

# *User's Guide*

**ICON 3.5C Display**



Original

***EVINRUDE***®  
***E-TEC***®





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# SAFETY INFORMATION

This user's guide may contain the following safety messages:

## **DANGER**

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

## **WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury

## **CAUTION**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

## **NOTICE**

Indicates an instruction which, if not followed, could severely damage engine components or other property.

This user's guide contains information to prevent personal injury and damage to equipment. Use this guide in combination with the boat and outboard operator's guides. Always follow safety and operation information.

# PRODUCT INFORMATION

The *ICON 3.5C* Display is designed for use with *Evinrude E-TEC® G2* outboards. The display communicates with the outboard, remote control(s), and other network connected devices, by means of a *NMEA 2000®* compliant network.

The display handles standard *NMEA 2000* messages and proprietary messages. The display controls a number of helm functions and options. Some options and/or modes of operation are not possible to access without this display present in the system. Select outboard sensor calibrations and functions are also accessible through the display.

The display incorporates a 3.5 in. (90 mm) color screen.



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## FEATURES

Supports single outboard applications
320 x 240 Quarter-Video Graphics Array (QVGA) display resolution
Viewable with polarized sunglasses
Bright illumination - 750 Nit (750 cd/m <sup>2</sup> )
Firmware update capability via USB interface
Integrates with <i>Evinrude ICON II</i> remote controls and <i>Evinrude E-TEC G2</i> outboards
<i>NMEA 2000</i> network interface
Pre-configured user selectable screens
Descriptive text for fault codes and procedures
Multi-language support

## System Functions

The display provides a number of user selectable modes and configuration menus. Select modes affect unit selection and screen appearance. Other modes interact with and affect remote control and outboard operation and functionality.

This display interacts with system components including one *Evinrude E-TEC G2* outboard, up to two remote controls, and devices on a *NMEA 2000* network.

## Display Mode Functions

- Calibration
  - Trim upper and lower limits
  - Tilt maximum level
  - Fluid tank type, volume, and level – up to four
  - Fuel ECO (Economy) period
  - Fuel ECO reset
- Back light control

## Display Mode Selections

- Unit Selection
  - U.S. (this is the default choice when the gauge is initially powered on)
  - Metric
  - Imperial
- Language Selection
  - English – EN
  - French – FR
  - Spanish – ES
  - Italian – IT
  - German – DE

## Unit Selection

U.S.	Metric	Imperial
Degrees Fahrenheit	Degrees Celsius	Degrees Celsius
Feet (depth)	meters	Feet
Gallons per Hour	Liters per hour	Imperial gallons per hour
Miles per Gallon	Liters per 100 Kilometers	Miles per Imperial gallon
Miles per Hour	Kilometers per Hour	Miles per Hour
percent	percent	percent
Pounds per Square Inch	kilospascals	Pounds per Square Inch
Revolutions per Minute	Revolutions per Minute	Revolutions per Minute
Volts	Volts	Volts
Miles	Kilometers	Miles
Month, Day, Year	Day, Month, Year	Day, Month, Year

# Display Parameters

The display supports the following data:

System Faults	Language Selection <ul style="list-style-type: none"> <li>English - French - Spanish - German - Italian</li> </ul>
RPM	Throttle Lever Position
Fuel Flow	Operating Hours
Water Pressure	Low Oil Warning
Battery Voltage	Fuel Economy
Cooling Water Temperature	Mode Selection <ul style="list-style-type: none"> <li>Trim Assist</li> <li>Power Steering Assist</li> </ul>
Trim Position	Winterization
Oil Level <ul style="list-style-type: none"> <li>From outboard mounted oil tank</li> <li>From vessel mounted oil tank</li> </ul>	Hand/Foot Throttle Command Source
Fluid Levels - Four inputs <ul style="list-style-type: none"> <li>2X oil, 2X fuel</li> <li>Sourced from remote control inputs</li> </ul>	Settings <ul style="list-style-type: none"> <li>Trim Sender Calibration</li> <li>Tilt Limit Calibration</li> <li>Fluid Level Configuration and Calibration</li> </ul>
Speed Over Ground	back light Control <ul style="list-style-type: none"> <li>Display Selected</li> <li>Remote Control Selected</li> </ul>
Unit Selection <ul style="list-style-type: none"> <li>US - Metric - Imperial</li> </ul>	Audible Alarms

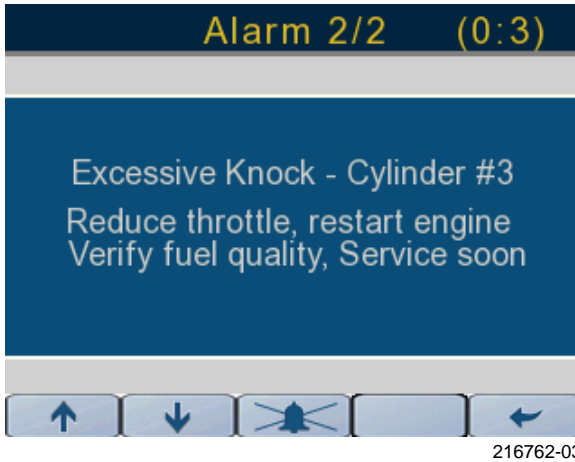
# SYSTEM INFORMATION

## System Faults

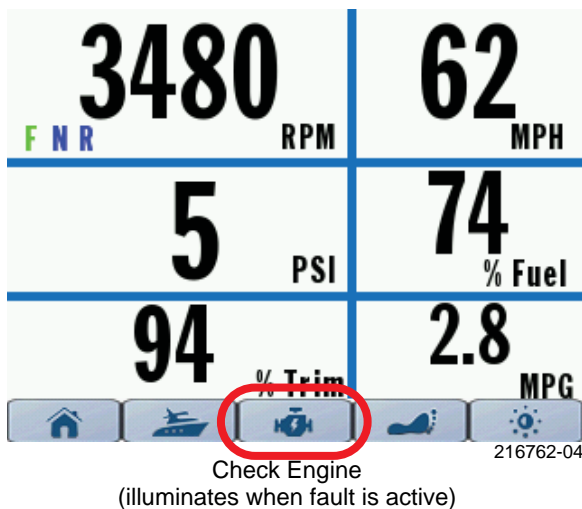
System faults are generated by the outboard, the remote control, and a mechanical control module (if equipped).

When an active or current fault is broadcast on the *NMEA 2000* network, the display will:

- 1) Show the active fault.



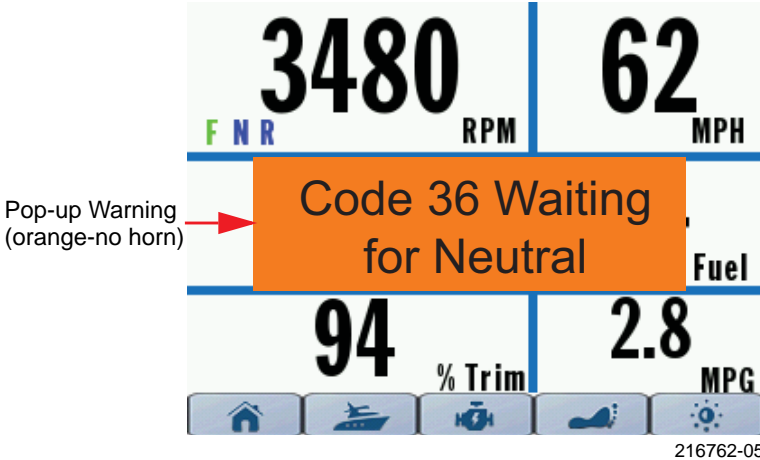
- 2) Displays an Engine Status indicator – Check Engine (circled in red), Temperature, Oil, or Battery).





3) Initiate a pop-up warning with the fault information displayed and activate an engine status indicator. The pop-up color will be orange or red.

An orange-colored Pop Up WILL NOT activate the warning horn. A red-colored pop-up WILL activate the warning horn. Low Oil and Fault Code warnings will pop-up and overlay on any currently displayed page:



A pop-up warning and audible warning, or both, will remain in effect until acknowledged by the operator. If a fault is active, it will be displayed in Active Faults information on the Engine 2 page.

## TURNING THE DISPLAY ON

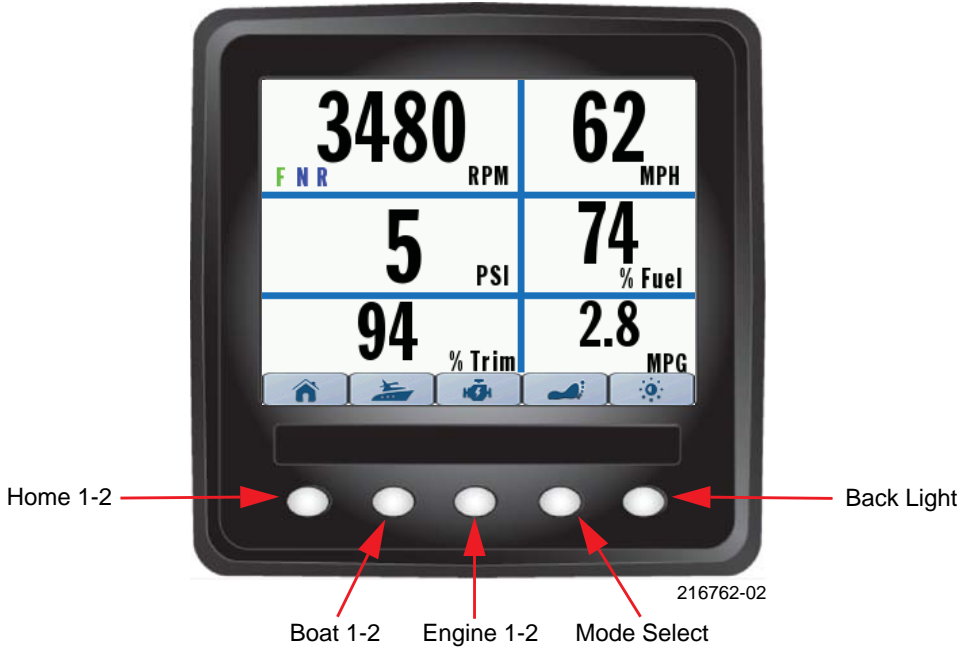
Turn the key switch to the On position or start the outboard to turn the display on.

	<b><i>Problem</i></b>	<b><i>Solution</i></b>
<b><i>Troubleshooting Tip</i></b>	<i>Display does not power On.</i>	<i>Charge the network power supply battery to a minimum of 12.5V.  Disconnect wiring harness from back of gauge, and then securely reconnect it.</i>

## USING THE DISPLAY

Press a button to once to access its first screen, press the same button again to access its second screen.

**NOTE:** The Mode Select button only accesses a single screen.

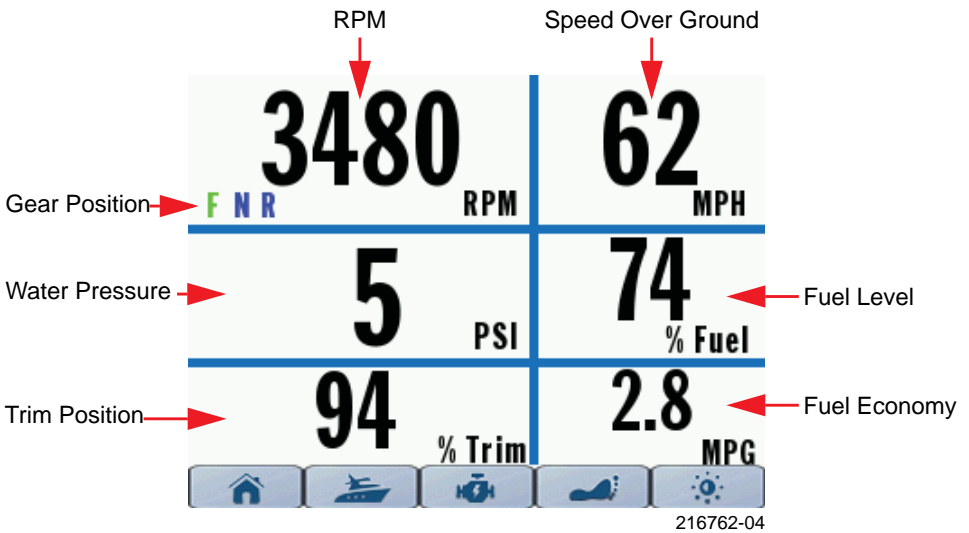


# DISPLAY SCREENS

## Home 1

Press the Home button once to access the Home 1 screen. The data shown is:

- Trim Position
- Water Pressure
- Gear Position (the active position is illuminated green) – FORWARD (F), NEUTRAL (N), REVERSE (R)
- RPM
- Speed Over Ground – requires GPS antenna input, use BRP P/N 765349
- Fuel Level
- Fuel Economy
- Engine Status Icons – Check Engine, Temperature, Oil, Battery

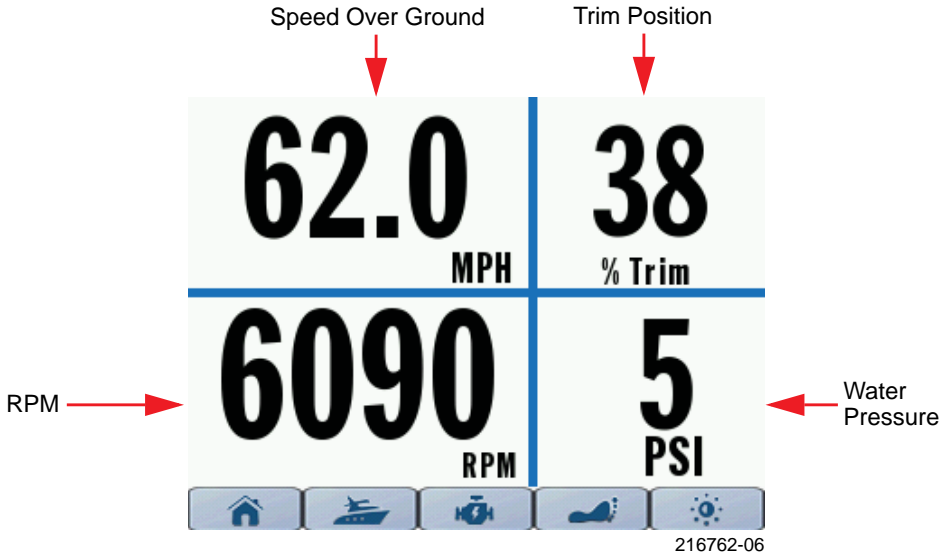


	<b>Problem</b>	<b>Solution</b>
<b>Trim Position Troubleshooting Tip</b>	<i>Trim position is not accurate.</i>	<i>Verify the trim calibration settings.</i>

## Home 2

Press the Home button a second time to access the Home 2 screen. The data shown is:

- RPM
- Speed Over Ground
- Trim Position
- Water Pressure – requires 0-50 psi pressure input transducer, use BRP P/N 5008640

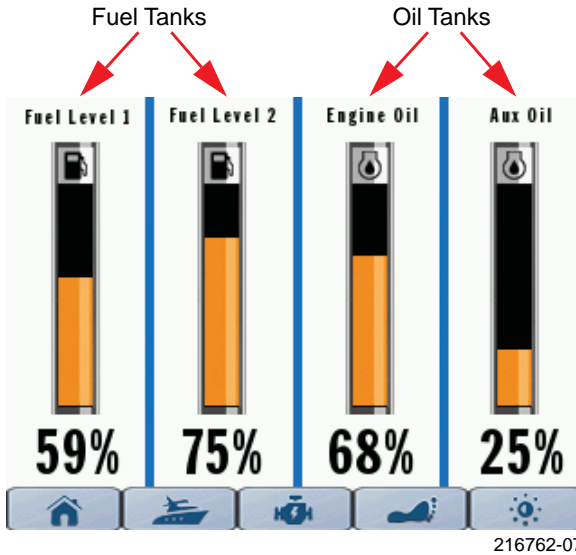


	<b>Problem</b>	<b>Solution</b>
<b>Water Pressure Troubleshooting Tip</b>	<i>Water pressure does not display or is not accurate.</i>	<i>Verify the water pressure transducer selection; use Evinrude Diagnostic software (see your dealer).</i>

# Boat 1

Press the Boat button to access the Boat 1 screen. The data shown is fuel and oil levels. The maximum configuration is four tanks - two fuel, one on-engine oil, and one vessel-mounted oil.

**NOTE:** The oil level reading is not available when the outboard is in the tilt range.



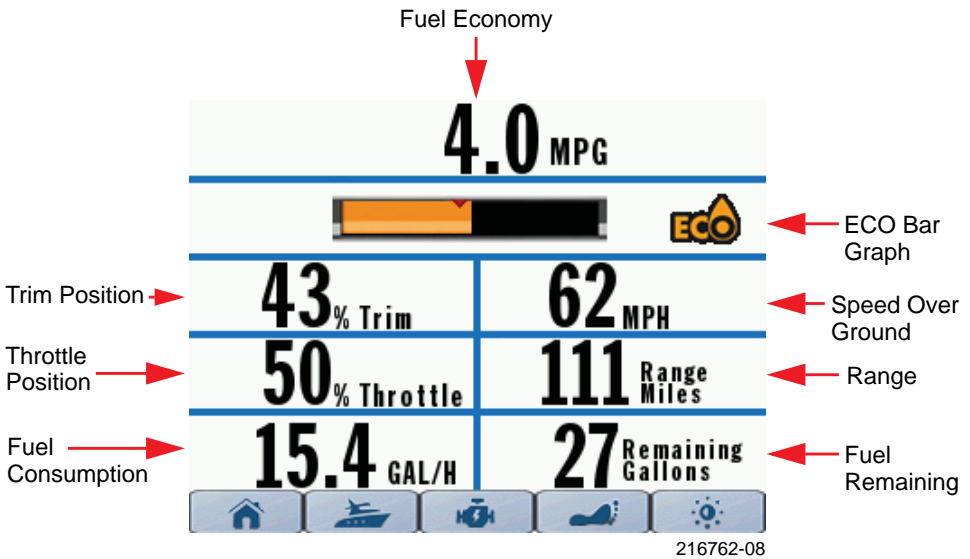
	<b>Problem</b>	<b>Solution</b>
<b>Fuel and Oil Level Troubleshooting Tip</b>	<i>Fuel and oil level does not display or is not accurate.</i>	<i>Reset the configuration of the fluid input source.</i>  <i>Reset the multi-point level calibration for each fluid tank.</i>

## Boat 2

Press the Boat button a second time to access the Boat 2 screen. This screen provides operating data for the fuel economy of the vessel. The data shown is:

- Fuel Consumption\*
- Throttle Position
- Trim Position
- Fuel Economy\*
- ECO Bar Graph – instantaneous fuel economy figure with marker for long term economy
- Speed Over Ground\*
- Range\* – uses sum of fuel tank levels and average fuel economy value
- Fuel Remaining – sum of all fuel tanks

\*Requires GPS antenna input, use BRP P/N 765349.

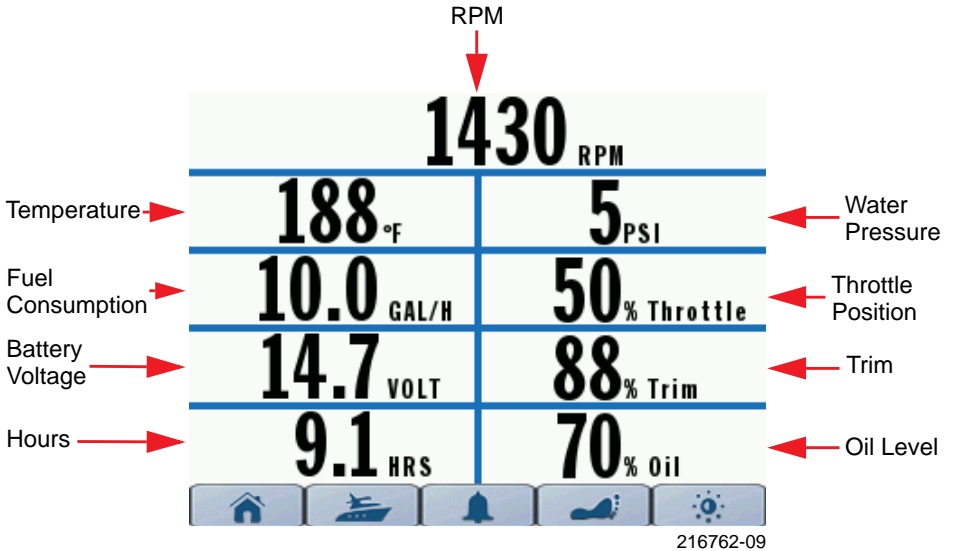


	<b><i>Problem</i></b>	<b><i>Solution</i></b>
<b><i>Fuel Economy Troubleshooting Tip</i></b>	<i>Fuel economy data does not display or is not accurate</i>	<p><i>Verify that GPS speed input data is available.</i></p> <p><i>Verify fuel tank level calibration and capacity setting.</i></p>

# Engine 1

Press the Engine button to access the Engine 1 screen. The data shown is:

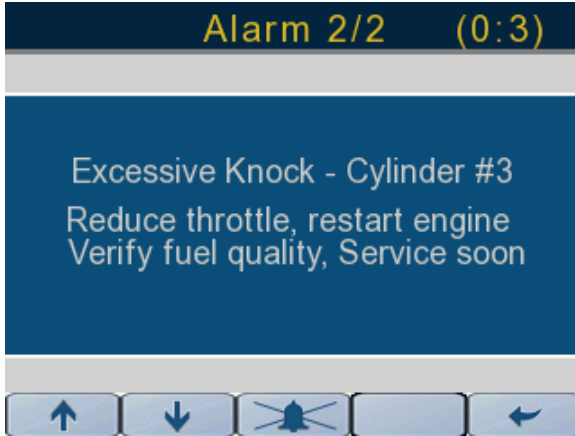
- Hours
- Battery Voltage
- Fuel Consumption
- Temperature
- RPM
- Water Pressure
- Throttle Position – based on remote control throttle lever position
- Trim Position
- Engine On-board Oil Level – level will vary when the outboard is in the trim range



	<b><i>Problem</i></b>	<b><i>Solution</i></b>
<b><i>Troubleshooting Tip</i></b>	<i>Oil level does not display or is not accurate.</i>	<i>Trim to the full down position before checking oil level.</i>

## Engine 2

Press the Engine 2 button a second time to access the Engine 2 screen. This screen shows currently active faults and corrective action recommendations.



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# MODE SELECTION

Press the Mode Select button to access the Mode Select screen. The following table describes the Mode Select functions:

Function	Settings/Options	Note
Throttle Select	Hand, Foot	The “Foot” option will only appear on the Mode Select screen if a foot throttle is installed in the system
Trim Assist ( <i>i-Trim</i> )	On, Off	Factory set to Off
Winterize	Initiate	Use for long term storage
Power Steering Assist	Minimum, Medium, Maximum	Factory set to “Minimum”  Only available on <i>Evinrude E-TEC G2</i> outboards with Dynamic Power Steering (DPS)

## Throttle Source

The “Hand” throttle selection is shown. Press the right arrow button to toggle the selection between “Hand” and “Foot”.



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## Trim Assist

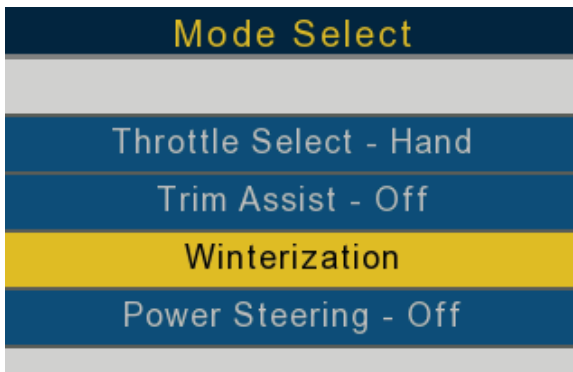
Select the trim assist option. Press the right arrow button to toggle the selection between On and Off.



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## Winterization

Select the Winterization option. Press the right arrow button to start the winterization process. Follow the on-screen prompts to complete winterizing of the outboard.



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# Power Steering

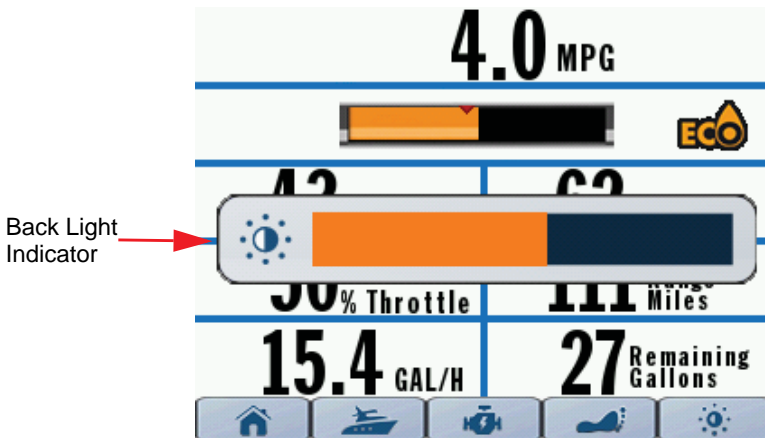
Select the Power Steering option. Press the right arrow button to toggle the selection between On and Off.



216762-13

# Back Light

Use this screen to adjust the back light in 10% increments from 10% to 100%. Back light level remains in memory when the display is shut off.

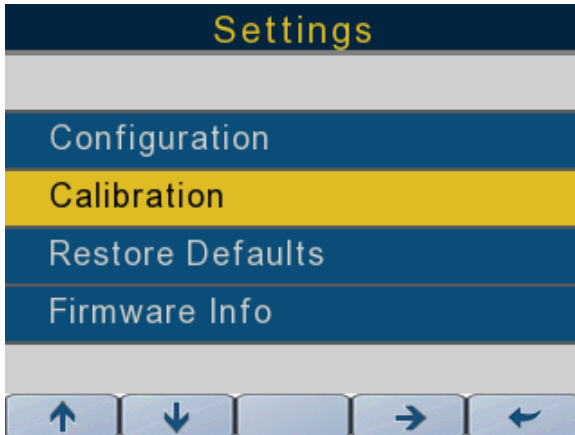


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# SETTINGS

Use this screen to set Configuration and Calibration options, restore the display to factory default settings, and to view Firmware Information.

Press and hold the back light button to access the Settings screen.



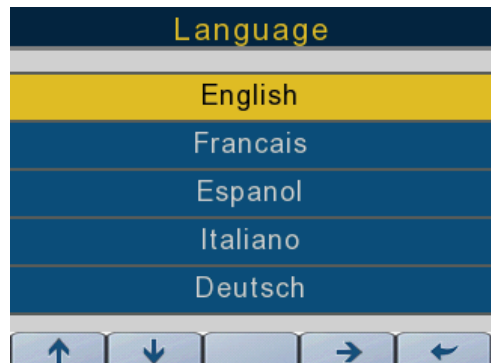
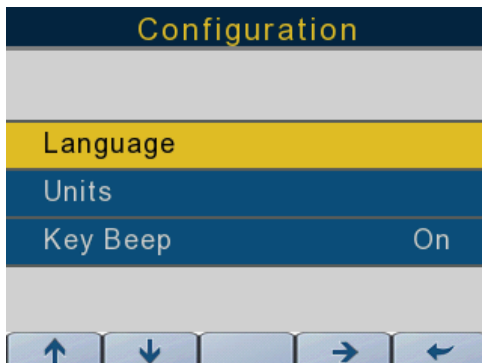
216762-15

## Configuration

Select the Configuration option from the Settings screen to set Language, Units, and Key Beep options.

## Language

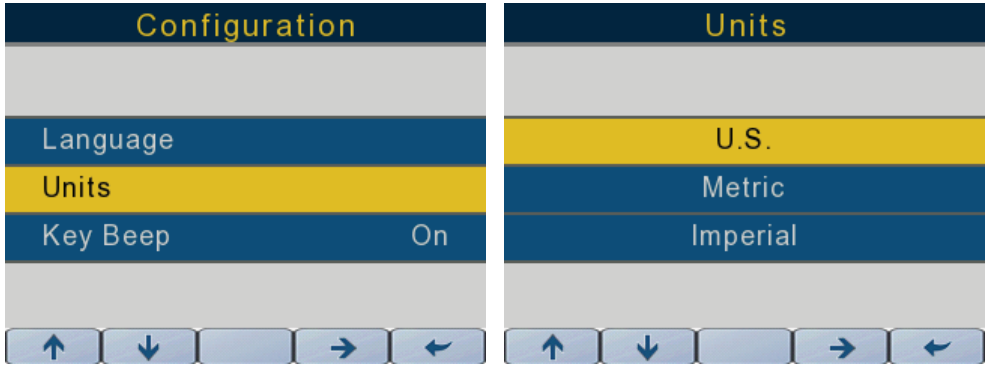
Select the display language in English (default selection), French, Spanish, Italian, or German.



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# Units

Select units in U.S. (default selection), Metric, or Imperial.



216762-17

# Key Beep

Turn the Key Beep On or Off.



216762-18

## Calibration

Use the Calibration screen to set calibration options for Fluid Tanks, Trim, Tilt, and Fuel Economy.

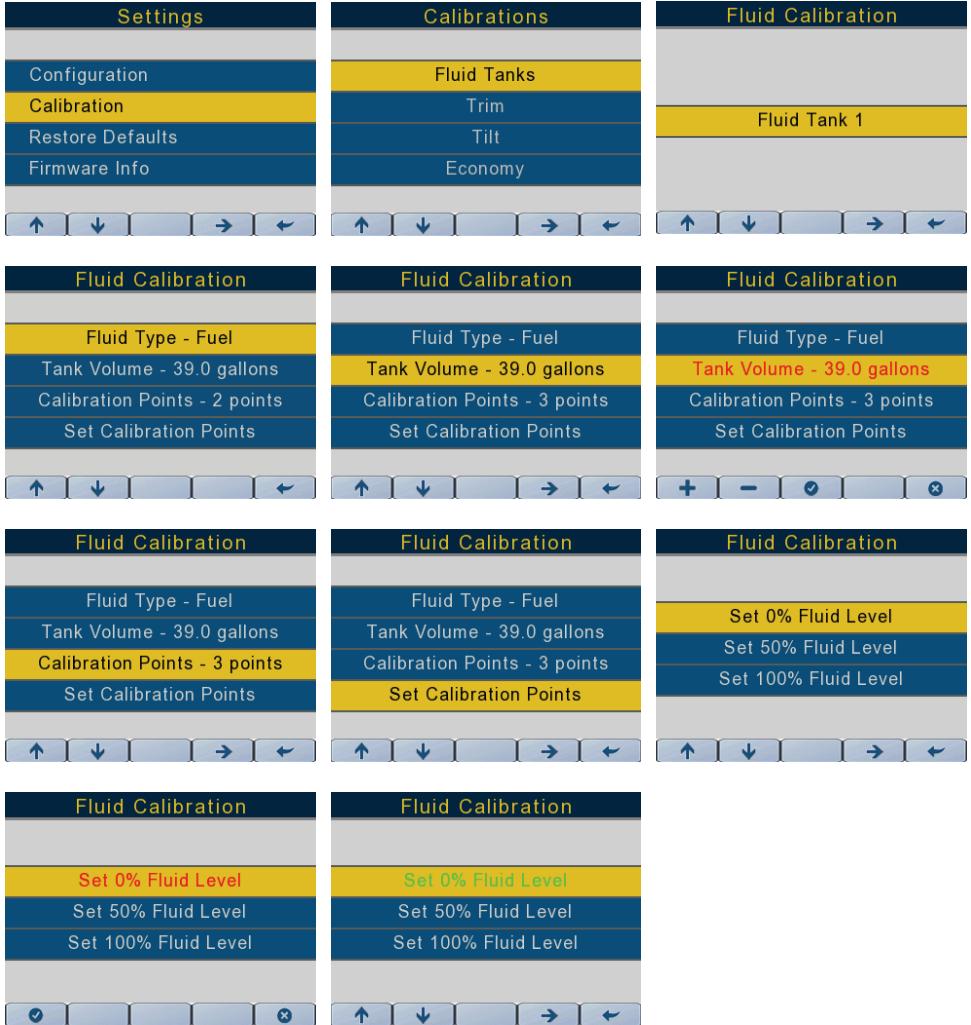


216762-19

# Fluid Tanks

Select the Fluid Tanks option to set calibration levels (2, 3, or 5 point), fluid types, and tank volumes. The fluid tank input source(s) (three maximum) are connected to the remote control wiring harness.

**NOTE:** Screen shots display from left to right.



216762-20

## Trim

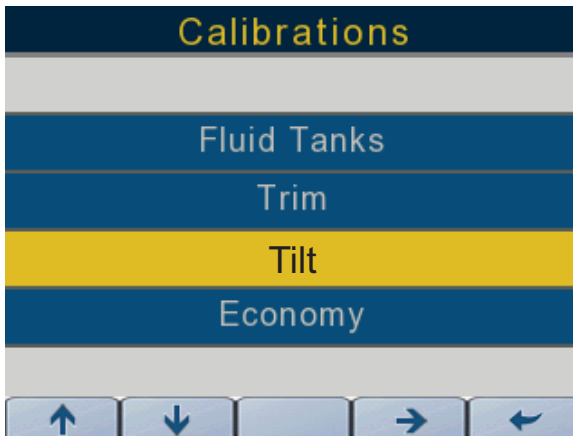
Select the Trim option, then follow the on-screen prompts to set the lower and upper trim range limits.



216762-21

## Tilt

Select the Tilt option, then follow the on-screen prompts to set or clear the maximum tilt range limit.

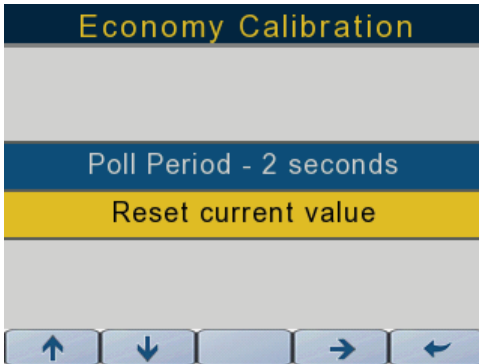
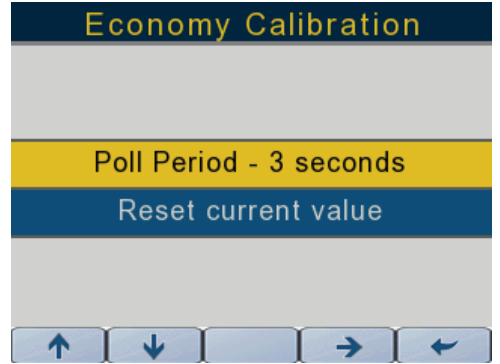
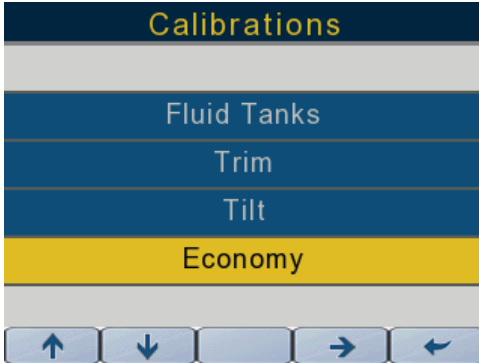


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# Economy

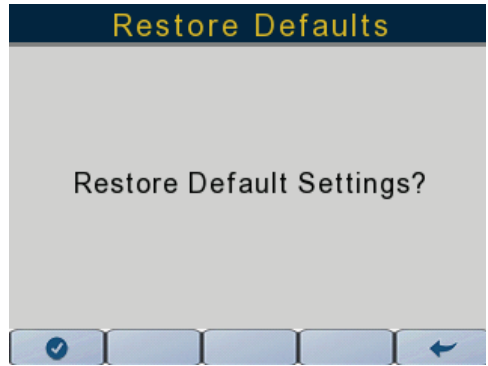
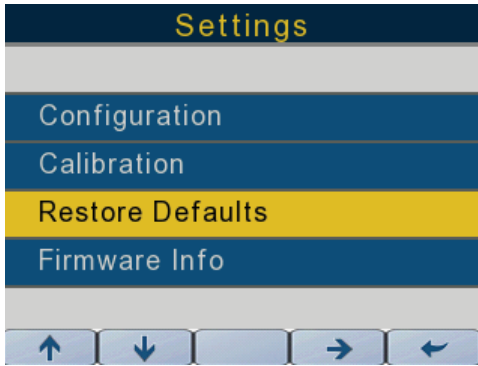
Use to set the “sample fuel economy time interval” and to reset the economy average value.



216762-23

## Restore Defaults

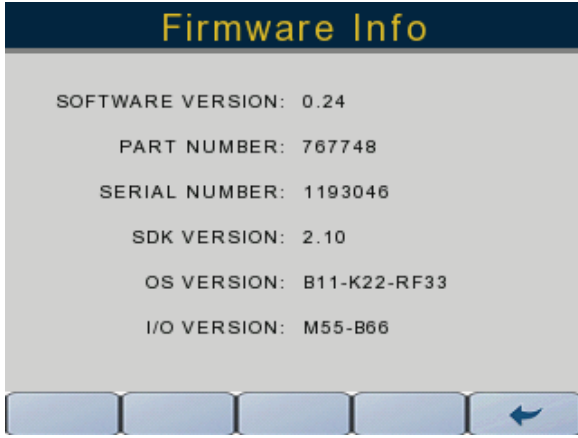
Use this screen to restore the display to factory default settings.



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# Firmware Information

Use this screen to view the current firmware information for the display.



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# INSTALLATION

Verify that each of the following components are in the package:

- *ICON 3.5C* Display
- Harness Assembly - P/N 767749
- T-Connector - P/N 764151
- Y-Harness - P/N 587230
- User's Guide - P/N 216762

## Optional Components

- Horn Kit Assembly - P/N 176361

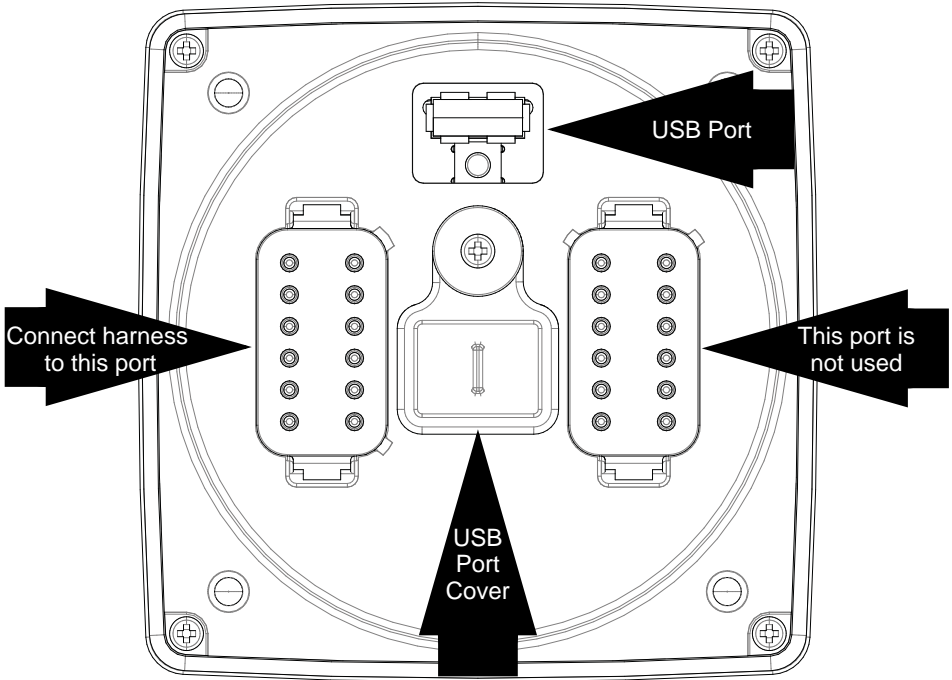
## Mounting

- 1) Identify the mounting location. Allow a minimum of 6.0 in. (152.4 mm) behind the mounting surface for harness connection and routing.
- 2) Use the mounting template. Cut/drill the openings to the specified dimensions.
- 3) Place the display in the opening so the bezel is flush with the dashboard.
- 4) Use the plastic spin nuts to secure the display. Tighten the nuts securely.

# PORT IDENTIFICATION

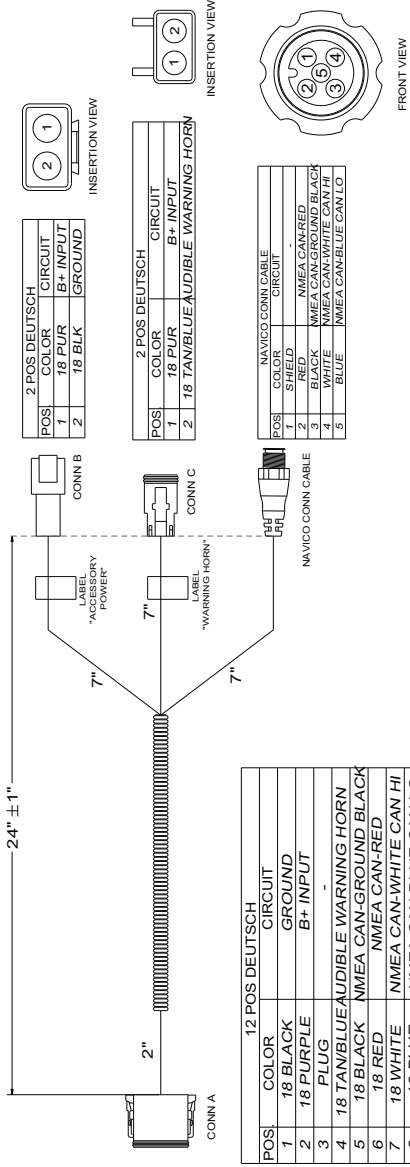
**NOTE:** The USB port is used for firmware updates - see your dealer.

## Rear View



216762-28

# WIRING HARNESS DETAIL

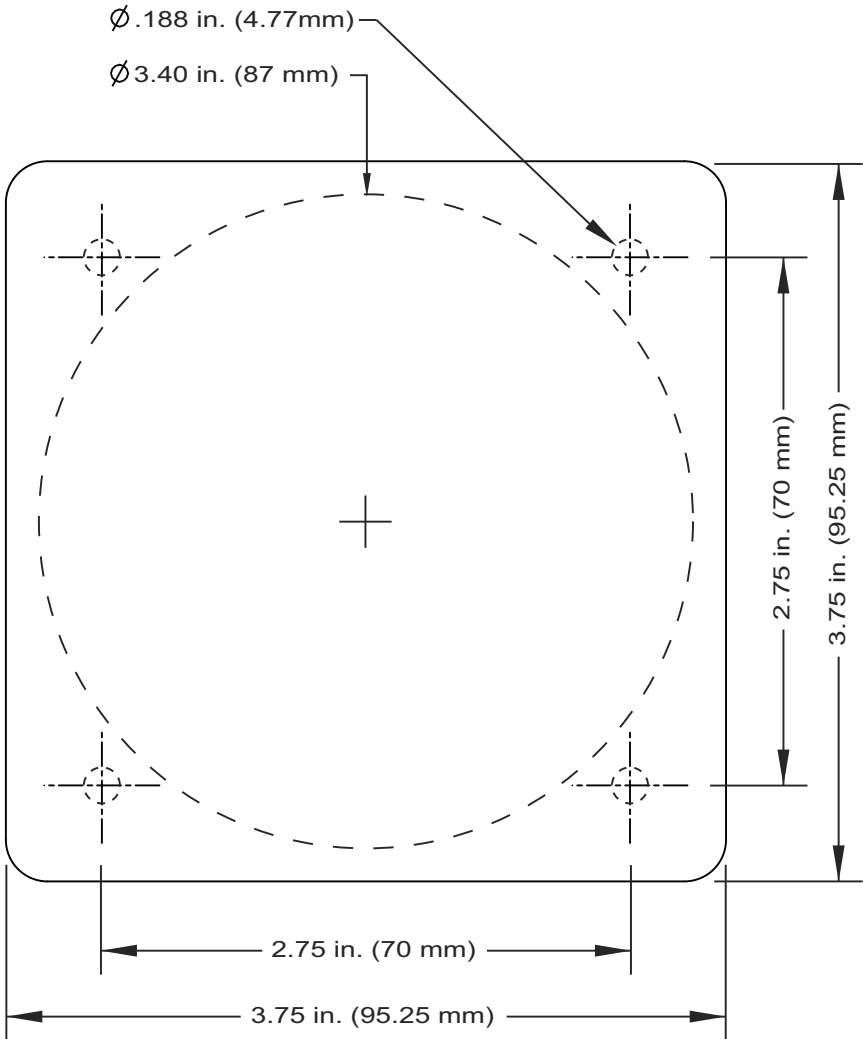


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# MOUNTING TEMPLATE



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