GPSMAP® 4000/5000 Series

owner's manual

GARMIN

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⚠ See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

Introduction

This manual includes information for the following products:

- GPSMAP® 4008
- GPSMAP® 4010
- GPSMAP® 4012
- GPSMAP® 5008
- GPSMAP® 5012
- GPSMAP® 5015

Tips and Shortcuts

- Press or touch **HOME** from any screen to return to the Home screen.
- Press or touch **MENU** from any main screen to access additional settings.
- Press and release the ⏻ **Power** key to adjust the display settings.
- Press and hold the ⏻ **Power** key to turn the unit on or off.

Manual Conventions

In this manual, when you are instructed to select an item, either press the soft key along the right side of the screen (GPSMAP 4000 series units) or use your finger to touch that item on the screen (GPSMAP 5000 series units) to select it. Small arrows (>) in the text indicate that you should select each item in order. For example, if you see "select **Charts** > **Navigation Chart**," you should press the **Charts** soft key (GPSMAP 4000 series) or touch **Charts** (GPSMAP 5000 series), and then select or touch **Navigation Chart**.

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Automatic backlight sensor

Soft keys

POWER

RANGE (+/-)

ROCKER

MARK

SELECT

MENU

HOME

*Numeric keypad
(GPSMAP 4010 and 4012)*

SD card slot

GPSMAP 4012

NOTE: Use the soft keys to select menu items on the GPSMAP 4000 Series. Touch menu items on the GPSMAP 5000 Series screen to select them.

POWER

*Automatic backlight
sensor*

SD card slot

GPSMAP 5008

NMEA 2000 connector

Garmin Marine Network connectors

Power connector

Marine video connector

NMEA 0183 connector
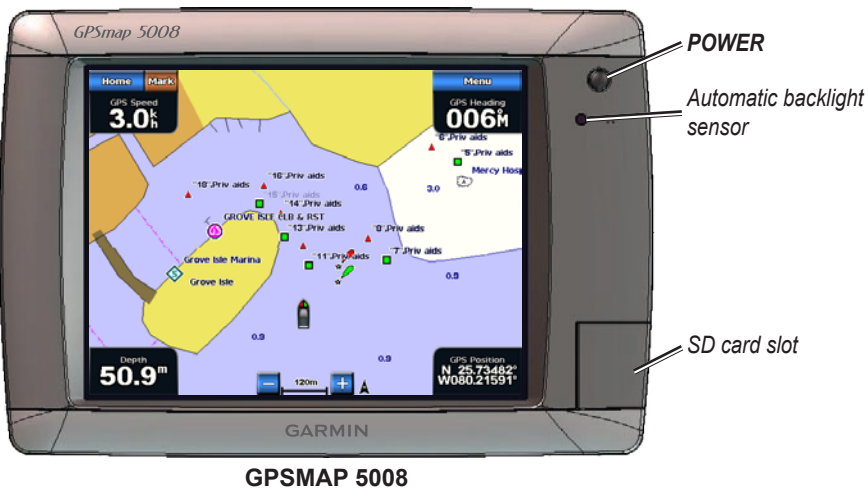
Turning the Unit On or Off

To turn the unit on, press and release the ⏻ **Power** key. When the Warning screen appears, select **I Agree** to open the Home screen.

⚠ **NOTE:** The first time you turn on your unit, you must go through a setup sequence. See "Initializing Unit Settings."

To turn the unit off, press and hold the ⏻ **Power** key.

Warning Screen

Home Screen

Initializing Unit Settings

The first time you turn your unit on, you must configure a series of initial settings. These settings must also be configured when restoring factory settings.

⚠ **NOTE:** You can change these settings later using the Configure screen.

Language—select the language to display on your screen.

Welcome—select **OK**.

Position Format—specify the coordinate system to use for location readings.

Time Format—specify whether you want the time shown in a **12-hour**, **24-hour**, or **UTC** (Universal Time Code) format.

Time Zone—select your time zone.

Units—specify units for on screen measurements as **Statute**, **Metric**, or **Nautical**.

Minimum Safe Depth—select the minimum safe depth for your boat. Refer to your boat specifications for more information.

Minimum Overhead Clearance—select the minimum overhead clearance for your boat. Refer to your boat specifications for more information.

Adjusting the Backlight

1. Press and release the ⏻ **Power** key.
2. Select **Backlight**.

To allow the unit to automatically adjust the backlight based on ambient light, select **Auto**.

*To manually adjust the backlight, either select **Up** or **Down**, use the **ROCKER** (GPSMAP 4000 series), or touch and drag the brightness bar (GPSMAP 5000 series).*

To adjust the color mode:
1. Press and release the ⏻ **Power** key.
2. Select **Color Mode**.
3. Select **Day Colors**, **Night Colors**, or **Auto**.

Acquiring GPS Satellite Signals

When you turn the unit on, the GPS receiver must collect satellite data and establish its current location. When the unit acquires satellite signals, the signal strength bars at the top of the Home screen are green . When the unit loses satellite signals, the green bars disappear and the position icon shows a flashing question mark.

For more information about GPS, visit the Garmin® Web site at www.garmin.com/aboutGPS.

Inserting and Removing SD Cards

Your unit supports Secure Digital (SD) cards. Insert optional BlueChart® g2 Vision® SD cards to view high-resolution satellite imagery, and aerial reference photos of ports, harbors, marinas, and other points of interest. Insert blank SD cards to transfer data such as waypoints, routes, and tracks to another compatible Garmin unit or a computer. The SD card slot is located on the lower-right corner of the unit.

To insert the SD card, open the access door and press the SD card in until it clicks. Press the card in again and release it to eject it from the chartplotter.

Card label

GPSMAP 4010 and 4012

Card label
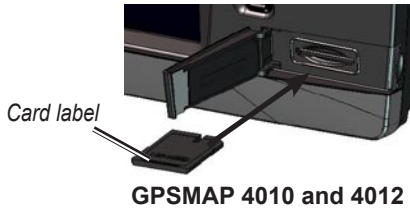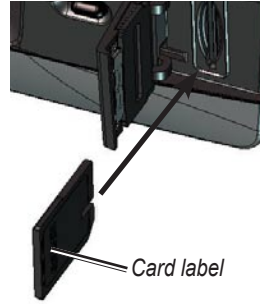
GPSMAP 4008 and 5000 series

Restoring Factory Settings

You can restore your unit to the original factory settings.

⚠ **CAUTION:** This procedure deletes any information you have entered.

To restore factory settings:
1. From the Home screen, select **Configure** > **System** > **System Information**.
2. Select **Factory Settings**.
3. Select **Reset** to restore all factory settings or select **Back** to cancel.

Viewing System Information

You can view the software version, basemap version, and unit ID number for your chartplotter. You may need this information to update the system software or to purchase additional map data information.

From the Home screen, select **Configure** > **System** > **System Information**.

Using Simulator Mode

Simulator Mode turns the GPS receiver off for use indoors or for practice. The unit does not track satellites in simulator mode.

⚠ **CAUTION:** Do not try to navigate using Simulator Mode because the GPS receiver is turned off. Any satellite signal strength bars shown are only simulations and do not represent the strength of actual satellite signals.

To turn Simulator Mode on:
1. From the Home screen, select **Configure** > **System** > **Simulator** > **On**.
2. Select **Setup** to set speed, track control, position, simulator time, and simulator date.

Understanding the Home Screen

Use the Home screen to access all other screens. Select **Home** from any screen to return to the Home screen.

NOTE: Options on this screen vary based on the unit type. When you add additional hardware to your Garmin Marine Network, additional options appear.

GPSMAP 4000 Series Home Screen   **GPSMAP 5000 Series Home Screen**

- **Charts**—access Navigation Chart, Perspective 3D, Mariner's Eye 3D, Fish Eye 3D, Fishing Charts and Radar Overlay (page 6).

NOTE: Mariner's Eye 3D, Fish Eye 3D, and Fishing Charts are available only if you use a BlueChart g2 Vision SD card.

- **Radar**—set up and view radar (page 39).
- **Sonar**—set up and access sonar information (page 45).
- **Combinations**—set up the screen to view a chart, sonar, radar, and video in a two or three (GPSMAP 4000 Series) field, or four (GPSMAP 5000 Series) field split screen (page 19).
- **Where To?**—access navigation features (page 21).
- **Information**—view information including tides, currents, celestial data, user data, information about other boats, gauges, and video (page 27).
- **Configure**—access unit and system settings (page 32).
- **Mark**—mark, edit, or delete your current location as a waypoint or MOB (GPSMAP 5000 Series).
- **Man Overboard**—navigate to a Man Overboard location (GPSMAP 5000 series).

Using Charts

Your unit has a basic worldwide imagery map. By purchasing an optional Blue Chart g2 Vision preprogrammed SD card, you can view detailed information for your region, including:

- **Navigation Chart**—displays navigation data, including buoys, lights, cables, depth soundings, marinas, and tide stations in an overhead view.
- **Mariner's Eye 3D**—displays a view from above and behind your boat for a visual navigation aid.
- **Fish Eye 3D**—an underwater view that visually represents the sea floor according to the information on the chart.
- **Fishing Chart**—removes navigational data from the chart and enhances bottom contours for depth recognition.

The unit automatically shows relevant navigational data when you select a navigation option.

Using the Navigation Chart

Use the Navigation chart to plan your course, to view map information, and as a navigational aid.

To access the Navigation chart, from the Home screen, select **Charts** > **Navigation Chart**.
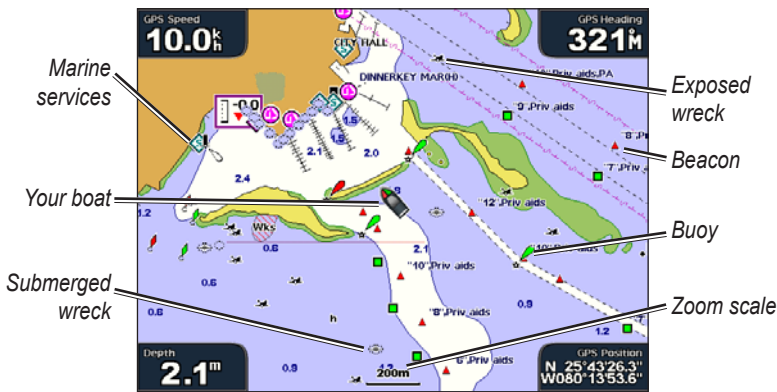
Navigation Chart with BlueChart g2 Vision Data

Zooming In and Out on the Map

The **RANGE (+/-)** keys (GPSMAP 4000 series) or the ➕ and ➖ keys (GPSMAP 5000 series) control the zoom level, indicated by the scale at the bottom of the Navigation chart (120m). The bar under the number represents that distance on the map.

Navigation Chart Menu

To access additional settings or options for the Navigation chart, select **Menu**.

Waypoints & Tracks—view and add waypoints and tracks, and configure how they are displayed.

Other Vessels—view information about other vessels. To view information about other vessels, your unit must be connected to an external AIS (Automatic Identification System) or DSC (Digital Selective Calling) device.

Stop Navigation—stop navigating to your destination (only available while navigating).

Chart Setup—customize the Navigation chart settings (page 9).

Understanding Chart Data

BlueChart g2 and BlueChart g2 Vision charts use graphic symbols to denote map features, which follow the standards for US and international charts.

Other features common to most charts include depth contour lines (with deep water represented in white), intertidal zones, spot soundings (as depicted on the original paper chart), navigational aids and symbols, and obstructions and cable areas.

Navigating to a Point on the Chart

1. From the Home screen, select **Charts**.
2. Select **Navigation Chart**, **Fishing Chart**, or **Radar Overlay**.
3. Select the point on the chart to which you want to go.
4. Select **Navigate To**.
5. Select **Go To** (or **Guide To** when using a preprogrammed BlueChart g2 Vision card for Auto Guidance).
6. Follow the colored line on the screen to the destination.

To create a route to a point on the chart, see .

Panning the Navigation Chart

Use the **ROCKER** on your GPSMAP 4000 series unit to move the map pointer (🔍) away from your current location and to scroll to other areas on the Navigation chart. As you pan past the edge of the current map display, the screen scrolls forward to provide continuous map coverage. Touch and drag the Navigation screen on your GPSMAP 5000 series unit to pan away from your current location. The position icon (🔴) stays at your present location. If the position icon leaves the map when you pan, a small window (inset map) appears on the left of the screen so that you can keep track of your current position.

As you move the map pointer, its coordinates, distance, and bearing from your current location appear in the upper-left corner of the map.

To pan the map, press up, down, right, or left on the **ROCKER** (GPSMAP 4000 series), or touch and drag the Navigation screen (GPSMAP 5000 series).
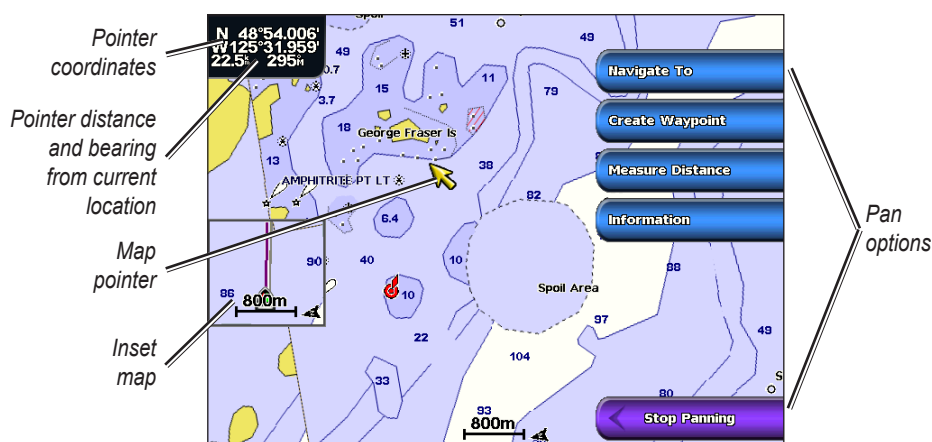
To stop panning, select **Stop Panning**.

As you pan the map, a list of options appears along the right side. The options change as you move the map pointer over various objects and charts.

- **Review**—(**Review** will not appear if the pointer is not near an object—if the pointer is near only one object, the name of the object appears.) This allows you to view details of objects in the vicinity of the pointer. When you select **Review**, you are presented with a list of all the objects near the pointer.

- **Navigate To**—begin navigation to the pointer location.

- **Measure Distance**—select **Set Reference** to mark a starting point. Move the pointer (GPSMAP 4000 series) or touch the screen (GPSMAP 5000 series) to select a starting point from which to measure distances. The distance is displayed in the upper left corner of the screen.

- **Create Waypoint**—mark a waypoint at the pointer location.

- **Information**—view tide, current, celestial, or local services information near the pointer location.

Accessing Additional Object Information

Use the map pointer ( ) (GPSMAP 4000 series) or touch an item on the screen (GPSMAP 5000 series) to view information about on-screen map items, waypoints, and charts.

Selected item

Additional item information

Viewing Tide-Station Information

Tide-station information appears on the chart with a detailed icon showing the relevant tide level. You can view an in-depth graph for a tide station to help predict the tide level at different times or on different days.

Relevant tide level

Detailed tide station information
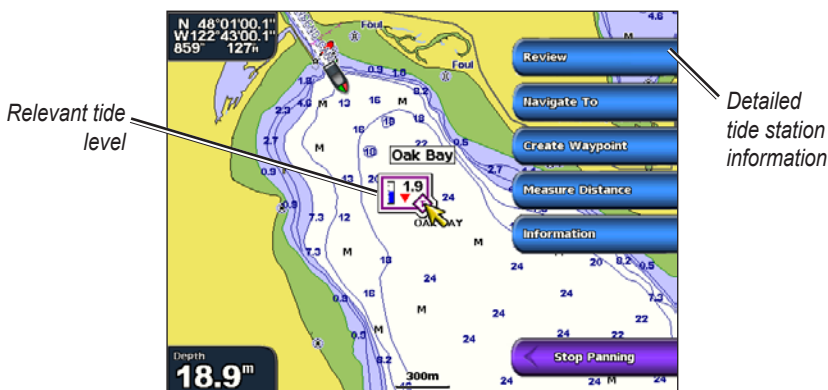
Highlight or touch a tide-station icon ( ), and select **Review** to view a detailed tide graph.

Changing the Navigation Chart Settings

To change the Navigation chart settings from the Home screen, select **Charts** > **Navigation Chart** > **Menu** > **Chart Setup**.

Photos—sets the high-resolution satellite images to off, land only, or blend. High-resolution satellite imagery is only available while using a BlueChart g2 Vision SD card.

Tides/Currents—turns the display of tides and currents on or off (page 27).

Service Points—turns the display of marine service points on or off.

Roses—displays a compass rose around your boat, indicating compass direction. True wind or apparent wind direction can be displayed if the unit is connected to a compatible marine wind sensor.

Wind Compass Rose

Data Bars—show or hide cruising, navigation, fishing, fuel, or sailing numbers.

• **Cruising**—turn the GPS Speed, GPS Heading, Depth, and GPS Position data bar on or off. Select **Data Bar Setup** to configure the position of the data on the screen.

• **Navigation**—turn the Distance to Destination, Arrival, Off Course, and Bearing data bar on or off. If you select **Auto**, the chartplotter will turn the Navigation data bar on whenever you are navigating to a destination. Select **Data Bar Setup** to configure the Route Leg, Next Turn, and Destination options.

• **Fishing**—turn the Depth, Water Temperature, and Water Speed data bar on or off.

• **Fuel**—turn the Fuel Rate, Remaining Fuel, Range, and Fuel Economy data bar on or off.

• **Sailing**—turn the Water Speed, Wind Speed, Wind Angle, and Wind Velocity Made Good (VMG) data bar on or off. Select **Wind** to toggle between True and Apparent wind speed and wind angle.

Understanding How Wind VMG and Waypoint VMG Are Displayed in the Data Bars

The chartplotter automatically switches between displaying Wind Velocity Made Good (VMG) and Waypoint VMG in the data bars.

Waypoint VMG is displayed under these conditions:

- The Route Leg data bar displays Waypoint VMG when you are navigating a route or an automatic guidance line.
- The Sailing data bar displays Waypoint VMG when you are navigating a route or an automatic guidance line, and you turn the Route Leg data bar off. For more information on configuring the data bars, see .

Wind VMG is displayed under these conditions:

- The Sailing data bar displays Wind VMG when you are not navigating a route or an automatic guidance line.
- The Sailing data bar displays Wind VMG when the Route Leg data bar is on.

Changing the Chart Appearance

From the Home screen, select **Charts** > **Navigation Chart** > **Menu** > **Chart Setup** > **Chart Appearance**.

Orientation—changes the perspective of the map display.

- **North Up**—sets the top of the map display to a north heading.
- **Head Up**—sets the map display to the current track heading.
- **Course Up**—sets the map so the direction of navigation is always up. The heading line appears vertically on the screen if shown.

Detail—adjusts the amount of detail shown on the map at different zoom levels.

Heading Line—draws an extension from the bow of the boat in the direction of travel.

- **Off**—turns the heading line off.
- **Distance**—sets the distance to the end of the heading line.
- **Time**—sets the amount of time until you reach the end of the heading line.

World Map—displays either a basic world map or displays satellite imagery (when **Full World Map** is selected).

Inset Map—turns the inset map on or off when panning away. Select **Auto** to turn the inset map on only when the boat symbol is no longer visible.

Spot Depths—turns spot soundings on or off and sets a dangerous depth.

Safety Shading (with supported BlueChart g2 Vision cards)—Areas with depths shallower than the specified value are shaded in blue, while areas with depths greater than the specified value are shaded in white. The contour is always drawn at or deeper than the selected depth.

Symbols—changes symbol preferences.

- **Navaid Size**—adjusts the size of the navaid symbols shown on the map.
- **Navaid Type**—selects the navaid symbol set (NOAA or IALA).
- **Land POIs**—turns the display of land POIs (points of interest) on or off.

- **Light Sectors**—turns the sector in which a navigational light is visible on or off. Selecting **On** filters out light sectors depending on the zoom level.
- **Chart Borders**—turns chart borders on when using a BlueChart g2 Vision SD card and you want to see what area the maps cover.

Heading line

Track

Chart border
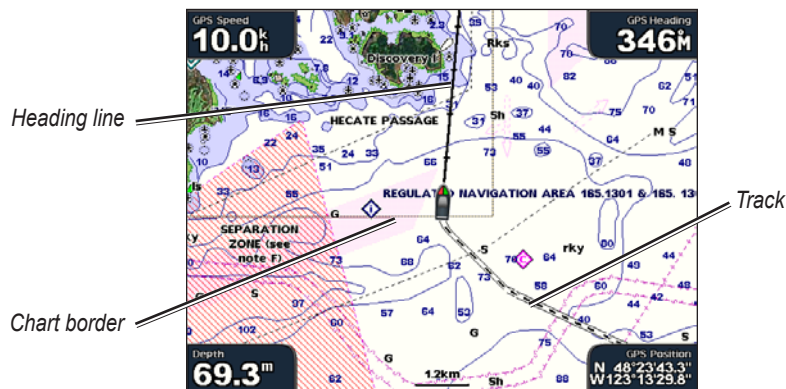
Photo Points—turns camera icons (page 18) on or off when using a BlueChart g2 Vision SD card.

Using Perspective 3D

Perspective 3D provides a view from above and behind the boat (according to your course), and provides a visual navigation aid. This view is helpful when navigating tricky shoals, reefs, bridges, or channels, and is beneficial when trying to identify entry routes and exit routes in unfamiliar harbors or anchorages.

To access the Perspective 3D screen, from the Home screen, select **Charts** > **Perspective 3D**.

Press the **RANGE (+)** key (GPSMAP 4000 series) or touch the ➕ key (GPSMAP 5000 series) to move the view closer to your boat and lower to the water. Press the **RANGE (-)** key (GPSMAP 4000 series) or touch the ➖ key (GPSMAP 5000 series) to move the view away from the boat.

To view details about navaids such as beacons, lights, and obstructions:
1. Use the **ROCKER** (GPSMAP 4000 series) or the touchscreen (GPSMAP 5000 series) to point to the navaid. When the cursor is over the navaid, a button is displayed, such as **Beacon** or **Light**.
2. Select the button for the navaid to view details.

Perspective 3D Settings
To access additional settings or options from the Perspective 3D screen, select **Menu.**

Waypoints & Tracks—view and add waypoints and tracks, and configure how they are displayed.

- **Tracks**—turn tracks on or off (page 12).
- **Waypoints**—view, sort, or filter existing waypoints, or create new ones.
- **New Waypoint**—edit, delete, or create a new waypoint.
- **Active Tracks**—manage tracks (page 12).
- **Saved Tracks**—view a list of tracks that have been saved.

Other Vessels—view information about other vessels. To view information about other vessels, your unit must be connected to an external AIS (Automatic Identification System) or DSC (Digital Selective Calling) device.

Surface Radar—display radar reflections from the surface of the water when the unit is connected to a marine radar (page 39).

Perspective 3D With Surface Radar Information

Data Bars—show or hide cruising, navigation, fishing, fuel, or sailing numbers (page 9).

Chart Appearance—customize the Perspective 3D chart.

• **Range Rings**—toggles the range rings on or off to provide distance measurement.

• **Safe Depth**—adjusts the safe depth for your boat. If the unit is connected to an optional sonar module and the shallow water alarm is activated (page 56), an alarm will sound when your boat enters water shallower than this setting.

• **Lane Width**—adjusts the width of the course line drawn when navigating. This setting also affects routes **(Route To)**, but does not affect automatic guidance **(Guide To).**

Using Radar Overlay

When you connect your chartplotter to an optional Garmin marine radar, you can use Radar Overlay to overlay radar information on the Navigation chart (page 42).

Using Tracks

A track is a recording of your path. The track currently being recorded is the active track. An active track can be saved.

To turn the track log on:
From the Navigation or Perspective 3D chart, select **Menu** > **Waypoints & Tracks** > **Tracks** > **On**. A trailing line on the chart indicates your track.
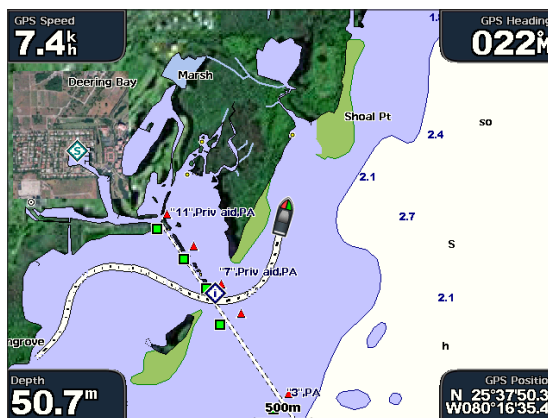
To save the active track:

1. From the Home screen, select **Information** > **User Data** > **Tracks** > **Save Active Track**.

2. Select either the time the current track began (or **Midnight**, if shown) or **Entire Log**.
3. To name the track, change the color of the track, or save it as a route, select **Edit Track**.

To clear the active track:

From the Home screen, select **Information** > **User Data** > **Tracks** > **Clear Active Track**. The track memory is cleared; the current track continues to be recorded.

To retrace the active track:

1. From the Home screen, select **Information** > **User Data** > **Tracks** > **Follow Active Track**.
2. Select either the time the current track began or **Entire Log**.
3. Follow the colored line on the screen.

To edit or delete a saved track:

1. From the Home screen, select **Information** > **User Data** > **Tracks** > **Saved Tracks**.
2. Select the track you want to edit or delete.
3. Select **Edit Track** to change the name or color of the track, or select **Delete** to delete it.

To set active Track Options:

From the Home screen, select **Information** > **User Data** > **Tracks** > **Active Track Options**.

Record Mode—select **Off**, **Fill**, or **Wrap**.

- **Off**—does not record a track log.
- **Fill**—records a track log until the track memory is full.
- **Wrap**—continuously records the track log, replacing the oldest track data with new data.

Interval—defines the frequency at which the track plot is recorded. Recording more-frequent plots is more accurate but fills the track log faster.

- **Interval**—sets whether the interval is determined by distance, time, or resolution. (Select **Change** to set the value.)
- **Distance**—records the track based on a distance between points.
- **Time**—records the track based on a time interval.

- **Resolution**—records the track plot based on a variance from your course. This setting is recommended for the most-efficient use of memory. The distance value (**Change**) is the maximum error allowed from the true course before recording a track point.
- **Change**—sets the value of the interval.

Track Color—sets the color of the track plot.

Using BlueChart g2 Vision

Optional BlueChart g2 Vision preprogrammed SD cards allow you to get the most out of your unit. In addition to detailed marine charting, BlueChart g2 Vision has the following features:

- **Mariner's Eye 3D**—provides a view from above and behind the boat for a three-dimensional navigation aid. The BlueChart g2 Vision Mariner's Eye 3D is more detailed than the preloaded data.
- **Fish Eye 3D**— provides an underwater 3D view that visually represents the sea floor according to the information on the chart.
- **Fishing Charts**—provides a view of the chart with enhanced bottom contours and without navigational data. This chart works well for offshore deep-sea fishing.
- **High Resolution Satellite Imagery**—provides high-resolution satellite images for a realistic view of the land and water on the Navigation chart.
- **Aerial Photos**—provides a view of marinas and other navigationally significant aerial photos to help you visualize your surroundings.
- **Detailed Roads and POI data**—provides a view of roads, restaurants, and other points of interest (POIs) along the shore.
- **Current Data**—provides a view of current station information.
- **Auto Guidance**—uses the chart data and specified boat safe depth to determine the best course to your destination.

> **NOTE:** You cannot transfer BlueChart g2 Vision data from the SD card to your computer for backup or viewing purposes. You can only use the SD card on BlueChart g2 Vision-compatible Garmin GPS units.

Using Mariner's Eye 3D

A BlueChart g2 Vision SD card offers Mariner's Eye 3D, which provides a detailed three-dimensional view from above and behind the boat (according to your course), and provides a visual navigation aid. This view is helpful when navigating tricky shoals, reefs, bridges, or channels, and is beneficial when trying to identify entry and exit routes in unfamiliar harbors or anchorages.

Mariner's Eye 3D

Navigation Chart

Press the **RANGE (+)** key (GPSMAP 4000 series) or touch the ➕ key (GPSMAP 5000 series) to move the view closer to your boat and lower to the water. Press the **RANGE (-)** key (GPSMAP 4000 series) or touch the ➖ key (GPSMAP 5000 series) to move the view away from the boat.

To view details about navaids such as beacons, lights, and obstructions:

1. Use the **ROCKER** (GPSMAP 4000 series) or the touchscreen (GPSMAP 5000 series) to point to the navaid. When the cursor is over the navaid, a button is displayed, such as **Beacon** or **Light**.
2. Select the button for the navaid to view details.

Mariner's Eye 3D Settings

To access additional settings or options from the Mariner's Eye 3D screen, select **Menu**.

For settings and options related to Waypoints & Tracks, Other Vessels, Surface Radar, and Data Bars, see "Perspective 3D Settings" on .

To customize the appearance of the Mariner's Eye 3D screen, select **Menu** > **Chart Appearance**.

Style—Selects how chart data is displayed over 3D terrain.

- **Classic**—uses color schemes to indicate 3D terrain.
- **Charts**—provides chart information in a 3D view.
- **Photos**—provides satellite photo imagery in addition to chart information.

Hazard Colors—Turns hazard colors on or off. The **Off** setting shows the land as seen from the water. The **On** setting indicates shallow water and land with a color scale. Blue indicates deep water, yellow is shallow water, and red is very shallow water.

Mariner's Eye 3D, Hazard Colors Off

Mariner's Eye 3D, Hazard Colors On

For settings and options related to Range Rings, Safe Depth, and Lane Width, see .

Using Fish Eye 3D

Using the depth contour lines of the BlueChart g2 Vision cartography, Fish Eye 3D provides an underwater view of the sea floor or lake bottom. Use the **RANGE** keys (GPSMAP 4000 series) or the ➕ and ➖ keys (GPSMAP 5000 series) to adjust the view.

Suspended targets (such as fish) are indicated by red, green, and yellow spheres. Red indicates the largest targets and green indicates the smallest.
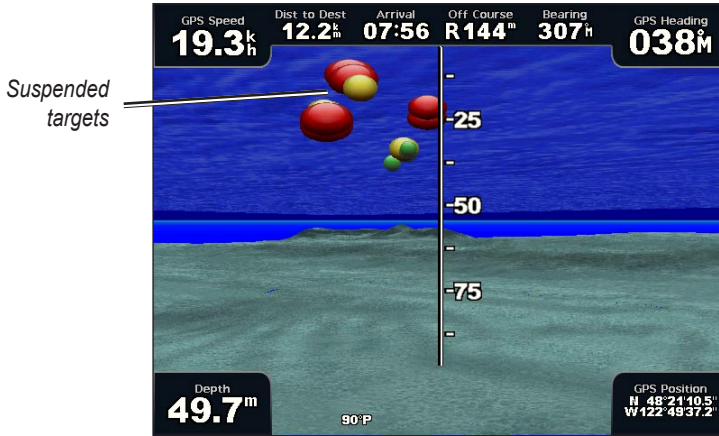
Fish Eye 3D

Fish Eye 3D Settings

To access additional settings or options for the Fish Eye 3D screen, select **Menu.**

View—selects a fish eye view of Fore, Aft, Port, or Starboard.

Sonar Cone—turns a cone that shows the area covered by your transducer on or off.

Sonar Data—visually shows the sonar readings received by your transducer for the best combination of sonar and mapping.

Tracks—turns the track log on or off.

Data Bars—show or hide cruising, navigation, fishing, fuel, or sailing numbers ().

Using Fishing Charts

Use the Fishing chart for a detailed, unobstructed view of the bottom contours and depth soundings on the chart.

Fishing Chart
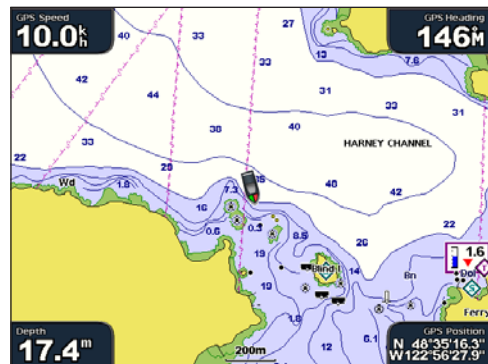
Navigation Chart

The Fishing chart uses detailed bathymetric data on a preprogrammed BlueChart g2 Vision SD card, and is best for offshore deep-sea fishing.

Enabling High-Resolution Satellite Imagery

You can overlay high-resolution satellite images on the land, the sea, or both portions of the Navigation chart when using a preprogrammed BlueChart g2 Vision SD card.

To enable satellite imagery:

1. While viewing the Navigation chart, select **Menu**.

2. Select **Chart Setup** > **Photos**.

3. Select one of the following:

   - **Off**—standard chart information is shown on the map.

   - **Land Only**—standard chart information is shown on water with photos overlaying the land.

   - **Photo Map**—photos overlay both the water and the land at a specified opacity. The higher you set the percentage of opacity, the more the satellite photos will cover both land and water.

> **NOTE:** When enabled, the high-resolution satellite images are present only at lower zoom levels. If you cannot see the high-resolution images in your BlueChart g2 Vision region, zoom in using the **RANGE** (+) key (GPSMAP 4000 series) or touch ➕ (GPSMAP 5000 series). You can also try setting the detail level higher.

Photo Overlay Off

Land Only Photo Overlay

Blend at 50%

Blend at 100%

Viewing Aerial Photos

Preprogrammed BlueChart g2 Vision SD cards contain aerial photographs of many landmarks, marinas, and harbors. Use these photos to help orient yourself to your surroundings or to acquaint yourself with a marina or harbor prior to arrival.

NOTE: Use the **RANGE** (+/-) keys (GPSMAP 4000 series) or touch the ➕ and ➖ keys (GPSMAP 5000 series) to zoom in and out while viewing the aerial photo on the full screen.

To access aerial photos from the Navigation chart:

Use the **ROCKER** (GPSMAP 4000 series) or touch the screen (GPSMAP 5000 series) to highlight a camera icon with the pointer, and select **Aerial Photo** or **Review**.

Viewing Current Station Information

If current stations are available in your BlueChart g2 Vision region, they appear on the Navigation chart as highlighted arrows. These detailed icons show the speed and direction of the current at a glance. Select **Review** or the name of the station to display a current graph.

Detailed Road and POI Data

BlueChart g2 Vision contains detailed road and POI data, which includes highly detailed coastal roads and points of interest (POIs) such as restaurants, lodging, local attractions, and more. For instructions on searching for, and navigating to, these POIs, see the "Where To?" section (page 21).

Using Automatic Guidance

Automatic Guidance automatically suggests routes based on available BlueChart g2 Vision chart information.

Using Combinations

Use the Combinations screen to view a combination of different screens at the same time. The number of options available on the Combinations screen depends on the optional network devices you have connected to your chartplotter, and whether you are using an optional BlueChart g2 Vision SD card. You can combine two or three screens (GPSMAP 4000 series) or up to four screens (GPSMAP 5000 series).

To access the Combinations screen from the Home screen, select **Combinations**.

Combinations Screen

The Combinations screen shows a list of possible screen combinations. When viewing three combination screens, one screen is larger than the others. The charts are numbered with a corresponding button in the lower-right corner (GPSMAP 4000 series). To switch the larger screen, select the icon from the lower-right corner that represents the screen you want (GPSMAP 4000 series) or touch **Menu** > **Change Combination** (GPSMAP 5000 series). Touch one of the screens to select a single-screen combination page that will provide configurable data fields (GPSMAP 5000 series).

Data fields

*Focus screen
(GPSMAP 4000 series)*

*Select to switch focus
screen (GPSMAP 4000
series only)*
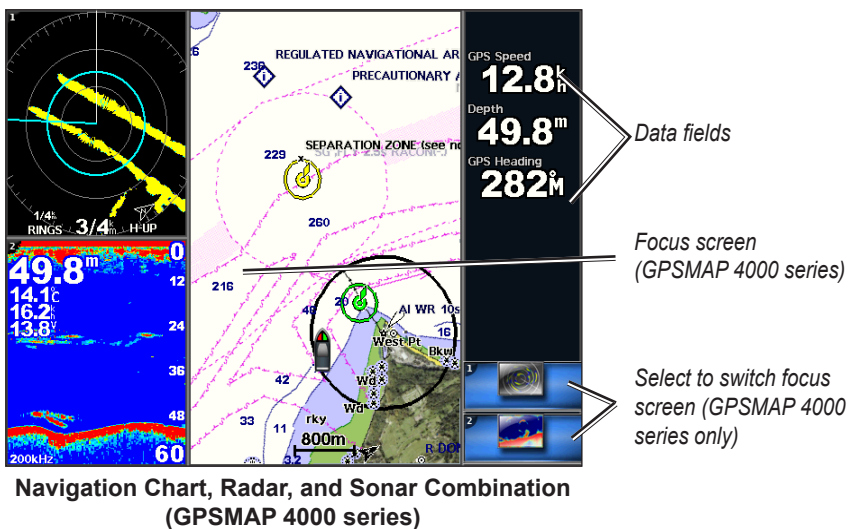
**Navigation Chart, Radar, and Sonar Combination
(GPSMAP 4000 series)**

To access additional settings or options for the Combinations screen, select **Menu**.

To customize the screen combinations:

1. While viewing the Combinations screen, select **Menu** > **Change Combination**, or, from the Home screen, select **Combinations** > **Unused Combo** (if one is available).

Combination screen 1

Combination screen 2

Data bar

Select the number of combination screens

Change to vertical or horizontal layout

Toggle the data bar

Change combination screen 1

Change combination screen 2

2. Select **Functions** to select the number of combination screens, select **Data Bar** to toggle the data bar on or off, and select a numbered button such as **1. Nav Chart** in the example above to select the combination screens to view.

3. Select **Done**.

> **NOTE:** You can only choose from the options available to your unit. To increase the number of screens available, use a BlueChart g2 Vision SD card or add network devices.

To add additional data fields:

1. While viewing the Combinations screen, press the soft key corresponding to an unused data field (GPSMAP 4000 series) or touch an unused data field (GPSMAP 5000 series).

New data field

Adding a Data Field (GPSMAP 4000 series)

2. Select the Digital Item to be displayed on the Combinations Screen. Available options vary, based on the network configuration and the unit.

To edit an existing data field:

While viewing the Combinations screen, press a soft key corresponding to a data field (GPSMAP 4000 series) or touch a data field (GPSMAP 5000 series). Select the item to be displayed.

To change the layout to horizontal or vertical:

1. While viewing the Combinations screen, select **Menu** > **Change Combination**.

2. Select **Layout Vert.** or **Layout Horiz**.

Where To?

Use the **Where To?** option on the Home screen to search for, and navigate to, waypoints, routes, and services such as nearby fuel, repairs, and ramps.

> **NOTE:** You must create waypoints and routes before you can navigate to them.

You can navigate to a destination using one of three methods: Go To, Route To, or Guide To.

- **Go To**—takes you directly to the destination.
- **Route To**—creates a route from your location to a destination, allowing you to add turns to the route.
- **Guide To**—searches BlueChart g2 Vision chart data to suggest the best path to your destination. You must be using a BlueChart g2 Vision SD card for this option to appear.

> **CAUTION: Guide To** does not ensure obstacle and bottom clearance. For safety, always resolve any discrepancies or questions before continuing navigation.

Navigating to a Destination

You can search for, and navigate to, waypoints, routes, and services such as nearby fuel, repairs, and ramps.

To begin navigating:
1. From the Home screen, select **Where To?**.
2. Select the category to which you want to navigate.

3. Select a destination.

> **NOTE:** Select **Next Page** to view additional information or to display the location on a chart.

4. Select **Navigate To**.

5. Select **Go To**.
   OR
   Select **Guide To** when using a preprogrammed BlueChart g2 Vision card to use Auto Guidance.

6. Follow the colored line on the screen to the destination.
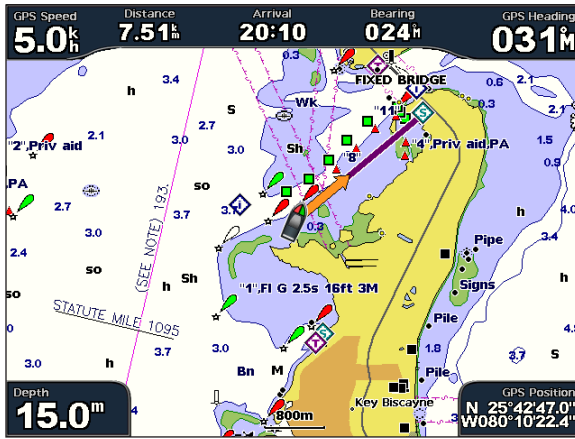
To stop navigating:
From the Navigation chart, select **Menu**, and then select **Stop Navigation**.

To search for a destination by name:
1. From the Home screen, select **Where To?** > **Search by Name**.
2. Use the **ROCKER** (GPSMAP 4000 series) or touch the onscreen keyboard (GPSMAP 5000 series) to select characters and spell at least a portion of the name of your destination.

Search - GPSMAP 4000 series

Search - GPSMAP 5000 series

3. Select **Done** to view the 50 nearest destinations that contain your search criteria.
4. Select the best location, then select **Navigate To** > **Go To** or **Route To (** or **Guide To** when using a preprogrammed BlueChart g2 Vision card).

Creating and Using Waypoints

You can store up to 1,500 waypoints with a user-defined name, symbol, depth, and water temperature for each waypoint.

To create a new waypoint:
1. From the Home screen, select **Charts** > **Navigation Chart**.
2. Use the map pointer ( ) (GPSMAP 4000 series) to select the location you want to designate as a waypoint, or touch the location (GPSMAP 5000 series) you want to designate as a waypoint.
3. Select **Create Waypoint**.
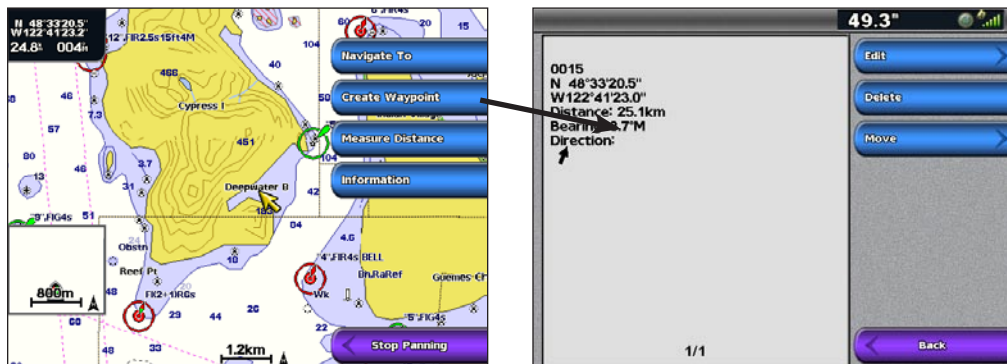
4. Select one of the following:
   - **Edit**—designate a specific name, symbol, water depth, water temperature, position, or make a comment about the waypoint.
   - **Delete**—delete the waypoint.
   - **Move**—change the location of the waypoint, either by selecting a different location on the map or by entering grid coordinates.

To mark your current location as a waypoint:
From any screen, press the **MARK** key (GPSMAP 4000 series) or touch **Mark** (GPSMAP 5000 series).
   - **Edit**—designate a specific name, symbol, water depth, or water temperature.
   - **Delete**—deletes the waypoint.
   - **Move**—change the location of the waypoint, either by selecting a different location on the map or by entering grid coordinates.
   - **Man Overboard**—designates the current location as a Man Overboard location.
   - **Next Page/Previous Page**—switches between waypoint information and the navigation chart.

> **NOTE:** Selecting **Mark** creates a waypoint only at your present location.

To mark an MOB (Man Overboard) location:
When you mark a waypoint, you can designate it as an MOB (Man Overboard). This marks the point and sets a course back to the marked location. When an MOB is active, an MOB waypoint with an international MOB symbol is created, and the unit is on an active navigation to that point.

1. At any time, press the **MARK** key (GPSMAP 4000 series) or touch **Mark** (GPSMAP 5000 series).
2. Select **Man Overboard**.

To edit an existing waypoint:

1. From the Navigation chart, use the map pointer (⬚) (GPSMAP 4000 series) or touch the waypoint (GPSMAP 5000 series) to highlight the waypoint on the Navigation chart.
   OR
   From the Home screen, select **Information** > **User Data** > **Waypoints**.

2. Select the waypoint you want to edit.

3. Select **Edit**.

4. Select the waypoint attribute you want to change (**Name**, **Symbol**, **Depth**, **Water Temp**) or add a comment.

To move the waypoint on the Navigation chart:

1. Select the waypoint on the navigation chart.

2. Select **Review**. (The **Review** button is only shown when more than one waypoint is in the vicinity.)

3. Select the button for the waypoint you want to edit.

4. Select **Move**.

5. Select **Use Chart** or **Enter Position**.

6. If entering position coordinates, use the **ROCKER** (GPSMAP 4000 series) or the keyboard (GPSMAP 5000 series) to enter the new position for the waypoint. If using the chart, highlight the new location with the map pointer (⬚) (GPSMAP 4000 series) or touch the location (GPSMAP 5000 series), and select **Move Waypoint**. The waypoint moves to the new location.

To view a list of all waypoints:

From the Home screen, select **Information** > **User Data** > **Waypoints**.

To delete a waypoint or MOB:

1. From the Navigation chart, use the map pointer (⬚) (GPSMAP 4000 series) or touch the waypoint (GPSMAP 5000 series) to highlight the waypoint on the Navigation chart.
   OR
   From the Home screen, select **Information** > **User Data** > **Waypoints**.

2. Select the waypoint or MOB you want to delete.

3. Select **Review** > **Delete**.

Creating and Using Routes

You can create and store up to 20 routes with up to 250 waypoints each.

To create a route from your present location:

1. From the Navigation chart, use the map pointer ( ) (GPSMAP 4000 series) or touch your destination (GPSMAP 5000 series) to select your destination.
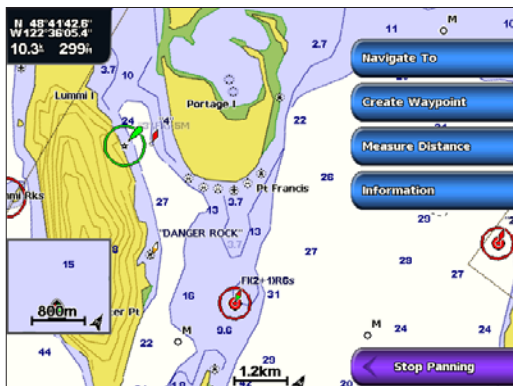
2. Select **Navigate To** > **Route To**.
3. Use the map pointer ( ) (GPSMAP 4000 series) to select the location at which you want to make the last turn, or touch the location (GPSMAP 5000 series) at which you want to make the last turn toward your destination.
4. Select **Add Turn**.
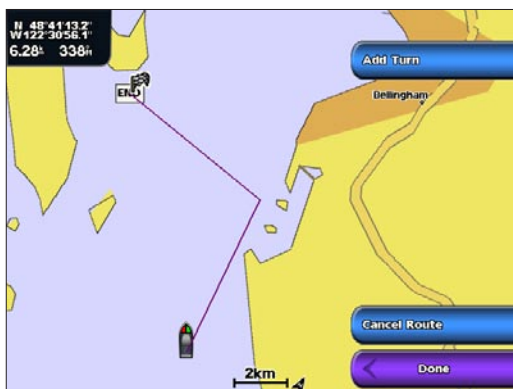
5. To add additional turns, select the point at which you want to make the turn (working backward from the destination) and select **Add Turn**.
6. Select **Done** to finish the route, or select **Cancel Route** to delete the route.

To create a route in another location:

1. From the Home screen, select **Information** > **User Data** > **Routes** > **New Route** > **Use Chart**.
2. Select **Use Chart** or **Use Waypoint List**.
3. If you selected **Use Chart**, use the map pointer ( ) (GPSMAP 4000 series) or touch the location (GPSMAP 5000 series) to select the initial location at which you want to start the new route. If you selected **Use Waypoint List**, select the first waypoint on the route.
4. Select **Add Turn** to mark the starting point of the route.
5. Choose the location of the first turn and select **Add Turn**. Repeat until the route is complete.
6. Select **Done**.

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To create a route using Auto Guidance (when using a preprogrammed BlueChart g2 Vision card):

1. From the Navigation chart, select your destination.

2. Select **Navigate To** > **Guide To**. Your route is calculated.

> **NOTE:** You can change the auto guidance path to a route by selecting the end of the path and selecting **Navigate To** > **Route To**. The auto guidance path stays on the screen, allowing you to trace it while creating a route.

To edit a route:

1. From the Home screen, select **Information** > **User Data** > **Routes**.

2. Select the route to edit.

3. Select **Review** > **Edit Route**. You can edit the route name or edit the route turns.

To delete a route:

1. From the Home screen, select **Information** > **User Data** > **Routes**.

2. Select the route to edit.

3. Select **Review** > **Delete**.

To bypass a waypoint on a route:

1. Create a route as previously described.

2. Select the waypoint that follows the waypoint you are bypassing.

3. Select **Navigate To** > **Go To** (or **Route To**).

Navigating with a Garmin Autopilot

When you start any type of navigation (Go To, Route To, Guide To, or Follow Track), if you are connected to a compatible Garmin autopilot (such as a Garmin GHP™ 10), you will be prompted to engage the autopilot.

Viewing Information

Use the Information screen to access information about tides, currents, celestial data, user data, other boats, gauges, and video.

Viewing Tide Station Information

To view tide information from the Home screen, select **Information** > **Tides/Currents** > **Tides**. Information for the most-recently viewed tide station is shown.
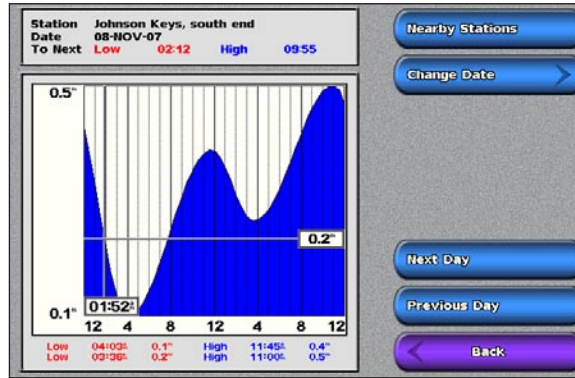
Select **Nearby Stations** to view other stations close to your current location. Select **Change Date** > **Manual** to view tide information for a different date.

Viewing Current Information

Use the Current Prediction screen to view information for currents.

⚠ **NOTE:** You must use a BlueChart g2 Vision card to view Current Station information.

To view current information from the Home screen, select **Information** > **Tides/Currents** > **Currents**. Information for the most-recently viewed current station is shown.
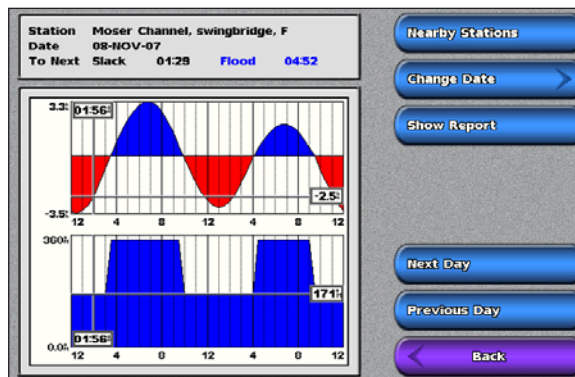
Select **Nearby Stations** to view other stations close to your current selection. Select **Change Date** > **Manual** to view current information for a different date.

Select **Show Report** to view the Current Report for the selected station.

Viewing Celestial Information

Use the Celestial screen to view celestial data for sunrise, sunset, moonrise, moonset, moon phase, and approximate sky view location of the sun and moon.

> To view celestial information from the Home screen, select **Information** > **Tides/Currents** > **Celestial**.

Moon position

Sun position

Sky view window
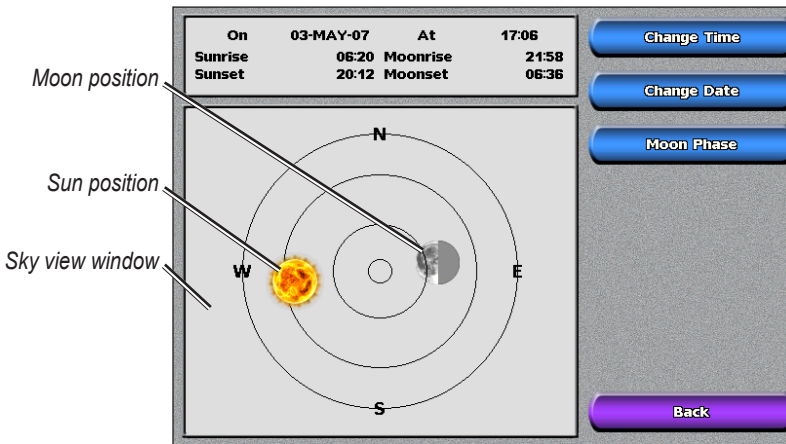
Viewing User Data

To view user data, from the Home screen, select **Information** > **User Data**.

Waypoints—view a list of all saved waypoints (page 23).

Tracks—view and manage tracks (page 12).

Routes—view a list of saved routes (page 25).

Data Transfer—transfer waypoints, routes, and tracks to and from an SD card or network.

Clear User Data—erase all user waypoints, routes, and tracks.

To copy or merge MapSource data to your chartplotter:

1. Insert the SD card into your chartplotter to allow it to place a file on the SD card. This file provides information to MapSource to format the data. This only needs to be done the first time you copy or merge MapSource data to your chartplotter from a specific SD card.

2. Check your MapSource version on the computer by clicking **Help** > **About MapSource**. If the version is older than 6.12.2, update to the most current version by clicking **Help** > **Check for Software Updates** or check the Garmin Web site at www.garmin.com.

3. Insert the SD card into an SD card reader that is attached to the computer.

4. From within MapSource, click on **Transfer** > **Send to Device**.

5. From the Send to Device window, select the drive for the SD card reader and the types of data you want to copy to your chartplotter.

6. Click **Send**.

7. Insert the SD card into your chartplotter.

8. From the Home screen on your chartplotter, select **Information** > **User Data** > **Data Transfer** > **Card**.

9. Complete one of the following:

    - Select **Merge From Card** to transfer data from the SD card to the unit and combine it with existing user data.
    - Select **Replace From Card** to overwrite the data on your unit.

10. Select the file name from the list.

11. Select **Merge from Card** or **Replace from Card**.

To transfer data (waypoints, routes, tracks) to an SD card:

1. Insert an SD card into the SD card slot on the front of the unit.

2. From the Home screen, select **Information** > **User Data** > **Data Transfer** > **Card** > **Save To Card**.

3. Complete one of the following:

    - Select the file name from the list.
    - Select **Add New File** to create a new file. Enter the file name using the **ROCKER** (GPSMAP 4000 series) or onscreen keyboard (GPSMAP 5000 series) and select **Done**.

4. Select **Save To Card** to save waypoints, routes, and tracks to the SD card. The file name is saved with an .ADM extension.

To transfer data (waypoints, routes, tracks) from an SD card:

1. Insert an SD card into the SD card slot on the front of the unit.

2. From the Home screen, select **Information** > **User Data** > **Data Transfer** > **Card**.

3. Complete one of the following:

    - Select **Merge From Card** to transfer data from the SD card to the unit and combine it with existing user data.
    - Select **Replace From Card** to overwrite items on your unit.

4. Select the file name from the list.

5. Select **Merge from Card** or **Replace from Card**.

To copy the built-in maps to an SD card:

1. Insert an SD card into the SD card slot on the front of the unit.

2. From the Home screen, select **Information** > **User Data** > **Data Transfer** > **Card**.

3. Select **Copy Built-In Map** to copy the maps loaded onto your unit to the SD card.

To transfer data to or from a network:

1. Connect the unit to a Garmin Marine Network using the network port on the back of the unit and a Garmin Network cable.

2. From the Home screen, select **Information** > **User Data** > **Data Transfer** > **Network**.

    Complete one of the following:

    - Select **Clone User Data** to transfer waypoints, routes, and tracks to other chartplotters connected to the network. Existing data will be overwritten on those chartplotters.
    - Select **Merge User Data** to transfer data between all the chartplotters connected to the network. Unique data will be combined with existing data on every chartplotter.

To back up data to a computer:

1. Insert an SD card into the SD card slot on the front of the unit.

2. From the Home screen, select **Information** > **User Data** > **Data Transfer** > **Card** > **Save To Card**.

3. Complete one of the following:

    - Select the file name from the list.

- Select **Add New File** to create a new file. Enter the file name using the **ROCKER** (GPSMAP 4000 series) or onscreen keyboard (GPSMAP 5000 series) and select **Done**.

4. Select **Save To Card**. The file name is saved with an .ADM extension.

5. Remove the SD card from the unit and insert it into an SD card reader attached to a computer.

6. From Windows® Explorer, open the Garmin\UserData folder on the SD card.

7. Copy the appropriate .ADM file on the card and paste it to any location on the computer.

To restore backup data to your chartplotter:
1. Copy the appropriate .ADM file from the computer to an SD card in the Garmin\UserData folder.

2. Insert the SD card into your chartplotter.

3. From the Home screen on your chartplotter, select **Information** > **User Data** > **Data Transfer** > **Card** > **Replace From Card**.

To delete all waypoints, routes, and tracks:
1. From the Home screen on your chartplotter, select **Information** > **User Data** > **Clear User Data**.

2. Select **Waypoints**, **Routes**, **Saved Tracks**, or **All**.

3. Select **OK** or **Cancel**.

Viewing the DSC List

The DSC List is a log of the most-recent DSC calls and other DSC contacts you have entered. The DSC List can contain up to 100 entries. The DSC List shows the most-recent call from a boat. If a second call is received from the same boat, it replaces the first call in the Call List. For more information on DSC, see page 49. To view the DSC List, from the Home screen, select **Information** > **DSC List**.

NOTE: Your unit must be connected to a VHF radio that supports DSC (Digital Selective Calling) in order to view the DSC List.

Viewing Engine Gauges

For more than two engines, you can only use the digital gauges. For one or two engines, you can switch between analog and digital gauges.

NOTE: You must be connected to a NMEA 2000 network capable of sensing engine data in order to view the gauges. See the *GPSMAP 4000/5000 Series Installation Instructions* for details.

To select analog or digital gauges:
1. To view analog or digital engine gauges from the Home screen, select **Information** > **Dashboard Gauges** > **Engine** > **Menu**.

2. Select **Analog** or **Digital**.
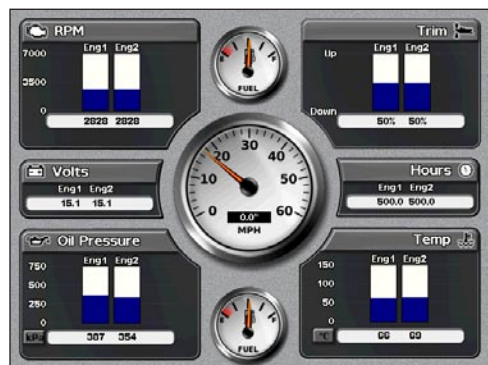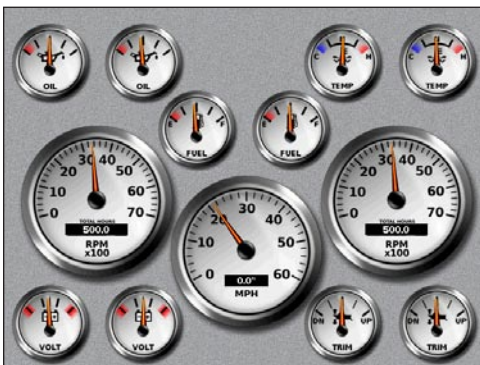
Viewing Fuel Gauges

To view fuel gauges from the Home screen, select **Information** > **Dashboard Gauges** > **Fuel**. Fuel flow for each engine, total fuel flow, fuel level in each tank, total fuel remaining, fuel economy, engine trim, boat speed, engine RPM, and the range for your boat are displayed.

NOTE: To view fuel information, your unit must be connected to an external fuel sensor, such as the Garmin GFS™ 10.

To synchronize your fuel gauges with your fuel:

From the Home screen, select **Information** > **Dashboard Gauges** > **Fuel** > **Menu**.

- **Fill Up All Tanks**—select when your tank is full. An estimate of the total fuel is shown. Adjust if necessary.
- **Add Fuel To Boat**—select when you have added less than a full tank. An estimate of the fuel added is shown. Adjust if necessary.
- **Set Total Fuel Onboard**—select to specify the total fuel in your tanks.
- **Fuel Economy**—select either **GPS Speed** or **Water Speed** (using data from a speed wheel) for the fuel economy calculation.

Viewing Video

Your unit can display video if you connect it to a video source using the supplied video cable. See the *GPSMAP 4000/5000 Series Installation Instructions* for details.

To view video from the Home screen, select **Information** > **Video**.

Select **Menu** to set up the following:

- **Source**—selects the video device (1 or 2) to use to display video. If you have two video sources and want to alternate between the two, select **Alternate** to define the amount of time each video is displayed.
- **Aspect**—switches between the standard aspect ratio and a stretched aspect ratio. The video cannot be stretched beyond the dimensions provided by the connected video device. Because of this, the stretched video may not fill the entire screen of the GPSMAP 4012/5012.
- **Brightness**—adjusts the brightness of the video feed up or down, or select **Auto** to allow the unit to automatically adjust the brightness.
- **Saturation**—adjusts the color saturation up or down, or select **Auto** to allow the unit to automatically adjust the saturation.
- **Contrast**—adjusts the contrast up or down, or select **Auto** to allow the unit to automatically adjust the contrast.
- **Standard**—selects the video format used by the source (PAL or NTSC). Select **Auto** to let the unit automatically select the source format.

WARNING: Do not attempt to operate or watch video input while operating or navigating your boat. Operating or watching the video input while the boat is moving could cause an accident or collision resulting in property damage, serious injury, or death.

Viewing
Information

Configuring the Chartplotter

Use the Configure screen to configure unit settings.

Configuring System Settings

To change general system settings from the Home screen, select **Configure** > **System**.

Simulator—turn Simulator Mode **On** or **Off**. Select **Setup** to set simulator options. (If you set the unit into a Store Demonstration mode during the initial unit setup, this setting is named Demo.)

Auto Power Up (GPSMAP 4010 and GPSMAP 5015 only)—turn Auto Power Up **On** or **Off**. When **On** is selected, the chartplotter will automatically turn on whenever power is applied, unless the chartplotter is turned off with the ⏻ **Power** key before power is lost.

Beeper/Display—select **Beeper** to set when the unit makes audible sounds. Select **Backlight** to brighten or darken the backlight. Select **Color Mode** to switch between Day Mode and Night Mode. Select **Screenshot Capture** to turn the screenshot capture feature on or off (page 54).

GPS—view GPS satellites.

System Information—view system information, reset factory settings, view the status of networked devices, and display the event log. The event log displays a list of system events. Select the event to view additional information. The **Save to Card** button is provided as a troubleshooting tool; a Garmin Product Support representative may ask you to use this to retrieve data about the marine network.

Radar Diagnostics (if radar is connected)—a troubleshooting tool used by installers.

Changing the System Language

To change the system language, from the Home screen, select **Configure** > **Preferences** > **Language** and then select the language.

Configuring Navigation Preferences

To change navigation preferences, from the Home screen, select **Configure** > **Preferences** > **Navigation**.

Route Labels—for saved routes, this determines whether route turns are indicated by number (Turn 1, Turn 2, and so on) or by waypoint name, or whether the description of turns is hidden.

Turn Transition—set how much time or how far before a turn in a route that you transition to the next leg. Raising this value can help improve the accuracy of the autopilot when navigating a route or automatic-guidance line with many frequent turns or at higher speeds. For straighter routes or slower speeds, lowering this value can improve autopilot accuracy.

Speed Sources—specify the sensor used for Wind numbers and Fuel Economy. Touch Wind or Fuel Economy to toggle between Water (from a water-speed sensor) and GPS (from the calculated GPS speed).

Configuring Units of Measure

To change units of measure from the Home screen, select **Configure** > **Preferences** > **Units**.

System Units—global setting that defines individual units of measure at the same time. **Statute (mh, ft, ºF)**, **Metric (kh, m, ºC)**, **Nautical (kt, ft, ºF)**, or **Custom**. Select **Custom** to individually define units of measure for depth, temperature, distance, speed, elevation, volume, and pressure.

> **NOTE:** You must be receiving NMEA sonar depth data or using a Garmin sounder module to view depth and water temperature information.

Heading—sets the reference used in calculating heading information.

- **Auto Mag Var**—Automatic Magnetic Variation automatically sets the magnetic declination for your location.
- **True**—sets true north as the heading reference.
- **Grid**—sets grid north as the heading reference (000º).
- **User Mag Var**—allows you to set the magnetic variation value.

Position Format—change the coordinate style in which a given location reading appears. Do not change the position format unless you are using a map or chart that specifies a different position format.

Map Datum—change the coordinate system in which the map is structured. Do not change the Map Datum unless you are using a map or chart that specifies a different Map Datum.

Time—set the time options.

- **Time Format**—select **12-hour**, **24-hour**, or **UTC** time format.
- **Time Zone**—set the time zone you want displayed for time readings.
- **Daylight Saving Time**—indicate whether you want daylight saving time **Off**, **On**, or **Auto**. The auto setting automatically turns daylight saving time on or off, depending on the time of year.

Configuring Communications Settings

To change the communications settings from the Home screen, select **Configure** > **Communications**.

NMEA 0183 Setup—enable or disable NMEA 0183 output sentences for sounder, route, system, and Garmin NMEA settings.

- **Port Types**—configure the input/output format for each port to use when connecting your chartplotter to external NMEA devices, a computer, or other Garmin devices. **NMEA Std.** supports the input or output of standard NMEA 0183 data, DSC, and sonar NMEA input support for the DPT, MTW, and VHW sentences. **NMEA High Speed** supports the input or output of standard 0183 data for most AIS receivers. The **Garmin** option supports the input or output of Garmin-proprietary data for interfacing with Garmin software.
- **Posn. Precision**—adjust the number of digits (**Two Digits**, **Three Digits**, or **Four Digits**) to the right of the decimal point for transmission of NMEA output.
- **Waypoint IDs**—determine how the unit outputs waypoint identifiers (**Names** or **Numbers**).
- **Defaults**—reset NMEA 0183 settings to their default settings (**OK** or **Cancel**).
- **Diagnostics**—a tool used by installers to verify that NMEA 0183 data is being sent across the system.

To enable or disable NMEA 0183 output sentences:

1. From the Home screen, select **Configure** > **Communications** > **NMEA 0183 Setup > Output Sentences**.

2. Select a setting (**Sounder**, **Route**, **System**, or **Garmin**).

3. Select the NMEA 0183 output sentence.

4. Select **Off** to disable, or select **On** to enable, the NMEA 0183 output sentence.

NMEA 2000 Setup—view and configure the devices connected to the NMEA 2000 network and set bridging to **On**, **Off**, or **Auto**.

• **Device List**—lists the NMEA 2000 devices on your network. If a NMEA 2000 device has configuration options or settings, select the device for a list of options.

• **Output Bridging**—output bridging occurs when a chartplotter takes NMEA 0183 data it receives from any source, formats it into NMEA 2000 data, and then sends it over the NMEA 2000 bus. Select **On** or **Off** to enable or disable this function for the chartplotter. Select **Auto** to allow the chartplotters on the network to negotiate with each other to determine which chartplotter will perform this function. There should not be more than one chartplotter on the network bridging NMEA 0183 data over the NMEA 2000 bus.

Wireless Devices—allows wireless devices, such as a remote control or optical mouse to communicate with the chartplotter.

Preferred Sources—allows selection of a preferred device when more than one source is available for the same function.

Marine Network—review all connected Garmin Marine Network devices. See .

Setting Alarms

You can set the unit to sound an audible alarm when certain conditions are met. By default, all alarms are turned off.

To set an alarm:

1. From the Home screen, select **Configure** > **Alarms**.

2. Select an alarm category.

3. Select an alarm.

4. Select **On** to turn the alarm on, and then specify alarm information.

Setting Navigation Alarms

To set a navigation alarm, from the Home screen, select **Configure** > **Alarms** > **Navigation**.

Arrival—set an alarm to sound when you are within a specified distance or time from a turn or destination waypoint.

• **Type**—select whether you want arrival alarms to sound only when nearing destinations or when nearing turns and destinations. Set to **Off** to disable arrival alarms.

• **Activation**—select whether the arrival alarm triggers on time to arrival or distance to arrival.

• **Change Time/Change Distance**—if you have Activation set to Time, select **Change Time** to set the number of minutes before arrival that the alarm should sound. If you have Activation set to Distance, select **Change Distance** to set the distance before arrival that the alarm should sound. Use the **ROCKER** (GPSMAP 4000 series) or onscreen keyboard (GPSMAP 5000 series) to change the time or distance.

Anchor Drag—set an alarm to sound when you exceed a specified drift distance.

Off Course—set an alarm to sound when you are off course by a specified distance.

Setting System Alarms

To set a system alarm, from the Home screen, select **Configure** > **Alarms** > **System**.

Clock—set an alarm using the system (GPS) clock. The unit must be on for the clock alarm to work.

Battery—set an alarm to sound when the battery reaches a user-determined low voltage.

GPS Accuracy—set an alarm to sound when the GPS location accuracy falls outside the user-determined value.

Setting Sonar Alarms

To set a sonar alarm, from the Home screen, select **Configure** > **Alarms** > **Sonar**.

> **NOTE:** You must have an optional sonar module (and a transducer connected to the sounder module) wired through NMEA 0183 or connected to the Garmin Marine Network to receive sonar information.

Shallow Water—set an alarm to sound when the depth is less than the specified value.

Deep Water—set an alarm to sound when the depth is greater than the specified value.

Water Temp—set an alarm to sound when the transducer reports a temperature that is 2°F (1.1°C) above or below the specified temperature.

Fish—set an alarm to sound when the unit detects a suspended target of the specified symbols.

 — sounds an alarm for all fish sizes

 — sounds an alarm for medium and large fish only

 — sounds an alarm for large fish only

Setting the Total Fuel Onboard Alarm

You can configure your chartplotter to sound an alarm when the total amount of remaining onboard fuel reaches the level you specify.

> **NOTE:** To receive fuel-level information, your unit must be connected to an external fuel sensor, such as the Garmin GFS 10.

To enable the Total Fuel Onboard alarm and set the fuel alarm level:
1. From the Home screen, select **Configure** > **Alarms** > **Fuel** > **Total Fuel Onboard** > **On**.
2. Use the **ROCKER** (GPSMAP 4000 series) or onscreen keyboard (GPSMAP 5000 series) to indicate the fuel level at which the alarm should sound.

To disable the Total Fuel Onboard alarm:
From the Home screen, select **Configure** > **Alarms** > **Fuel** > **Total Fuel Onboard** > **Off**.

Configuring My Boat

To configure settings for your boat, from the Home screen, select **Configure** > **My Boat**.

Auto Guidance—set the Auto Guidance parameters for your boat:

• **Safe Depth**—set the minimum depth (chart depth datum) to allow when calculating an auto guidance path. A safe depth of less than one meter is not allowed when using Auto Guidance.

- **Safe Height**—set the minimum height (chart height datum) of a bridge that your boat can safely travel under.

- **Shoreline Distance**—set how close you want to travel near the shore: **Nearest**, **Near**, **Normal**, **Far**, or **Farthest**. This is used by the automatic guidance calculation to determine how close to the shoreline you want the automatic-guidance line to be. Changing this while navigating an automatic-guidance line will recalculate the path.

Keel Offset—offset the surface reading for the depth of a keel, making it possible to measure depth from the bottom of the keel instead of from the transducer location. Enter a positive number to offset for a keel. Enter a negative number to offset for a large vessel that may draw several feet of water.

To adjust the Keel Offset:
1. From the Home screen, select **Configure** > **My Boat** > **Keel Offset**.
2. Use the **ROCKER** (GPSMAP 4000 series) or the onscreen keyboard (GPSMAP 5000 series) to specify the offset.
3. Select **Done** to accept the number.

> **NOTE:** Select **Cancel** to cancel your changes and return to the My Boat screen.

Temp Offset—set the temperature offset for the temperature sensor of your transducer.

Calibrate Water Speed—use this menu to calibrate a speed-sensing device. Follow the on-screen directions for calibration. If you do not have a speed-sensing device, this menu does not appear.

> **NOTE:** If the boat is not moving fast enough or the speed sensor is not registering a speed, a "Speed Too Low" message appears. Select **OK** and safely increase boat speed. If you get the message again, stop the boat and make sure the speed-sensor wheel is not stuck. If the wheel turns freely, check the cable connections. If you continue to get the message, contact Garmin Product Support.

Fuel Capacity—enter the total fuel capacity of your boat.

Configuring Other Vessels

To configure settings for boats other than your own, from the Home screen, select **Configure** > **Other Vessels**.

AIS—turn AIS (Automatic Identification System) on or off. AIS alerts you to area traffic by providing boat IDs, position, course, and speed for boats that are within range and equipped with a transponder.

DSC—turn DSC (Digital Selective Calling) on or off.

> **NOTE:** To configure AIS or DSC information for other boats, your unit must be connected to an external AIS or DSC device.

Collision Alarm (AIS and MARPA only)—turn a safe zone around your boat on or off. This is used for collision avoidance, and can be customized.

To customize safe-zone settings:
From the Home screen, select **Configure** > **Other Vessels** > **Collision Alarm**.

- **Range**—change the measured radius of the safe-zone ring to a specified distance from 500 ft. to 2.0 nm (or from 150 m to 3.0 km, or from 500 ft. to 2.0 mi).

- **Time to** (Safe Zone)—sounds an alarm if AIS or MARPA determines that a target will intersect the Safe Zone within the defined time interval (ranging from 1 to 24 minutes).

Using the Garmin Marine Network

The Garmin Marine Network allows you to share data from Garmin peripheral devices between Garmin chartplotters quickly and easily. You can connect your GPSMAP 4000 series and GPSMAP 5000 series chartplotters, and previous Garmin Marine Network compatible chartplotter models (GPSMAP 3005/3006/3010), to your network to share data. With the Garmin Marine Network, you can:

- Share GPS data from a GPS 17 antenna that is wired to one chartplotter, with every chartplotter connected to the Garmin Marine Network.

- Share NMEA 0183 data from devices that are wired to one chartplotter, with every chartplotter connected to the Garmin Marine Network.

  NOTE: Both the GPS 17 and any NMEA 0183 devices must be connected to the same chartplotter to achieve the best results when sharing data over the Garmin Marine Network.

  NOTE: If you are using a GSD 21 wired to a GPSMAP 3006/3010 chartplotter, data is shared with any GPSMAP 4000 series and GPSMAP 5000 series chartplotters connected to your Garmin Marine network. All GSD 21 settings must be configured on the GPSMAP 3006/3010. You cannot wire a GSD 21 to a GPSMAP 4000 series or GPSMAP 5000 series chartplotter.

- Share data from Garmin Marine Network devices connected to any chartplotter in the Marine Network or to a GMS 10 Marine Network Port Expander, with every other chartplotter connected to the Marine Network. These devices include:

  ○ **GSD 22 digital sounder**—provides sonar data when connected to the Garmin Marine Network and an appropriate transducer. Sonar data is shared by all chartplotters on the network.

  ○ **GMR 21/41 Radome; GMR 18 Radome; and GMR 404/406 Open Array Radar**—provide radar data when connected to the Garmin Marine Network. Radar data is shared by all chartplotters on the network.

- Share BlueChart g2 Vision cartography data from an SD card inserted in one GPSMAP 4000 or GPSMAP 5000 series chartplotter with every GPSMAP 4000 and GPSMAP 5000 series chartplotter connected to the Marine Network.

  NOTE: BlueChart g2 Vision cartography is only compatible with GPSMAP 4000 and GPSMAP 5000 series chartplotters. Previous Garmin Marine Network-compatible chartplotter models (such as the GPSMAP 3010) can be connected to your network, but they cannot share BlueChart g2 Vision data.

- Transfer waypoint, route, and track information from one chartplotter connected to the Garmin Marine Network to every other chartplotter connected to the network. The data can be cloned from one chartplotter to every other connected chartplotter, or the data can be merged and shared with every connected GPSMAP 4000 and GPSMAP 5000 series chartplotter.

Marine Network

Viewing Connected Garmin Marine Network Devices

To view all connected Garmin Marine Network devices, from the Home screen, select **Configure > Communications > Marine Network**.

Alias defined

No alias defined
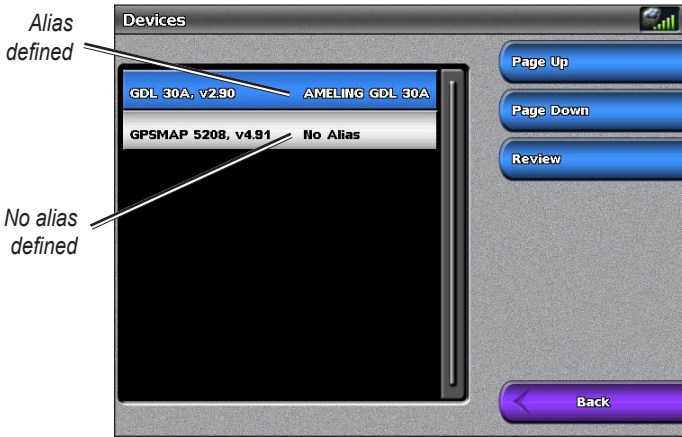
Network Devices

Each connected device is listed along the left side of the screen. To assign an alias or name to one of the devices for identification purposes, select the device and then select **Review**. Use the **ROCKER** (GPSMAP 4000 series) or the onscreen keyboard (GPSMAP 5000 series) to name the device.

Select **Back** or press the **HOME** key to exit.

Marine Network

Using Radar

When you connect your chartplotter to an optional Garmin marine radar such as a GMR 404/406 or a GMR 18, you can view more information about your surroundings. The Garmin marine radar connects through the Garmin Marine Network and shares radar data with all networked chartplotters.

The Garmin marine radar transmits a narrow beam of microwave energy as it rotates in a 360º pattern. When the transmitted energy contacts a target, some of that energy is reflected back to the radar.

> ⚠ **WARNING:** The marine radar transmits microwave energy that has the potential to be harmful to humans and animals. Before beginning radar transmission, verify that the area around the radar is clear. The radar transmits a beam approximately 12° above and 12° below a line extending horizontally from the center of the radar. Avoid looking directly at the radar, because the eyes are the most susceptible part of the body.

To turn on the radar:
1. When you power the network on, the radar warms up. A countdown is provided to alert you when the radar is ready. From the Home screen, select **Radar** > **Cruising** for Cruising mode, or select **Radar** > **Sentry** for Sentry mode. See page 40 for more information on Cruising and Sentry modes.

> ⚠ **NOTE:** As a safety feature, the radar enters standby mode after it warms up. This gives you an opportunity to verify that the area around the radar is clear before beginning radar transmission. The microwave energy transmitted by the radar can potentially be harmful to humans and animals.

2. When the message "Ready to Transmit" appears, select **Menu**.
3. On the lower-right portion of the screen, select **Transmit Radar**. A "Spinning Up" message appears for a few moments, then the radar begins painting an image.

To turn off the radar:
1. Press and release the ⏻ **Power** key on the chartplotter (do not hold the button, or you may shut down the chartplotter), or select **Menu**.
2. Select **Radar to Standby**.

Using Cruising Mode

Cruising mode is the standard radar operation. If you switch from Sentry mode to Cruising mode, the antenna will go into full-time transmission and will disable any guard zones. You can place the radar in Cruising mode by selecting **Radar** > **Cruising**.

Use the Cruising screen to view a full-screen image of the gathered radar information. Your position is in the center of the screen, and the rings provide distance measurements.
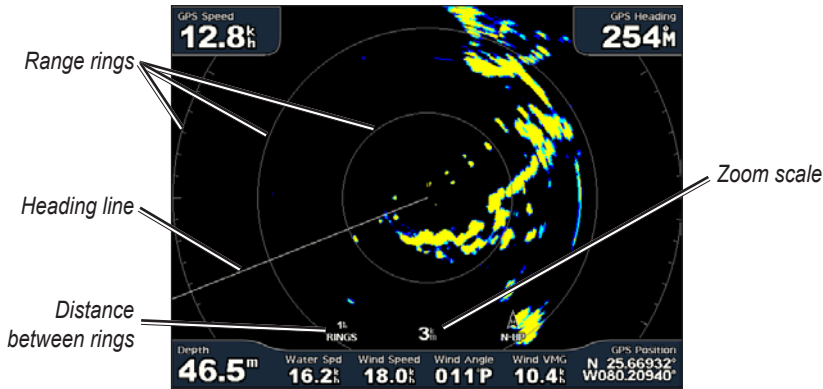
The zoom scale represents the distance from your position (the center) to the outermost ring. Each ring represents an even division of the zoom scale. For example, if the zoom scale is set at three kilometers, each ring represents one kilometer from the center out. Use the **RANGE** (+/-) keys (GPSMAP 4000 series) or the ➕ and ➖ keys (GPSMAP 5000 series) to adjust the zoom scale.

Using Sentry Mode

Sentry mode allows you to put the radar antenna into timed-transmit mode, in which you can configure a transmit/standby cycle. You can also enable a guard zone in Sentry mode, which identifies a safe zone around your boat. An alarm sounds when a radar object enters this zone. You can place the radar in Sentry mode by selecting **Radar** > **Sentry**.

> **NOTE:** When Sentry mode is enabled, all MARPA targets are cancelled, and you cannot acquire MARPA targets until you exit Sentry mode.

To enable timed-transmit mode, select **Menu** > **Sentry Setup** > **Timed Xmit**.

To set the standby and transmit times:
1. From the Radar screen, select **Menu** > **Sentry Setup**.
2. Select **Timed Xmit** if it is set to off, and then select **Stdby Time** or **Xmit Time**.
3. Enter the time in minutes using the **ROCKER** (GPSMAP 4000 series) or the onscreen keyboard (GPSMAP 5000 series), and then select **Done**.

To enable the guard zone from the Radar screen, select **Menu** > **Sentry Setup** > **Enable Guard Zone**.

To adjust the guard zone boundaries:
1. While the guard zone is on, from the Radar screen, select **Menu** > **Sentry Setup** > **Adjust Guard Zone** > **Move Guard Zone**.

2. Select from the following options:

   • **Corner 1** (and **Corner 2**): Use the **ROCKER** (GPSMAP 4000 series) as indicated by the arrows (⬌ and ⬍) to define the size of the guard zone. Select **Corner 1** or **Corner 2** to change the reference point. For GPSMAP 5000 series units, touch **Corner 1**, and then touch the point on the screen at which you want the first corner of the guard zone. Repeat this with Corner 2.

   • **Circular**: Joins the guard zone to completely encompass the boat. Use **Corner 1** or **Corner 2** to adjust the size.

Corner 1	Corner 2	Circular
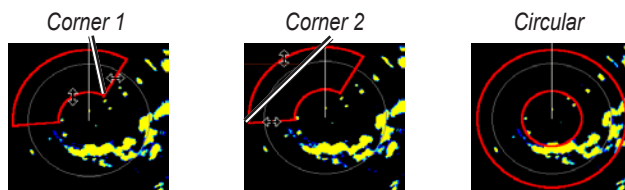
Radar Targeting

Use the **ROCKER** (GPSMAP 4000 series) or touch the target location (GPSMAP 5000 series) to begin targeting. As you move the target over objects on the radar, target options appear along the right side of the screen.

Cruising Screen - Targeting

To stop targeting, select **Stop Pointing**.

Create Waypoint—marks a waypoint at the targeted object or location.

Acquire Target—assigns a MARPA (Mini Automatic Radar Plotting Aid) tag to the targeted object.

> **NOTE:** MARPA requires the use of a heading sensor. The heading sensor must output the NMEA 0183 sentence HDM or HDG.

Drop VRM/EBL—sets the Variable Range Marker (VRM) and Electronic Bearing Line (EBL) to measure range and bearing to a target.

Using Radar

MARPA Target (only appears when you are targeting a tagged MARPA object)—opens the MARPA target information window.

MARPA Targeting

Understanding the Radar Overlay Screen

Use the Radar Overlay option to overlay radar information on the Navigation chart.

From the Home screen select **Radar** > **Radar Overlay**. The radar picture appears in orange and overlays the Navigation chart. Use the **RANGE** (+/-) keys (GPSMAP 4000 series) or the + and − keys (GPSMAP 5000 series) to zoom in and out. Zooming while panning the map only affects the zoom scale of the map. The radar range remains the same. Zooming while the map is locked on the boat (not panning) affects the zoom scale of the map and the radar range.

To access additional settings or options for the radar overlay screen, select **Menu**. Select **Setup** > **Chart Setup** to access the chart options. Select **Radar Setup** to return to the radar setup options.

Obtaining Optimal Radar Display Performance

The gain controls the sensitivity of the radar receiver. The default setting for the gain, Auto, adjusts the gain automatically to provide the best performance.

To adjust the gain:
1. Select **Menu** > **Gain** on the radar screen.
2. Select **Up** or **Down** to manually adjust the gain; select **Auto** to return the gain to the default setting.

Reducing Unwanted Noise

There are several options that adjust the gain to help reduce unwanted clutter on the radar screen.

To reduce unwanted noise:

1. From the Radar screen, select **Menu** > **Noise Rejection**.

2. Select from the following options:

   • **Rain Cltr**—adjust the gain for unwanted clutter caused by rain at close ranges. Select **Up** or **Down** to adjust the rain clutter sensitivity.

   • **Sea Cltr**—adjust the gain for clutter caused by choppy sea conditions. Select **Rough**, **Medium**, or **Calm**. Select **Up** or **Down** to manually adjust the sea clutter sensitivity.

   • **Cross Talk**—filter out interference caused by another radar operating in close proximity.

   • **FTC** (Fast Time Constant)—reduce unwanted clutter caused by rain at a distance. FTC has four presets: **Off**, **Low**, **Medium**, or **High**.

Adjusting the VRM and EBL

The Variable Range Marker (VRM) and Electronic Bearing Line (EBL) tools measure range and bearing to a target. You can adjust the diameter of the VRM and the angle of the EBL.

To show or hide the VRM and EBL:

The measured range and bearing are displayed in the upper-left corner of the screen.

   • If the VRM and EBL are hidden, from the Radar screen, select **Menu** > **Show VRM/EBL**.

   • If the VRM and EBL are shown, from the Radar screen, select **Menu** > **Adjust VRM/EBL** > **Hide VRM/EBL**.

To select the VRM/EBL target location:

   • (GPSMAP 4000 series) On the Radar screen, use the **ROCKER** to move the pointer to the VRM/EBL target location and select **Drop VRM/EBL**.

   • (GPSMAP 5000 series) On the Radar screen, touch the target location and select **Drop VRM/EBL**.

To adjust the VRM/EBL target location:

1. From the Radar screen, select **Menu** > **Adjust VRM/EBL** > **Move VRM/EBL**.

2. Use the **ROCKER** to move the pointer (GPSMAP 4000 series) or touch the target location (GPSMAP 5000 series).

3. Press **DONE** to accept the changes.

Configuring Other Vessels on the Radar Screen

You can configure which other vessels are displayed on the radar screen, from the Radar screen, select **Menu** > **Other Vessels**.

NOTE: To configure AIS or DSC information for other boats, your unit must be connected to an external AIS or DSC device.

List—display a list of AIS and MARPA threats. Select **Show** to select between displaying AIS or MARPA threats, or All Threats.

DSC—turn DSC (Digital Selective Calling) trails on or off, configure how many hours a trail for a DSC vessel is displayed on the Radar screen, or display a list of tracked DSC vessels.

Collision Alarm (AIS and MARPA only)—turn a safe zone around your boat on or off. This is used for collision avoidance, and can be customized.

To customize safe-zone settings:

1. From the Radar screen, select **Menu** > **Other Vessels** > **Collision Alarm**.

2. Select from the following options:

   • **Range**—change the measured radius of the safe zone ring to a specified distance from 500 ft. to 2.0 nm (or from 150 m to 3.0 km, or from 500 ft. to 2.0 mi).

   • **Time to** (Safe Zone)—sounds an alarm if AIS or MARPA determines that a target will intersect the Safe Zone within the defined time interval (ranging from 1 to 24 minutes).

Display Setup—configure how other vessels are displayed on the Radar screen.

• **Display Range**—set the distance from your location that AIS vessels are displayed.

• **Details**—show or hide details for each vessel.

• **Proj. Heading**—set the projected heading time.

• **Trails**—set the number of minutes that trails for vessels that you are position tracking (page 51) are displayed on the Radar screen, or turn trails off.

Advanced Radar Configuration

To access advanced radar settings, from the Radar screen, select **Menu** > **Radar Setup**.

Rotation Speed (GMR 18/24/404/406 series models only)—set the rotation speed of your radar to **Normal Speed** or **High Speed**. High Speed increases the speed at which the antenna rotates, which increases the speed at which the screen updates.

Front of Boat—offset the front of the boat if you mount the radar at an angle.

Data Bars—show or hide cruising, navigation, fishing, fuel, or sailing numbers (page 9).

Appearance—configure radar display options.

• **Color Scheme**—change the colors used for the radar display.

• **Orientation**—change the perspective of the radar display.

• **Look-Ahd Spd**—turn on to shift your current location toward the bottom of the screen as your speed increases. Enter your top speed for the best results.

• **Heading Line**—show or hide a line in the direction of travel.

• **Rings**—show or hide the radar range rings.

• **Nav Lines**—show or hide a colored line that indicates the route you are currently navigating.

• **Waypoints**—show or hide waypoints that are within the range displayed on the Radar screen. Select **Navigation Only** to only display waypoints associated with the currently active route.
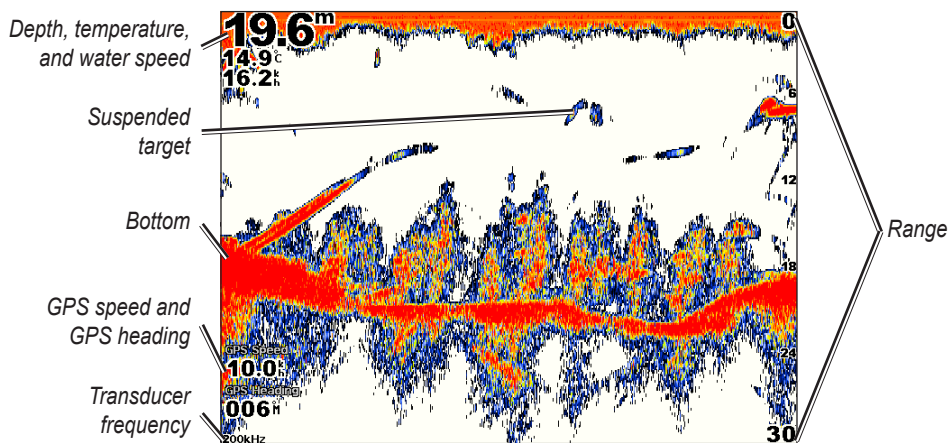
Using Sonar

When connected to an optional Garmin GSD 22 sounder module and a transducer, your chartplotter can be used as a fishfinder. The GSD 22 connects through the Garmin Marine Network and shares sonar data with every chartplotter connected to the network.

Understanding the Full Screen

Select the **Full Screen** option to view a full-screen graph of the sonar readings from the transducer. The range scale along the right side of the screen shows the depth of detected objects as the screen scrolls from the right to the left.
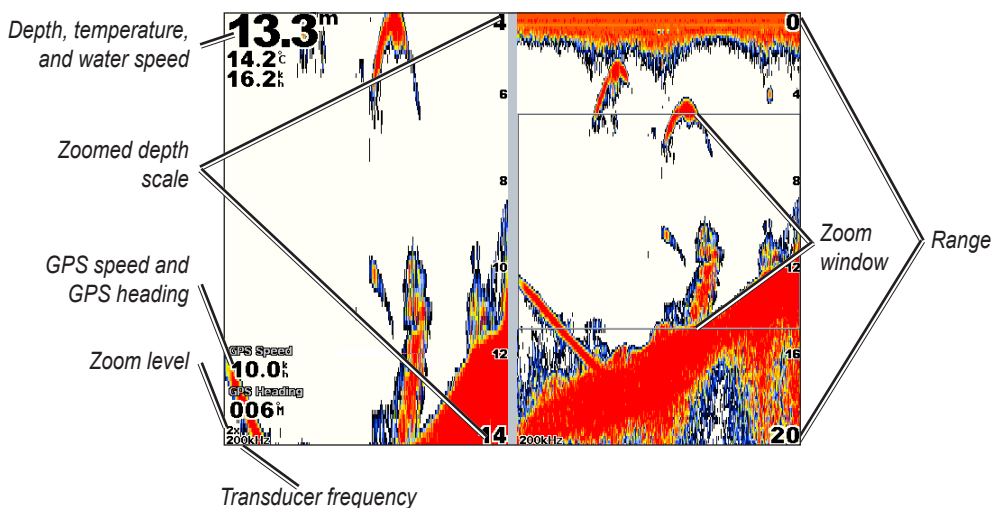
From the Home screen, select **Sonar** > **Full Screen**.

Depth, temperature, and water speed

Suspended target

Bottom

Range

GPS speed and GPS heading

Transducer frequency

Understanding the Split Zoom Screen

Use the Split Zoom screen to view the full sonar data from the graph and a zoomed-in portion on the same screen.

From the Home screen, select **Sonar** > **Split Zoom**.

Depth, temperature, and water speed

Zoomed depth scale

GPS speed and GPS heading

Zoom level

Zoom window

Range

Transducer frequency

Using Sonar

Understanding the Split Frequency Screen

Use the Split Frequency screen (dual-frequency transducer only) to view both the 50 kHz and 200 kHz frequencies on the same screen. A 200 kHz frequency graph appears on the left; a 50 kHz frequency graph appears on the right.

From the Home screen, select **Sonar** > **Split Frequency**.

Depth, temperature, and water speed

GPS speed and GPS heading

Transducer frequencies

Range
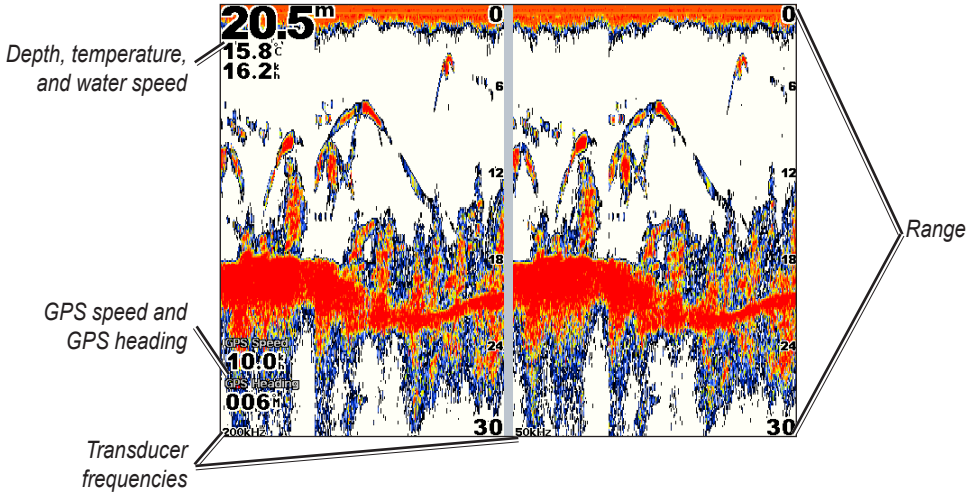
Understanding the Temp Log

If you are using a temperature-capable transducer, the Temp Log screen keeps a graphic log of temperature readings over time. The current temperature and depth are shown in the upper-left corner.

From the Home screen, select **Sonar** > **Temp Log**.

Temperature and depth

Time elapsed
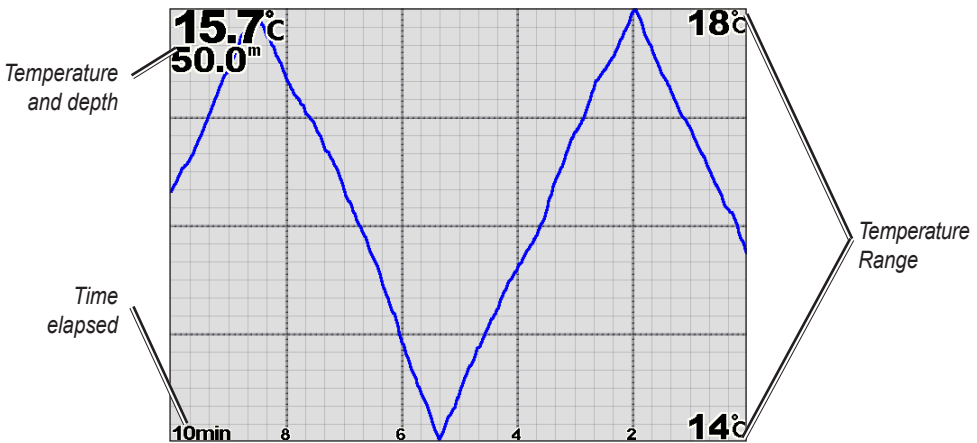
Temperature Range

The temperature appears along the right side and the time elapsed appears along the bottom. The graph scrolls to the left as information is received.

Setting Up Sonar

Use the Sonar Setup screen to define and adjust settings universal to all sonar screens.

From the Home screen, select **Sonar** > **Sonar Setup**.

Fish Symbols—set how the sonar interprets suspended targets.

The unit does not interpret the sonar return data (default).

Suspended targets appear as symbols. Background sonar information appears, making the distinction between fish and structure easier.

Suspended targets appear as symbols with background information shown. The target depth of each symbol is also indicated.

Suspended targets appear as symbols. No background information appears.

Suspended targets appear as symbols with no background information shown. The target depth of each symbol is indicated.

Scroll Speed—adjust the rate at which the sonar scrolls from right to left (**Ultrascroll™**, **Fast**, **Medium**, or **Slow**). If using a speed-capable transducer, select **Auto** to have the scroll speed automatically adjust to the water speed of your boat.

Whiteline—highlights the strongest signal from the bottom to help identify its hardness or softness.

- **Off** (default)—Whiteline is disabled.
- **High**—the most sensitive setting. Almost all strong returns are highlighted in white.
- **Medium**—many strong returns are highlighted in white.
- **Low**—the least sensitive setting. Only the strongest returns are highlighted in white.

Color Scheme—select **White** or **Blue**. This affects the background on all sonar screens, but does not change the Temp Log screen.

Surface Noise—show or hide the sonar returns near the surface of the water. Hide surface noise to help reduce clutter.

Overlay Numbers—show or hide water temperature, battery voltage, water speed (if your transducer is capable), and navigation numbers.

NOTE: To show water temperature or water speed, change the setting to **Auto**. If the connected transducer is capable, the data is shown.

A-Scope—creates a vertical flasher along the right side of the screen (**On** or **Off**).

Advanced Sonar Settings

To adjust advanced sonar settings, select **Menu** while viewing a sonar screen.

Gain—controls the sensitivity of the sonar receiver (**Auto** or, to adjust manually, **Up** or **Down**). To see more detail, increase the gain. If the screen is cluttered, decrease the gain.

Sonar Scroll—select to stop scrolling. Select **Create Waypoint** to save the location as a waypoint, and select **Resume** to continue scrolling in real time. For more information on waypoints, see page 23.

Frequency—selects how the frequencies appear on screen (**200kHz**, **50kHz**, or **Dual**).

Zoom—zoom in to a section of the Full Screen. The zoom is off, or set to **No Zoom**, by default. Four options are available:

- **2x Zoom**—twice the magnification. Select **Up**, **Down**, or **Auto** to set the depth range of the magnified area.
- **4x Zoom**—four times the magnification. Select **Up**, **Down**, or **Auto** to set the depth range of the magnified area.
- **Bottom Lock**—locks the zoom window to the bottom. Select **Up**, **Down**, or **Auto** to set the depth range of the magnified area.
- **No Zoom**—turns zooming off.

Depth Line—quickly reference a specific depth (**Show** or **Hide**). When **Show** is selected, press up or down on the **ROCKER** (GPSMAP 4000 series) or touch and drag the line (GPSMAP 5000 series) to set the depth of the reference line.

Range—the range of the depth scale on the right side of the screen (**Auto**, or to adjust manually, **Up** or **Down)**.

Sonar Setup—opens the Sonar Setup screen. See page 47.

Digital Selective Calling (DSC)

Using the Chartplotter with a VHF Radio

The following table indicates the features that are available when you connect your chartplotter to a VHF radio over a NMEA 0183 network or a NMEA 2000 network.

Feature	NMEA 0183 VHF Radio	NMEA 2000 VHF Radio	Garmin NMEA 0183 VHF Radio	Garmin NMEA 2000 VHF Radio
The chartplotter can transfer your GPS position to your radio. If your radio is capable, GPS position information is transmitted with DSC calls.	X	X	X	X
The chartplotter can receive DSC distress and position information from the radio (page 50).	X	X	X	X
The chartplotter can track the positions of vessels sending position reports (page 51).	X	X	X	X
Quickly set up and send individual routine call details to your Garmin VHF radio (page 50).				X
When you initiate a man-overboard distress call from your radio, the chartplotter displays the man-overboard screen and prompts you to navigate to the man-overboard point (page 50).				X
When you initiate a man-overboard distress call from your chartplotter, the radio displays the Distress Call page to initiate a man-overboard distress call (page 50).				X

To turn DSC on or off:

1. Select **Configure** > **Other Vessels**.
2. Select **DSC** to turn it on or off.

If you are using radar, see page 43 for information on configuring how DSC information displays on the radar screen.

Adding a DSC Contact

You can make calls to a DSC contact from the chartplotter. See page 52 for information on making an individual routine call.

To add a DSC contact:

1. While viewing a chart, select **Menu** > **Other Vessels** > **DSC List** > **Add Contact**.
2. Use the **ROCKER** (GPSMAP 4000 series) or onscreen keyboard (GPSMAP 5000 series) to enter the MMSI number of the vessel and select **Done**.
3. Use the **ROCKER** or the onscreen keyboard to enter the name of the vessel and select **Done**.

The contact is now available in the DSC List.

DSC

Viewing the DSC List

The DSC List is a log of the most-recent DSC calls and other DSC contacts you have entered. The DSC List can contain up to 100 entries. The DSC List shows the most-recent call from a boat. If a second call is received from the same boat, it replaces the first call in the Call List. To view the DSC List, from a chart screen, select **Menu** > **Other Vessels** > **DSC List**.

Receiving Distress Calls

If your Garmin chartplotter and VHF radio are connected via NMEA 0183 or NMEA 2000, your chartplotter alerts you when your VHF radio receives a DSC distress call. If position information was sent with the distress call, that information is also available and recorded with the call.

The ⊞ symbol designates a distress call in the DSC List and marks the position of a vessel on the Navigation Chart at the time a DSC distress call is sent.

When you receive a DSC distress call:
1. Select **Review** to view details about the call.
2. Select from one of the following options:
   - **Call with Radio**—although the radio will automatically switch to monitor Channel 16 when it receives a distress call, you can use this option to set up an individual routine call with the radio to call the vessel in distress (page 52). This option is only available if you are using a Garmin NMEA 2000-compatible VHF radio.
   - **Edit**—edit the vessel name and add a comment. If your radio is tracking the position of the vessel, select **Trail** to show or hide the trail line for the vessel, and select **Trail Line** to change the line color.
   - **Clear Report**—delete the call report.
   - **Navigate To**—Go To or Route To the position sent with the distress call (page 21). The ⊞ symbol marks the position of the vessel on the Navigation Chart at the time a DSC distress call is sent.
   - **Create Waypoint**—set a waypoint at the position sent with the distress call.
   - **Next Page/Previous Page**—toggle between details related to the distress call and a Navigation Chart marking the position sent with the distress call.

Man-Overboard Distress Calls Initiated from a VHF Radio

When your Garmin chartplotter is connected to a Garmin NMEA 2000-compatible radio and you initiate a man-overboard DSC distress call from your radio, your Garmin chartplotter displays the man-overboard screen and prompts you to navigate to the man-overboard point. If you have a Garmin autopilot system connected to the network, your chartplotter prompts you to start a Williamson's turn to the man-overboard point.

If you cancel the man-overboard distress call on the radio, the chartplotter screen prompting you to activate navigation to the man-overboard location is no longer displayed.

Man-Overboard Distress Calls Initiated from the Chartplotter

When your Garmin chartplotter is connected to a Garmin NMEA 2000-compatible radio and you activate navigation to a man-overboard location, the radio displays the Distress Call page to initiate a man-overboard distress call. On the radio, press and hold the DISTRESS key for at least three seconds to send the distress call.

For information on placing distress calls from your radio, see your *Garmin VHF Radio Owner's Manual*. For information on activating navigation to a man-overboard location, see page 23.

DSC

Position Tracking

When you connect your Garmin chartplotter to a VHF radio using NMEA 0183, you can track vessels that send position reports. This feature is also available with NMEA 2000, provided that the vessel sends the correct PGN data (PGN 129808; DSC Call Information).

Every position report call received is logged in the DSC List (page 50).

To view a list of position reports:
1. From the Home screen, select **Information** > **DSC List**.
2. Select from the following options:

   - **Call with Radio**—set up an individual routine call (page 52) with the radio to call the vessel that sent the position report. This option is only available if you are using a Garmin NMEA 2000-compatible VHF radio.

   - **Edit**—edit the vessel name and add a comment. If your radio is tracking the position of the vessel, select **Trail** to show or hide the trail line for the vessel, and select **Trail Line** to change the line color.

   - **Clear Report**—delete the call report.

   - **Navigate To**—Go To or Route To the location sent with the position report (page 21).

   - **Create Waypoint**—set a waypoint at the location sent with the position report.

   - **Next Page/Previous Page**—toggle between details of the position report and a Navigation Chart marking the location.

Configuring Vessel Trails on the Navigation Chart

If you have your chartplotter configured to show trails, the Navigation Chart displays a black dot for each reported position, a black line indicating the path of the vessel, and a 🚩 Blue Flag symbol indicating the last reported position.

Vessel Trail

To set the duration of displayed trail points:
1. From a chart screen, select **Menu** > **Other Vessels** > **DSC** > **DSC Trails**.
2. Select the number of hours to show tracked vessels on the Navigation Chart. For example, if you select **4 Hours**, all trail points (less than four hours old) for tracked vessels are displayed.

To turn trail lines off for tracked vessels:
1. From a chart screen, select **Menu** > **Other Vessels** > **DSC** > **DSC Trails**.
2. Select **Off** to turn trails off for every vessel.

DSC

To show or hide the trail line for a specific vessel that is sending position reports:
1. From the Home screen, select **Information** > **DSC List**.

2. Select the vessel from the list, and then select **Review**.

3. Select **Trail** to show or hide the trail for the vessel on the Navigation Chart.

To change the symbol and color of the trail line for a vessel:
1. From the Home screen, select **Information** > **DSC List**.

2. Select any call from that vessel from the list, and then select **Review** > **Edit**.

3. Select **Symbol** to edit the symbol, or select **Trail Line** to edit the line color.

Placing an Individual Routine Call

When you connect your Garmin chartplotter to a Garmin VHF NMEA 2000-compatible radio, you can use the chartplotter interface to set up an individual routine call. When setting up an individual routine call from your chartplotter, you can select one of the following channels on which you want to communicate. The radio transmits this request with your call.

The selection of a DSC channel is limited to those channels that are available in all frequency bands: 6, 8, 9, 10, 13, 15, 16, 17, 67, 68, 69, 71, 72, 73, or 77.

> **NOTE:** The default channel is 72. However, select **Channel** to select a different channel from the list. If you select a different channel, the chartplotter will use that channel for subsequent calls until you call using a different channel.

To make an individual routine call:
1. While viewing a chart, select **Menu** > **Other Vessels** > **DSC List**.

2. Select the station to call from the list.

3. Select **Review** > **Call with Radio**.

4. Select **Send** to send the information about the call to the radio.

5. On your Garmin VHF radio, select **Call**.

Calling an AIS Target

When you connect your Garmin chartplotter to a Garmin VHF NMEA 2000-compatible radio, you can use the chartplotter interface to set up an individual routine call to an Automatic Identification System (AIS) target. For more information on selecting a channel other than the default channel (Channel 72), see "Placing an Individual Routine Call."

To make an individual routine call to an AIS target:
1. While viewing a chart, select an AIS target △.

2. Select **AIS Vessel** > **Call with Radio**.

3. Select **Send** to send the information about the call to the radio.

4. On your Garmin VHF radio, select **Call**.

DSC

Appendix

Specifications

Physical Specifications

Size:
GPSMAP 4008:	7" H × 11.2" W × 4.2" D (176.9 × 284.4 × 106 mm)
GPSMAP 4010:	8.9" H × 13.4" W × 4.13" D (226.9 × 340.4 × 105.1 mm)
GPSMAP 4012:	9.47" H × 14.8" W × 4.13" D (240.5 × 375 × 105.1 mm)
GPSMAP 5008:	6.8" H × 10.1" W × 4.17" D (173.5 × 256 × 105.9 mm)
GPSMAP 5012:	9.47" H × 13" W × 4.7" D (240.5 × 330 × 119.2 mm)
GPSMAP 5015:	11.65" H × 15.55" W × 5.66" D (295.8 × 394.9 × 143.8 mm)

Weight:
GPSMAP 4008:	6 lb. (2.7 kg)
GPSMAP 4010:	8 lb. (3.5 kg)
GPSMAP 4012:	10 lb. (4.5 kg)
GPSMAP 5008:	6 lb. (2.7 kg)
GPSMAP 5012:	9 lb. (4.3 kg)
GPSMAP 5015:	12 lb. (5.4 kg)

Display:
GPSMAP 4008:	5.17" H × 6.85" W (131.4 × 174 mm)
GPSMAP 4010:	6.35" H × 8.43" W (161.4 × 214.2 mm)
GPSMAP 4012:	7.26" H × 9.68" W (184.3 × 245.8 mm)
GPSMAP 5008:	5" H × 6.73" W (128.2 × 170.9 mm)
GPSMAP 5012:	7.11" H × 9.3" W (180.49 × 235.97 mm)
GPSMAP 5015:	8.98" H × 11.97" W (228.1 × 304.1 mm)

Case: Fully Gasketed, high-impact plastic and aluminum alloy, waterproof to IEC 529-IPX

Temp. Range: from 5° to 131°F (from -15° to 55°C)

Compass Safe Distance:
	GPSMAP 4008/5008: 2.6 ft. (80 cm)
	GPSMAP 4012/5012: 3.3 ft. (1 m)
	GPSMAP 4010: 3.3 ft. (1 m)
	GPSMAP 5015: 1.3 ft. (40 cm)

(Hg) - LAMPS INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE, OR FEDERAL LAWS.

For more information go to:
www.garmin.com/aboutGarmin/environment/disposal.jsp.

GPS Performance (with GPS 17 antenna)

Receiver: Differential-ready 12 parallel channel WAAS-capable receiver

Acquisition Times:
Warm:	15 seconds
Cold:	45 seconds
AutoLocate:	2 minutes

Update Rate: 1/second, continuous

GPS Accuracy:
Position:	<15 m (49 ft), 95% typical
Velocity:	0.05 meters/second steady state

Appendix

WAAS Accuracy:

	Position:	<3 m (9.8 ft), 95% typical
	Velocity:	0.05 meters/second steady state

Dynamics: 6 g

Power

Source: 10–35 Vdc

Usage: GPSMAP 4008/5008: 35 W max. at 10 Vdc
            GPSMAP 4010/4012/5012: 40 W max at 10 Vdc
            GPSMAP 5015: 60 W max at 10 Vdc

Fuse: 7.5 A, 42 V fast-acting

NMEA 2000 Specifications

Load Equivalency Number (LEN): 2

Unit Draw: 75 mA max

Calibrating the Touchscreen

For GPSMAP 5008/5012/5015 units, you might have to calibrate the touchscreen.

⚠ **CAUTION:** Do not calibrate the touchscreen unless you are certain that it is necessary.

To calibrate the touchscreen on GPSMAP 5000 series units:

1. Turn on the unit. When the Warning screen appears, touch and hold the black screen for at least 15 seconds until the calibration screen appears.
2. Follow the on-screen directions to calibrate the touchscreen.

Capturing Screenshots

You can capture a screenshot of any screen displayed on your unit as a bitmap (.BMP) file and then transfer it to your computer.

🔷 **NOTE:** To capture screenshots on the GPSMAP 5000 series, you need the optional Garmin RF Wireless Remote Control.

To capture screenshots:

1. Insert an SD card into the SD card slot on the front of the unit.
2. Select **Configure** > **System** > **Beeper/Display**.
3. Select **Screenshot Capture** to turn screenshot captures **On**.
4. When you are on a screen you want to capture:
   - (GPSMAP 4000 series) Press the **HOME** button on the unit for at least six seconds.
   - (GPSMAP 5000 series) Press the **HOME** button on the Garmin RF Wireless Remote Control for at least six seconds.
5. Select **OK** when the Screenshot Taken window is displayed.

To copy the screenshots to your computer:

1. Remove the SD card from the chartplotter and insert it into an SD card reader that is attached to a computer.
2. From Windows Explorer, open the Garmin\scrn folder on the SD card.
3. Copy the appropriate .BMP file on the card and paste it to any location on the computer.

Alarms and Messages

Accuracy Alarm (GPS)—the GPS accuracy has fallen outside the user-set value.

AIS: Dangerous Target—an AIS target presents a collision threat.

Alarm Clock—the alarm clock has sounded.

Anchor Drag Alarm—the boat has drifted out of the user-set distance range.

Antenna Input is Shorted—there is a short in the wiring to the GPS 17 antenna.

Approaching Waypoint <name>—the boat is a specified alarm distance from the destination waypoint.

Arrival Alarm <name>—arriving at destination waypoint.

Auto-guidance unable to calculate route—(BlueChart g2 Vision) auto-guidance cannot calculate the route.

Auto-guidance unable to calculate route, please shorten route—(BlueChart g2 Vision) auto-guidance cannot calculate the route, select a closer end point.

Auto-guidance unable to calculate route. Starting position not within safe depth—(BlueChart g2 Vision) auto-guidance cannot calculate the route; boat is not in a safe depth.

Auto-guidance unable to calculate route. Ending position not within safe depth—(BlueChart g2 Vision) auto-guidance cannot calculate the route; select an end point within the specified safe depth

Battery Alarm—Battery voltage is at or below the user-set value.

Boat is not Moving Fast Enough to Calibrate—(speed sensor) appears during water-speed calibration. Check speed wheel for blockage and calibrate again. If wheel is clear, calibrate again and increase speed.

Can't Read User Card—cannot read card when attempting a user data transfer.

Can't Read Voltages That High, Limited To Top Of Range—entering a battery-alarm voltage higher than the unit can read.

Can't Read Voltages That Low, Limited To Bottom Of Range—entering a battery-alarm voltage lower than the unit can read.

Can't Unlock Maps—maps are locked and cannot be used on this unit.

Can't Write User Card—cannot write card when attempting a user data transfer.

Cartography Service Incompatible. Software Update Required—a software update is needed. Contact Garmin Product Support for assistance updating your unit software.

Cooling Fan Voltage Too High—the cooling-fan voltage is higher than expected. Contact product support.

Cooling Fan Voltage Too Low—the cooling-fan voltage is lower than expected. Contact product support.

Database Error—general database error. Contact Garmin Product Support.

Deep Water Alarm—(sonar) the boat has entered user-defined value for deep water.

Directory Item With This MMSI Already Exists—the MMSI unit is already in directory.

Directory Memory is Full Can't Create Entry—DSC directory is full, no more entries can be created.

Distress Call Received From <name>—A distress call has been received by the DSC module.

Drift Alarm—the boat has moved a user-defined distance.

DSC Position Report Received From <name>—a position report has been received by the DSC module.

Entering Target Water Temperature—(temperature sensor/transducer) the water temperature is inside the user-defined target temperature zone.

GPS Antenna Has Lost Its Stored Settings—The GPS antenna memory has been cleared. Contact Garmin Product Support.

GPS Service Incompatible. Software Update Required—a GPS service software update is needed. Contact Garmin Product Support for assistance updating your unit software.

GPS Service Lost—the unit has lost communications with the remote GPS unit. Check the network and the antenna wiring.

Incompatible Device, Software Update Required—an incompatible device is attached that requires a software update. Contact Garmin Product Support for assistance updating your network.

Invalid Device Instance. Enter a number between (0 - 252)—invalid NMEA 2000 Device instance.

Invalid Entry. Default value selected.—an invalid entry was entered.

Invalid MMSI—an invalid DSC MMSI was entered.

Invalid System Instance. Enter a number between (0 - 15)—invalid NMEA 2000 System instance.

Leaving Target Water Temperature—(temperature sensor/transducer) the water temperature is outside the user-defined target temperature zone

Low Fuel Alarm—(NMEA 2000) low fuel reported by the NMEA 2000 network.

Lost Heading Sensor Connection— (radar/NMEA) the unit has lost communications with the heading sensor. Check wiring.

Lost Remote GPS Connection—connection to the remote GPS has been lost. Check the network and the antenna wiring.

Lost Satellite Reception—the unit has lost satellite reception. Make sure you have a clear view of the sky.

Map Format Is Not Supported—a map format on a preprogrammed SD card is not supported.

MARPA: Dangerous Target—(radar) a MARPA target has become dangerous.

Appendix

MARPA: Target Lost—(radar) unable to track a MARPA target any longer.

NMEA Depth Is Below Transducer—(sonar) the NMEA depth input is using the DBT sentence which does not include keel offset.

No DGPS Position—the unit lost differential GPS reception (WAAS). Make sure you have a clear view of the sky.

No Proximity Waypoints Found—no proximity waypoints found while attempting a user data transfer.

No Routes Found—no routes found while attempting a user data transfer.

No Tracks Found—no tracks found while attempting a user data transfer.

No User Waypoints Found—no user waypoints found while attempting a user data transfer.

Not All Maps Fit, Some Maps Will Not Be Drawn—there are more maps present on the SD card than the unit can support. Some maps on the card will not be drawn or used to find map features.

Off Course Alarm—the boat has left the user-defined course.

Proximity Alarm—the boat has come close to a user-defined proximity point.

Proximity Alarm Memory is Full—the proximity waypoint memory is full. Erase existing proximity waypoints to make room.

Proximity Overlaps Another Proximity Waypoint—a proximity point is overlapping another proximity waypoint.

Radar Guard Zone Alarm—(radar) an object has been detected in the user-defined radar guard zone.

Radar Needs Repair Error Code—(radar) the radar needs repair. An error code will be listed to help diagnose the error.

Radar Service Incompatible. Software Update Required—a radar software update is needed. Contact Garmin Product Support for assistance updating your network.

Radar Service Lost—(radar) the unit has lost communications with the remote radar unit. Check the network and the radar wiring.

Route Already Exists—the named route already exists. Select another name.

Route is Full—the individual route is full, no more waypoints can be added.

Route Memory is Full, Can't Create Route—the chartplotter route memory is full, no more routes can be created. Erase existing routes to make room.

Route Truncated—some points on the end of the route have been discarded.

Shallow Water Alarm—(sonar) the boat has entered the user-defined shallow-water depth.

Simulating Operation—the unit is in Simulator Mode.

Sonar Failed, Unit Needs Repair—there has been a sonar failure and the unit needs to be sent in for repair. Contact Garmin Product Support.

Sonar Service Incompatible. Software Update Required—a software update is needed. Contact Garmin Product Support for assistance updating your network.

Sonar Service Lost—(sonar) the unit has lost communications with the remote sonar unit. Check the network and the sonar wiring.

Tide Alarm—the tide has reached the user-specified tide alarm range.

Track Already Exists—the named track already exists. Select another name.

Track Log Full—there is no longer any space in the active track log storage.

Track Truncated—some points on the end of the track have been discarded.

Transducer Disconnected, Sonar Turned Off—the transducer has been disconnected. Sonar has been turned off. Check transducer wiring.

Transfer Complete—user data transfer is complete.

Unknown bridge height within calculated auto-guidance route—(BlueChart g2 Vision) there is an unknown bridge height within the auto-guidance route.

User Card Not Found—user data card transfer. Make sure an SD card is fully inserted.

Water Speed Sensor not Working—the water speed sensor is not working properly. Check the wheel for obstructions and check wiring.

Water Temperature Alarm—(temperature sensor/transducer) the water temperature has entered or left the user-defined water temperature alarm zone.

Warning: Auto-guidance route starting position moved due to safe depth settings—(BlueChart g2 Vision) auto-guidance has calculated the route, but the starting point has been moved to deeper water.

Warning: Auto-guidance route ending position moved due to safe depth settings—(BlueChart g2 Vision) auto-guidance has calculated the route, but the end point has been moved to deeper water.

Waypoint Already Exists—the named waypoint already exists. Select another name.

Waypoint Memory is Full, Can't Create Waypoint—the User Waypoint memory is full. Erase existing waypoints to make room.

Product Registration

Help us better support you by completing our online registration today! Connect to our Web site at http://my.garmin.com. Keep the original sales receipt, or a photocopy, in a safe place.

Contact Garmin

Contact Garmin Product Support if you have any questions while using your GPSMAP 4000 series or GPSMAP 5000 series chartplotter. In the USA, go to www.garmin.com/support, or contact Garmin USA by phone at (913) 397.8200 or (800) 800.1020.

In the UK, contact Garmin (Europe) Ltd. by phone at 0808 2380000.

In Europe, go to www.garmin.com/support and click **Contact Support** for in-country support information, or contact Garmin (Europe) Ltd. by phone at +44 (0) 870.8501241.

Declaration of Conformity (DoC)

Hereby, Garmin, declares that this unit is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

To view the full Declaration of Conformity, see the Garmin Web site for your Garmin product: www.garmin.com.

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BY USING THE UNIT, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

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Appendix

NMEA 0183 and NMEA 2000

The GPSMAP 4000 and GPSMAP 5000 series chartplotters can accept data from NMEA 0183 compliant devices and also from certain NMEA 2000 devices connected to an existing NMEA 2000 network on your boat.

NMEA 0183

The NMEA 0183 data cable included with the GPSMAP 4000 and GPSMAP 5000 series chartplotters support the NMEA 0183 standard, which is used to wire various NMEA 0183-compliant devices such as VHF radios, NMEA instruments, autopilots, wind sensors, or heading sensors.

The GPSMAP 4000 and GPSMAP 5000 series chartplotters can receive data from up to four NMEA 0183-compliant devices and send GPS data to up to six NMEA 0183-compliant devices.

To wire a GPSMAP 4000 or GPSMAP 5000 series chartplotter to optional NMEA 0183-compliant devices, see the *GPSMAP 4000/5000 Series Installation Instructions*.

Approved NMEA 0183 Sentences

GPBWC, GPRMC, GPGGA, GPGSA, GPGSV, GPGLL, GPBOD, GPRMB, GPRTE, GPVTG, GPWPL, GPXTE, and Garmin proprietary sentences—PGRME, PGRMM, and PGRMZ.

This unit also includes support for the WPL sentence, DSC, and sonar NMEA 0183 input with support for the DPT (depth) or DBT, MTW (water temp), and VHW (water temp, speed, and heading) sentences.

> **NOTE:** To configure how the unit manages these NMEA 0183 sentences, see page 33.

NMEA 2000

The GPSMAP 4000 and GPSMAP 5000 series chartplotters are NMEA 2000 certified and can receive data from a NMEA 2000 network installed on the boat.

To connect a GPSMAP 4000 or GPSMAP 5000 series chartplotter to an existing NMEA 2000 network and to see a list of supported NMEA 2000 PGN numbers, see the *GPSMAP 4000/5000 Series Installation Instructions*.

All GPSMAP 4000 and GPSMAP 5000 series chartplotters are NMEA 2000 certified.

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