

MEDALLION

INSTRUMENTATION SYSTEMS

COMMITTED TO VALUE THROUGH
INNOVATIONS IN TECHNOLOGY





MEDALLION INSTRUMENTATION SYSTEMS

2010
MasterCraft
Viper system

MAIN SCREENS

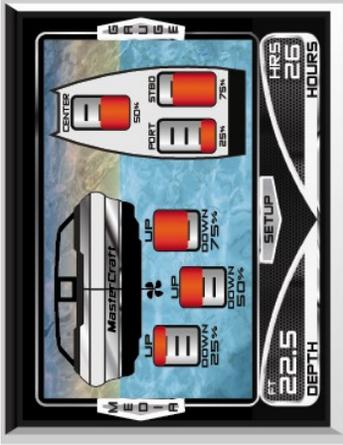
CRUISE MAIN SCREEN



RADIO MAIN SCREEN



BALLAST/TRIM MAIN SCREEN



QUAD MAIN SCREEN

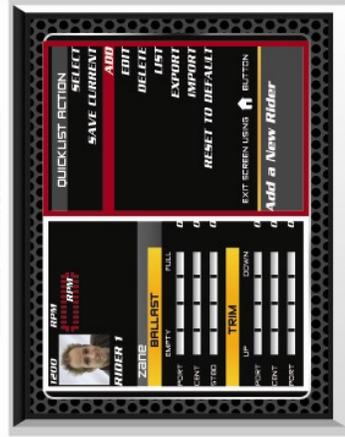


Use the left right buttons to navigate between the main screens



The up and down buttons will let you select a secondary screens of the main screens

LIST SCREEN



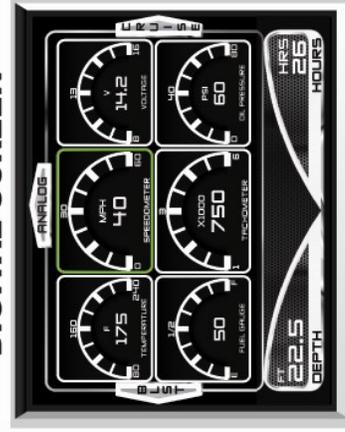
VIDEO SCREEN



SETUP SCREEN



DIGITAL SCREEN

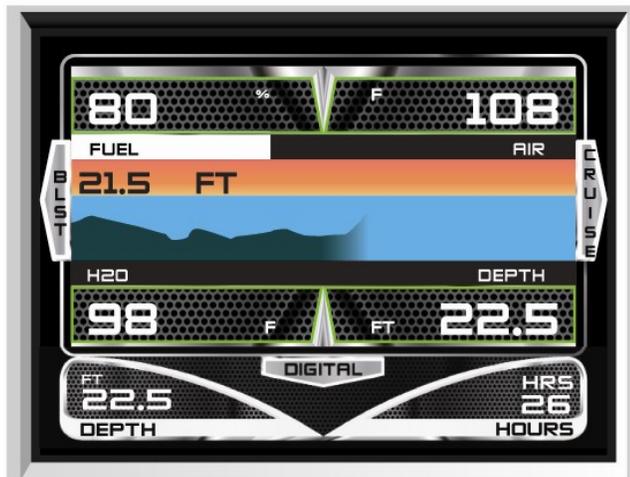




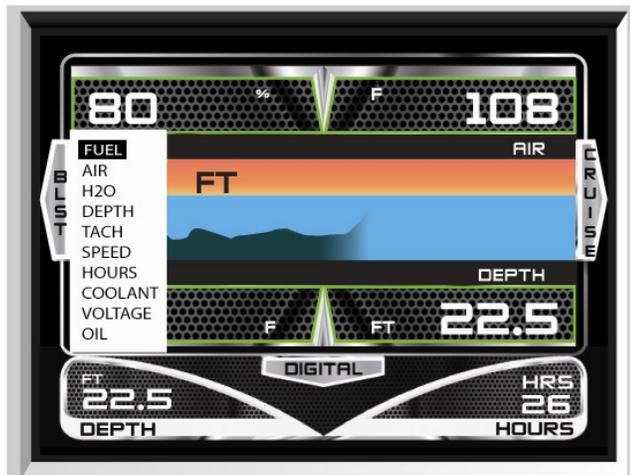
Quad Screen and edit



The Quad screen's data can be changed by pressing the ENTER button. Using the arrow buttons navigate to the area to be changed. Press the enter button again to bring up the list of data options. Use the arrow buttons to highlight the desired data to be displayed. Press ENTER to accept.

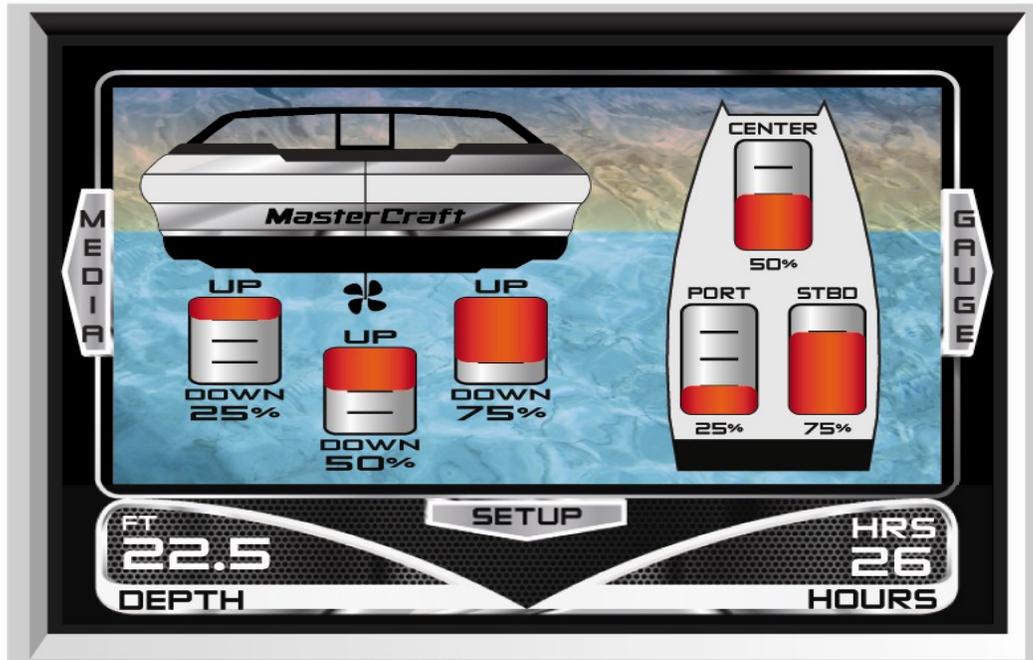


You can use the + and - buttons to change the data in the banner.





TRIM and BALLAST SCREEN



The trim and ballast screen will give the user instant status information of there ballast tanks and trim positions. The information is plug-n-play meaning if a tank or trim sensor is not present the data will be removed automatically.





LIST EDIT MODE



Edit mode is used to change a current riders setup or to add a new rider to the LIST. This is done by using the up/down or +/- buttons to highlight the desired mode. In this case EDIT or ADD. Then press the ENTER button.



The first thing you will notice is that a red box will appear around the information area to the left. This indicates the area you can navigate using the arrows. Once the information you want to adjust is high lighted press the ENTER button to open the edit area to the right. The red box will appear in the edit area indicating you are ready to edit the Information.

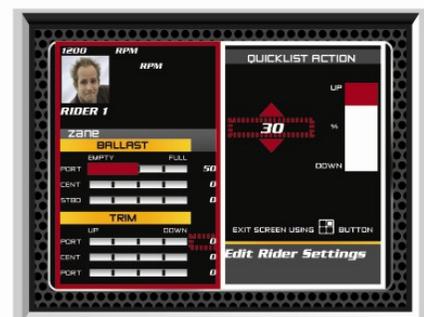


Use the up/down to navigate or edit the settings. Press the enter button to select and or exit the edit area.



After any information is changed it is automatically saved to the current rider's information.

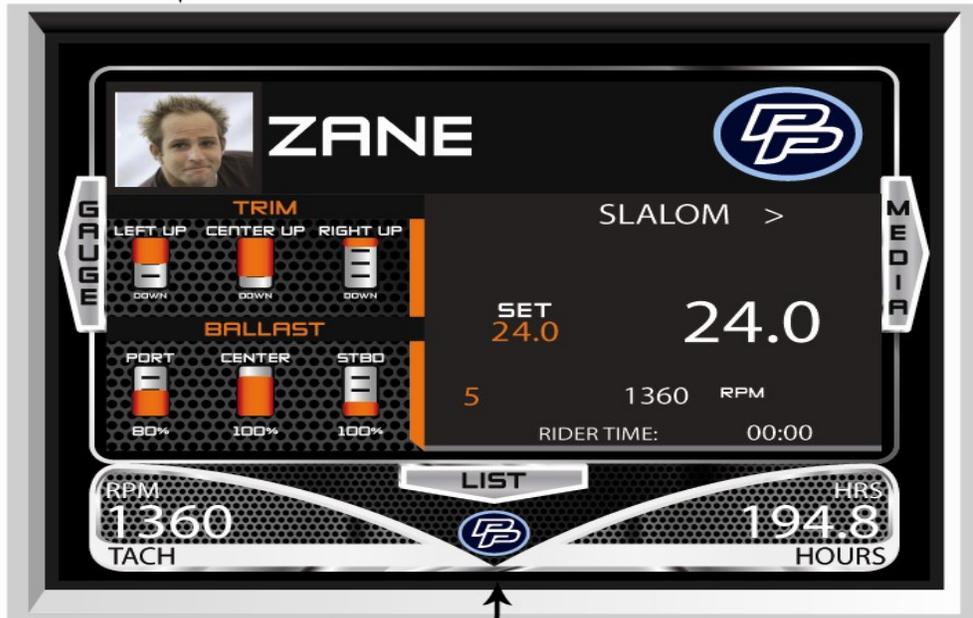
To exit the edit mode press the Home button.





PERFECT PASS SCREEN

Loaded Rider

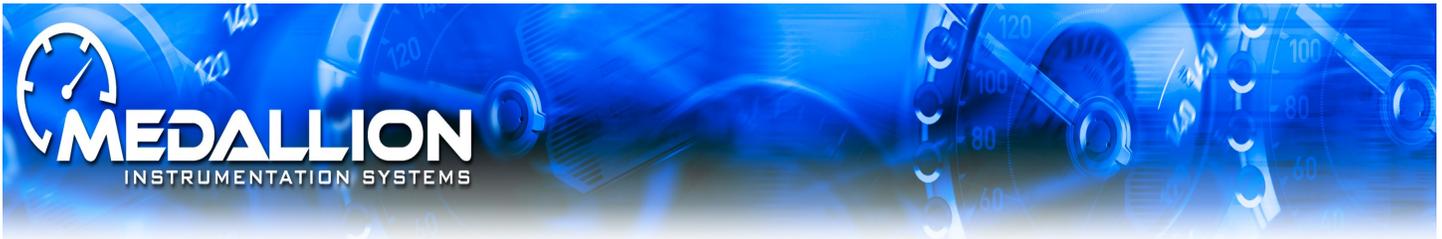


Rider Time
← Resets when a new rider is selected

Perfect Pass Active Icon

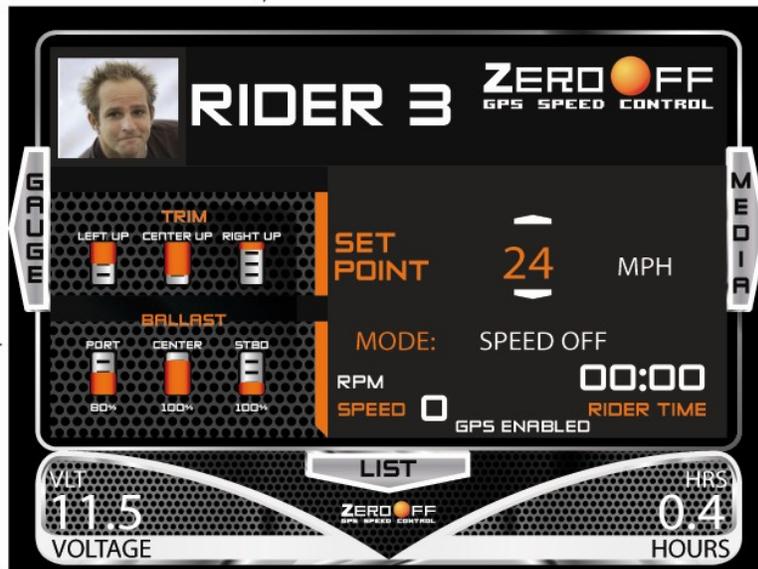
Use the **CRUISE** button to turn on and off Perfect Pass. Use the **+**, **-**, and **ENTER** buttons to navigate through the Perfect Pass screens. The down Arrow will get you to the Rider **LIST**.





ZERO OFF CRUISE

Loaded Rider



Current boat settings



Records Rider time and is reset when rider is changed



Use the CRUISE button to turn on and off ZeroOff. Use the + and - button to change the SET POINT of ZeroOff. The down Arrow will get you to the Rider LIST.





RADIO SCREEN

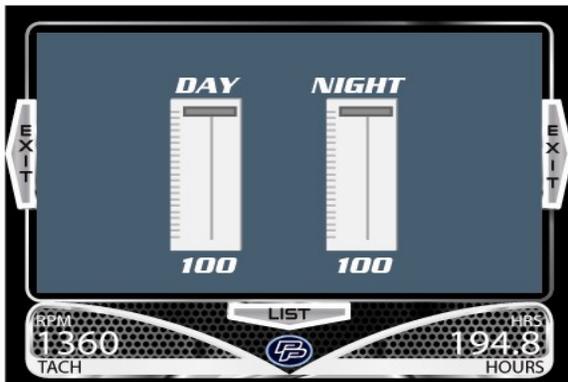


The radio screen will allow you to control the radio the same way the Clarion remote can. To enter the control mode press the Enter button . The display will turn green indicating the Squash pad is now controlling the radio. If no buttons are pressed for 5 seconds the control returns to normal operation.

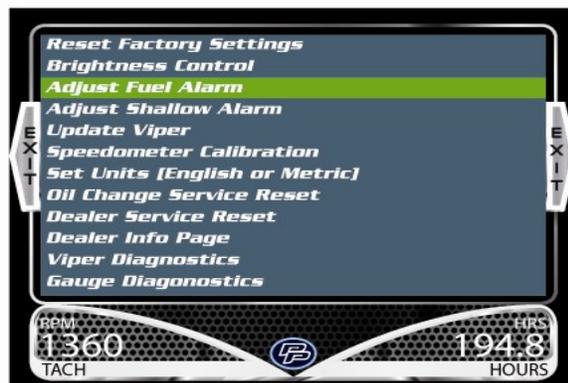




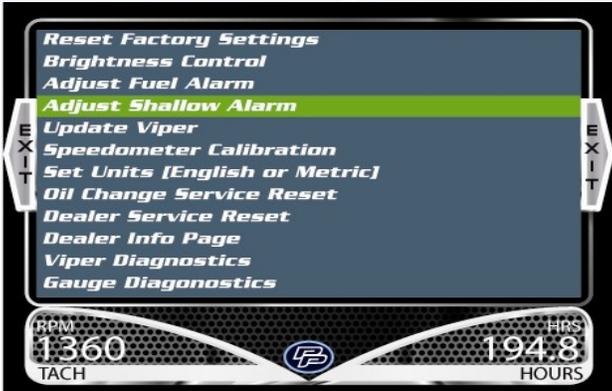
Reset will return all the settings to the original factory settings. Use the return button to activate the reset mode. Press the  to exit.



The brightness control is achieved by adjusting the light levels for both DAY and NIGHT. The system will activate the NIGHT lighting when the Navigation lights are on. Use the Return button to select the DAY and NIGHT slide bars. The up and down buttons control the adjustment. Press the  to exit.



The Fuel alarm can be adjusted in the Setup Menu as well. Use the return button to activate the Fuel alarm edit button. Press the  to exit.



The Depth alarm can be adjusted in the Setup Menu as well. Use the return button ↵ to activate the Fuel alarm edit button. Use the up and down buttons to set the desired depth. Press the to exit.



The Viper system is updated through a USB port. If a USB stick with the correct file is installed into the USB port the system load the new software after the UPDATE button has been activated by pressing the return button ↵. Make sure to remove the USB stick. The system will also load the file if you just turn the ignition off then back on. The new file must be named ViperApp.mem for the update to work.



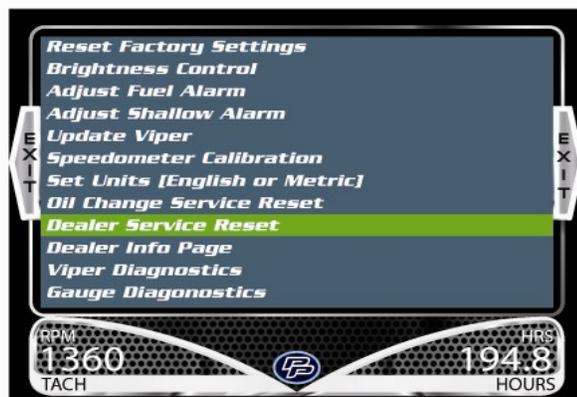
Speedo calibration is done by pressing the return button ↵ Then using the up and down buttons to change the speed. This must be done while using a GPS or radar to make the speed accurate. Press the to exit.



To enter the Unit selection mode press the return ↵ button. Use the up and down buttons to high light English or Metric. Press the return ↵ button again to select. Press the **EXIT** to exit.



The boat will prompt you when suggusted oil change intervals have occurred. This screen will allow you to reset the interval counter. Press the return ↵ button to reset the alarm.



The Dealer has to reset the Dealer Service Required alarm in this screen.



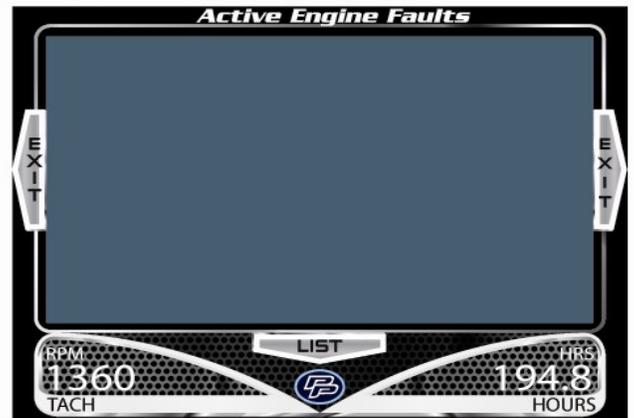
The Dealer Info Page will display either the factory contact information or the dealer contact information.



The Viper Diagnostics screen is a tool for the technician to use in testing the system. Press the  button to exit.



Gauge Diagnostics will put the system into an automatic gauge sweep test mode. Press the return  button to activate. Press the  button to exit.



Active Engine Faults is a tool used to determine what faults are currently active in the engine ECM. They will disappear when no longer active.



The Ballast Configuration page is used to set the fill and empty times for the Jabsco ballast pumps. They can be adjusted by pressing the return button and using the up and down buttons to adjust.



About Viper gives you the current software revision on the boat.

ALARMS AND WARNINGS



ENGINE TEMP

The EngineTemp warning is a warning received from the engine ECM. Read owners manual for instructions.



LOW FUEL

Low fuel alarm will appear when the level reaches the limit that has been chosen in the SETUP screen.



LOW BATTERY

Low battery will come on when the battery reaches 11.5 volts.



OIL PRESSURE

The oil pressure warning is a warning received from the engine ECM. Read owners manual for instructions.



OIL LEVEL

The Level pressure warning is a warning received from the engine ECM. Read owners manual for instructions.



SHALLOW DEPTH

Shallow depth alarm will appear when the level reaches the limit that has been chosen in the SETUP screen.



SERVICE REQUIRED

The Service Required warning is a warning received from the engine ECM. Refer to the owners manual for instructions.



CHECK ENGINE

The Check Engine warning is a warning received from the engine ECM. Refer to the owners manual for instructions.



LOSS OF CAN

The Loss of CAN warning will occur when the Data from the engine ECM is interrupted. Contact the dealer for assistance.



OIL CHANGE NEEDED

The Oil Change Needed warning Will appear after the first 10 hours of operation. It will reappear every 50 hours after that to serve as a reminder to change the oil. The warning is reset in the setup screen.



DEALER SERVICE NEEDED

The Dealer Service Needed requires a dealer to reset.

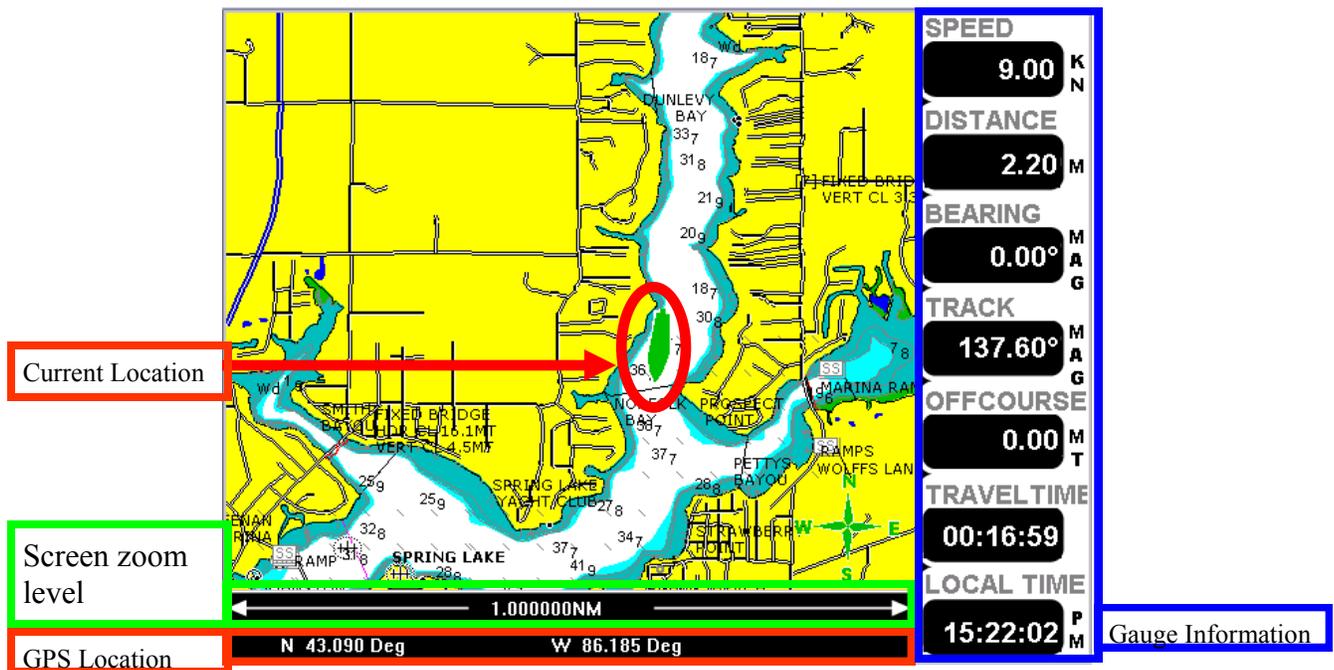


MEDALLION INSTRUMENTATION SYSTEMS

VIPER CHART PLOTTING OPERATORS MANUAL

MAP SCREEN

This manual will attempt to familiarize the operator with the features and functions of this system. The Medallion Navigation system uses GPS (Global Positioning System) satellites, and a map database to calculate and display route directions. The GPS is based on satellites which orbit the earth and continuously emit signals. The GPS receiver located on the boat receives those signals and calculates, based on the signals, its distance from the respective satellites. This information is used to calculate your current geographic position. The signals of at least three satellites are needed to determine the current location. When entering the Navigation system, the screen below is the first screen that is displayed.



Main Map Screen

When entering the Navigation area, this is the first screen that comes up. Each section of the screen is highlighted above and described below.

CURRENT LOCATION — This image shows the current location of the boat.

ZOOM LEVEL— This bar shows the zoom distance across the screen. In the example above the distance from the left of the screen to the right of the screen is 1 nautical mile. This can be adjusted from 0.1 to 4000 nautical miles by pressing the + or—buttons.

GPS LOCATION — This area of the screen shows the coordinates from the GPS antenna. This can be configured to display 1. Degrees, 2. Degrees, Minutes, 3. Degrees, Minutes, Seconds.

GAUGE SCREEN — This area of the screen shows up to seven informational gauge screens. This gauge screen section can be turned on or off in the SET UP menu (FULL/GAUGE).

SQUASH PAD

The ARROWS in the center of the squash pad allow for eight directional inputs throughout all of the menus. From the MENU screen, each arrow will bring up a different menu.

The CRUISE button acknowledges any messages or alarms. It also takes the operator back to the MAP screen from the MENU screen.

The PLUS or increment button, used to increase zoom level, options or values.

The NAVIGATION button will take the operator into the navigation screens. In the navigation area, this button will become the WAYPOINT button.

Deletes Man overboard markers, rename Way points, and centers the display when in North up mode.



The MENU button will take you out of the NAVIGATION section of the display and back to the boat functions.

The MINUS or decrement button, used to decrease zoom levels, options or values.

The ARROWS in the center of the squash pad are mirrored on the display in the MENU screen

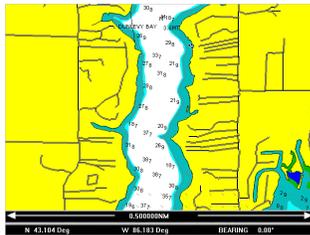


Above is the main navigation menu screen. From here the operator can get to any area of the navigation system. Pressing the ENTER button will display the MAP screen. At the center of the screen is an image of the SQUASH PAD. Pressing the associated arrow on the squash pad will bring up that menu. The following pages will describe each area.

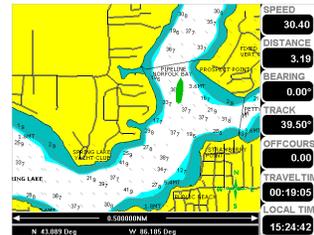


NAVIGATION MENU

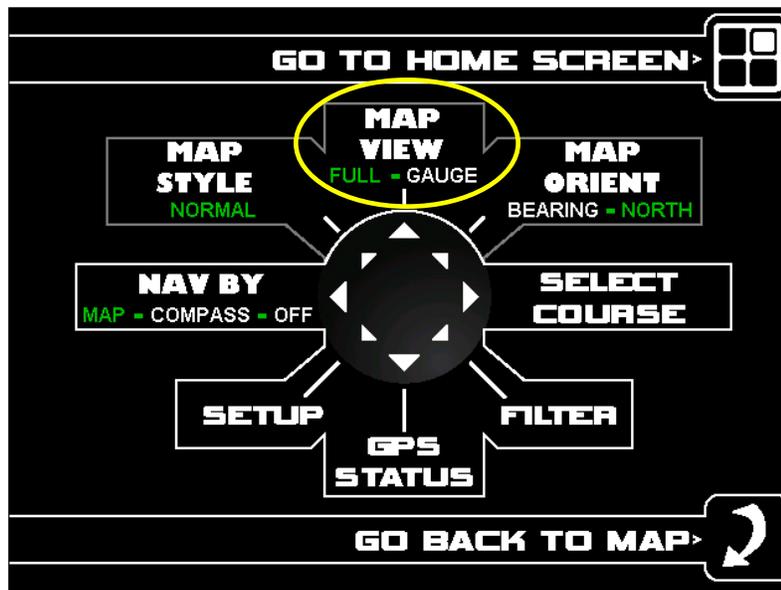
MAP VIEW



FULL



GAUGE



Starting at the Navigation Menu screen, the MAP screen can be adjusted to show the MAP on the entire screen or show gauge information along the right hand side of the display.

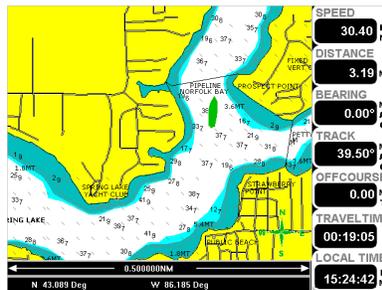
Underneath the words “MAP VIEW” are the words “FULL” and “GAUGE”. The word that is highlighted indicates how the MAP screen will be displayed.

Pressing the UP arrow on the squash pad will cause the highlight to change between “FULL” and “GAUGE”. Examples of “FULL” and “GAUGE” screens are shown above.

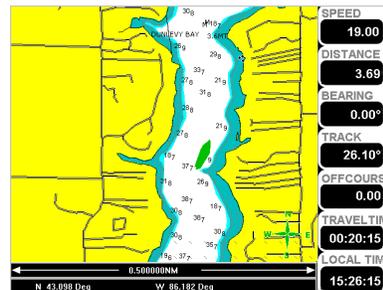
For more information on the GAUGE screens, see the SET UP menu options.

NAVIGATION MENU

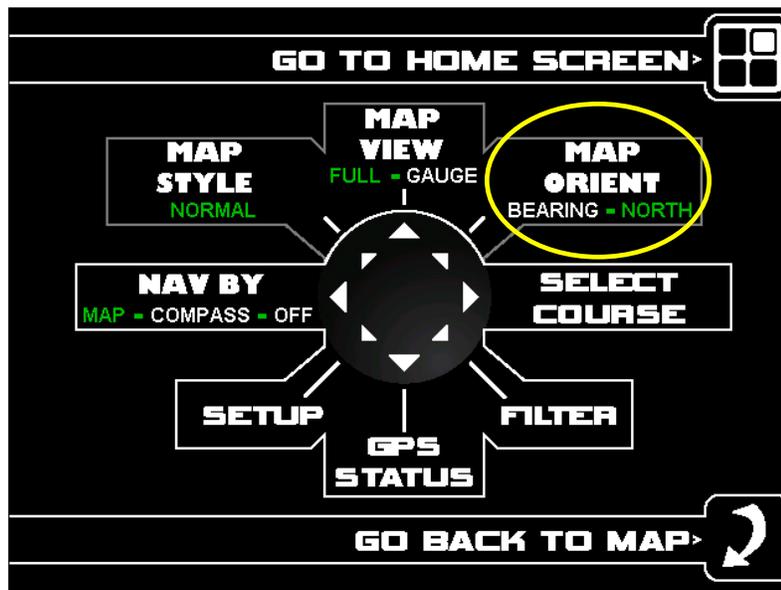
MAP ORIENT



BEARING



NORTH

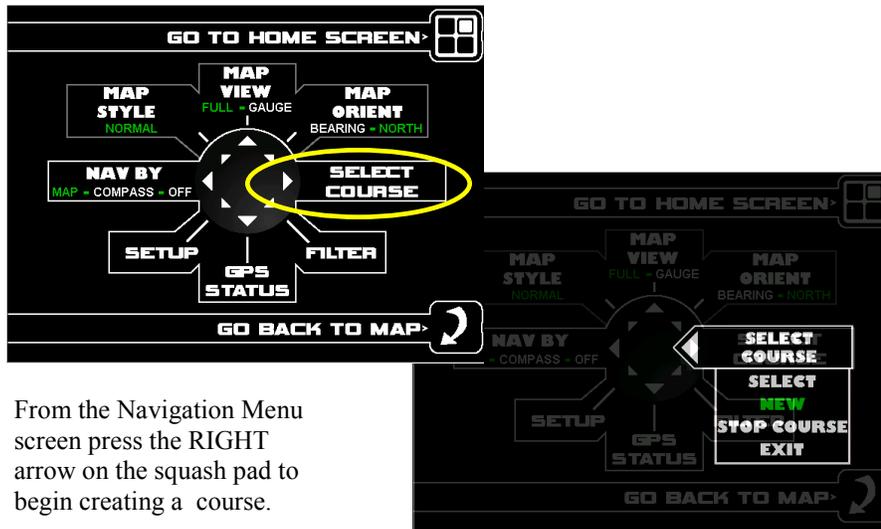


The MAP screen can be adjusted to orient the map with north always at the top of the screen, or with the boat heading at the top of the screen. Underneath the words “MAP ORIENT”, toward the top left of the screen, are the words “BEARING” and “NORTH”. The word that is highlighted indicates how the MAP screen will be oriented.

Pressing the UP/RIGHT arrow on the squash pad will cause the highlight to change between “BEARING” and “NORTH”. Examples of “BEARING” and “NORTH”. screens are shown above. Note the compass heading in the lower right corner of the display rotates on the “BEARING” orientation.

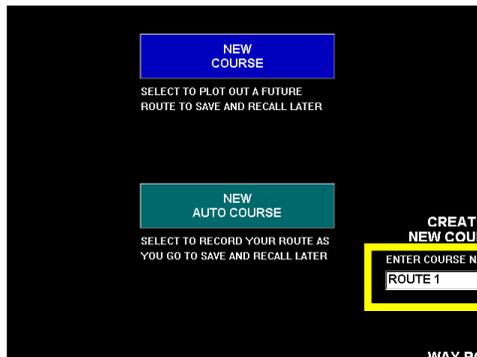
SELECT COURSE

CREATING A NEW COURSE



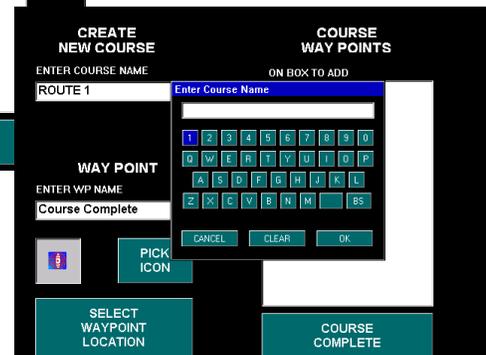
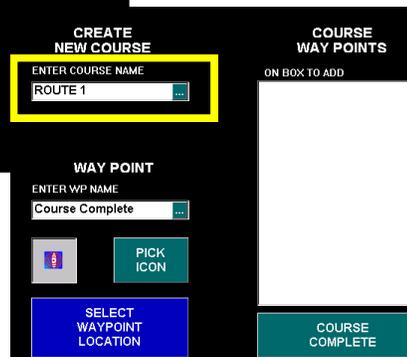
From the Navigation Menu screen press the RIGHT arrow on the squash pad to begin creating a course.

Use the down arrow to highlight the “NEW” option. Then press the ENTER button.



Using the arrow buttons, highlight the “NEW COURSE” and press “ENTER”. A new name is not required, the generic name will be used if the following steps are skipped.

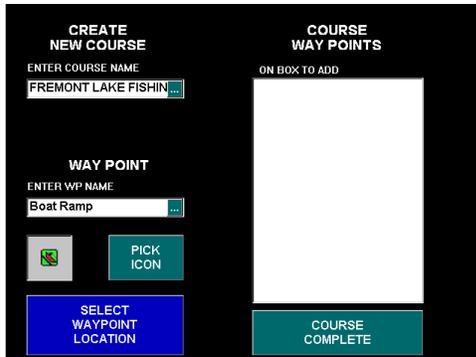
A new screen will appear, using the arrow buttons, highlight the “ENTER COURSE NAME”. A keyboard will appear. Use the arrows to highlight the letter desired and press “ENTER”. Once the course name is entered, highlight the “OK” and press “ENTER”. The new course name will appear in that window.



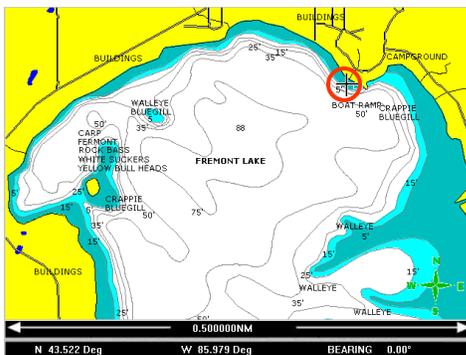
Highlighting the “ENTER WP NAME” will bring up the keyboard again. A new name is not required, but is optional. The generic name will be used if these steps are skipped.

SELECT COURSE

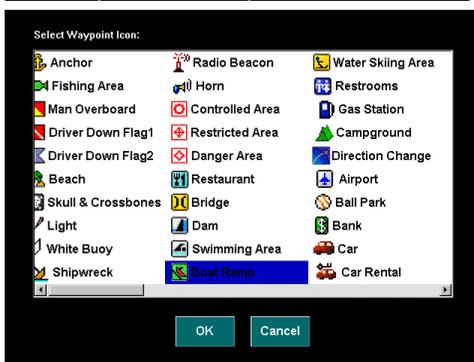
CREATING A NEW COURSE (cnt)



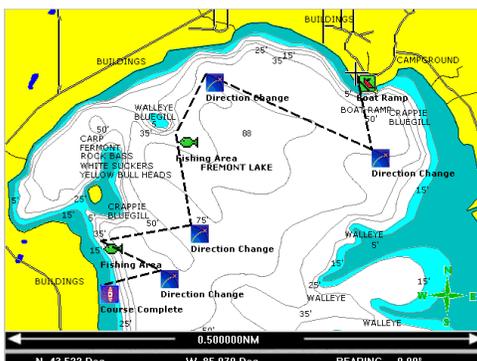
Using the arrow buttons, highlight the “SELECT WAYPOINT LOCATION”.



Using the arrow buttons, move the cursor (cross) to the beginning location of the desired course and press the “WAYPOINT” button.

A new window will appear showing the available waypoint options. Use the arrows to highlight the desired waypoint and press “ENTER”.

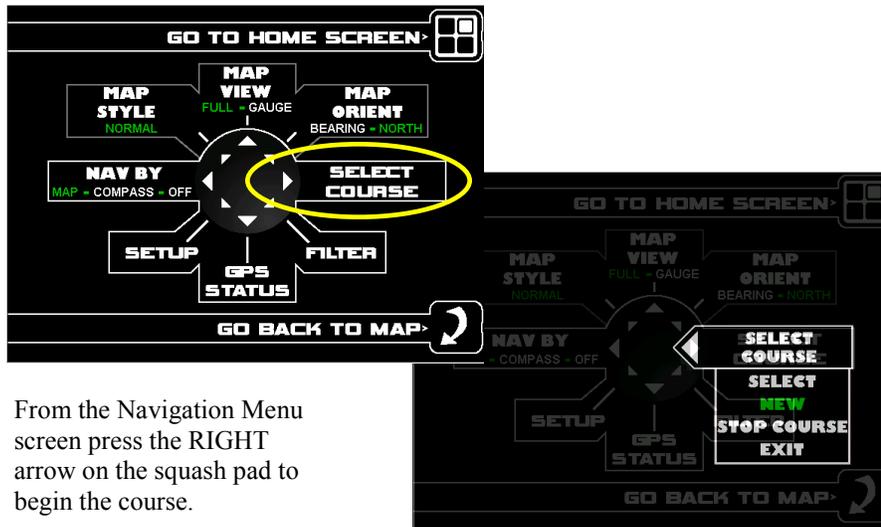


The map screen will be shown again with the waypoint in the location that the cursor was. Use the arrows to move the cursor to the next waypoint and press the “WAYPOINT” button. Repeat this for all of the waypoints desired.

NOTE: It is very important that the last waypoint be a “COURSE COMPLETE” waypoint.

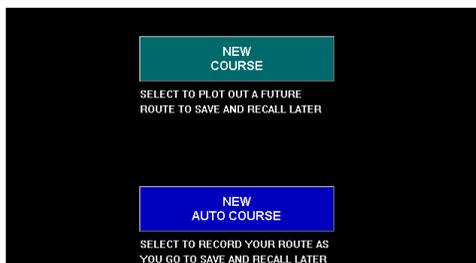
SELECT AUTO COURSE

CREATING A NEW AUTO COURSE



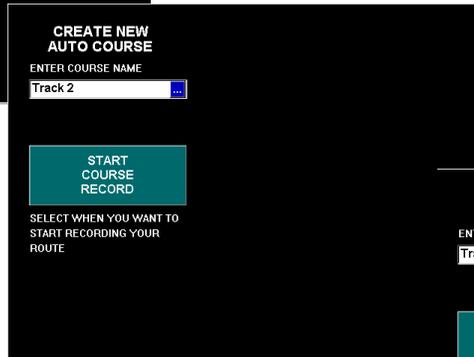
From the Navigation Menu screen press the RIGHT arrow on the squash pad to begin the course.

Use the down arrow to highlight the “NEW” option. Then press the ENTER button.



Using the arrow buttons, highlight “NEW AUTO COURSE” and press “ENTER”.

A new screen will appear, using the arrow buttons, highlight the “ENTER COURSE NAME”. A keyboard will appear, use the arrows to highlight the letter desired and press “ENTER” to select it. Once the course name is entered, highlight the “OK” and press “ENTER”.



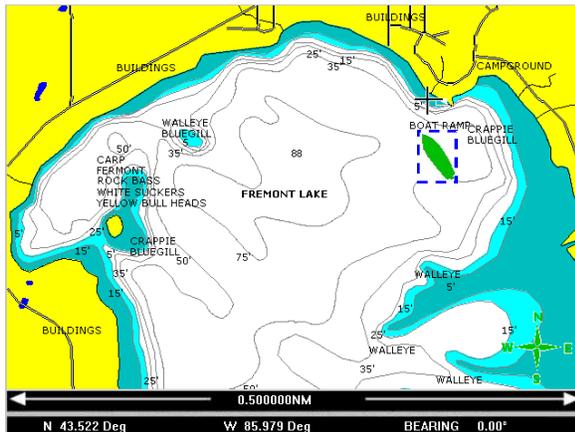
The new course name will appear in the “ENTER COURSE NAME” window. A new name is not required, but is optional. The generic name will be used if this step is skipped.



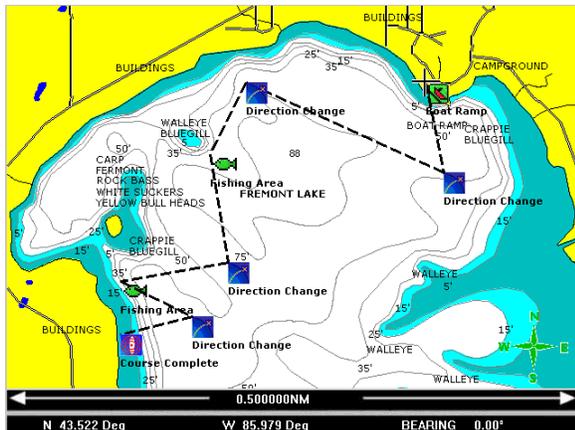
Position your boat where you would like this course to start. Highlight the “START COURSE RECORD” to begin tracking your course.

SELECT COURSE

CREATING A NEW AUTO COURSE (cnt)



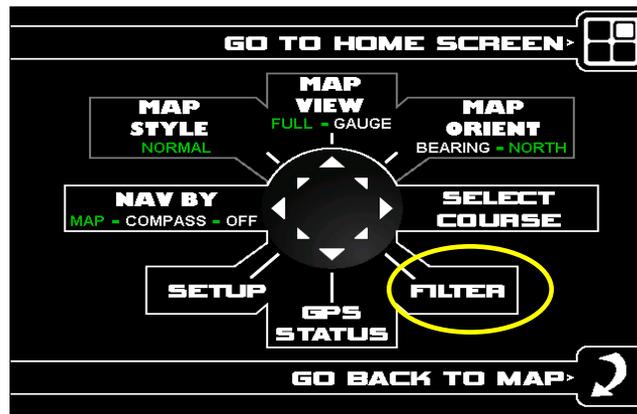
After selecting “START COURSE RECORD” , the map will appear. Your location is the boat image (in the screen to the left it is within the blue box). The navigation software will track your movements until the STOP COURSE option is selected.



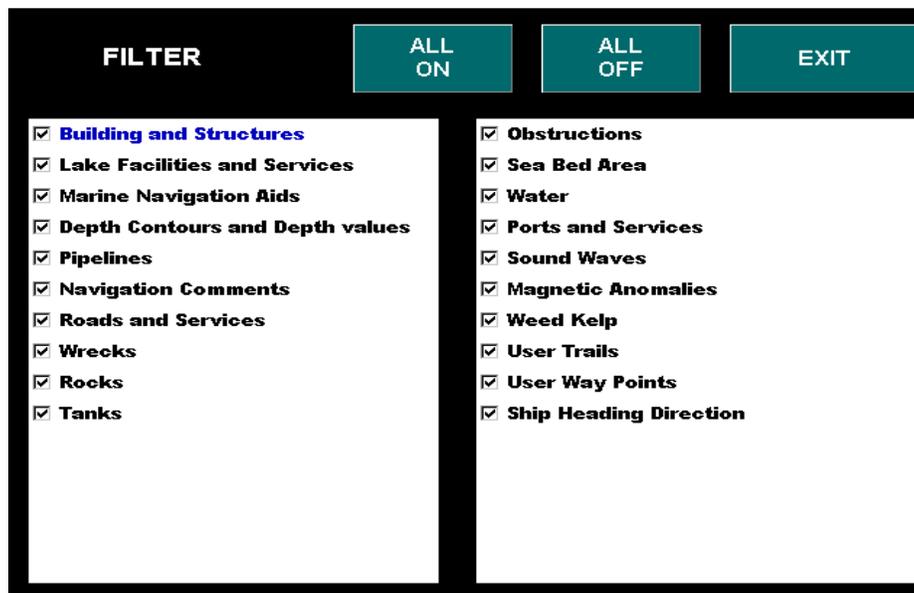
NOTE: Be sure to make the last waypoint the COURSE COMPLETE waypoint.



FILTER



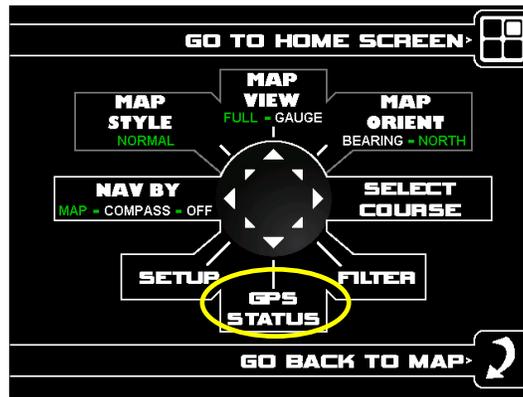
The FILTER menu allows the operator to adjust/change what is displayed throughout the various screens. From the Navigation Menu screen press the DOWN/RIGHT arrow on the squash pad to adjust the filters.



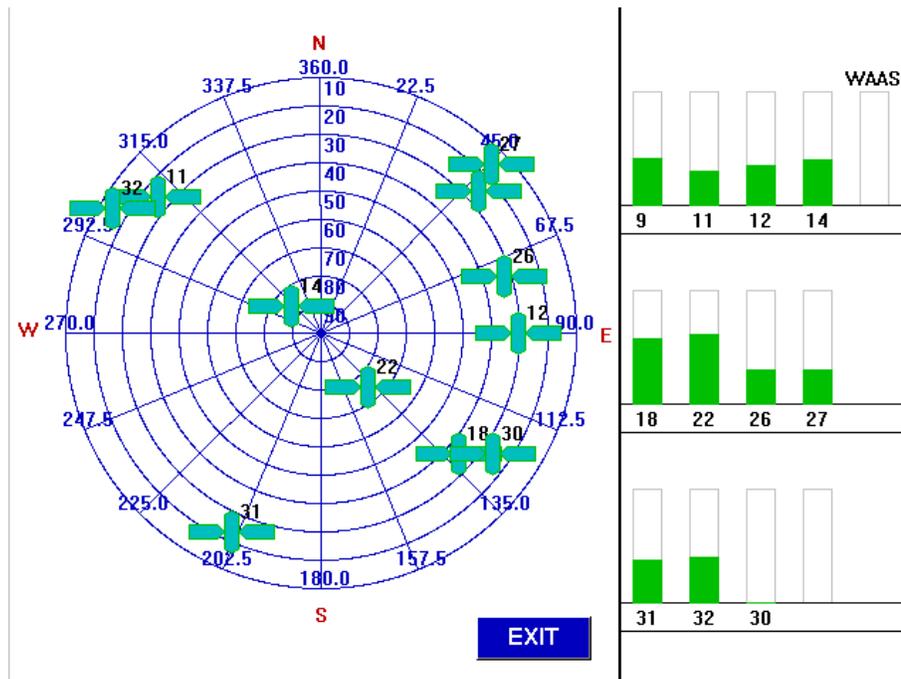
The screen above shows the objects that may be available to display. If there is an object that is not desired, remove the check box and that object will not be displayed in the map.



GPS STATUS



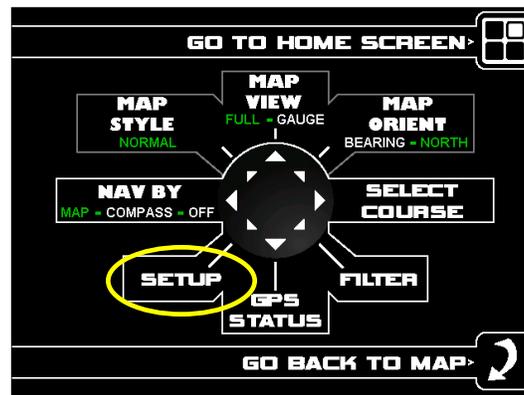
From the Navigation Menu screen press the DOWN arrow on the squash pad to access the GPS STATUS screen.



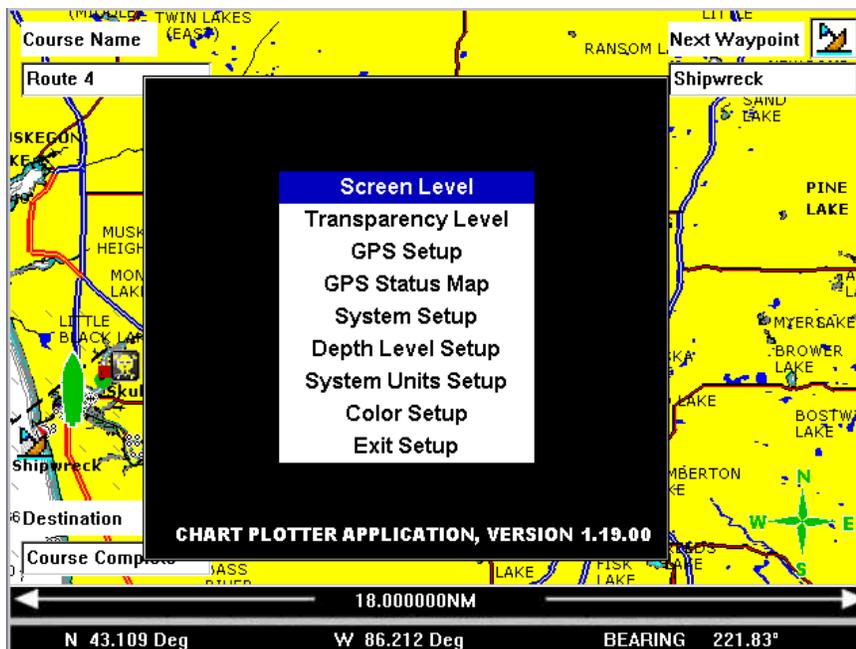
The GPS STATUS menu allows the operator to view up to a 16 position satellite signal strength graph on the right side of the display, and a 4 point compass graphic showing the relative position of each satellite on the left side of the display.



SETUP



From the Navigation Menu screen press the DOWN/LEFT arrow on the squash pad to access the SETUP menu.

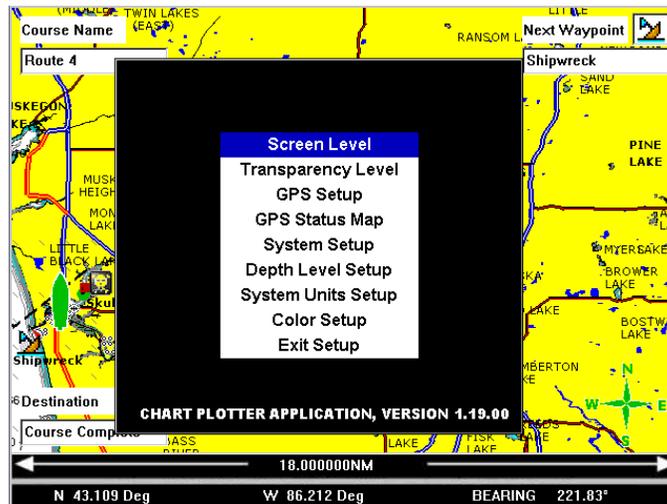


The SETUP menu allows the operator to adjust, view and configure the navigation system through eight menus.

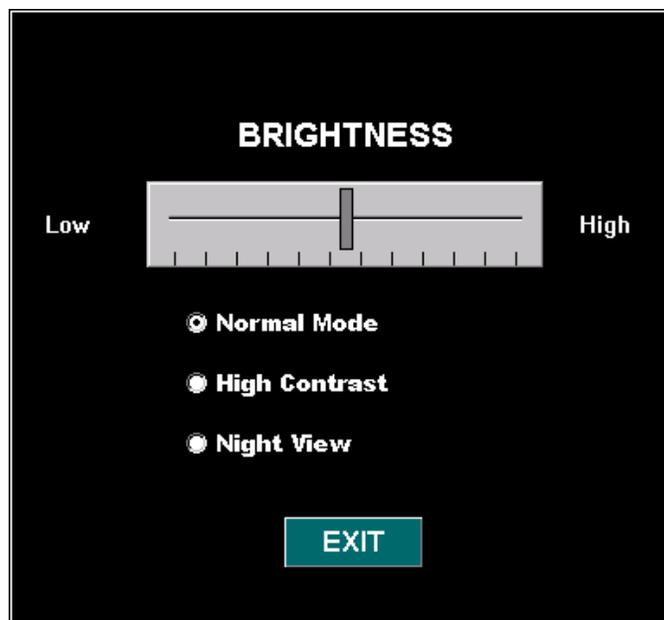


SETUP

SCREEN LEVEL



SCREEN LEVEL is the contrast adjustment menu. Highlight the SCREEN LEVEL and press the ENTER button. The screen below will appear.

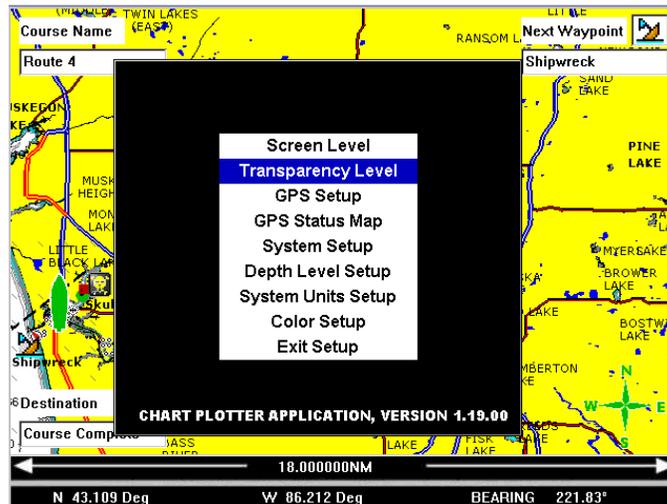


Using the arrows, UP/DOWN changes between the low/high scale, Normal Mode, High Contrast, and Night View. The LEFT/RIGHT arrows control the slide on the Low to High brightness scale. Highlighting the EXIT and pressing ENTER will bring the display back to the MENU screen.

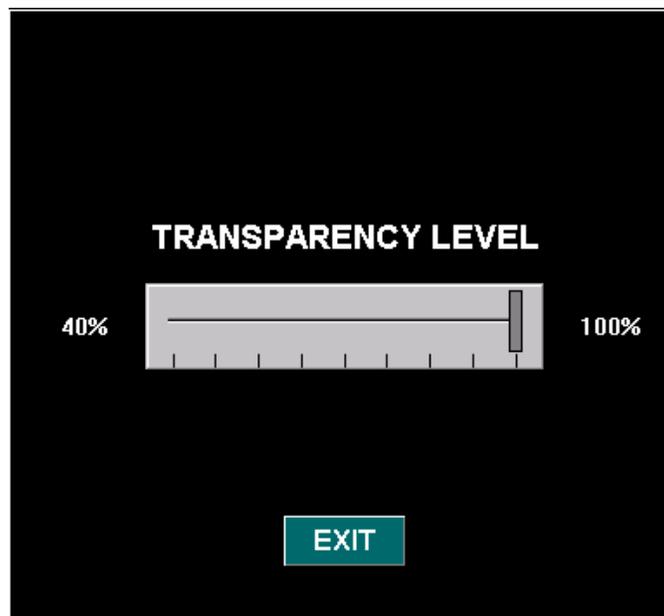


SETUP

TRANSPARENCY LEVEL



TRANSPARENCY LEVEL can be set to enable the user to see the map while viewing the menus. Highlight the TRANSPARENCY LEVEL and press the ENTER button. The screen below will appear.

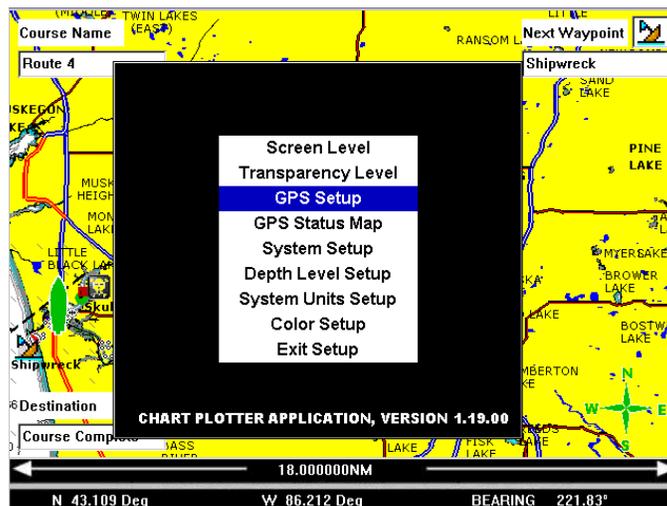


Using the arrows, UP/DOWN changes between the transparency scale and the EXIT. The LEFT/RIGHT arrows control the slide on the transparency scale. Highlighting the EXIT button and pressing ENTER will bring the display back to the MENU screen.

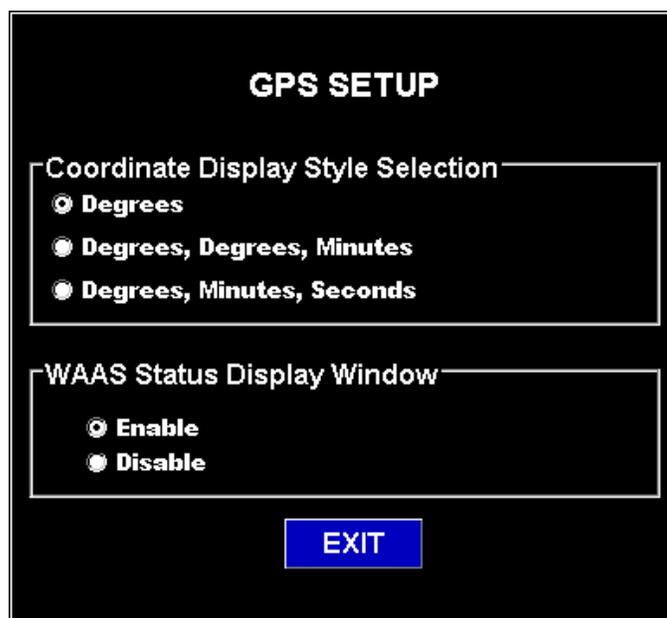


SETUP

GPS SETUP



GPS SETUP can be set to enable what data and accuracy the user wants to see on the map while operating the menu features. Highlight the GPS SETUP and press the ENTER button. The screen below will appear.

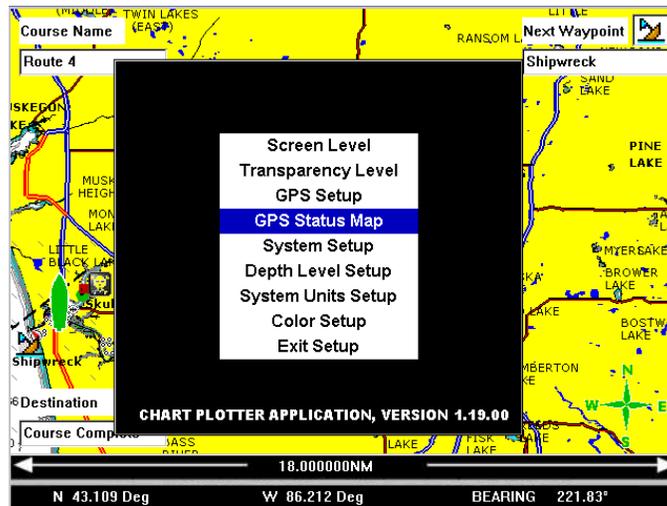


Using the arrows, UP/DOWN changes between the Coordinate styles and WAAS status options. Highlighting the EXIT button and pressing ENTER will bring the display back to the MENU screen.

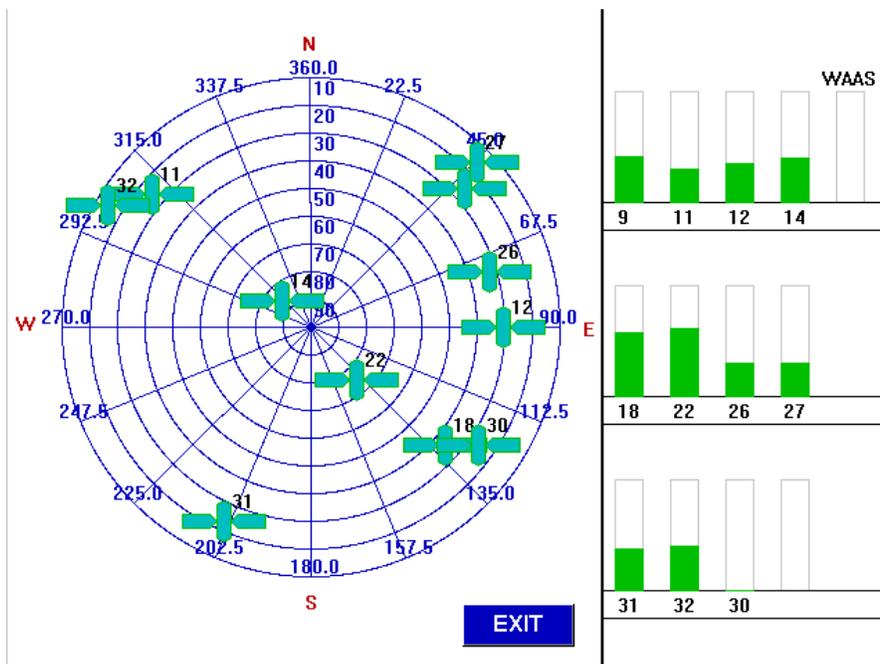


SETUP

GPS STATUS MAP



GPS STATUS MAP will display the satellite signal strength. Highlight the GPS STATUS MAP and press the ENTER button. The screen below will appear.

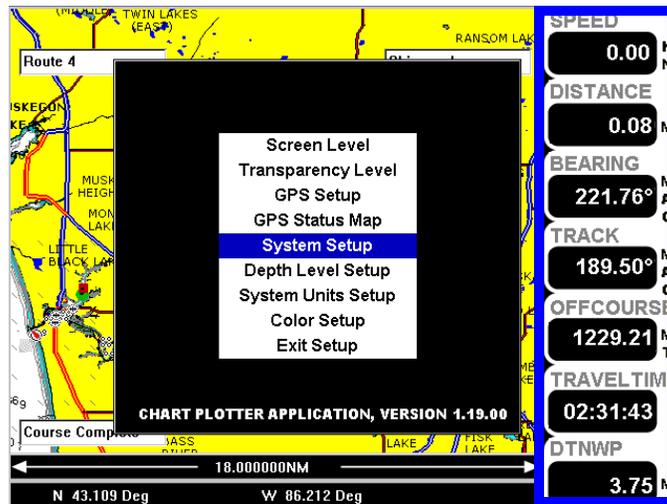


The GPS STATUS menu allows the operator to view up to a 16 position satellite signal strength graph on the right side of the display, and a 4 point compass graphic showing the relative position of each satellite on the left side of the display.

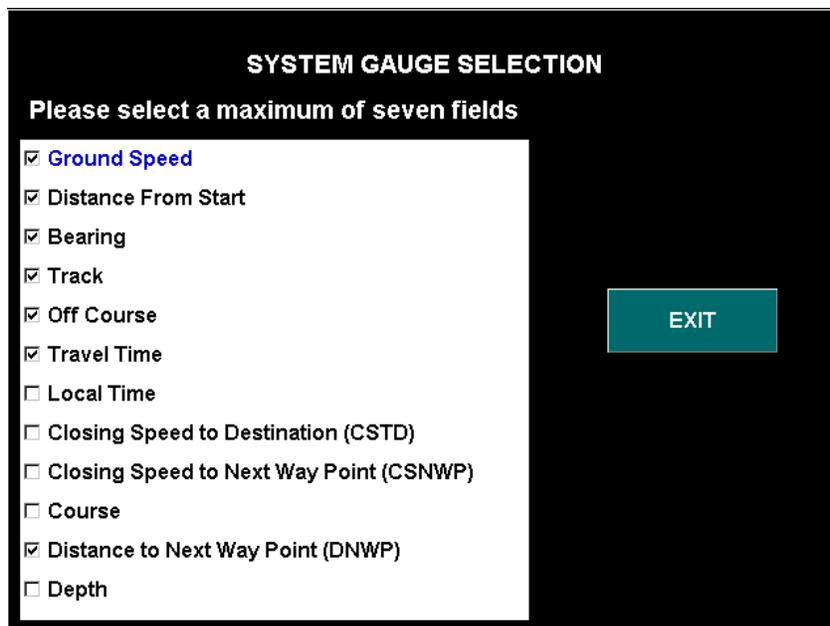


SETUP

SYSTEM GAUGE SETUP



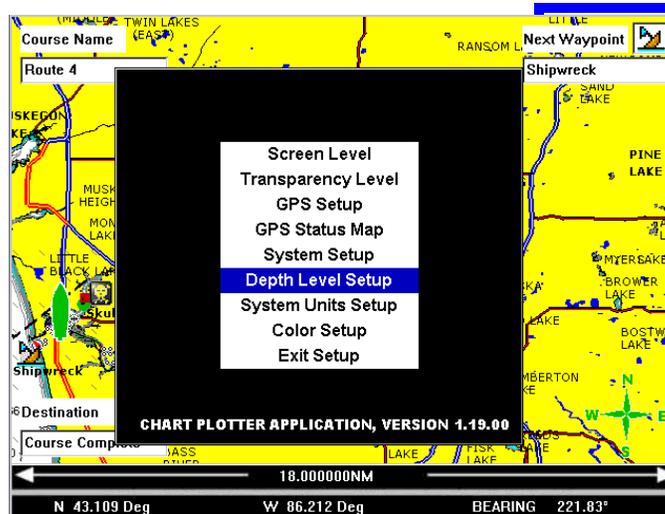
SYSTEM SETUP will display the gauge options that can be shown when the gauge information is displayed on the right side of the screen. Highlight the SYSTEM SETUP and press the ENTER button. The screen below will appear.



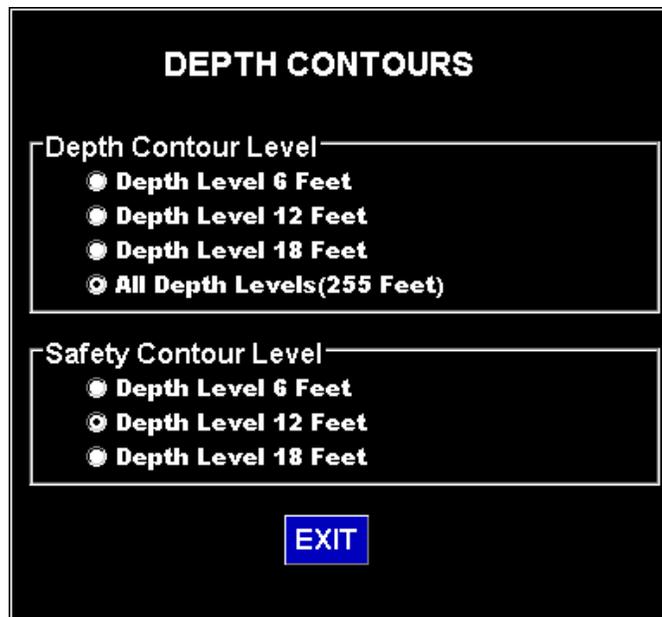
Any of the options listed above can be displayed in the gauge area of the MAP screen. Only seven items can be selected to be displayed at one time. Highlighting the EXIT button and pressing ENTER will bring the display back to the MENU screen.

SETUP

DEPTH LEVEL SETUP



DEPTH LEVEL SETUP will display the options for how to draw the mapped depth contours of the various waterways. Highlight the DEPTH LEVEL SETUP and press the ENTER button. The screen below will appear.

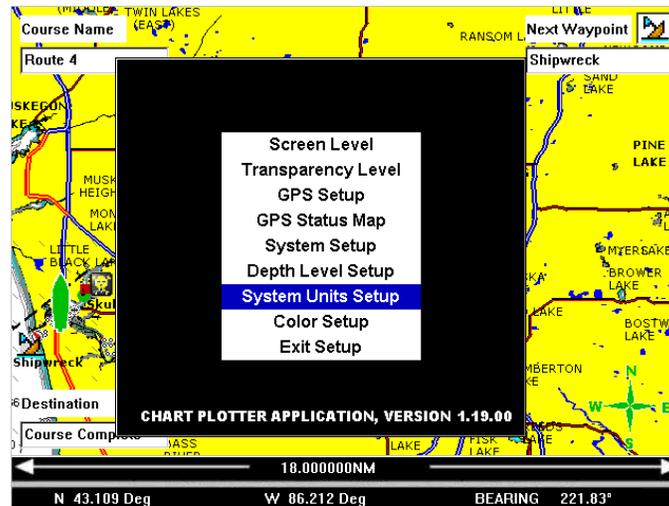


The options listed above will change how the waterways are to be displayed on the MAP screen. Depending on which setting is chosen will enable how much detail is drawn into each waterway. Highlighting the EXIT button and pressing ENTER will bring the display back to the MENU screen.

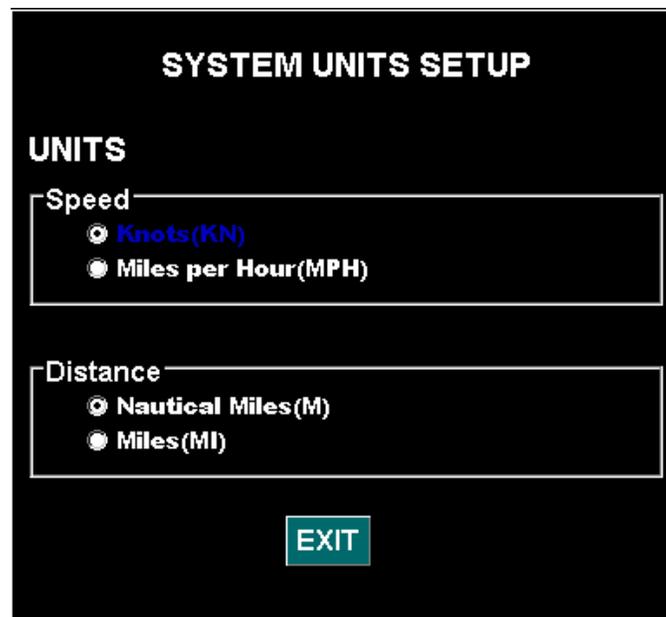


SETUP

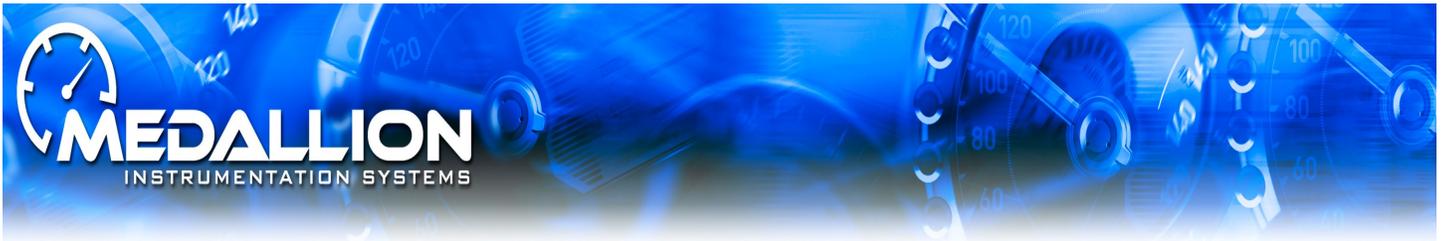
SYSTEM UNITS SETUP



SYSTEM UNITS SETUP will enable the operator to change speed units between Knots and Miles Per Hour. This menu also allows the operator to change distance units between Nautical Miles and Miles. Highlight the SYSTEM UNITS SETUP and press the ENTER button. The screen below will appear.

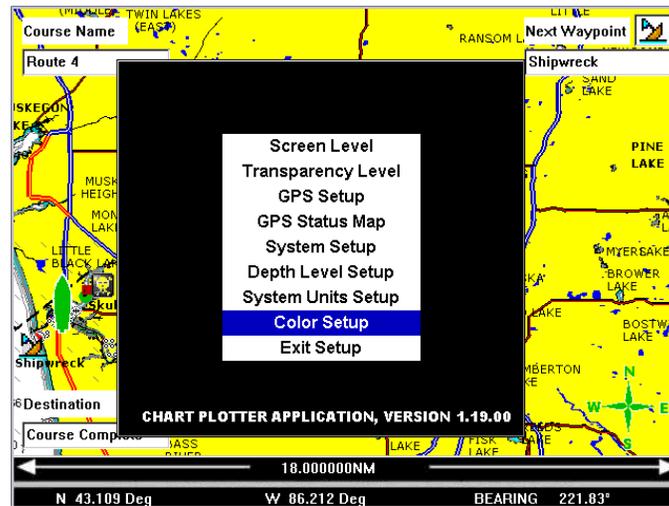


The options listed above will change how the speed and distance are to be displayed on the MAP screen. Depending on which setting is chosen will enable the appropriate units. Highlighting the EXIT button and pressing ENTER will bring the display back to the MENU screen.

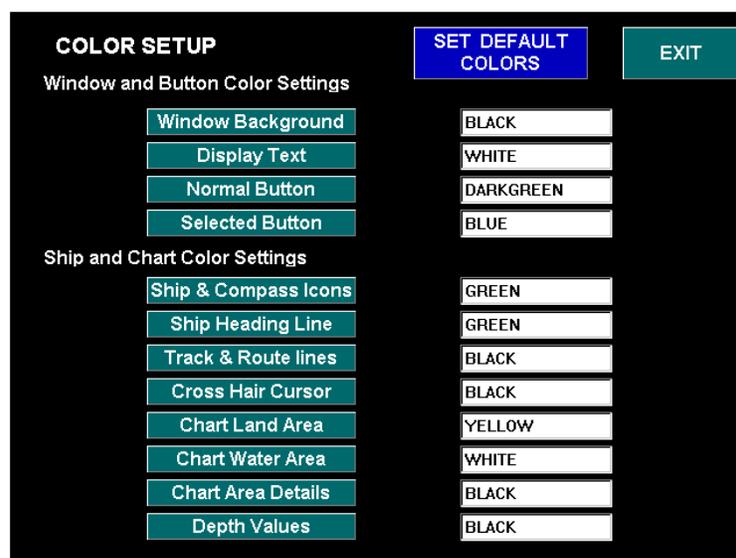


SETUP

SYSTEM UNITS SETUP



COLOR SETUP will enable the operator to change the color settings on most menu options. Highlight the COLOR SETUP and press the ENTER button. The screen below will appear.

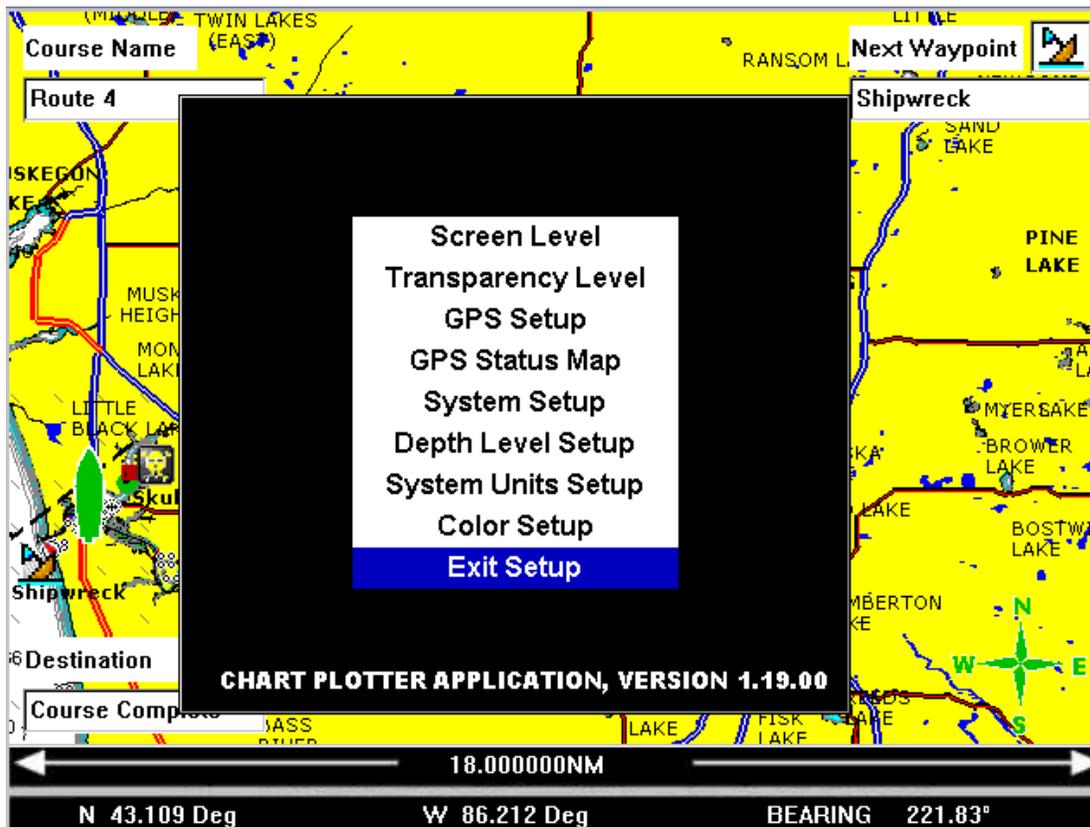


The options listed above will change the color of that feature that is to be displayed on each screen. Highlight the desired option and press ENTER. This will display a dropdown box with the color options available. Highlighting the EXIT button and pressing ENTER will bring the display back to the MENU screen.



SETUP

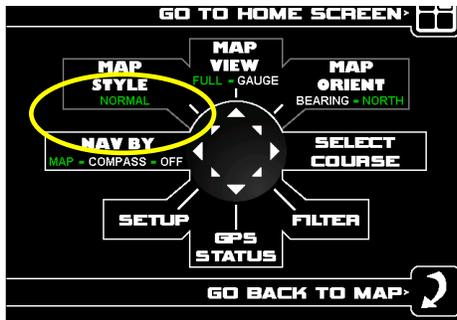
EXIT SETUP



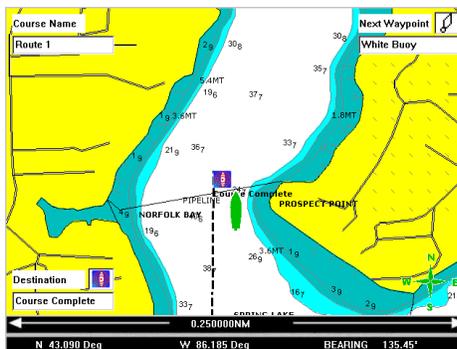
Highlighting the EXIT SETUP and pressing ENTER will bring the display back to the MENU screen.



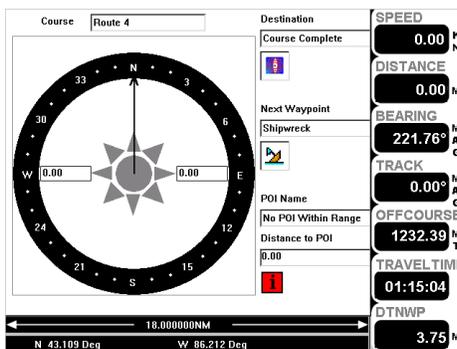
NAV BY MAP—COMPASS—OFF



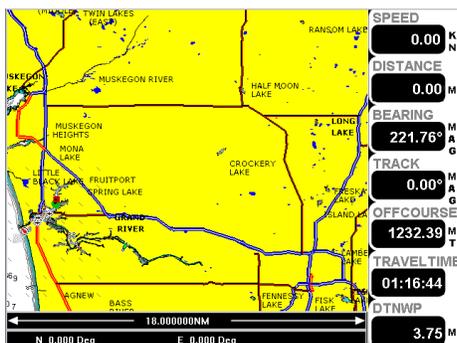
From the Navigation Menu screen press the LEFT arrow on the squash pad to change the way the system navigates. There are three modes of navigation; MAP, COMPASS, and OFF.



MAP mode shows the Course name, Next Waypoint, and Destination.



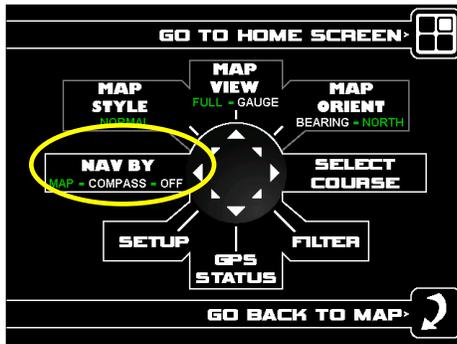
COMPASS mode shows the compass rotating with the heading always at the top of the screen. This option also shows the Course name, Next Waypoint, Destination and distance to (POI) Point Of Interest along with the seven gauge screens (if selected).



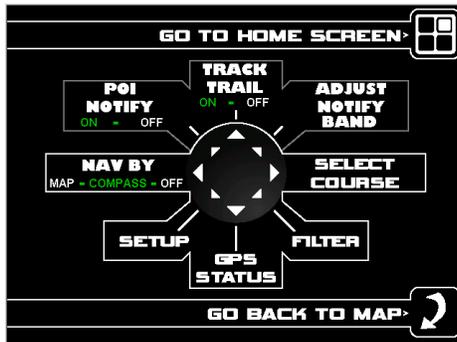
OFF mode clears the Course name, Next Waypoint, and Destination from the display.



NAV BY COMPASS



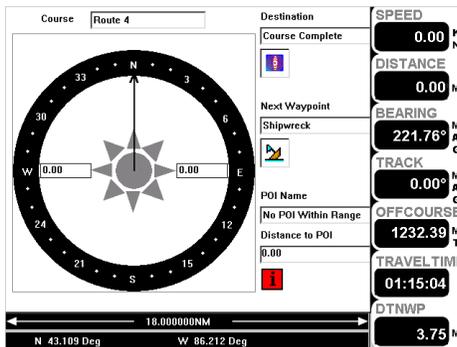
From the Navigation Menu screen press the LEFT arrow on the squash pad to change the highlight to COMPASS. This will change the top three options in the menu to the screen below.



POI NOTIFY (ON/OFF) — Indicates when you are near a Point Of Interest on the map.

TRACK TRAIL (ON/OFF) — Will leave a trail in the direction of where your last waypoint was.

ADJUST NOTIFY BAND — Pressing the UP/RIGHT arrow brings up a box that allows the setting of the notify distance to the next POI.



When “NAV BY” is set to COMPASS mode. The MAP screen will show the image to the right which shows the compass rotating with the heading always at the top of the screen. This option also shows the Course name, Next Waypoint, Destination and distance to (POI) Point Of In-



MEDALLION INSTRUMENTATION SYSTEMS

2010
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3" SPEEDO LCD FUNCTIONS



The Digital Interface Gauge (3" Speedometer, DIG) controls the Instrument System.

Indicated Gauge values are sent from the DIG to each gauge via the LIN data link

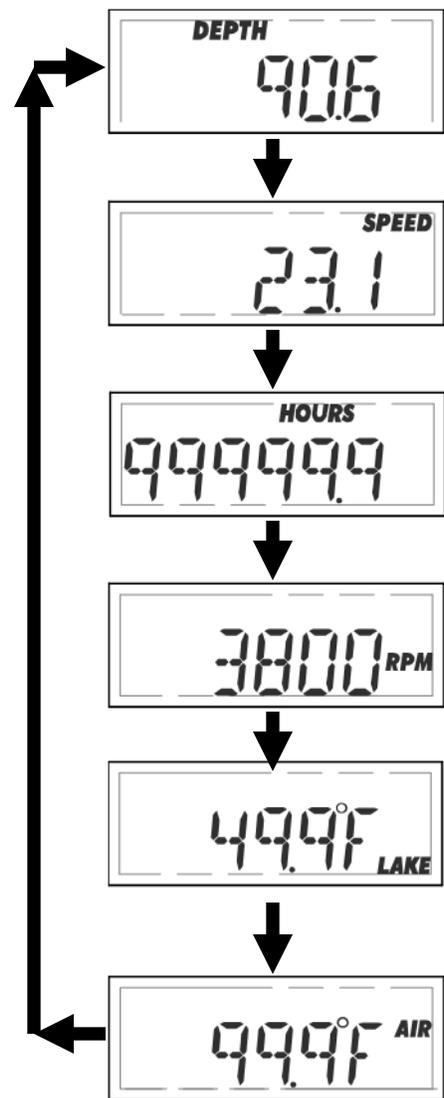
The DIG receives information for the gauges from multiple sources including CAN, external sensors and internally generated signals.

Speedometer LCD Functionality

Navigating the Displays

The various LCD Screens may be accessed in a sequential order by repeatedly pressing the external display button up/down to scroll through the available screens in a continuous loop.

Plug & Play: The Depth, Air Temp, and water temp screens are hidden when no sensor is connected.





3" SPEEDO LCD FUNCTIONS

Setting the Shallow Alarm



- The Shallow Alarm Default is set to off (0.0 ft/m)
- Scroll to the Depth Display
- Hold the external display button down for 3 seconds, or until the alarm set point is displayed and flashing indicating that the system has entered the set point adjust mode.
- Adjust the set point by pressing and/or holding the external display button up/down until the desired set point is displayed.
- If no changes have been made within 3 seconds, the system will save the set point and return to normal operation.

Calibration Procedure:



- Scroll to the Speed Display
- Hold the external display button down for 3 seconds, the system will enter speedo calibration mode as indicated by the flashing display.
- Press and/or hold the external display button up/down to increment/decrement the displayed value until it agrees with the Speedometer.
- If no changes have been made within 3 seconds, the system will return to normal operation.

Procedure for changing units



- Scroll to the Engine Hour meter Display
- Hold the external display button down for 3 seconds, the display will indicate the units selected as:
 “ENG” for English Units
 “MET” for Metric Units
- Pressing the external display button up/down will toggle the display between English and Metric.
- If no changes have been made within 3 seconds, the system will return to normal operation.

Anytime Metric Units are selected the “METRIC” Icon will be illuminated

Diagnostic Procedure:



- Scroll to the Tachometer Display
- Hold the external display button down for 3 seconds, the system will enter the diagnostic mode:
 All the segments in the Speedometer LCD shall illuminate.
 The Buzzer shall be activated for one second as the test begins
 The pointer in each gauge shall perform the following exercise:
 Reset for 2 seconds
 Move to mid-scale for 3 seconds
 Move to full-scale for 3 seconds

This cycle will be repeated twice then the display will return to normal operation.