*) screen.
2. Press **[MODE]** to advance through the calibration selections.

|  |   |
|--|---|
| <p>EXTERNAL SENSORS</p> <p>[SKIP] [EDIT]</p>   | This lets you enable or disable external sensor inputs. |
| <p>AIR TEMP?</p> <p>[NO] [SAVE] [YES]</p>      | Are you using an air temp sensor?                       |
| <p>GPS?</p> <p>[NO] [SAVE] [YES]</p>           | Do you have a GPS sensor installed?                     |
| <p>USE GPS SPEED?</p> <p>[NO] [SAVE] [YES]</p> | Use the GPS input to drive the speed display?           |

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# SPEEDOMETER CALIBRATION

## CAL 2 Speedometer Calibration

|  |  |
|--|--|
| <p>SEA TEMP<br/>OFFSET = 0° F</p> <p>[DOWN]            [SAVE]            [UP]</p>              | <p>This screen allows you to calibrate the display and the water temperature sensor.</p> |
| <p>TROLL CONTROL?</p> <p>[NO]                    [SAVE]                    [YES]</p>           | <p>Is troll control enabled on this boat?</p>  |
| <p>WATER TEMPERATURE<br/>ADJUST</p> <p>[DOWN]            [SAVE]            [UP]</p>            | <p>Adjust water temp transducer to match actual sea water temperature.</p>               |
| <p>CALIBRATION 2<br/>EXIT?</p> <p>[NO]                    [SAVE]                    [CAL1]</p> | <p>Do you want to exit calibration? Or go to calibration 1?</p>                          |

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