



# i5600 Series Owner's Manual



Thank you for choosing Teleflex Marine, a trusted name in marine electronics. Teleflex Marine has built its reputation by designing and manufacturing top-quality, thoroughly reliable marine equipment. Your Teleflex Marine i5600 system is designed for trouble-free use in even the harshest marine environment.

We encourage you to read this manual carefully in order to get full benefit from all the features and uses of your Teleflex Marine product. Also, please register your purchase by filling out the warranty registration card.

**MANUSER5600**  
**Revision 0**



### **EMC Directive 89/336/EEC**

This product has been designed to be compliant with the above Directive.

Maximum performance, and compliance with the EMC Directive, can only be ensured by correct installation. It is strongly recommended that the installation conforms with the following standards:

### **SMALL CRAFT – ELECTRICAL SYSTEMS:**

- a) ISO 10133 –Extra Low-Voltage DC Installations
- b) ISO 13297 –Alternating Current Installations

ISO = International Standards Organization

### **SAFE BOATING STATEMENT**

This device meets or exceeds the applicable ABYC, ISO, and USCG safe boating rules, regulations, standards, and guidelines.

### **SAFE BOATING ON THE WEB**


U.S. Coast Guard      [www.uscg.mil](http://www.uscg.mil)  
U.S. Power Squadron      [www.usps.org](http://www.usps.org)

Teleflex is a registered trademark of Teleflex, Inc.  
MagicBus is a registered trademark of Teleflex, Inc.

NMEA is a registered trademark of the National Marine Electronics Association.  
NMEA 2000 is a registered trademark of the National Marine Electronics Association.

The information contained in this manual is believed to be accurate at the time of going to print but no responsibility, direct or consequential, can be accepted for damage resulting from the use of this information. The manufacturers reserve the right to make changes, without notice, to any of its products.

# Notice to Boat Manufacturer, Installer, and Consumer

Throughout this manual, Warnings and Cautions (accompanied by the International Hazard Symbol ) are used to alert the manufacturer or installer to special instructions concerning a particular service or operation that may be hazardous if performed incorrectly or carelessly.

Observe these alerts carefully!

These "safety alerts" alone, cannot eliminate the hazards that they signal. Strict compliance to these special instructions when performing installation, operation, and maintenance plus "common sense" operation are the most effective accident prevention measures.




 <b>DANGER</b> Immediate hazards which <b>WILL</b> result in severe personal injury or death.	 <b>WARNING</b> Hazards or unsafe practices which <b>COULD</b> result in severe personal injury or death.
 <b>CAUTION</b> Hazards or unsafe practices which <b>COULD</b> result in minor injury or product and/or property damage.	<b>NOTICE</b> Information that is important to proper installation, operation or maintenance, but is not hazard-related.

Figure 1

## **WARNING**

*This device should not be used as a navigational aid to prevent collision, grounding, boat damage, or personal injury. When the boat is moving, water depth may change too quickly to allow time for you to react. Always operate the boat at very slow speeds if you suspect shallow water or submerged objects.*

## **WARNING**

*Disassembly and repair of this electronic unit should only be performed by authorized service personnel. Any modification of the serial number or attempt to repair the original equipment or accessories by unauthorized individuals will void the warranty. Handling and/or opening this unit may result in exposure to lead, in the form of solder.*

## **WARNING**

*This product contains lead, a chemical known to the State of California to cause cancer and birth defects and other reproductive harm.*



# Contents

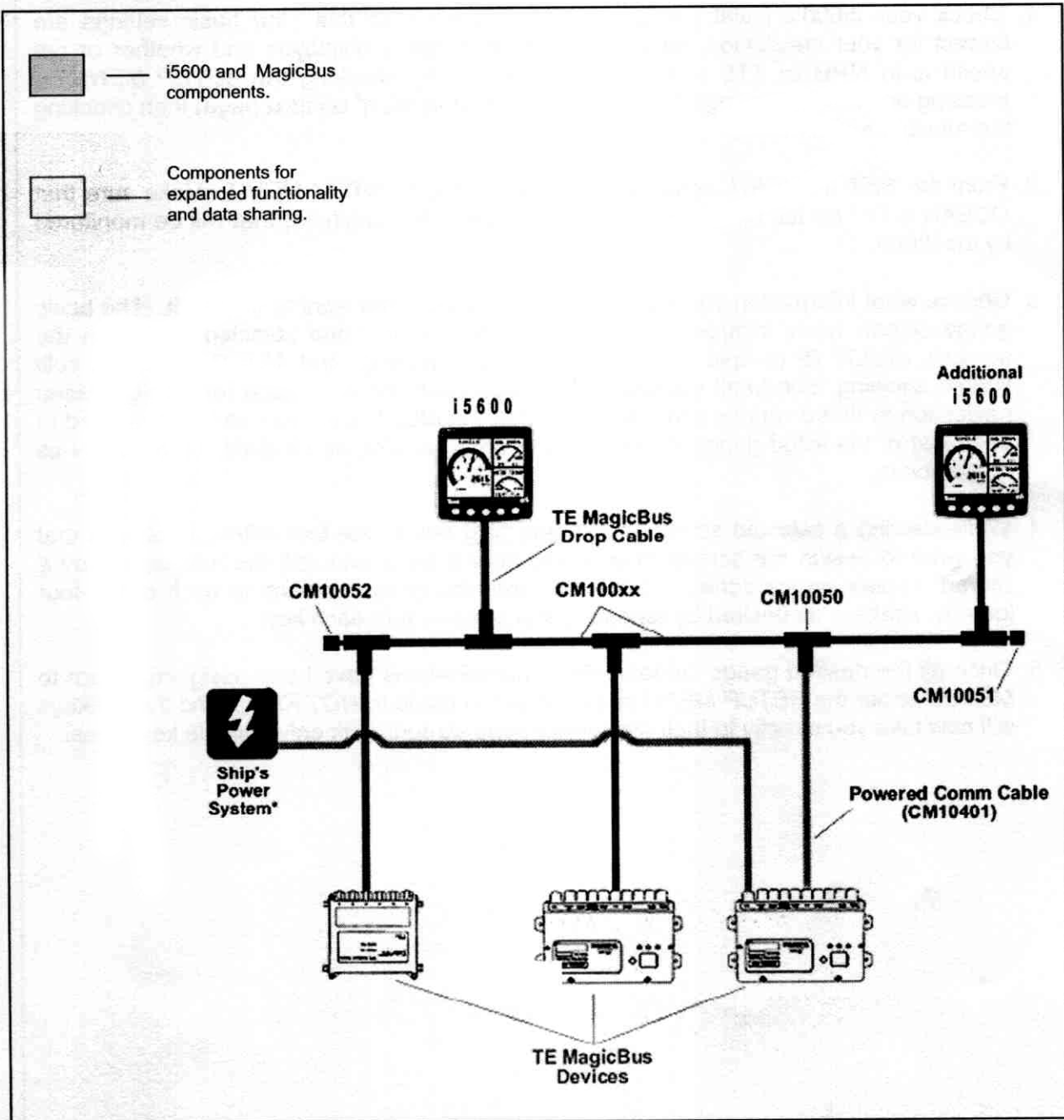
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Quick Start Connection & Operation Guide .....	7
The i5600 Multi-Function Display.....	11
Product Overview .....	11
Installation .....	12
Before You Begin.....	12
Mounting the i5600 .....	13
Connecting the i5600.....	15
Operation .....	17
Working with the i5600 .....	17
Starting Up the i5600 .....	19
Choosing Your Screen .....	20
SETUP MENU.....	22
MENUS .....	22
UNITS .....	23
CONFIG/CAL MENU .....	24
DAMPING .....	26
LANGUAGE .....	26
BEEPER .....	27
SYSTEM MENU .....	27
Instrument Gauges.....	29
SPEED Group.....	29
DEPTH Group.....	31
MULTI Screen.....	33
TEMP (Temperature) Group.....	35
BAT (Battery) Group.....	37
NAV (Navigation) Group (OCEAN must be turned on) .....	38
HEAD (Heading) Group (OCEAN must be turned on) .....	40
ENG (Engine) Group (ENGINE must be turned on).....	43
WIND Group (SAIL must be turned on).....	45
Technical Information.....	48
Specifications.....	48
Troubleshooting .....	48
Maintenance .....	49
Customer Service & Support .....	50
2-Year Limited Warranty.....	50
Product Return Procedure .....	51
Glossary .....	53
Index.....	54

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# Quick Start Connection & Operation Guide

## **i5600 Connections**



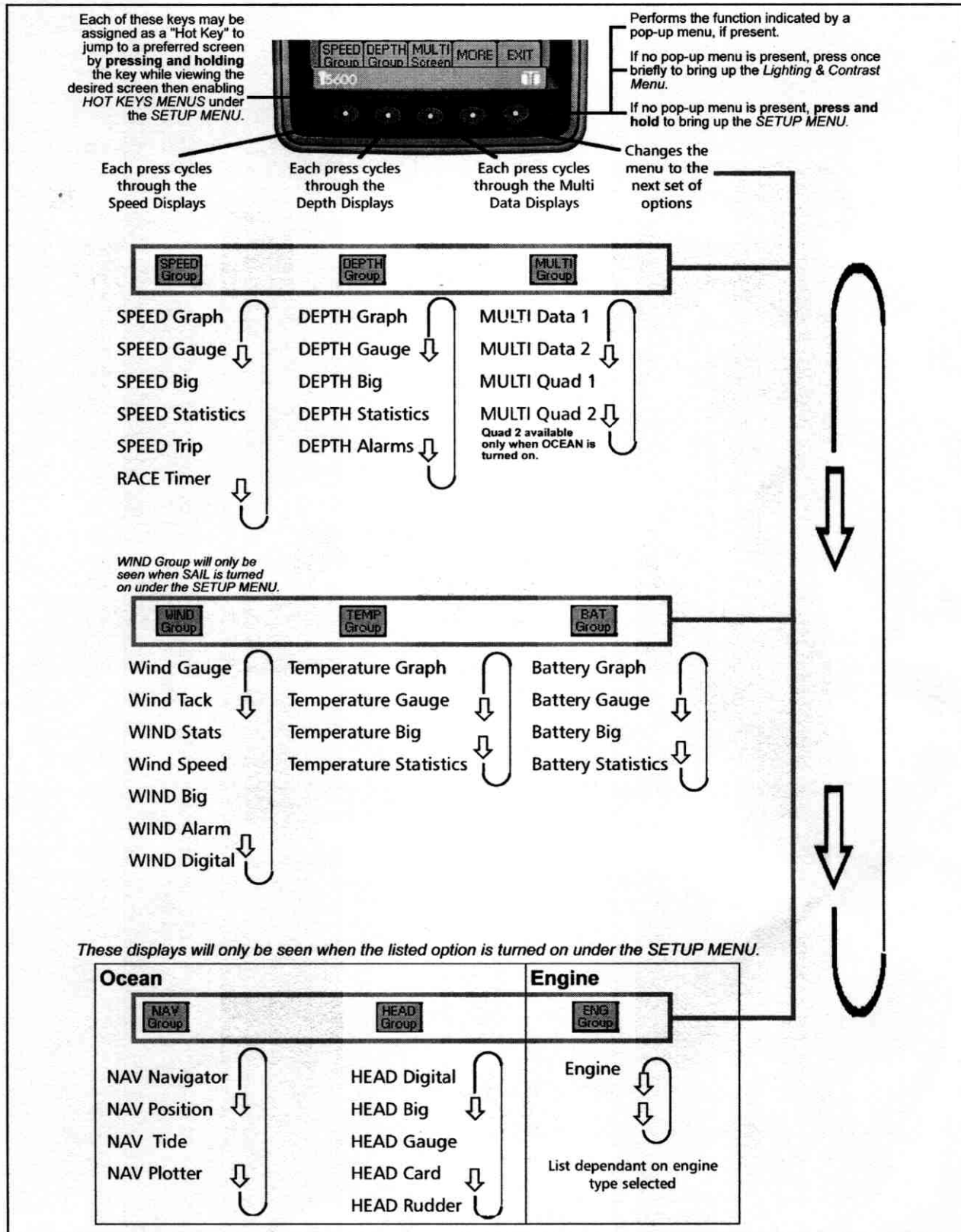
## Setup

Experience has shown that the preferred method of operation of the i5600 is through the use of the "hot keys" feature. The "hot keys" feature allows you to program the four leftmost softkeys to take you directly to four preferred gauge screens with no menu navigation and only a single keypress. Follow the basic guidelines in the order listed below for the easiest setup and operation:

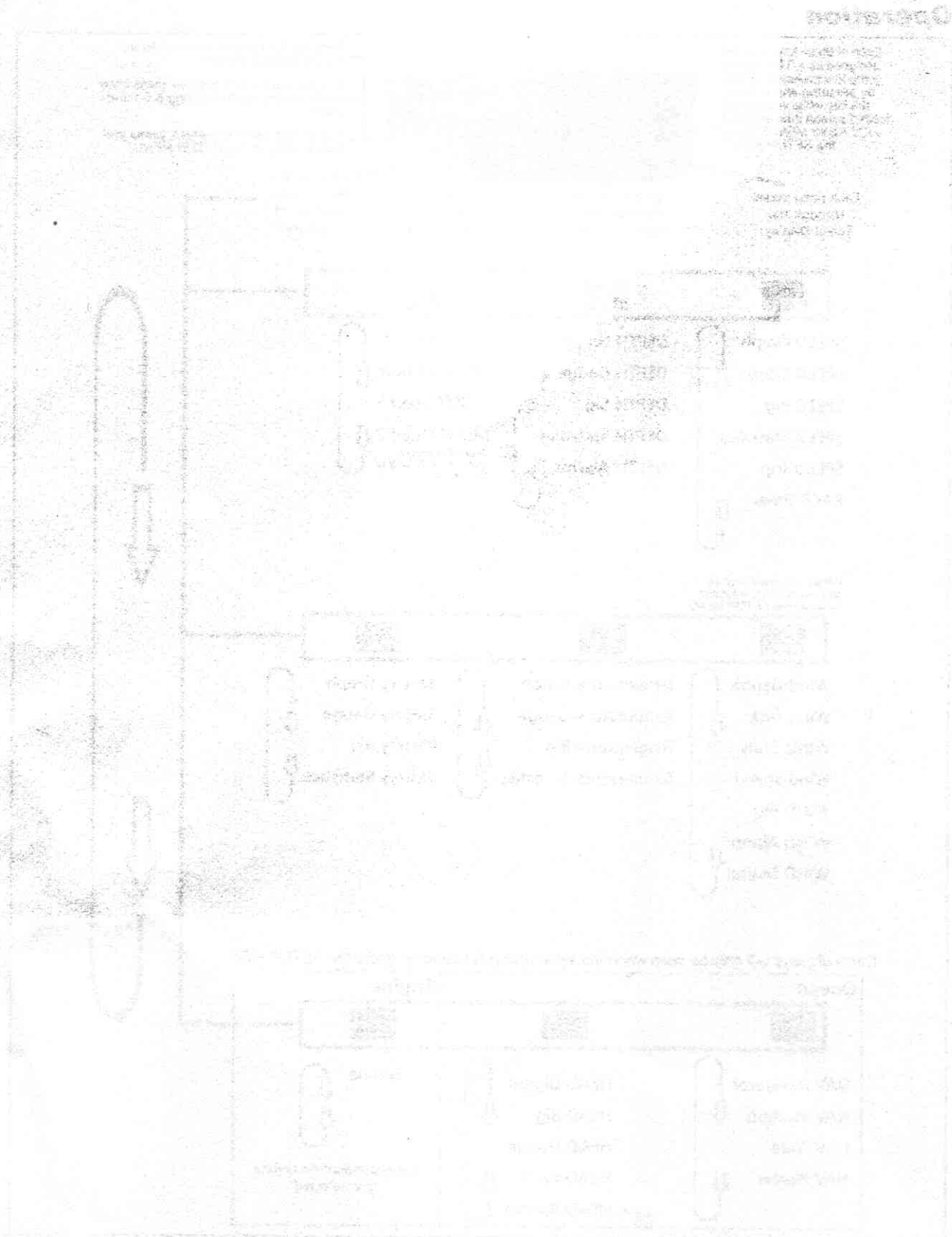
1. Check your i5600's initial configuration and make sure that the basic settings are correct for your installation, such as which language is displayed and whether or not speed is in MPH or KTS (*UNITS*), etc. Do this by checking the *SETUP MENU* by pressing and holding the rightmost softkey (see "Operation" on next page) then checking the relevant menus.
2. From the *SETUP MENU*, scroll down and enter the *SYSTEM MENU*. Make sure that *OCEAN* is ON for full feature availability and select the engine(s) that will be monitored by the i5600.
3. Choose what information you want to display and how you want to display it. The basic gauge screen types include: Full Screen (displays only one selected gauge on the screen), *MULTI BI* (a split screen showing two gauges), and *MULTI QUAD* (a split screen showing four small gauges). See "Operation" on next page for Pop-Up Menu navigation to these various screens. Note that the *MULTI* screens can be configured to use most of the listed gauge screens in any order as long as *OCEAN* is turned ON as noted above.
4. While viewing a selected screen, press and hold one of the four leftmost softkeys that you want to assign the screen to until you hear a beep and see the message "Key # Stored" appear on the screen. Continue assigning gauge screens to each of the four leftmost softkeys as desired by repeating this process with each key.
5. Once all the desired gauge screen/softkey combinations have been assigned, return to *MENUS* under the *SETUP MENU* and change the mode to *HOT KEYS*, and the softkeys will now take you directly to their assigned gauge screens with only a single key press.



# Operation



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# The i5600 Multi-Function Display

## Product Overview

Congratulations on your purchase of the Teleflex Marine i5600!

Quick and easy to install, the i5600 provides important information any time and any where you want using the Teleflex Marine MagicBus System.

The i5600.



Figure 2

The i5600 is designed to report instrumentation data identical to that displayed by traditional gauges on a boat. However, it eliminates the need to cover your dash with multiple gauges to monitor all your systems since it allows you to use a single, customizable display and the systems' data supplied over the MagicBus. The i5600 offers many display options to show this information in practically any format and location along the MagicBus that you desire--allowing the information to be at your fingertips when and where you need it.

A few examples of the types of information that can be reported by the i5600 include:

- Speed
- Depth
- Temperature
- Distance
- GPS / Navigation Information
- Tachometer & Engine Information
- Wind Information
- Warning Indicators

With the i5600, your system's data can be displayed in the typical dial and needle format seen on traditional gauges, or the i5600 digital displays can provide the same information in an easy-to-read format similar to the display on LCD watches or clocks. Your systems' data can even be displayed as a historical graph showing the fluctuations and changes in the reading over time. The i5600 is capable of being configured to display many types of information available on the MagicBus in nearly any arrangement according to your needs and preferences.

### NOTICE

*If a particular sensing device associated with a specific instrument gauge function has not been installed, the relevant instrument gauge screens will display only dashes instead of data. All installations have some inputs not connected.*

# Installation

A complete installation consists of mounting the i5600 and making all the necessary connections.

## Before You Begin

### What You'll Need

#### Parts Supplied

Below is a list of the parts supplied by Teleflex Marine; please ensure that all the appropriate parts were included in your package:

- i5600
- CM10504 cable
- Cover (Part #6880214, white)
- MANUSER5600 Owner's Manual

If any items are missing, call Teleflex Marine Customer Support at 610 495 7011 (8am – 5pm Eastern).

#### Additional Tools and Items You'll Need

You may need to order additional cables and connectors from Teleflex Marine Customer Support to meet the specific needs of your boat before you can complete the installation. To do so, you will need to take measurements of several wiring runs. Carefully plan out where you will be installing the i5600 and where you will be routing any cables. Then, preferably, pre-install the i5600 prior to measuring to ensure that you will have the exact measurements prior to ordering.

When planning/measuring cable routes, measure along unobstructed wire runs between the various points of connection. Round off each measurement to the next whole foot (30 cm) and add additional length if uncertain.

Below is a list of MagicBus cable and connector part numbers along with the measurements to take for each, if applicable, prior to ordering. The "xx" suffix is the length of the cable in feet.

- CM100xx – MagicBus Cable, From each MagicBus Tee being installed to its neighboring MagicBus Tee
- CM10050 - MagicBus Tee
- CM10051 - MagicBus Male Terminator
- CM10052 - MagicBus Female Terminator

Kits are also available for alternate mounting methods. Part numbers for these kits are listed below:

- 932293 - Gimbale Mounting Kit

If needed, order cables and all other needed parts from Teleflex Marine Customer Support by calling 610 495 7011.

In addition to the items above, you will also need the following for installation and operation:

- A 1" (25 mm) hole saw
- A 2.5" (64 mm) hole saw
- A reciprocating saw (for optional in-dash mounting)
- A powered hand drill and various drill bits
- Phillips and flat-head screwdrivers
- A ruler or measuring tape
- Pen or pencil
- Adhesive tape
- Stainless steel, self-tapping screws of various lengths depending on mounting surface thicknesses
- UV nylon mounting head ties. Clamps may be used instead.
- Depending on the electrical requirements for your particular installation, a terminal crimping tool may be required.

## **Mounting the i5600**

There are two different ways to install the i5600 Multi-Function Display. Different circumstances and preferences determine the mounting method appropriate for your Display Unit. Choose the method below that best suits your needs and follow the instructions listed on the corresponding pages:

- 1) Mounting in Dash/Bulkhead – page 13
- 2) Mounting on a Gimbal – page 14

### **Mounting in Dash/Bulkhead**

#### **Determining Proper Mounting Location**

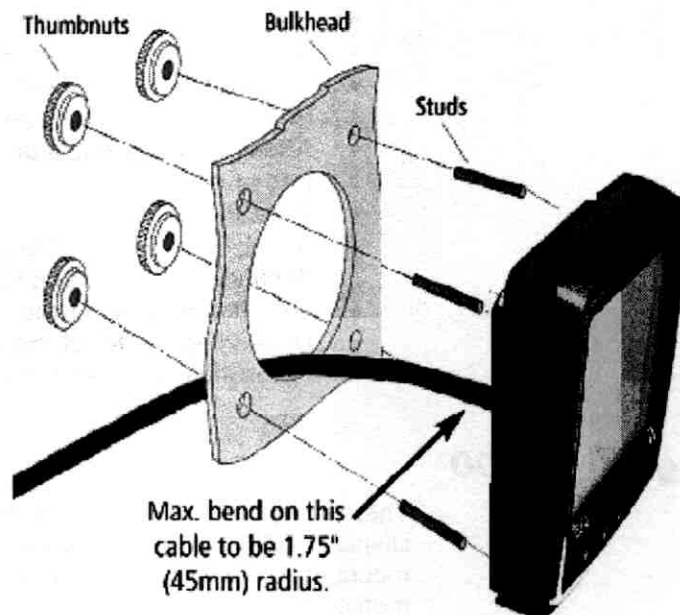
Place the unit in various locations to decide which is best for mounting. The i5600 may have to be disconnected for service at some point during the boat's lifetime, so leave at least 4 inches (10 cm) of clearance behind the unit for releasing and removing its connectors.

#### **Mounting Unit**

1. Locate a suitable, flat area of the dash/bulkhead to mount the i5600.
2. Tape the In-Dash/Bulkhead Mounting Template found in the back of this manual to the desired mounting location.
3. Drill a 3/16" (4.3 mm) hole at each of the four mounting hole locations marked on the template.
4. Cut out the circular section marked in the center of the template with a 2.5" (64 mm) hole saw. Remove template when finished.
5. Insert and tighten the four threaded 3/16" (4.3 mm) studs into the four holes located on the backside of the unit.
6. Pass the i5600's rear wire harness and connectors into the main cutout on the mounting surface.

- Align the unit with the mounting holes in the front side of the dash and insert the unit and studs into the dash. From the backside of the dash, place a thumbnut onto each threaded stud and tighten fully. Excess studding may be cropped off if desired.

**Mounting the i5600 in Dash/Bulkhead.**



**Figure 3**

### **Mounting on a Gimbal**

If gimbal mounting the i5600, you will need to purchase the Gimbal Mounting Kit (part no. 932293) from Teleflex Marine at 610 495 7011.

#### **Determining Proper Mounting Location**

After preassembling the i5600 onto the gimbal mounting bracket, you can place the unit in various locations to decide which is best for mounting. The chosen mounting area should allow for sufficient room so the unit can pivot through the full tilt range and allow for easy removal and installation. The i5600 may have to be disconnected for service at some point during the boat's lifetime, so leave at least 4 inches (10 cm) of clearance in all directions for releasing and removing its connectors. There should also be enough room behind the mounting location to drill a cable and connector pass hole.

### **NOTICE**

*You must have underside access to the mounting location to pass the cables through to the surface. Consider also that the mounting surface should be adequately supported to protect the i5600 from excessive wave shock and vibration and provide visibility while in operation.*

#### **Mounting Unit**

- After the mounting location has been determined, loosen the gimbal knobs and remove the unit from the gimbal bracket.

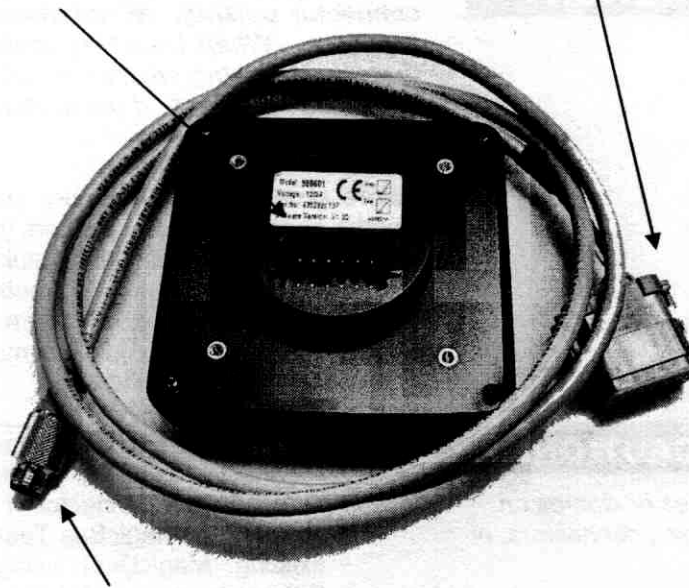
**NOTICE**

*Be sure that there is enough cable slack to allow for the unit to pivot through its full tilt range. Extra cable slack will also aid in connecting/disconnecting the cables.*

2. Place the mounting bracket in the chosen position on the mounting surface and mark the mounting screw locations using a pencil or center punch.
3. Set the mounting bracket aside and drill the mounting screw holes.
4. Place the mounting bracket on the mounting surface aligned with the drilled holes. Insert phillips-head wood screws into the mounting holes and fully hand tighten.
5. Locate a position to drill a hole for the cable and connector pass-through approximately 1 1/2" (37mm) directly behind the mounting bracket. Mark and drill the hole.
6. Pass the i5600's rear wire harness and connectors through the hole from the mounting surface.
7. Secure a hole cover over the hole.
8. Place the unit back onto the mounting bracket.
9. Adjust the unit to the desired viewing angle and secure by tightening the gimbal knobs.

**Connecting the i5600**

First plug in the supplied CM10504 Deutch connector cable into the back of the unit.



The network cable must now be routed and connected between the i5600 mounting location, the data sources, and/or power source(s). Every boat is different and there may be several ways to route the cable(s).

When routing the cables, remember that they must not be cut or spliced, and care should be taken not to damage the cable insulation. If a cable is too short, replace it with a correct-length cable. Run cables over the shortest and straightest possible path. Secure cables every 2 feet (0.6 m) with stainless steel screws and mounting head ties or clamps. Excess cable should be neatly coiled and secured with nylon ties.

**⚠ CAUTION**

*Avoid running cables along other wires or cables that carry high current or might cause EMI (electromagnetic interference). Examples are generator leads or sparkplug wires. Such runs could cause system interference or possibly even failure.*

**NMEA® Certified Device Connections**

Many optional devices are available for you to connect to your i5600 or MagicBus via the NMEA 2000® communications protocol. This is a standard defined by the National Marine Electronics Association and commonly used by marine electronics manufacturers. You can quickly and easily connect NMEA 2000® devices to your i5600 system to display engine data and other information if you have properly installed the system.

**MagicBus Connections**

The i5600 connects into the MagicBus, which interfaces data and supplies power to the unit.

**⚠ CAUTION**

*When installing MagicBus components, pay close attention to connector polarity, do not stress the cables, and do not bend the Tees. When installing multiple adjacent Tees, make sure that the mounting surface is flat, so they will not be stressed or bent when secured. If the surface is not flat, secure only one of the adjacent Tees.*

Before proceeding, make sure you have the correct number and lengths of cables and connectors to complete the installation. If you are unsure or need to order cables and/or connectors, review the instructions under "Additional Tools and Items You'll Need" on page 12. Refer to the appropriate figure under "Quick Start Connection & Operation Guide" (page 7) while making the following MagicBus and engine monitoring connections.

**⚠ CAUTION**

*Do not use ties or clamps on MagicBus Tees, connectors, or terminators.*

1. On each i5600 being installed, connect the MagicBus Drop Cable coming out of the back of the i5600 to the perpendicular connector of a MagicBus Tee.
2. Connect all MagicBus Tees together (including those in any existing MagicBus) using appropriate length MagicBus Cables (part no. CM100xx, where xx is the length in feet) and terminate each end of this network backbone using male and female terminators (part nos. CM10051 and CM10052, respectively).
3. Secure the Tees to convenient, appropriate mounting surfaces with stainless steel screws.
4. Secure MagicBus cables every 2 feet (0.6 m) with mounting head ties or clamps and stainless steel screws.

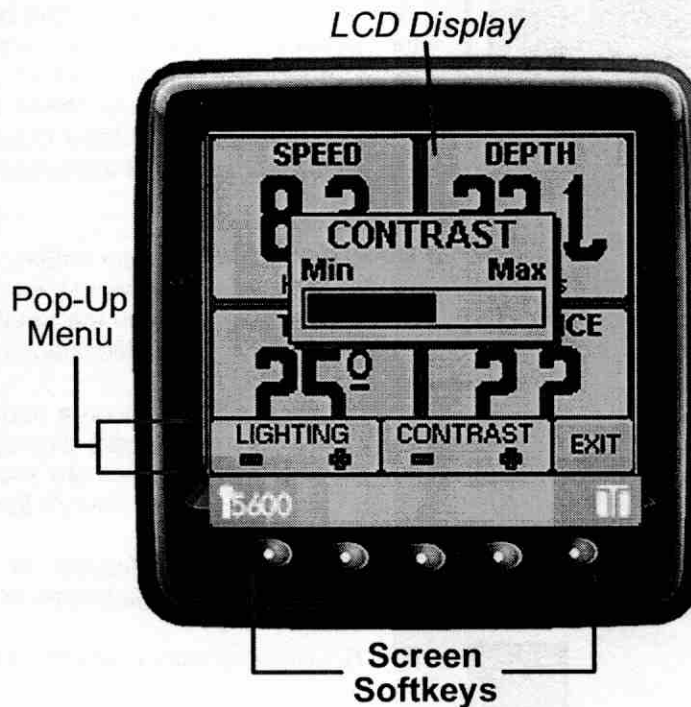
**Power Connections**

The i5600 is powered from the MagicBus.



# Operation

## Working with the i5600

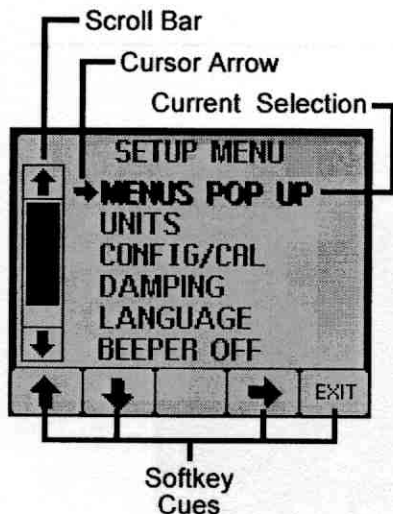


### Screen Softkeys

The i5600 has five Screen Softkeys that control all unit functions. Screen Softkeys are used for choosing gauge and information screens as well as navigating through and choosing the various menu options. The functions of these five keys is dependant upon the screen being displayed at the time a softkey is pressed. A pop-up menu showing each softkey's function appears just above the softkeys at the bottom of the LCD display as soon as one of the softkeys is pressed. There is also an audible "beep" when any button is pressed to confirm the button press. This option can be turned off within the *SETUP MENU* (page 22).

### Menu and Softkey Cues

When working with the i5600 functions and menus, there are many ways to choose options and enter information. Many of the screens that will require your input will also give you cues on how to enter the information or choose options.

**Menu cues.****Figure 4****Menu Cues**

On menu screens where a number of different menu items are listed, the currently selected menu item is denoted by bold print and a small cursor arrow next to it (Fig. 6).

If there are more menu items than can be displayed on the screen at the same time then a scroll bar is displayed on the left side of the screen to indicate that more items are available off-screen (Fig. 6). The size and position of the dark box within the scroll bar represents the proportion of menu items currently being displayed and where these items are located within the overall list of menu items available. To view menu items that are off-screen, use **Up** and **Down** softkeys (see "Softkey Cues" below) to scroll through the list and reveal the additional menu items.

**Softkey Cues**

The function of a particular softkey changes from screen to screen to whatever is most appropriate for the given screen. This dynamic functionality provides you the greatest flexibility without the need for numerous function-specific buttons for every task.

The function of a softkey on a particular screen is shown by an icon or softkey cue that appears directly above it in a pop-up menu (Fig. 7). Common softkey cues are shown below along with descriptions of what the associated softkey's function is.



**Adjust/Customize** – Adjusts or customizes an element of the current instrument gauge screen or selected menu item.



**BACK** – Returns you to the previous menu or screen.



**Decrease** – Decreases the setting of a selected menu item.



**Down** – Moves the cursor arrow down to select the next menu item in a list.



**EXIT** – Exits the current menu and returns you to the screen you were viewing prior to entering the menu.



**Increase** – Increases the setting of a selected menu item.



**MORE** – Reveals additional instrument gauge types and swaps them with those currently listed on the pop-up Screen Menu.



**ON/OFF** – Toggles the operational status of a currently selected menu item.



**Up** – Moves the cursor arrow up to select the previous menu item in a list.

## Starting Up the i5600

As soon as power is applied to the i5600 it will go through a short startup routine and display a logo splash screen. When the startup routine is complete the display will change to show the last viewed instrument gauge screen. If the unit does not power-up, ensure all connections are correct and secure and that power is available.

### Lighting and Contrast

Adjusting Lighting & Contrast settings using the Screen Softkeys. Each softkey's function is determined by the softkey cue listed above it on the given screen's pop-up menu.

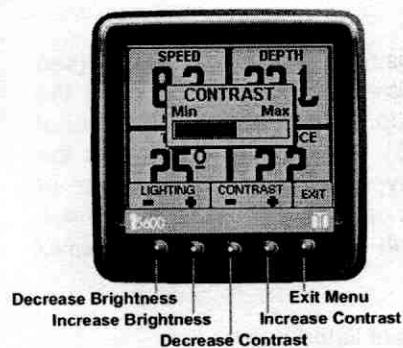


Figure 5

The backlight intensity and contrast settings for the i5600 display can be adjusted by briefly pressing the last Screen Softkey on the right while viewing any instrument gauge screen. Doing so causes the *Lighting & Contrast Pop-up Menu* to appear at the bottom of the LCD display. Press the softkey directly below the softkey cue for the adjustment desired and the display will immediately adjust according to your selection. Continue making these adjustments until you have achieved the optimum viewing settings for readability. Press the softkey under **EXIT** to leave the *Lighting & Contrast Pop-up Menu* and return to the screen you were viewing prior to making the display adjustments.

If brightness and contrast are accidentally set so that the *Lighting & Contrast Pop-up Menu* is no longer readable, press the four leftmost softkeys simultaneously. This will reset the contrast to a readable medium value and the backlighting to 100%.

### Calibrating Your System

For accuracy, you may need to calibrate your i5600 instrument gauges prior to use, especially if fitting a new unit to an existing system. When doing so, ensure all calibration settings are checked and reprogrammed. Calibrate your system following the "CONFIG/CAL MENU" instructions under the *SETUP MENU* (page 22).

### Customizing Your System & Settings Memory

As you begin using the i5600, there will doubtlessly be some features that you may want to customize to your needs and preferences to take full advantage of the unit's functionality. For example, you may want to change the language used by the i5600 or the units used to denote speed or distance. These types of changes are made using the i5600's *SETUP MENU*. See page 22 for more information on how to use the *SETUP MENU* to customize these settings.

Any changes you make to these user settings, such as lighting/contrast, units used, alarm settings, etc., are retained in the unit's memory after shutdown and are automatically restored when the i5600 is powered back on again. This includes any user setting changes made during the i5600's "Demo" mode. Likewise, any settings saved in the i5600's normal operation mode will be available in the "Demo" mode.

Customizations to individual instrument gauge screens are also stored in memory and automatically recalled when that screen is called back up again. Directions for customizing individual screens is included in the relevant sections dealing with instrument gauge screens that have customization options.

## Choosing Your Screen

The pop-up Screen Menu lists instrument gauge types.



Figure 6

### NOTICE

If a gauge type is not selected from the Screen Menu within 5 seconds, the pop-up menu will time-out due to inactivity and disappear. Simply press any of the four leftmost softkeys to recall the menu.

**MORE** reveals and swaps additional instrument gauge types on the Screen Menu.

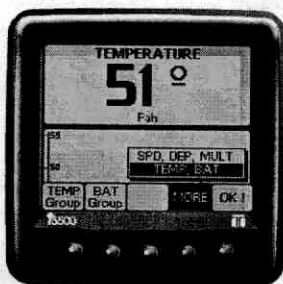


Figure 7

The i5600 displays instrument gauges and information on screens selected by the user. These screens are accessed via the five screen softkeys positioned just below the LCD display.

You can program the four leftmost softkeys to act as "hot keys" that will take you directly to your preferred gauge screens with only a single keypress. This **HOT KEYS** option is turned on and configured through the **SETUP MENU** (see "MENUS", page 22). This is the preferred mode of operation.

Otherwise, you will most likely be using **POP-UP MENUS** (see "MENUS", page 22) to choose your screens. Press any one of the four leftmost screen softkeys to bring up the pop-up Screen Menu at the bottom of the LCD display (Fig. 8). The Screen Menu lists the available instrument gauge screen types. The actual number of gauge types available to you depends upon which options you have turned on in the **SYSTEM MENU**, a sub-menu of the **SETUP MENU** (page 22).

The instrument gauge types available are listed below:

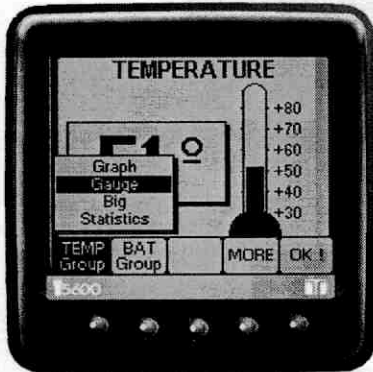
- **SPEED Group**
- **DEPTH Group**
- **MULTI Screen**  
(additional options available if **OCEAN** is turned on in **SYSTEM MENU**)
- **WIND Group**  
(only if **SAIL** is turned on in **SYSTEM MENU**)
- **TEMP (Temperature) Group**
- **BAT (Battery) Group**
- **NAV (Navigation) Group**  
(only if **OCEAN** is turned on in **SYSTEM MENU**)
- **HEAD (Heading) Group**  
(only if **OCEAN** is turned on in **SYSTEM MENU**)
- **ENG (Engine) Group**  
(only if **ENGINE** is turned on in **SYSTEM MENU**)

The Screen Menu can only display a limited number of the available gauge types at a single time. To reveal a list of any additional gauge types that may not be listed on the current Screen Menu, press the softkey below **MORE** (Fig. 9). Press this same softkey again repeatedly to cycle through the pop-up list until a desired set of gauge types are highlighted. Then press the softkey below **OK!** to swap the gauge types currently listed on the pop-up Screen Menu with those you highlighted or wait 5 seconds for the Screen Menu to time-out and swap them automatically.

**NOTICE**

If you do not confirm a gauge screen or set of gauge types by pressing **OK!** within 5 seconds, the pop-up menu will automatically proceed with the last highlighted selection as your menu choice.

Instrument gauge screens available within the "TEMP Group" gauge type.



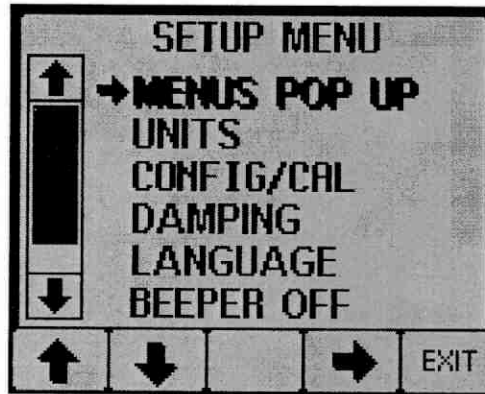
**Figure 8**

Press the softkey directly below a desired gauge type and a list of the different screens available for that type will appear. Press the same softkey again repeatedly to cycle through the pop-up list until the desired instrument gauge screen is highlighted (Fig. 10). Then press the softkey below **OK!** to immediately switch the display to the selected screen. Press the softkey below **EXIT** to dismiss the Screen Menu or simply allow it to time-out after a few seconds and disappear.

More information on gauge screens and screen-specific functions can be found in the "Instrument Gauges" section (page 29).

# SETUP MENU

The *SETUP MENU* allows you to calibrate, configure, and customize the i5600 according to your needs and preferences.



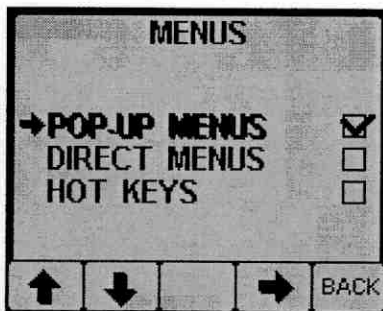
To access the *SETUP MENU*, press and hold the rightmost softkey until the *SETUP MENU* appears.

Use **Up** and **Down** softkeys to highlight individual menus and menu items. Use the **Adjust/Customize** softkey to select choices and/or make adjustments. In some instances, you may be required to confirm a selection by pressing **OK!**. Use the **BACK** softkey to return to previous/parent menus. When done with all your changes, press the **EXIT** softkey from the *SETUP MENU* to return to the gauge screen you were viewing prior to accessing the menu.

## NOTICE

*In some instances, you may be required to confirm a selection by pressing **OK!***

## MENUS



Selecting *MENUS* from the *SETUP MENU* produces the *MENUS* screen. This allows you to change the way the Screen Menu and softkeys work to select gauge screens. The different modes of operation are listed and a check mark indicates the currently active mode. Select the desired mode using the **Up**, **Down**, and **Adjust/Customize** softkeys. Mode descriptions and usage instructions are listed below.

## HOT KEYS

This mode assigns a specific screen to each of the four leftmost softkeys. Before selecting this mode, first operate the unit using *POP-UP MENUS* to select the screen(s) you want assigned. Then while viewing a selected screen, press and hold one of the four leftmost softkeys that you want to assign the screen to until you hear a beep and see the message "Key # Stored" appear on the screen. Continue assigning gauge screens to each of the four leftmost softkeys as desired by repeating this process with each key. Once all the desired gauge screen/softkey combinations have been assigned, return to *MENUS* and change the mode to *HOT KEYS*, and the softkeys will now take you directly to their assigned gauge screens with only a single key press.

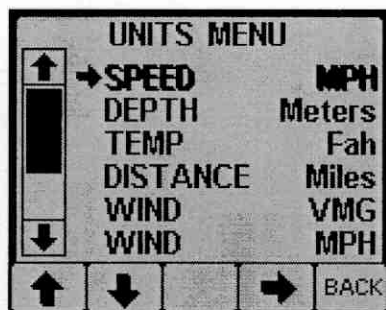
## POP-UP MENUS

This is the default setting, where a softkey press brings up a list and subsequent softkey presses cycle through the list of gauge screen choices.

## DIRECT MENUS

This mode operates without displaying the list of gauge screen choices. Each softkey press immediately changes the display to the next gauge screen choice of the chosen gauge type as it cycles through the undisplayed list. This mode is rarely used in normal operation.

## UNITS

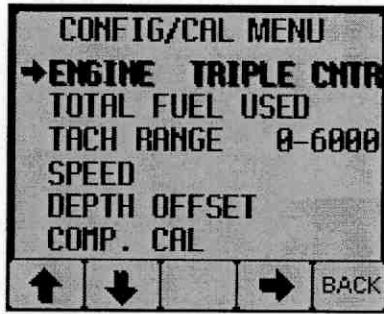


Selecting *UNITS* from the *SETUP MENU* produces the *UNITS MENU* screen. This menu allows you to customize the types of units used in measurements and readouts. Selected units can be metric, English, or nautical. *UNITS* are global settings on a networked system. That is, the settings for *UNITS* can be changed on any i5600 on a network and that change will consequently be made to all i5600s on that network.

Available unit options include:

- *SPEED* - Knots, MPH, or Km/h
- *DEPTH* - Meters, Feet, or Fathoms
- *TEMP (Temperature)* - Cels (Celcius) or Fah (Fahrenheit)
- *DISTANCE* - Nm, Miles, or Km
- *WIND ANGLE* - APP (Apparent), TRUE, or VMG (Velocity Made Good)  
(only if **OCEAN** is turned on in **SYSTEM MENU**)
- *WIND SPEED* - Knots, m/s, MPH, or Beaufort  
(only if **OCEAN** is turned on in **SYSTEM MENU**)
- *BEARING* - MAG (Magnetic) or TRUE  
(only if **OCEAN** is turned on in **SYSTEM MENU**)
- *PRESSURE* - PSI, Kpa, or Bar  
(only if **ENGINE** is turned on in **SYSTEM MENU**)
- *FUEL RATE* - Ltr/hr, Gal/hr, or USG/hr (U.S. Gallons)  
(only if **ENGINE** is turned on in **SYSTEM MENU**)

## CONFIGICAL MENU



Selecting *CONFIG/CAL MENU* from the *SETUP MENU* produces the *CONFIG/CAL MENU* screen. This menu allows you to fine tune and calibrate some of your sensors for accuracy when displaying a gauge screen.

Descriptions and instructions for each of the functions available under the *CONFIG/CAL MENU* are listed below.

### ENGINE

*ENGINE* lets you use special *ENG Group* instrument gauge screens.

When activated, you must specify which engine source the relevant i5600's *ENG Group* instrument gauge screens will be monitoring.

Possible engine source choices include:

- NONE
- SINGLE
- DUAL PORT
- DUAL STBD (*Starboard*)
- DUAL TWIN
- TRIPLE PORT
- TRIPLE CNTR (*Center*)
- TRIPLE STBD (*Starboard*)

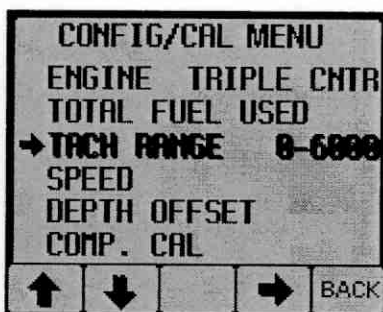
### TOTAL FUEL USED

*TOTAL FUEL USED* lets you track your boat's fuel usage. The *TOTAL FUEL USED* statistics can be reset using the *RESET TOTAL* option. This function is active only if other equipment on the network support the *TOTAL FUEL* function.

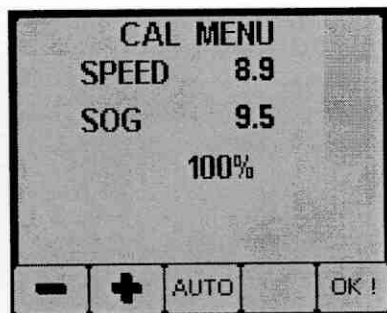
### TACH RANGE

This function sets the maximum range for the engine tachometers to be either 3000, 4000, 5000, 6000, or 7000 RPMs.

SETUP  
MENU

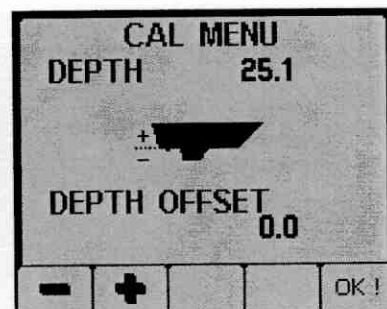




**SPEED**

The *SPEED* option changes the speed transducer reading by the percentage set here.

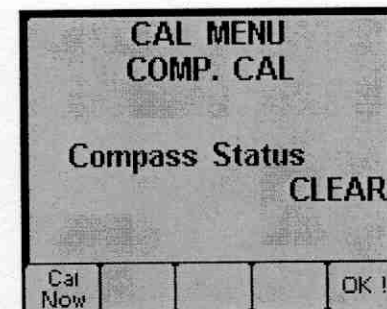
It is also possible to calibrate this option automatically against a GPS speed input if a GPS device is present. If there is very little tidal flow and the GPS is giving good SOG (Speed Over Ground) data, simply press the **AUTO** softkey and the i5600 will automatically calculate the correct percentage value to ensure that both water speed and ground speed are identical.

**DEPTH OFFSET**

The *DEPTH OFFSET* is a fixed amount to be added or subtracted from the depth reading. This allows compensation for keels or depths from the water surface to be displayed. Select a positive number equal to the vertical distance between the transducer and waterline for depth at the waterline; or select a negative number equal to the vertical distance between the transducer and keel for depth at the keel. The current depth as measured by the transducer is listed for comparison to a known depth value.

**MAST ALIGN**

*MAST ALIGN* is a fixed amount to be added or subtracted from the wind angle reading. The windvane may require fine adjustment to ensure that it reads zero wind angle when the wind direction is dead ahead. Enter a correction value so that the wind angle and related wind instrument gauge screens read correctly. The current wind angle as measured by the windvane is listed for comparison to the known value.

**COMP. CAL (Compass Calibration)**

*Do not use this function if your i5600 is using an i3000 Autopilot System as its heading source. Compass Calibration is performed at the electronic Steering System in these cases.*

This function triggers a compass deviation calibration run on a compass connected directly to the i5600.

Press **Cal Now**. The Compass Status listed on the screen will change to "INT". As soon as your boat starts to move in a clockwise direction the status will change to "RUN". Turn your boat through 400 degrees. When the compass has completed its deviation correction turns, the Compass Status will change to read "CORR". Compass calibration is now complete.



### COMP. ALIGN (Compass Alignment)

Do not use this function if your i5600 is using an i3000 Autopilot System as its heading source. Compass Calibration is performed at the electronic Steering System in these cases.

This function allows the compass reading to be aligned to a known correct heading.

Steer to a known heading. Use the **Decrease** and **Increase** softkeys to set the known compass reading for the heading. Ensure your boat is pointing to this heading and press the **Align** softkey. If you experience problems, you may press **Reset** to begin the process again. Press **OK!** to finish.

### DAMPING



Selecting **DAMPING** from the **SETUP MENU** produces the **DAMPING MENU** screen. This menu allows sensor readings to be damped if they are changing too fast. A higher damping value will slow the rate at which the readings are updated or changed, making them easier to read. However, this also means that some measured data may not be displayed as quickly as needed, such as a sudden and critical decrease in water depth.

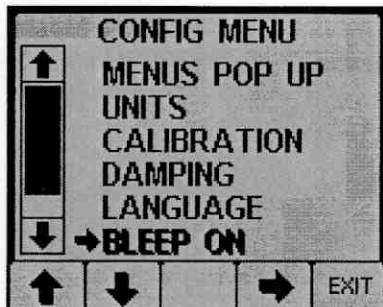
Use the **Up** and **Down** softkeys to highlight the desired sensor reading. Use the **Decrease** and **Increase** softkeys to set the level of damping (0 = no damping, 9 = maximum damping). Press **BACK** when finished making all changes.

### LANGUAGE



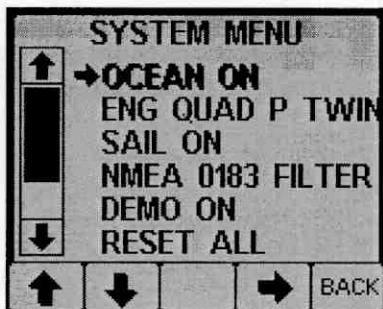
Selecting **LANGUAGE** from the **SETUP MENU** produces the **LANGUAGE MENU** screen. This menu allows you to change the language used by all the i5600s in a system, if networked.

Select the desired language using the **Up**, **Down**, and **Adjust/Customize** softkeys.

**BEEPER**

This function will keep the internal beeper from sounding each time a softkey is pressed. Audible alarm functions are unaffected. This function only affects the local unit and remains set until changed on the same unit.

Use the **Adjust/Customize** softkey to toggle the key press beeper's operational status.

**SYSTEM MENU**

Selecting *SYSTEM MENU* from the *SETUP MENU* produces the *SYSTEM MENU* screen.

Descriptions and instructions for each of the functions available under the *SYSTEM MENU* are listed below.

**OCEAN**

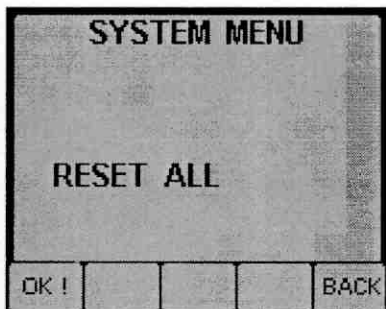
*OCEAN* lets you use special *MULTI Screen*, *NAV Group*, and *HEAD Group* instrument gauge screens. It should be turned on to access these commonly used features.

**SAIL**

Once turned on, *SAIL* lets you use special *WIND Group* instrument gauge screens.

**DEMO**

When *ON*, *DEMO* runs a demonstration program with sample data and lets you use all the available features and functions of the i5600 as if all the transducers were connected and sending data while out on the water. Any changes you make to user settings, such as lighting/contrast, units used, alarm settings, etc., while in the *DEMO* mode will be retained in the unit's memory and be exhibited in the normal operating mode once switched back.



### **RESET ALL**

*This setting should be used with caution since all calibration data and user settings will be lost.*

The **RESET ALL** function resets all settings back to a default value.

Press **OK!** to reset your i5600 or press **BACK** to cancel.

### **UPLOAD**

*Use of this feature should only be used when directed by Teleflex Marine.*

The **UPLOAD** function allows the program in the i5600 to be updated and copied across a MagicBus to any other connected i5600s.

### **SELF TEST**

*Use of this feature should only be used when directed by Teleflex Marine.*

The **SELF TEST** function allows the i5600 to run a diagnostic on itself and a connected MagicBus.

### **ABOUT**

The **ABOUT** screen displays useful information about your i5600, such as part number and software version. This information may be needed by Teleflex Marine Customer Support in the event you contact them.



# Instrument Gauges

The following gauge types and instrument gauge screens are available.

## NOTICE

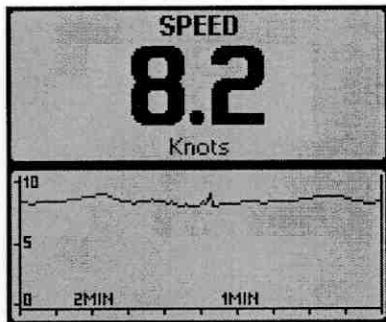
*If a particular sensing device associated with a specific instrument gauge function has not been installed, the relevant instrument gauge screens will display only dashes instead of data. All installations have some inputs not connected.*

## SPEED Group

These instrument gauge screens display information related to data gathered from attached or networked speed sensing devices. Descriptions of each screen follow.

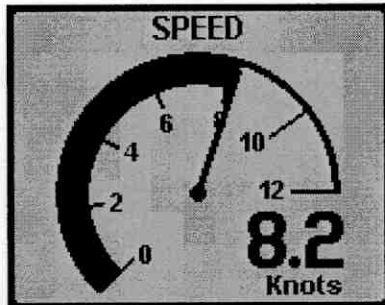
### Graph

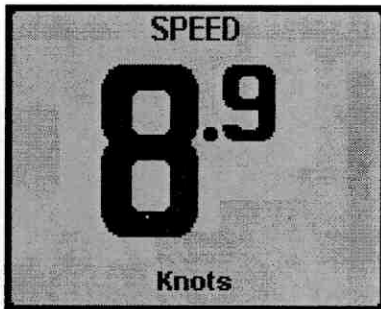
This screen incorporates a digital display of your boat's speed similar to the display on LCD watches or clocks along with a graph of speed recorded over the last two minutes.



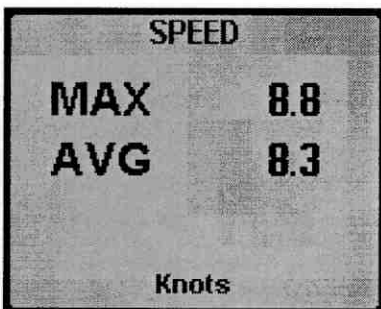
### Gauge

This screen displays your boat's speed in a traditional analog dial-and-needle type format. The gauge will auto scale the display to suit the incoming data. A digital display of your boat's speed is also included.



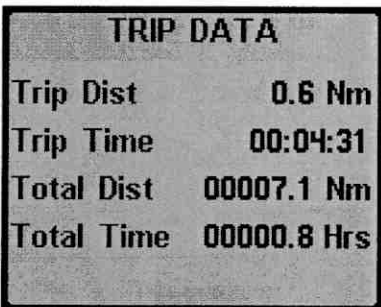
**Big**

This screen displays your boat's speed with large easy-to-read characters in a digital format.

**Statistics**

This screen displays your boat's maximum and average speeds since the i5600 was powered up or reset.

To reset your speed statistics, press any of the four leftmost softkeys and the Screen Menu will now have a **Reset Stats** option. Press the softkey below **Reset Stats**.

**Trip Data**

This screen displays the time and distance covered during the current trip along with the total distance covered and number of hours traveled since installing the i5600.

To reset the current trip's distance and time, press any of the four leftmost softkeys and the Screen Menu will now have a **Reset Log** option. Press the softkey below **Reset Log**. Total Dist and Total Time cannot be reset.

**Race Timer**

(only available if **SAIL** is turned on in **SYSTEM MENU**)

This screen is a countdown timer for the start of a race. Once the countdown has ended it then begins timing the race itself.

To adjust any timer settings, first press any of the four leftmost softkeys and the Screen Menu will now have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display the following options: **Set Timer**, **Start**, **Stop**, and **BACK**. Continue by following the appropriate instructions below for each desired action.



To set your timer, Press **Set Timer** repeatedly to cycle through countdown periods between one and ten minutes until the desired period is displayed.

To start the countdown/timer, press **Start**. An audible beep will sound when the countdown reaches 00:05:00, 00:01:00, and every 10 seconds of the last minute of the countdown. A three second long beep will sound when the countdown reaches 00:00:00 and the race begins to be timed. The timer will continue to run, even if you switch to other displays, until **Stop** is pressed.

To stop the countdown/timer, press **Stop**.

To reset the countdown, press **Set Timer**. Repeated pressing will cycle through the countdown periods allowing you to select a different period.

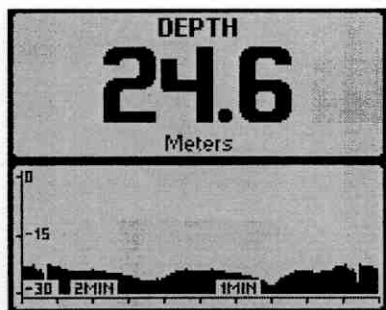
To exit the timer controls, press **BACK**.

## DEPTH Group

These instrument gauge screens display information related to data gathered from attached or networked depth sensing devices. Descriptions of each screen follow.

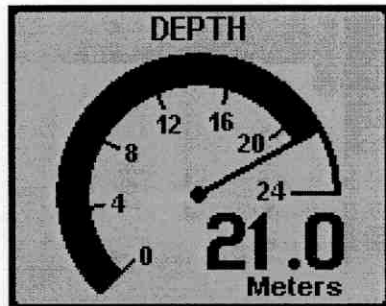
### Graph

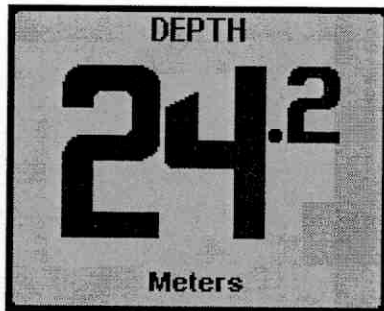
This screen incorporates a digital display of water depth similar to the display on LCD watches or clocks along with a bottom depiction graph of depth recorded over the last two minutes.



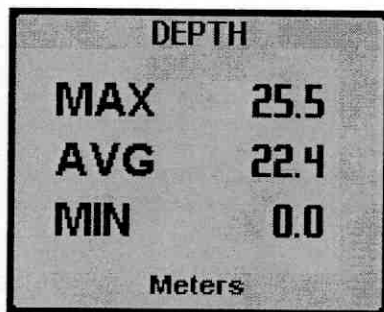
### Gauge

This screen displays water depth in a traditional analog dial-and-needle type format. The gauge will auto scale the display to suit the incoming data. A digital display of water depth is also included.



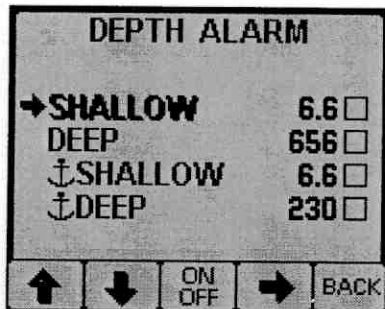
**Big**

This screen displays water depth with large easy-to-read characters in a digital format.

**Statistics**

This screen displays maximum, average, and minimum water depths since the i5600 was powered up or reset.

To reset your depth statistics, press any of the four leftmost softkeys and the Screen Menu will now have a **Reset Stats** option. Press the softkey below **Reset Stats**.

**Alarms**

This screen displays four depth alarms that can be set. SHALLOW and ANCHOR SHALLOW alarms sound when the measured depth is less than the respective settings for each. DEEP and ANCHOR DEEP alarms sound when the measured depth is greater than the respective settings for each.

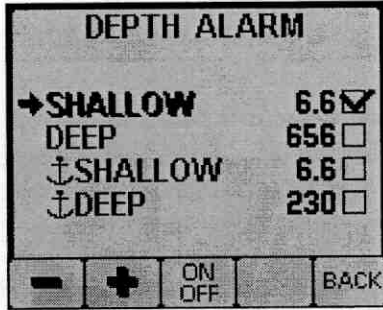
Depth alarms are global settings on a networked system. That is, the settings for an alarm can be changed on any unit on a network and that change will consequently be made to all units on that network.

If triggered, depth alarms will instantly display a pop-up window over the gauge screen of any and all networked units until it is cleared by pressing a softkey on any connected i5600.

To adjust any alarm settings, first press any of the four leftmost softkeys and the Screen Menu will now have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display the following options: **Up**, **Down**, **ON/OFF**, **Adjust/Customize**, and **BACK**. Continue by following the appropriate instructions below for each desired action.

To turn your alarms on/off, highlight the desired alarm using the **Up/Down** softkeys then press **ON/OFF** to toggle the alarm's operational status. A check mark indicates that the alarm is active.





To change the depth setting of an alarm, highlight the desired alarm using the **Up/Down** softkeys then press **Adjust/Customize**. The pop-up menu will now display the following options: **Decrease**, **Increase**, **ON/OFF**, and **BACK**. Use the **Decrease** and **Increase** softkeys to adjust the depth setting of the highlighted alarm. **SHALLOW** and **ANCHOR SHALLOW** alarms adjust in one tenth of a unit increments. **DEEP** and **ANCHOR DEEP** alarms adjust in 10 unit increments. Press **BACK** when done.

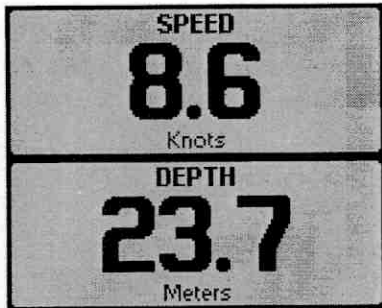
To exit the alarm controls, press **BACK**.

## MULTI Screen

These screens incorporate multiple windows allowing you to display more than one instrument gauge at a time. Descriptions of each screen follow.

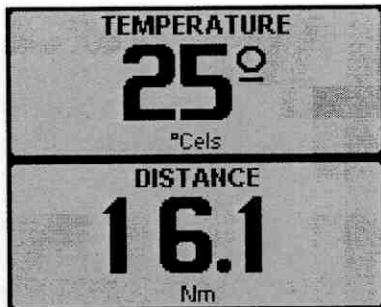
### Bi 1

This screen displays two windows—a digital display of speed in the top window and a digital display of depth in the bottom window.



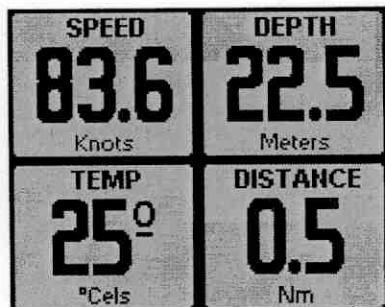
### Bi 2

This screen displays two windows—a digital display of water temperature in the top window and a digital display of trip distance in the bottom window.



### Quad

This screen displays four windows—a digital display of speed in the top left window, a digital display of depth in the top right window, a digital display of water temperature in the bottom left window, and a digital display of trip distance in the bottom right window.



### **Custom MULTI Screens (OCEAN must be turned on)**

When *OCEAN* is turned on in the *SYSTEM MENU*, additional options are available for the *MULTI* screens previously described. Any gauge in any window of one of the above described *MULTI* screens can be replaced by a gauge of your choice and be arranged in any order preferred. In addition to speed, depth, (water) temperature, and trip distance, a number of other instrument gauges will be available to you to choose from and place within these windows whenever *OCEAN* is turned on. The exact instrument gauges available to you depends upon which *MULTI* screen you've chosen, what sensing devices you have installed, and which options you have turned on in the *SYSTEM MENU*, a sub-menu of the *SETUP MENU* (page 22).

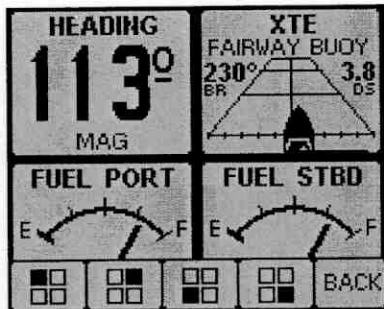
*Bi* screen instrument gauge choices include:

- *SPEED*
- *DEPTH*
- *TEMPERATURE (water)*
- *HEADING*
- *POSITION*
- *SOG (Speed Over Ground)*
- *COG (Course Over Ground)*
- *WIND SPEED*  
(only if **SAIL** is turned on in *SYSTEM MENU*)
- *WIND ANGLE*  
(only if **SAIL** is turned on in *SYSTEM MENU*)
- *BATTERY*
- *BEARING (to current waypoint)*
- *WP (Waypoint) DISTANCE*
- *FUEL (tank) PORT*
- *FUEL (tank) STBD*
- *FUEL (tank) CENTER*
- *WATER (reservoir)*
- *WASTE (reservoir)*
- *TRIM PORT*
- *TRIM STBD*
- *TAB PORT*
- *TAB STBD*
- *TRANS (Transmission) Fluid Pressure PORT*
- *TRANS (Transmission) Fluid Pressure STBD*
- *BATTERY PORT*
- *BATTERY STBD*

*Quad* screen instrument gauge choices include:

- *SPEED*
- *DEPTH*
- *TEMPERATURE (water)*
- *HEADING*
- *SOG (Speed Over Ground)*

- COG (Course Over Ground)
- WIND SPEED  
(only if **SAIL** is turned on in **SYSTEM MENU**)
- WIND ANGLE  
(only if **SAIL** is turned on in **SYSTEM MENU**)
- RUDDER
- "Mini" Navigator/XTE (Cross Track Error) Glide Path
- XTE (Cross Track Error) Digital
- BATTERY
- BEARING (to current waypoint)
- WP (Waypoint) DISTANCE
- FUEL (tank) PORT
- FUEL (tank) STBD
- FUEL (tank) CENTER
- TRIM PORT
- TRIM STBD
- TAB PORT
- TAB STBD
- WATER (reservoir)
- WASTE (reservoir)
- TRANS (Transmission) Fluid Pressure PORT
- TRANS (Transmission) Fluid Pressure STBD
- BATTERY PORT
- BATTERY STBD

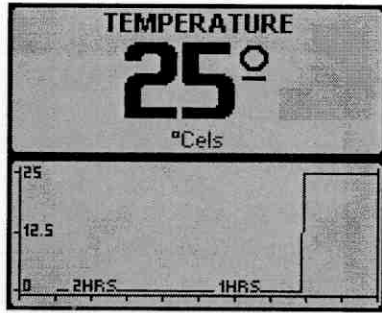


To change a gauge in any *MULTI* screen window, press any of the four leftmost softkeys and the Screen Menu will have an **Adjust/Customize** option if **OCEAN** is turned on. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display a series of graphic representations of the current *MULTI* screen. Press the softkey below the representation that has a dark box in the location corresponding to the *MULTI* screen window that you wish to change. The window will automatically cycle to the next available instrument gauge choice from the above list with each press of the softkey. Stop at the desired replacement gauge then press the **BACK** softkey when through making changes.

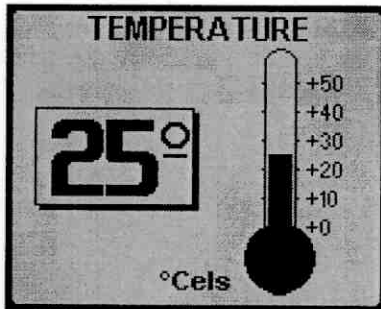
Any gauge replacements you make on a particular *MULTI* screen (*Bi 1*, *Bi 2*, *Quad 1*, etc.) will be saved and automatically recalled the next time you choose that screen. When Ocean is turned on, a second "Quad" screen (*Quad 2*) is provided to give you the ability to store up to four different gauge combinations for quick access to particular groups of information according to your situation and personal preferences. When used in conjunction with the "hot key" menu option ("MENUS", page 22), you can quickly move from one customized set of gauges to another with just the push of a single button.

## TEMP (Temperature) Group

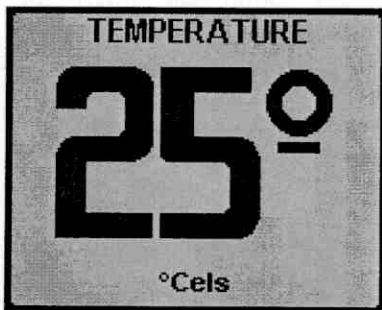
These instrument gauge screens display information related to data gathered from attached or networked water temperature sensing devices. Descriptions of each screen follow.

**Graph**

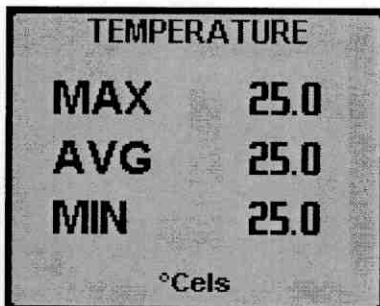
This screen incorporates a digital display of water temperature along with a graph of water temperature recorded over the last two hours.

**Gauge**

This screen displays a bulb thermometer depicting water temperature. The gauge will auto scale the display to suit the incoming data. A digital display of water temperature is also included.

**Big**

This screen displays water temperature with large easy-to-read characters in a digital format.

**Statistics**

This screen displays maximum, average, and minimum water temperatures since the i5600 was powered up or reset.

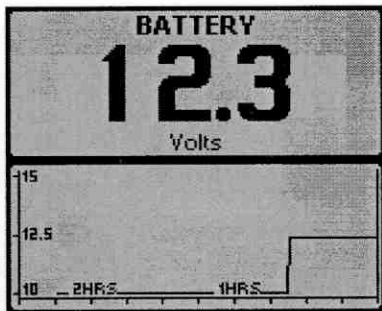
To reset your water temperature statistics, press any of the four leftmost softkeys and the Screen Menu will now have a **Reset Stats** option. Press the softkey below **Reset Stats**.

## BAT (Battery) Group

These instrument gauge screens display information related to data gathered from attached or networked i8000 series Engine Interface. These screens look first for Starboard Battery, then Port Battery, and will finally default to the CANBus Power readings if no battery data is available. Descriptions of each screen follow.

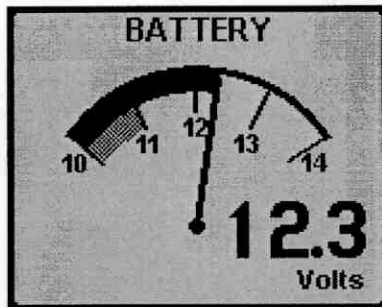
### Graph

This screen incorporates a digital display of battery voltage similar to the display on LCD watches or clocks along with a graph of battery voltage recorded over the last two hours.



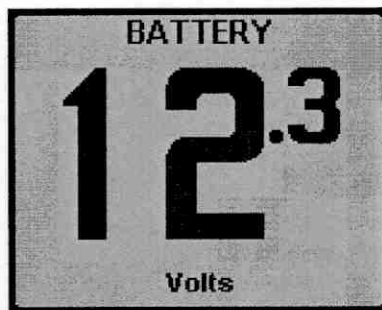
### Gauge

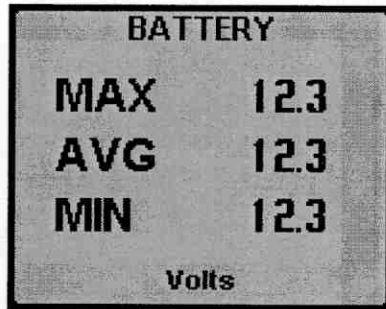
This screen displays battery voltage in a traditional analog dial-and-needle type format. The gauge will auto scale the display to suit the incoming data. A digital display of battery voltage is also included.



### Big

This screen displays battery voltage with large easy-to-read characters in a digital format.





### Statistics

This screen displays maximum, average, and minimum battery voltages since the i5600 was powered up or reset.

To reset your battery voltage statistics, press any of the four leftmost softkeys and the Screen Menu will now have a **Reset Stats** option. Press the softkey below **Reset Stats**.

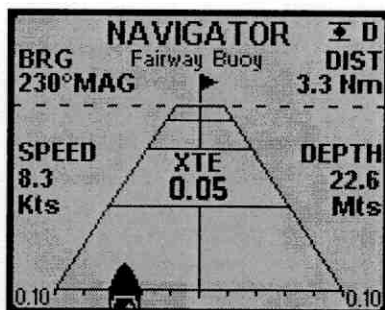
## NAV (Navigation) Group (OCEAN must be turned on)

NAV Group instrument gauge screens repeat information from an installed navigation system. It could be a sophisticated chart plotter system or a simple hand-held GPS. The navigation data can be received from any MagicBus or standard NMEA 2000 source (see "NMEA® Certified Device Connections" on page 16 for more information on connecting NMEA compliant devices). Only one NMEA GPS source is allowed by the system.

Descriptions of each screen follow.

### NOTICE

NAV Group gauge screens will display "OK" in the top right corner of the screen if satellite signals are being received clearly. A "D" indicates that Differential GPS signals are being used. If signal is lost, a "?" will be displayed.



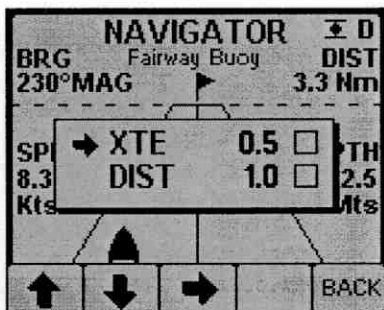
### Navigator

This screen displays a "Glide Path" view of an approaching waypoint. If available on the MagicBus, the bearing, name, and distance to this waypoint are clearly shown at the top of the screen. The current water speed and depth readings are also shown on either side of the screen if available. The boat symbol and graduated line at the bottom of the screen indicates the relative distance off-track the vessel is from the direct course to the waypoint (known as Cross Track Error, or XTE). The exact XTE distance is displayed in the center of the screen and is in the same type of units as "DIST" above it. The units used for distance measurements may be changed in the *SETUP MENU* (see "UNITS", page 23).

The *Navigator* screen has two navigation alarms that can be set. The XTE alarm sounds when the measured XTE is greater than the saved setting. The DIST (Distance) alarm, also referred to as an arrival alarm, sounds when the measured distance to the current waypoint is less than the saved setting.

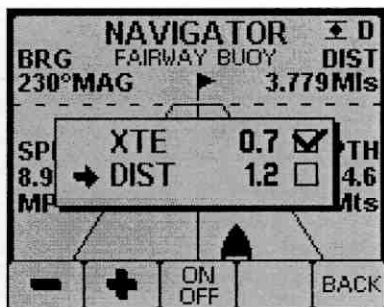
Navigation alarms are global settings on a networked system. That is, the settings for an alarm can be changed on any unit on a network and that change will consequently be made to all units on that network.

If triggered, navigation alarms will instantly display a pop-up window over the gauge screen of any and all networked units until it is cleared by pressing any softkey.



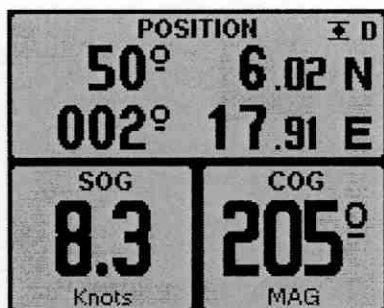
To adjust navigation alarms, first press any of the four leftmost softkeys and the Screen Menu will now have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display the following options: **Up**, **Down**, **Adjust/Customize**, and **BACK**. Continue by following the appropriate instructions below for each desired action.

To turn your alarms on/off, highlight the desired alarm using the **Up/Down** softkeys then press **Adjust/Customize**. The pop-up menu will now display the following options: **Decrease**, **Increase**, **ON/OFF**, and **BACK**. Press **ON/OFF** to toggle the alarm's operational status. A check mark indicates that the alarm is active. An alarm icon next to "XTE" on the main *Navigator* screen will also appear. Press **BACK** when done.



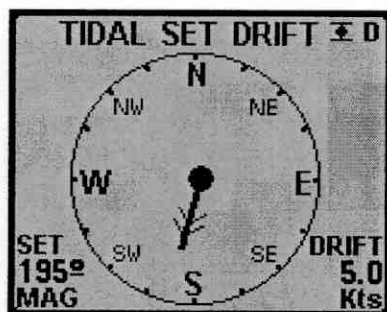
To change the setting of an alarm, highlight the desired alarm using the **Up/Down** softkeys then press **Adjust/Customize**. The pop-up menu will now display the following options: **Decrease**, **Increase**, **ON/OFF**, and **BACK**. Use the **Decrease** and **Increase** softkeys to adjust the setting of the highlighted alarm. Alarms adjust in one tenth of a unit increments. Press **BACK** when done.

To exit the alarm controls, press **BACK**.



### Position

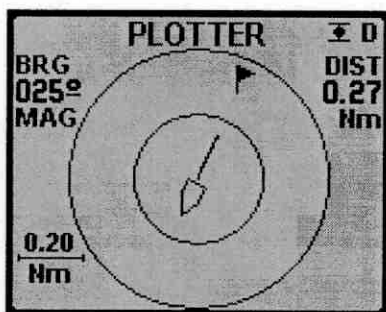
This screen displays your boat's current GPS position, SOG (Speed Over Ground), and COG (Course Over Ground).



### Tidal

This screen displays the strength and direction of the tidal flow.

This gauge screen requires information from the navigation system, an accurately calibrated water speed sensor, and heading data. The differences between these sensor inputs and data sources are used to calculate and display the tidal stream.



### Plotter

This is a basic plotter screen, showing the recent history of positions taken once per second. The scale of the plot is located in the lower left corner of the screen. Bearing and distance to the current waypoint are also listed.

The *Plotter* screen has a Zoom feature to change the plot's scale and the ability to store a single event (Lat - Long position). When an event has been stored, the display will indicate the distance and bearing back to the event.



To store an event or change the plot's scale, press any of the four leftmost softkeys and the Screen Menu will now have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display the following options: **ZOOM OUT**, **ZOOM IN**, **New Event**, and **BACK**. Press the softkey below the desired function. If zooming in or out, the scale indicator on the main *Plotter* screen will automatically update with each softkey press. Press **BACK** when done.

All event data is lost when the power to the i5600 is turned off. Event data is local and is not shared between other i5600s within a system.

## HEAD (Heading) Group (OCEAN must be turned on)

These instrument gauge screens display information related to data gathered from attached or networked compass and navigation system devices. Descriptions of each screen follow.

### NOTICE

Most HEAD Group gauge screens will display "TRUE" or "MAG" (Magnetic) below the digital heading or upper right corner to indicate the North reference being used by the system. The North reference used can be changed under UNITS (BEARING) in the SETUP MENU (page 22).





### Digital

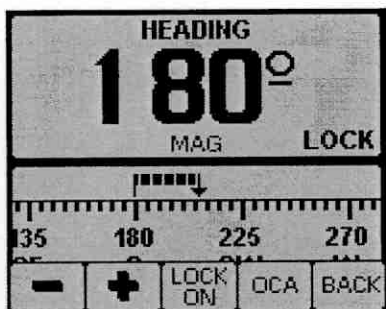
This screen displays two windows—a digital display of your boat's heading in the top window and a simulated tape repeater, or strip compass, in the bottom window. The small arrow above the strip compass indicates the current heading.

The *HEADING Digital* screen has a heading lock function and an Off Course Alarm (OCA) to help you stay on course. If a heading is locked and the vessel is slightly off course, the i5600 will show the direction and amount of deviation from the locked course. The Off Course Alarm sounds when your boat's deviation from the locked course is greater than the saved setting.

The heading lock and Off Course Alarm functions are global settings on a networked system. That is, the settings for these functions can be changed on any unit on a network and that change will consequently be made to all units on that network.

If triggered, the Off Course Alarm will instantly display a pop-up window over the gauge screen of any and all networked units until it is cleared by pressing a softkey on any connected i5600.

To adjust either the heading lock or Off Course Alarm, first press any of the four leftmost softkeys and the Screen Menu will now have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display the following options: **Decrease**, **Increase**, **LOCK (ON/OFF)**, **OCA**, and **BACK**. Continue by following the appropriate instructions below for each desired action.



To lock a heading, steer your boat to the course you wish to lock. Press **LOCK (ON/OFF)** to toggle the heading lock status. "LOCK" will appear in the lower right corner of the top window to indicate the lock is active. The heading displayed in the top window is your locked heading. You may fine tune the locked heading by pressing the **Decrease** and **Increase** softkeys. These softkeys alter the locked heading by one degree with each keypress. The small arrow above the strip compass in the lower window indicates the current heading. A barred line above the strip compass shows the direction and amount of deviation from the locked course displayed in the top window.



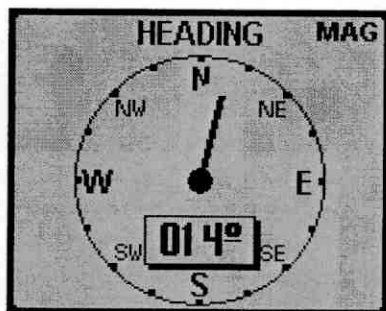
To set your Off Course Alarm, press **OCA** and the pop-up menu will change to the following options: **Decrease**, **Increase**, **OCA (ON/OFF)**, and **BACK**. You may change the point at which the alarm will sound by pressing the **Decrease** and **Increase** softkeys. These softkeys alter the alarm setpoint in each direction by five degrees with each keypress. Two tall bars on either side of the heading arrow above the strip compass indicate the alarm setpoints in the lower window. Press **OCA (ON/OFF)** to toggle the alarm's operational status. An alarm icon will appear in the upper window to indicate that the alarm is active. The Off Course Alarm will only function if a heading is locked. Press **BACK** when done.

To exit heading lock and Off Course Alarm controls, press **BACK**.



### **Big**

This screen displays your boat's heading with large easy-to-read characters in a digital format.



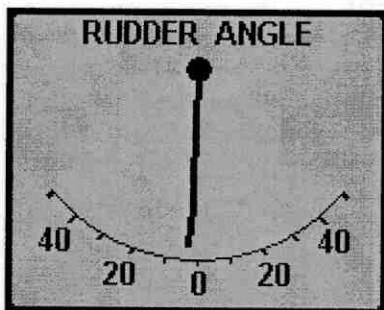
### **Gauge**

This screen displays a steering compass with a moving heading indicator. A digital display of your boat's heading is also included.



### **Card**

This screen displays a steering compass with a rotating card. A digital display of your boat's heading is centered in the display.

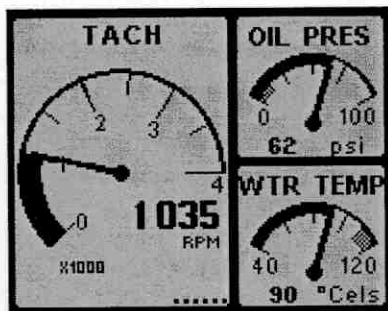


### **Rudder**

This screen displays a large rudder angle indicator for an electronic steering system or any device on the network that supplies the rudder angle.

## ENG (Engine) Group (**ENGINE must be turned on**)

These instrument gauge screens display information related to data gathered from your boat's engines and delivered to the i5600 via a MagicBus or NMEA 2000 connection.



### Data (1-4), Port (1-2), Twin (1-2), & Stbd (1-2)

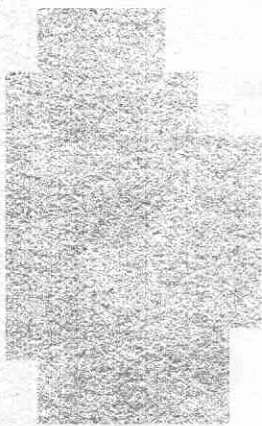
These screens display engine instrumentation data in a traditional analog dial-and-needle type format. All of these screens consist of a tachometer window and two user-definable gauge windows. The range of the tachometer scale can be changed to 3000, 4000, 5000, 6000, or 7000 RPMs using the *CONFIG/CAL MENU*, a sub-menu of the *SETUP MENU* (page 22).

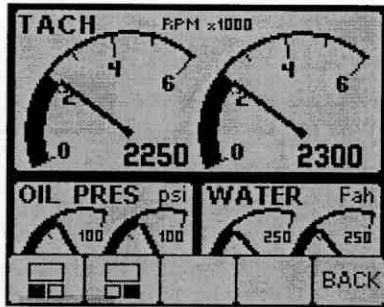
If you have a multi-engine system then the name of the gauge screen signifies the source engine(s) for the data being displayed. If a twin engine system was defined for *ENGINE* in the *SYSTEM MENU* and a *Twin* gauge screen has been selected, then two gauges will appear in each window—one on the left side of the window for the port twin component and one on the right side of the window for the starboard twin component. You can also choose to display information from just one of the twin engines by selecting the gauge screen that corresponds to the desired component (*Port 1* or *Stbd 1*). Additional screens (*Twin 2*, *Port 2*, *Stbd 2*, and *Data 2-4*) are made available so that you may customize and save alternate engine gauge combinations.

The gauges in the two smaller user-definable windows can be replaced by gauges of your choice and be arranged in any order preferred. A number of different engine-related instrument gauges are available for you to choose to place within these windows. The exact instrument gauges available to you depends upon your engine setup and what sensing devices you have.

Possible instrument gauge choices include:

- *OIL PRES* (Pressure)
- *TOT FLW* (Total Flow)
- *COOL PRES* (Coolant Pressure)
- *WTR TEMP* (Coolant Temperature)
- *TURBO* (boost pressure)
- *A. VOLTS* (Alternator)
- *FUEL RATE* (consumption)
- *FUEL PRES* (Pressure)
- *HOURS* (engine)
- *THROTTLE* (%)
- *GEAR*
- *TRANS* (Transmission fluid pressure), 400 PSI limit





To change a gauge in one of the user-definable windows, first make sure "HOT KEYS" is turned off ("MENUS", page 22) then press any of the four leftmost softkeys and the Screen Menu will have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display a series of graphic representations of the current *Data* screen. Press the softkey below the representation that has a dark box in the location corresponding to the window that you wish to change. The window will automatically cycle to the next available instrument gauge choice from the above list with each press of the softkey. Stop at the desired replacement gauge then press the **BACK** softkey when through making changes.

Any gauge replacements you make on a particular screen (*Data 1*, *Data 2*, *Twin 1*, etc.) will be saved and automatically recalled the next time you choose that same screen. This gives you the ability to store multiple engine gauge combinations for quick access to different groups of information according to your situation and personal preferences. When used in conjunction with the "hot key" menu option ("MENUS", page 22), you can quickly move from one custom set of gauges to another with just the push of a single button.

### Alarms

This screen displays engine status alarms. The source engine for the alarms being displayed is listed at the top of the screen. The exact alarms available to you depends on the type of engine you have and how your i5600 is configured.

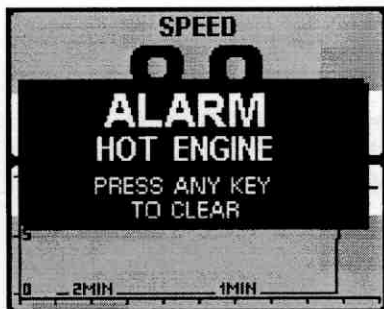
PORT Alarms	
OIL PRESSURE	HOT ENGINE
HIGH BOOST	LOW VOLTAGE
GEAR OIL	WATER IN FUEL
LOW COOLANT	SEA WATER FLOW

Standard GM MEFI engine status alarms (TYPE1) include:

- CHECK ENGINE
- LOW OIL
- OVERTEMP
- LOW VOLTAGE
- TPS WARNING (*Throttle Position Sensor*)
- POWER REDUCTION
- GENERAL WARNING 1
- GENERAL WARNING 2

Yanmar engine status alarms (TYPE2) include:

- OIL PRESSURE
- HOT ENGINE
- HIGH BOOST
- LOW VOLTAGE
- GEAR OIL
- WATER IN FUEL
- LOW COOLANT
- SEA WATER FLOW

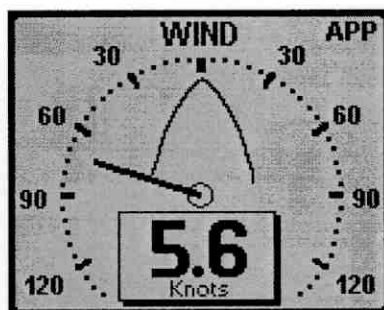


Activation of any one of these alarms will cause the i5600 to beep and a pop-up window to appear. Pressing any softkey will acknowledge the alarm and immediately switch the display to the *Alarms* screen. The i5600 will continue to beep until all alarm conditions have cleared. Unacknowledged alarms will be shown as flashing boxes. Press any softkey to acknowledge alarm boxes that may still be flashing, and they will then change to a steady highlighted state. Alarm blocks will remain highlighted as long as the alarm condition remains and will automatically reset to an unhighlighted state after the alarm condition has passed. Meanwhile, the softkeys may be used as normal to change the screen or enter the *SETUP MENU*, etc.

## **WIND Group (SAIL must be turned on)**

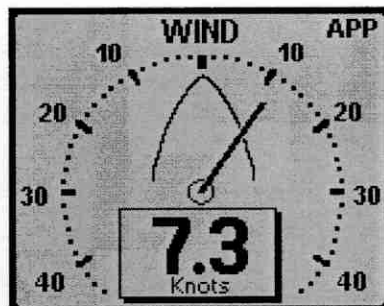
These instrument gauge screens display information related to data gathered from attached or networked wind sensing devices. Descriptions of each screen follow.

### **Gauge**



This screen displays a replica of an analog display, showing live wind angle and wind speed. TRUE, APP (apparent), or VMG (Velocity Made Good) appears in the upper right corner of the screen indicating the type of wind information being displayed. Wind type and wind speed units can be changed using the *SETUP MENU* (page 22).

### **Tack**



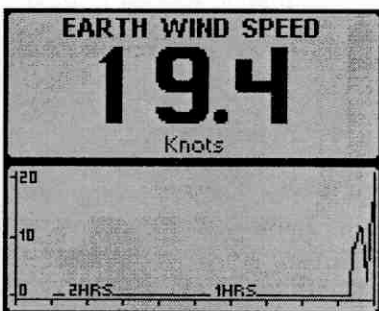
This screen displays a replica of an analogue display like the aforementioned screen but with an amplified scale to help make critical wind determinations when close hauled or running. The needle is three times more sensitive to changing wind angle on this screen—a 90° arc on the dial only represents a 30° change in wind direction.

	WIND	Knots
	TRUE	APP
MAX	15.3	9.3
AVG	8.6	4.6
Angle	176°P	149°P

### Statistics

This screen displays maximum wind speed, average wind speed, and average wind angle for both TRUE and APP (apparent) wind since the i5600 was powered up or reset.

To reset your wind statistics, press any of the four leftmost softkeys and the Screen Menu will now have a **Reset Stats** option. Press the softkey below **Reset Stats**.



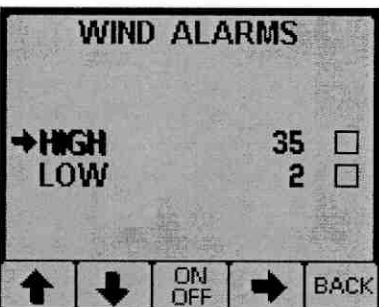
### Speed

This screen incorporates a digital display of the wind's speed relative to the ground, similar to the display on LCD watches or clocks, along with a graph of wind speed recorded over the last two hours. This allows the trend in the wind strength to be easily seen.



### Big

This screen displays wind speed with large easy-to-read characters in a digital format similar to the display on LCD watches or clocks. TRUE, APP (apparent), or VMG (Velocity Made Good) appears at the bottom of the screen indicating the type of wind information being displayed. This can be changed using the *SETUP MENU* (page 22).



### Alarms

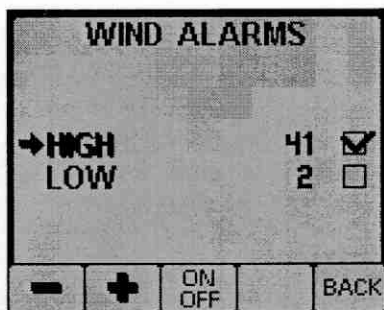
This screen displays two wind alarms that can be set. The LOW alarm sounds when the measured wind speed is less than the setting indicated. The HIGH alarm sounds when the measured wind speed is greater than the setting indicated.

Wind alarms are global settings on a networked system. That is, the settings for an alarm can be changed on any unit on a network and that change will consequently be made to all units on that network.

If triggered, wind alarms will instantly display a pop-up window over the gauge screen of any and all networked units until it is cleared by pressing a softkey on any connected i5600.

To adjust any alarm settings, first press any of the four leftmost softkeys and the Screen Menu will now have an **Adjust/Customize** option. Press the softkey below the **Adjust/Customize** softkey cue and the pop-up menu will now display the following options: **Up**, **Down**, **ON/OFF**, **Adjust/Customize**, and **BACK**. Continue by following the appropriate instructions below for each desired action.

To turn your alarms on/off, highlight the desired alarm using the **Up/Down** softkeys then press **ON/OFF** to toggle the alarm's operational status. A check mark indicates that the alarm is active.

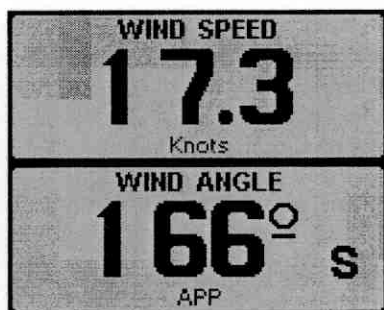


To change the wind speed setting of an alarm, highlight the desired alarm using the **Up/Down** softkeys then press **Adjust/Customize**. The pop-up menu will now display the following options: **Decrease**, **Increase**, **ON/OFF**, and **BACK**. Use the **Decrease** and **Increase** softkeys to adjust the wind speed setting of the highlighted alarm. Alarms adjust in one unit increments. Press **BACK** when done.

To exit the alarm controls, press **BACK**.

### Digital

This screen displays two windows—a digital display of wind speed in the top window and a digital display of wind angle in the bottom window. The angle is indicated as 0-180 degrees to Port (P) or Starboard (S). TRUE, APP (apparent), or VMG (Velocity Made Good) appears at the bottom of the screen indicating the type of wind information being displayed. This can be changed using **UNITS** under the **SETUP MENU** (page 22).



# Technical Information

## Specifications

### Power

Voltage Input	9 – 32 VDC
Circuit Breaker	One 500 mAmp fuse/breaker per unit (in installations using an otherwise unpowered or inadequately powered MagicBus)

### Display Unit

Display Type	FSTN 4 Level Grayscale
Backlight	LED
Mounting	Gimbal or in-dash
Construction	High Impact Polycarbonate with Silicone Gasket
Dimensions	4.3" H x 4.3" V (11 cm H x 11 cm V)

### Communication

MagicBus	NMEA 2000® NMEA is a registered trademark of the National Marine Electronics Association
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### Environmental

Operating Temperature	32° to 131° F (0° to 55° C)
Storage Temperature	-4° to 158° F (-20° to 70° C)
Enclosure Rating	IP55 (NEMA 4)

## Troubleshooting

If a problem cannot be identified or corrected, call Teleflex Marine Customer Support at 610 495 7011.

### Visual Inspection

If a problem is experienced with the i5600 system, such as lost data or no data being reported from an installed sensor, first visually inspect the system for the most likely causes, which include the following:

- Adequate power supply
- Loose connectors
- Bent connector pins



- Harnesses perforated by excessively tightened wire ties
- Faulty sensor/transducer/interface

## Maintenance

Your Teleflex Marine i5600 is designed to provide you with years of trouble-free operation with virtually no maintenance. Follow the simple procedures below to ensure that your i5600 continues to deliver top performance.

If the unit comes into contact with salt spray, simply wipe the affected surfaces with a cloth dampened in fresh water.

Do not attempt to repair the i5600 yourself. There are no user serviceable parts inside, and special tools and techniques are required for reassembly to ensure the waterproof integrity of the housings. **Repairs should be performed only by authorized Teleflex Marine technicians.**

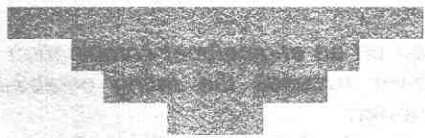
Many requests for repair received by Teleflex Marine involve units that do not actually need repair. These units are returned "no problem found." If you have a problem with your i5600, consult the troubleshooting guide before calling Customer Support or sending your unit in for repair. The i5600 contains several tools which can aid in determining if there is a problem and how to isolate and repair the problem in many cases.

### **⚠ WARNING**

*Disassembly and repair of this electronic unit should only be performed by authorized service personnel. Any modification of the serial number or attempt to repair the original equipment or accessories by unauthorized individuals will void the warranty. Handling and/or opening this unit may result in exposure to lead, in the form of solder.*

### **⚠ WARNING**

*This product contains lead, a chemical known to the State of California to cause cancer and birth defects and other reproductive harm.*



Technical Information

# Customer Service & Support

If you have any questions, call our Teleflex Marine Customer Support: **1- 610- 495 – 7011**; Monday- Friday, 8:00 a.m. to 5:00 p.m. Eastern time. Or e-mail [i5600support@teleflex.com](mailto:i5600support@teleflex.com)

If reading and following the suggestions under "Troubleshooting" on page 48 has not resolved any problems you may be experiencing with the product and you feel the product needs factory service, please follow the instructions under " Product Return Procedure" on page 51.

## **2-Year Limited Warranty**

We warrant to the original retail purchaser that Teleflex Marine electronic products have been manufactured free from defects in materials and workman-ship. This warranty is effective for two years from the product manufacture date, except where Teleflex Marine electronic products are used commercially or in any rental or other income producing activity; then this warranty is limited to one year from the date of original purchase for mechanical and electrical products.

Teleflex Marine products found to be defective and covered by this warranty will be replaced or repaired at Teleflex Marine's option, and returned to the customer. Items must be returned (**freight prepaid**) within the warranty period to the dealer from whom such products were purchased, or directly to Teleflex Marine's Limerick facility.

Teleflex Marine's sole responsibility under this warranty is limited to the repair or replacement of product that is, in Teleflex Marine's opinion, defective. **Teleflex Marine is not responsible for charges connected with the removal of such product or reinstallation of replacement or repaired parts.**

We will have no obligations under this warranty for any product which:

- was improperly installed;
- *was used in an installation other than as recommended in our installation or operation instructions or specifications;*
- *failed or was damaged due to an accident or abnormal operation including racing, misuse or alterations outside our factory;*
- *was repaired or modified by entities other than Teleflex Marine;*
- *was used on an engine/boat combination where the engine horsepower exceeds the rating established by the boat manufacturer;*
- was used with other product(s) which, in Teleflex Marine's opinion, are incompatible with the Teleflex Marine product.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, OBLIGATIONS OR LIABILITIES ON THE PART OF TELEFLEX MARINE AND WILL BE THE CUSTOMER'S EXCLUSIVE REMEDY EXCEPT FOR ANY APPLICABLE IMPLIED WARRANTIES UNDER STATE LAW WHICH ARE HEREBY LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. IN NO EVENT WILL TELEFLEX MARINE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY RELATING TO THE PRODUCTS. Some states do not allow limitations on an implied warranty, or the exclusion of incidental or consequential damages, so the above exclusions may not apply to you. You may also have other rights which vary from state to state.

Teleflex Marine products returned under this warranty must be tagged with the customer's name, street address, and phone number to ensure proper handling, and returned freight prepaid to the selling dealer or to the appropriate Teleflex Marine manufacturing facility. User manual contains the facility return addresses.

### **Product Return Procedure**

1. In order to return an electronic product, please contact a Customer Service Representative at 610 495 7011 or e-mail at [marineinfo@teleflex.com](mailto:marineinfo@teleflex.com). Upon approval, a Return Goods Authorization (RGA) number will be assigned from the Customer Service Department. The RGA number is Teleflex's internal tracking document, which is necessary in order to process a return.
2. The actual product list of items to be returned must be submitted by telephone or e-mail at [marineinfo@teleflex.com](mailto:marineinfo@teleflex.com). This list must include the Teleflex Marine part number, quantity being returned, product cost and reason for return. Also please include the customer debit/reference number if necessary.  
**NOTE: To ensure prompt attention and response, please provide an accurate phone number; fax number, and the name of a contact person.**
3. All returned parts must be individually tagged with an assigned Teleflex Marine RGA number. All boxes and paperwork must also reference the assigned RGA number. Teleflex Marine will provide a return kit which will include:
  - a. A letter expressing our apology for any inconvenience the products in question may have caused.
  - b. Return instructions
  - c. RGA Form
  - d. RGA Tags for the return products
  - e. UPS Ground Shipping Label (expenses for overnight returns are the responsibility of the customer),

4. If the customer tracking process requires a claim/reference number per part, the customer must individually tag ALL parts with your claim/reference number.
5. A packing list must be included with the returned parts. This packing list must reference our Teleflex Marine part number, quantity being returned and Teleflex Marine RGA number. Only parts originally approved for return should be included. An RGA number cannot be used for multiple shipments. Each shipment requires a separate RGA number.
6. Products should be sent to:  
  
Teleflex Marine  
ATTN: Warranty Department/Electronics  
640 North Lewis Rd.  
Limerick, PA 19468
7. The Limited Warranty does not cover shipping costs to the Teleflex Marine Limerick facility, any costs for labor or otherwise related to product removal or replacement, or any other costs of any nature without prior consent by Teleflex Marine Service in Limerick, PA. Parts, products and accessories made by others are warranted only to the extent of the original manufacturer's warranty to Teleflex Marine.
8. Teleflex Marine reserves the right to examine all returned merchandise. Teleflex Marine tests 100% of the returned products at its facility.
9. All returns must be received **within 30 days** from authorization. Any product sent C.O.D. or without an RGA number will be refused. Products eligible for credit will be processed within 30 days.
10. Call 1 610 495 7011 for questions regarding customer returns. The customer may also e-mail Teleflex Marine at [marineinfo@teleflex.com](mailto:marineinfo@teleflex.com).
11. A 15% restocking fee is required for all returns unless waived by authorized Teleflex Marine personnel.

# Glossary

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<b>Bearing (BRG)</b>	Direction to a waypoint expressed in degrees relative to north. Options for measuring from TRUE or MAG (Magnetic) North are available.
<b>CANbus</b>	Control Area MagicBus communications interface. A digital backbone used to interconnect monitoring and control devices.
<b>Course Over Ground (COG)</b>	Direction you are traveling measured in degrees from North. Options for measuring from TRUE or MAG (Magnetic) North are available.
<b>Cross Track Error (XTE)</b>	Distance between your present position and the trackline.
<b>ECU</b>	Electronic Control Unit. i6000 component that coordinates the signals from the Control Heads, engines, and MagicBus to direct the operation of the actuators and/or control the engines.
<b>NMEA®</b>	NMEA is a registered trademark for the National Marine Electronics Association.
<b>NMEA 2000®</b>	The most recent NMEA standard for electronic connection protocols.
<b>Speed Over Ground (SOG)</b>	Speed of boat, derived from GPS.
<b>MagicBus®</b>	The Teleflex CANbus implementation for providing a continuous stream of data to all devices plugged into an onboard network conforming to the NMEA 2000® standard.

# Index

<b>A</b>	
Alarm.....	19, 27, 32, 33, 38, 39, 41, 42, 45, 46, 47
depth.....	32
off-course.....	41, 42
Alternator.....	43
<b>B</b>	
Backlight setting.....	19
Battery.....	37, 38
Bearing (BRG).....	40, 53
<b>C</b>	
Calibration.....	19, 22, 24, 25
Compass.....	25, 26
Contrast setting.....	19
Course.....	53
over ground (COG).....	34, 35, 39, 53
Cross track error (XTE).....	35, 38, 53
<b>D</b>	
DEMO.....	27
Depth.....	3, 11, 25, 26, 31, 32, 33, 34, 38
Distance.....	11, 38, 53
<b>E</b>	
Electronic Control Units (ECU).....	53
<b>F</b>	
Fuses.....	48
<b>G</b>	
Glide Path.....	35, 38
GPS.....	11, 25, 38, 39, 53
<b>H</b>	
Heading.....	20, 40
<b>I</b>	
i6000 Shift and Throttle Systems.....	53
Information	
speed.....	19, 25, 29, 30, 33, 34, 38, 40, 45, 46, 47
status.....	25
temperature.....	11, 20, 23, 35, 43, 48
tidal stream.....	25, 40
voltage.....	48
wind.....	25, 45, 46, 47
<b>L</b>	
Lighting setting.....	19
<b>N</b>	
NMEA.....	16, 43, 48, 53
North reference.....	40
<b>P</b>	
Power	
voltage.....	38
Pressure.....	34, 35, 43
<b>R</b>	
Race Timer.....	30
Reset.....	26, 30, 32, 36, 38, 46
RPM.....	24
<b>S</b>	
Specifications.....	48
Speed.....	11, 25, 34, 39, 46, 53
over ground (SOG).....	25, 34, 39, 53
<b>T</b>	
TE Network.....	11, 12, 16, 28, 38, 43, 48, 53
Transducers.....	25, 49
Triple Engine Systems.....	24
<b>U</b>	
Units of measure.....	23, 38, 40, 47
<b>W</b>	
Waypoints.....	34, 35
Windvane zeroing.....	25
<b>X</b>	
XTE (Cross Track Error).....	35, 38, 39, 53
<b>Z</b>	
Zoom.....	40