

# *User's Guide*

**ICON 3.5C Display**



Original

***EVINRUDE***<sup>®</sup>  
***E-TEC***<sup>®</sup>







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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 *Evinrude*® *ICON 3.5C* Display is designed for use with *Evinrude E-TEC*® *G2 V6* 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.



216762-02

## 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 *Evinrude ICON II* remote controls and *Evinrude E-TEC G2 V6* outboards

*NMEA 2000* network interface

Preconfigured 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
- Backlight 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

| <b>U.S.</b>            | <b>Metric</b>             | <b>Imperial</b>           |
|------------------------|---------------------------|---------------------------|
| 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   | Backlight 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  |



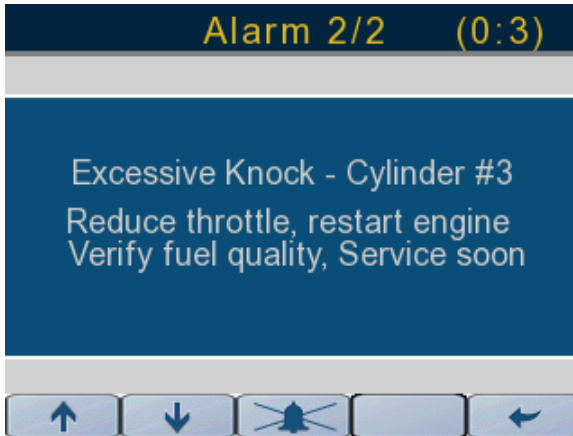
# SYSTEM INFORMATION

## 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.



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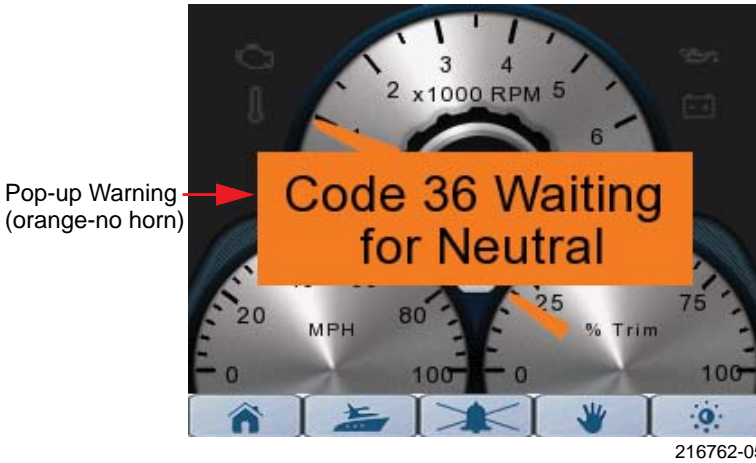
- 2) Activate an Engine Status indicator. (Check Engine, Temperature, Oil, or Battery).



216762-04

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.



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

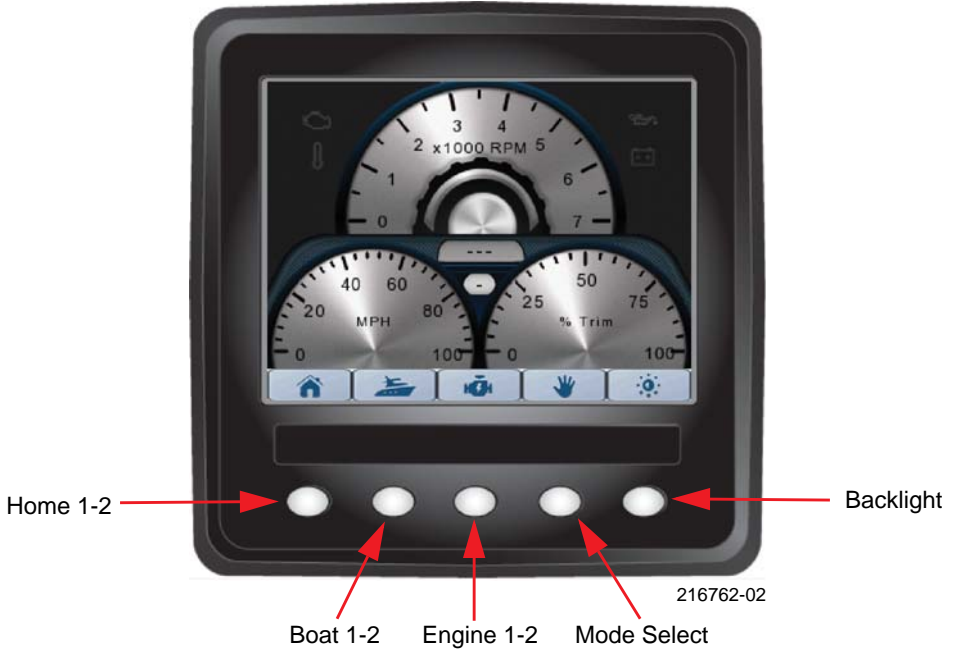
Turn the key switch to the ON position or start the outboard to turn the display ON.

|                                   | <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.<br/><br/>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 button only accesses a single screen.

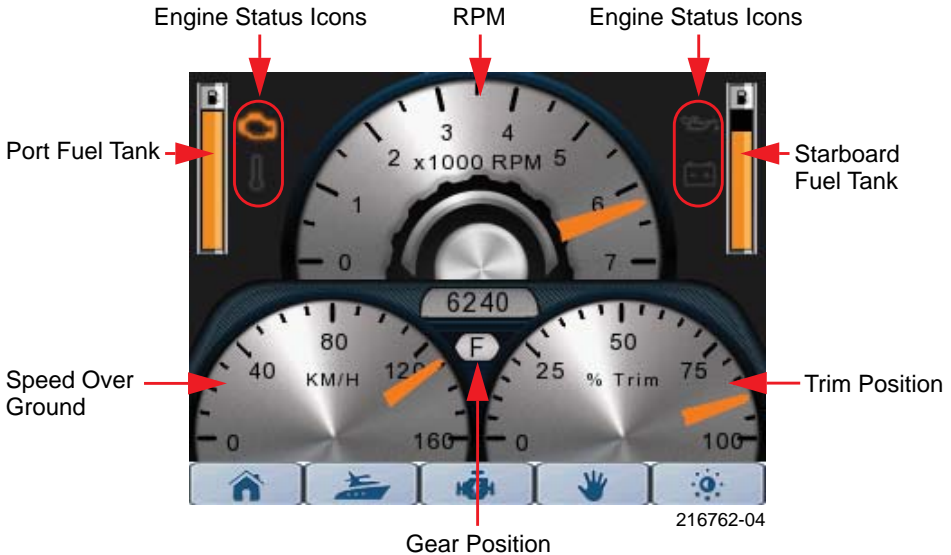


# DISPLAY SCREENS

## Home 1

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

- Speed Over Ground – requires GPS antenna input, use BRP P/N 765349
- Trim Position
- RPM
- Engine Status Icons – Check Engine, Temperature, Oil, Battery
- Gear Position – FORWARD (F), NEUTRAL (N), REVERSE (R)
- Port and Starboard Fuel Tank Levels



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

## Home 2

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

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

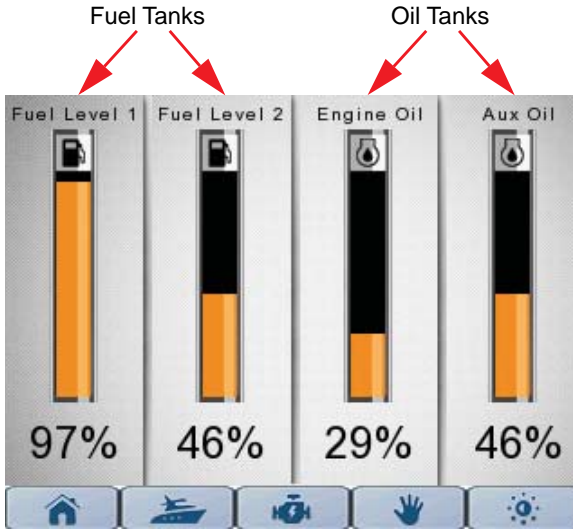


|   | <b>Problem</b>                                      | <b>Solution</b>   |
|---|---|---|
| <b>Water Pressure Troubleshooting Tip</b> | Water pressure does not display or is not accurate. | Verify the water pressure transducer selection; use Evinrude Diagnostic software (see your dealer). |

# Boat 1

Press the Boat button to access the Boat 1 screen. The data shown is Fluid 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



216762-07

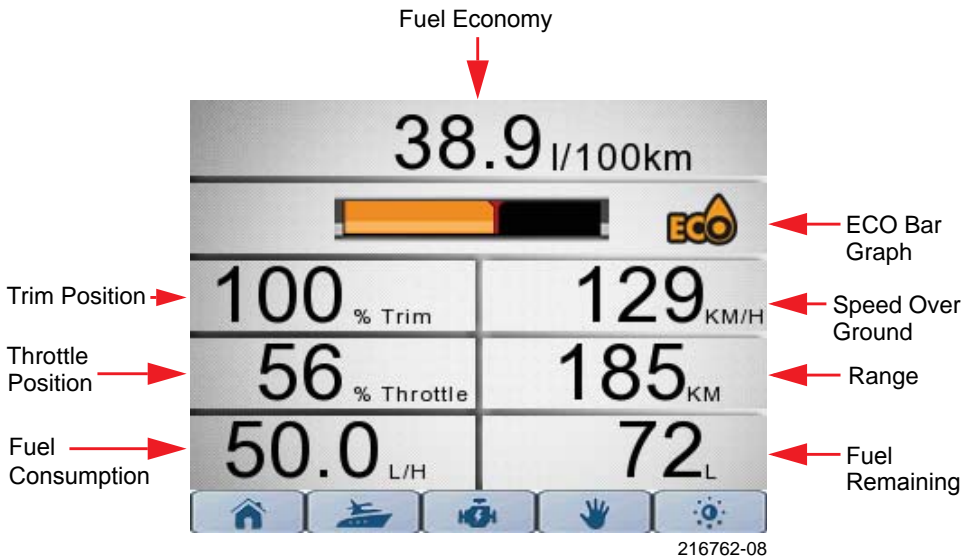
|   | <b>Problem</b>   | <b>Solution</b>  |
|---|--|--|
| <b>Fuel and Oil Level Troubleshooting Tip</b> | <i>Fuel and oil level does not display or is not accurate.</i> | <i>Reset the configuration of the fluid input source.<br/>Reset the multi-point level calibration for each fluid tank.</i> |

## 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:

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

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

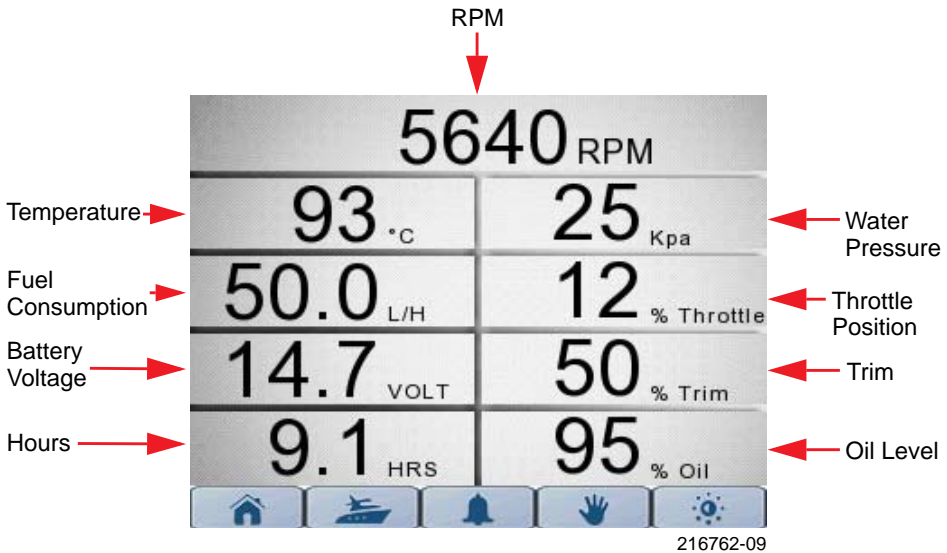


|   | <b>Problem</b>   | <b>Solution</b>   |
|---|--|---|
| <b>Fuel Economy Troubleshooting Tip</b> | <i>Fuel economy data does not display or is not accurate</i> | <i>Verify that GPS speed input data is available.</i>           |
|   |  | <i>Verify fuel tank level calibration and capacity setting.</i>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

# Engine 1

Press the Engine button to access the Engine1 screen. The data shown is:

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

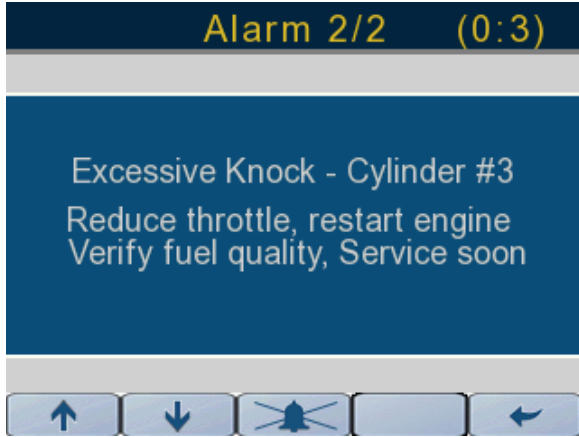


|                                   | <b><i>Problem</i></b>                                 | <b><i>Solution</i></b>   |
|-----------------------------------|---|--|
| <b><i>Troubleshooting Tip</i></b> | <i>Oil level does not display or is not accurate.</i> | <i>Trim to the full down position before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



## Engine 2

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



216762-03

# 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"<br>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".



216762-10

## Trim Assist

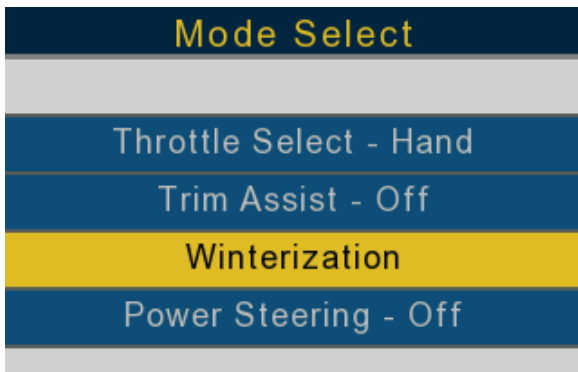
Select the trim assist option. Press the right arrow button to toggle the selection between On and Off.



216762-11

## 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.



216762-12

## Power Steering

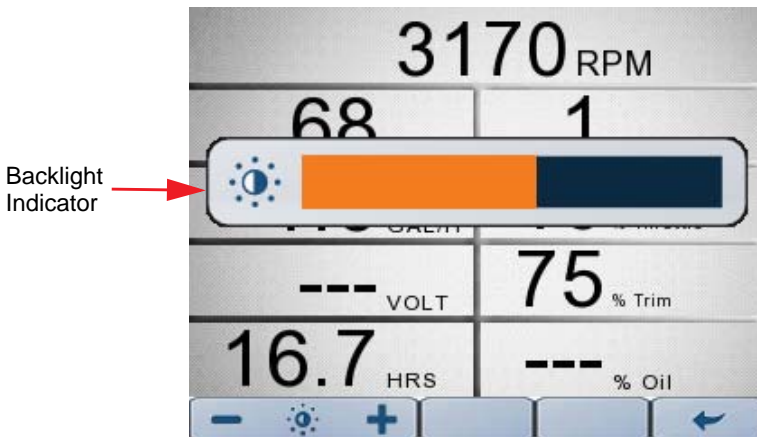
Select the power steering option. Press the right arrow button to toggle the selection between On and Off.



216762-13

## Backlight

Use this screen to adjust the backlight in 10% increments from 10% to 100%. Backlight level remains in memory when the display is shut OFF.

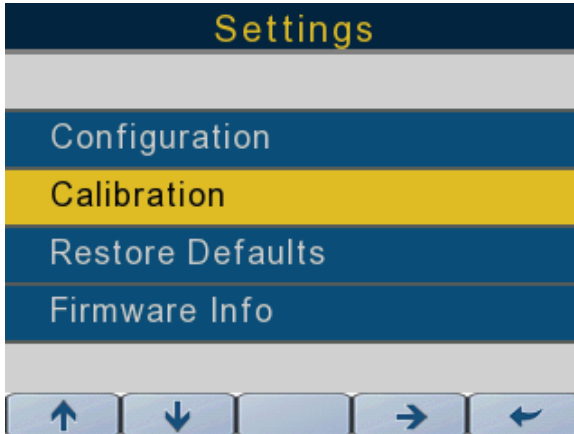


216762-14

# 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 Backlight button to access the Settings screen.



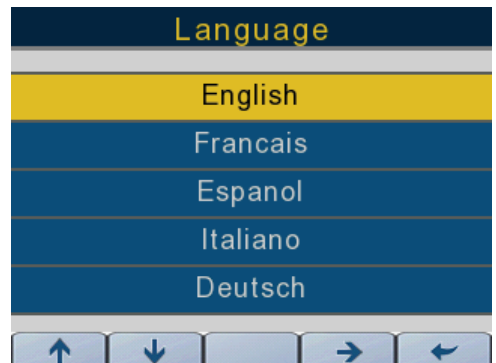
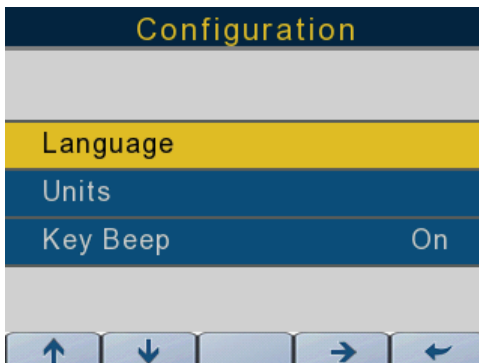
216762-15

## 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.



216762-16

## Units

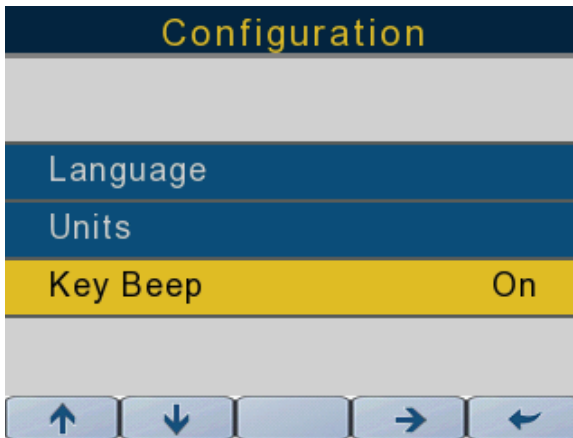
Select units in U.S. (default selection), Metric, or Imperial.



216762-17

## Key Beep

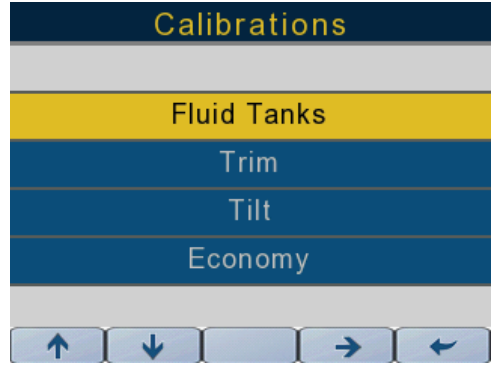
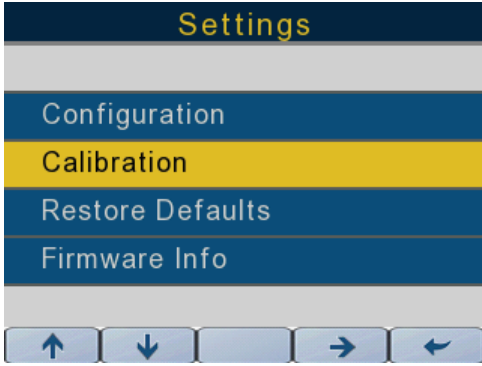
Turn the key beep ON or OFF.



216762-18

# Calibration

Use the Calibration screen to set calibration options for fluid tanks, trim, tilt, and fuel economy.

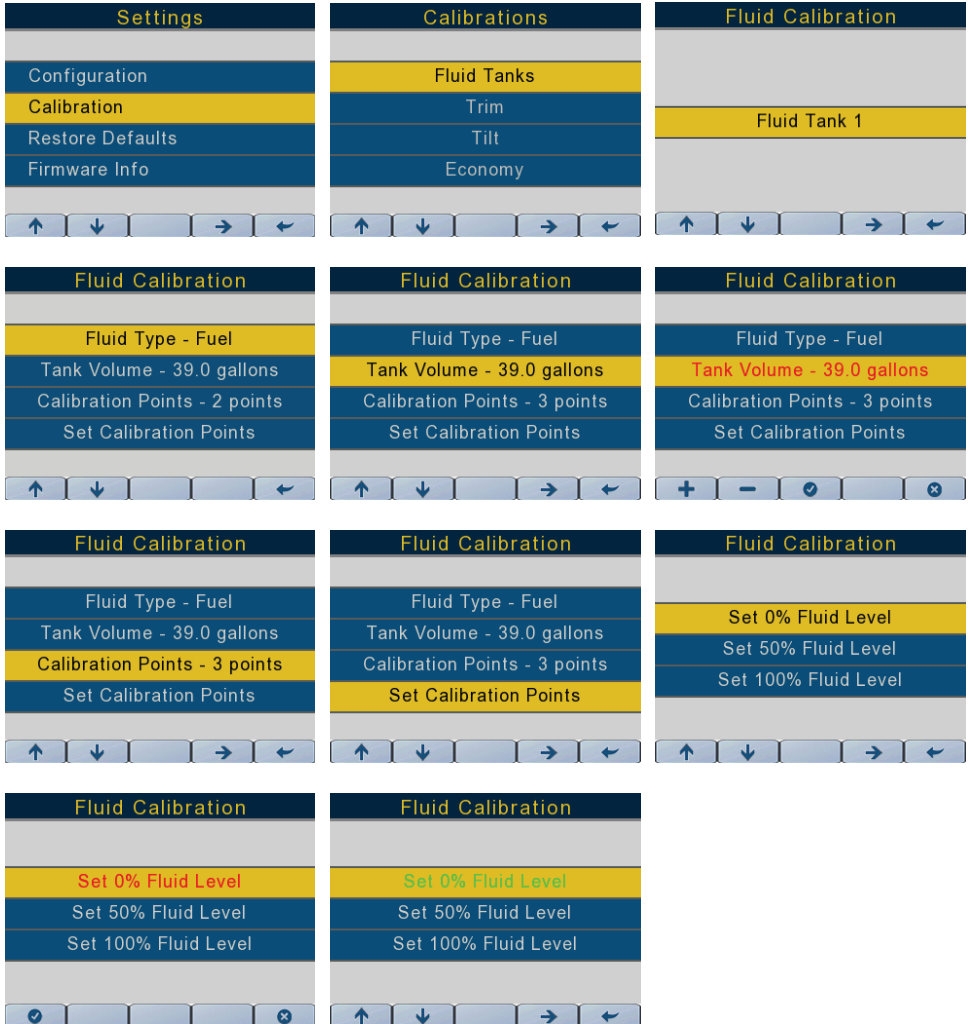


216762-19

# 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

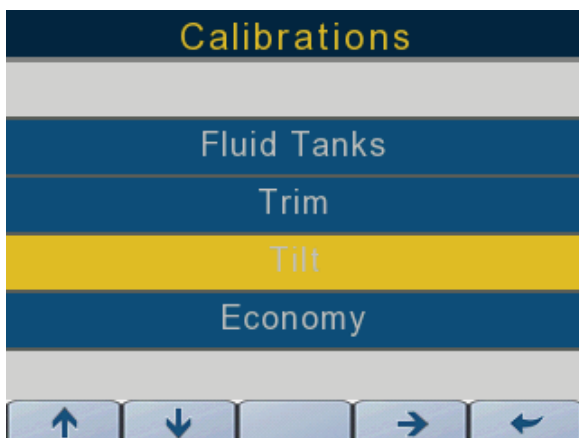
Select the Trim option, then follow the on-screen prompts to set the lower and upper trim range limits.



216762-21

## Tilt

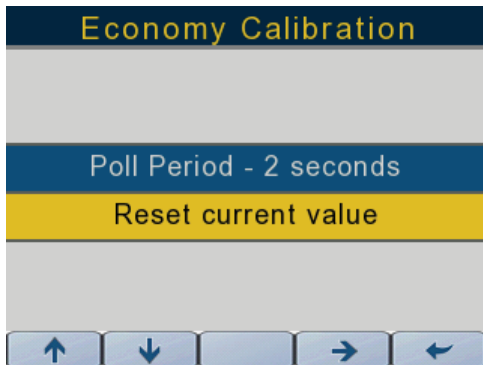
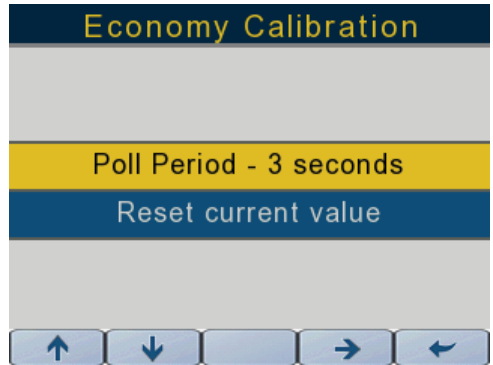
Select the Tilt option, then follow the on-screen prompts to set or clear the maximum tilt range limit.



216762-22

## Economy

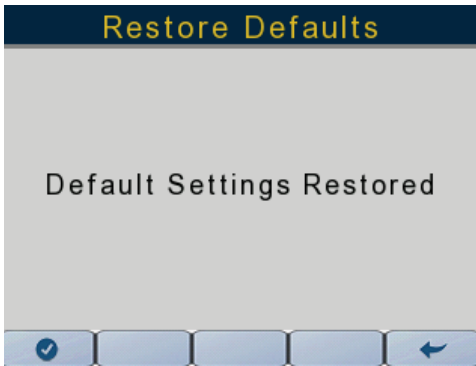
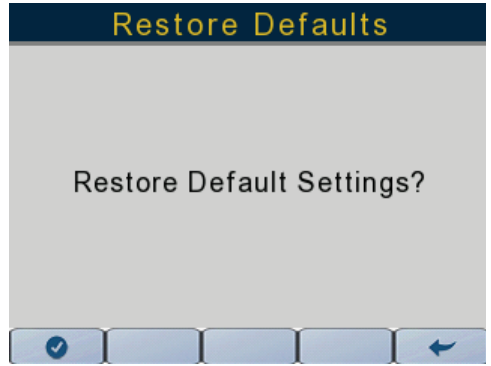
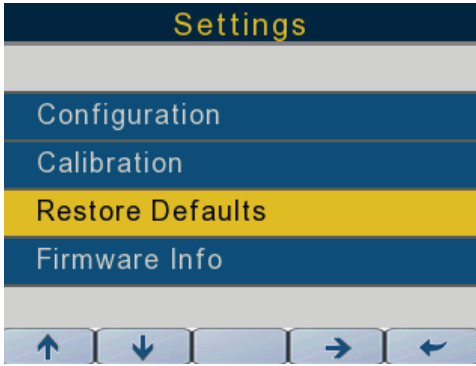
Use to set the “sample fuel economy time interval” and to reset the economy average value.



216762-23

## Restore Defaults

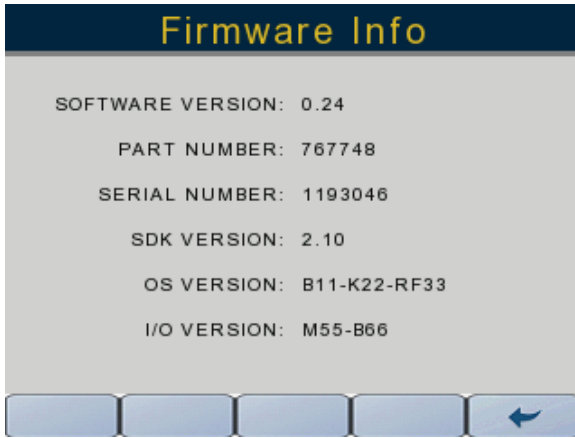
Use this screen to restore the display to factory default settings.



216762-24

## Firmware Information

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



216762-25

## Pop-Up Warnings

Low Oil and Fault Code warnings will pop-up and overlay on any currently displayed page:

# INSTALLATION

Verify that the following components are in the package:

- *ICON 3.5C* Display
- Harness Assembly (1X) - BRP P/N 767749
- Warning Horn Assembly (1X) - BRP P/N 176360
- T-Connector (1X) - BRP P/N 764151
- Y-Harness (1X) - BRP P/N 587230
- User's Guide - BRP P/N 216762

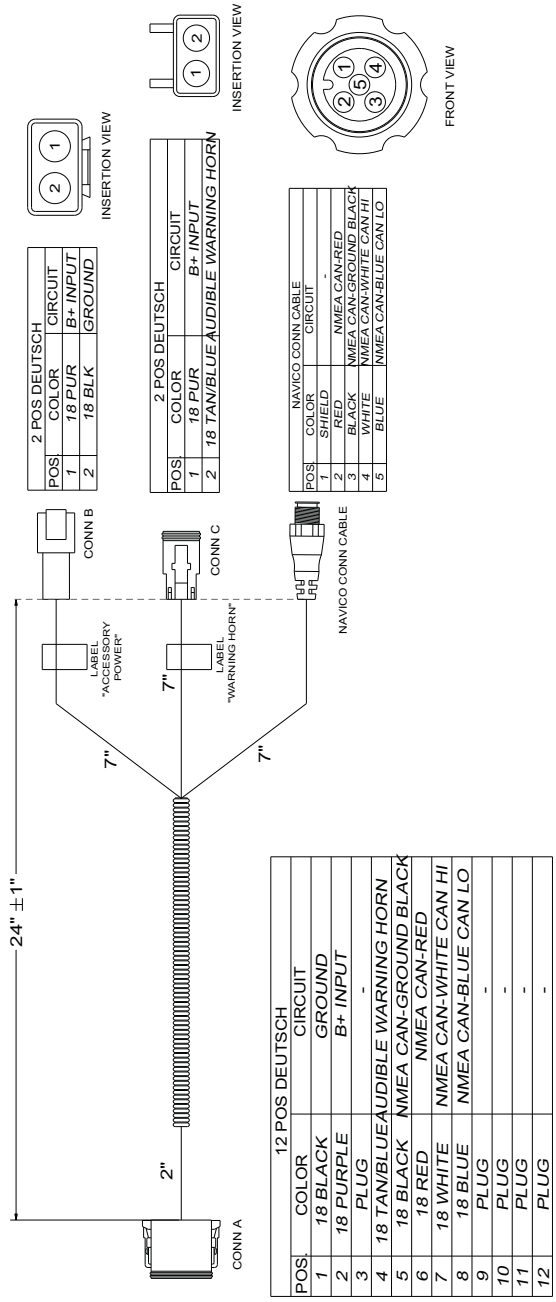
## Mounting

- 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.

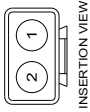
## PORT IDENTIFICATION

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

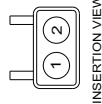
# HARNESS WIRING DETAIL



| 2 POS DEUTSCH |        |          |
|---------------|--------|----------|
| POS           | COLOR  | CIRCUIT  |
| 1             | 18 PUR | B+ INPUT |
| 2             | 18 BLK | GROUND   |

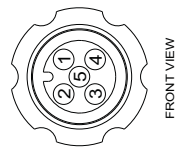


| 2 POS DEUTSCH |             |                      |
|---------------|-------------|----------------------|
| POS           | COLOR       | CIRCUIT              |
| 1             | 18 PUR      | B+ INPUT             |
| 2             | 18 TAN/BLUE | AUDIBLE WARNING HORN |



| 12 POS DEUTSCH |             |                       |
|----------------|-------------|-----------------------|
| POS            | COLOR       | CIRCUIT               |
| 1              | 18 BLACK    | GROUND                |
| 2              | 18 PURPLE   | B+ INPUT              |
| 3              | PLUG        | -                     |
| 4              | 18 TAN/BLUE | AUDIBLE WARNING HORN  |
| 5              | 18 BLACK    | NMEA CAN-GROUND BLACK |
| 6              | 18 RED      | NMEA CAN-RED          |
| 7              | 18 WHITE    | NMEA CAN-WHITE CAN HI |
| 8              | 18 BLUE     | NMEA CAN-BLUE CAN LO  |
| 9              | PLUG        | -                     |
| 10             | PLUG        | -                     |
| 11             | PLUG        | -                     |
| 12             | PLUG        | -                     |

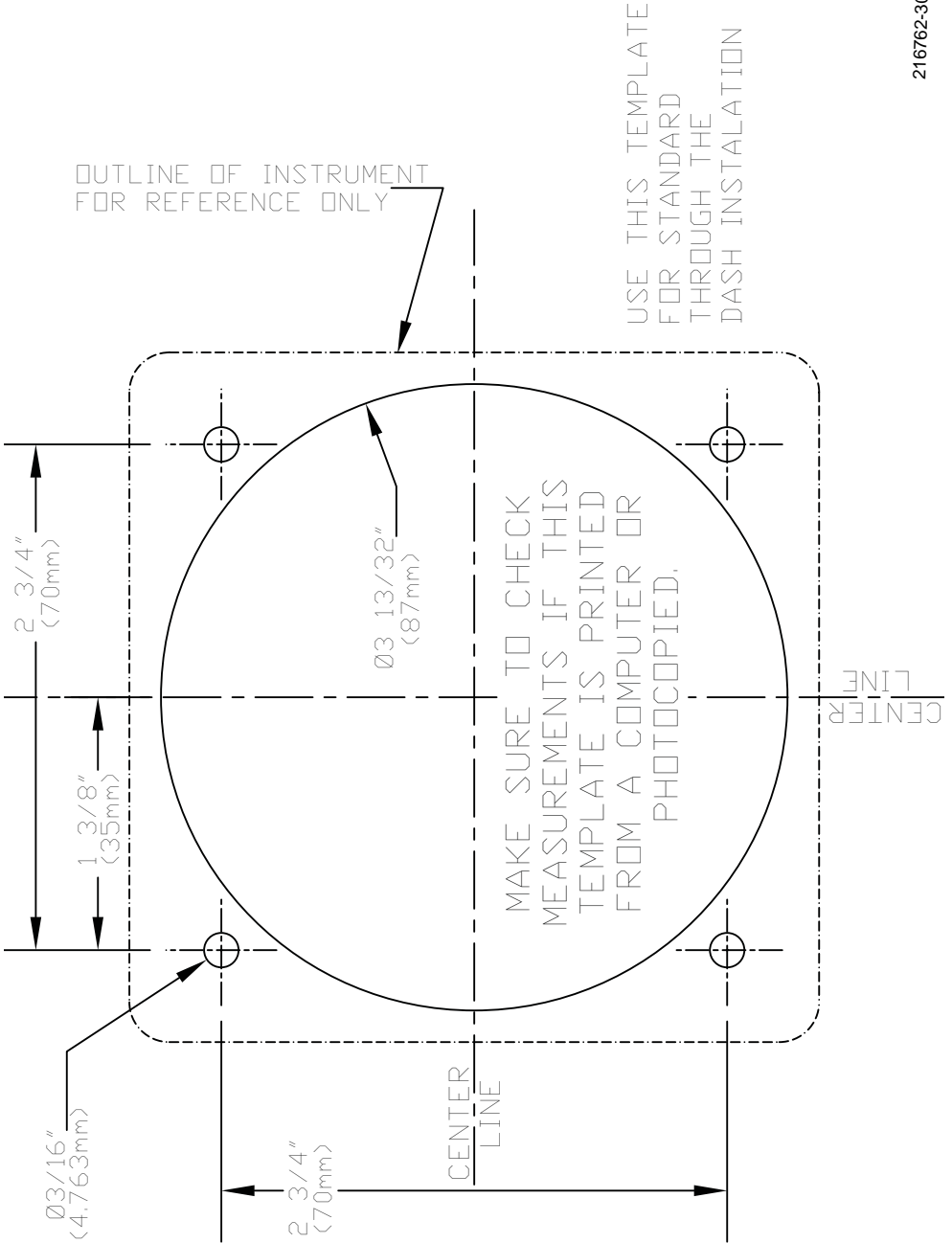
| NAVICO CONN CABLE |        |                       |
|-------------------|--------|-----------------------|
| POS               | COLOR  | CIRCUIT               |
| 1                 | SHIELD | -                     |
| 2                 | RED    | NMEA CAN-RED BLACK    |
| 3                 | WHITE  | NMEA CAN-WHITE CAN HI |
| 4                 | WHITE  | NMEA CAN-WHITE CAN HI |
| 5                 | BLUE   | NMEA CAN-BLUE CAN LO  |



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# MOUNTING TEMPLATE



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*www.brp.com*



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**LYNX®**

**SEA-DOO®**  
**EVINRUDE®**

**CAN-AM®**  
**ROTAX®**