GPSMAP® 5000 Series

owner's manual

GARMIN

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WARNING: 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® 5208
- GPSMAP® 5212
- GPSMAP® 5215

Tips and Shortcuts

- Touch **Home** from any screen to return to the Home screen.
- Touch **Menu** from any main screen to access additional settings.
- Press and release the ⏻ **Power** key to adjust the display settings (**Backlight** and **Color Mode**).
- Press and hold the ⏻ **Power** key to turn the unit on or off.

Manual Conventions

In this manual, when you are instructed to touch something, use your finger to touch that item on the screen. Small arrows (>) used in the text indicate that you should touch a series of items in order. For example, if you see, "Touch **Charts** > **Navigation Chart**," you should touch the **Charts** button on the screen, and then touch **Navigation Chart**.

Quick Links

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Getting Started

To turn on your unit for the first time, refer to the Initializing Unit Settings paragraph, .

Front and Rear Panels

Power key

Automatic backlight sensor

SD card slot

GPSMAP 5208 - Front

NMEA 2000

Network

Power

NMEA

Video
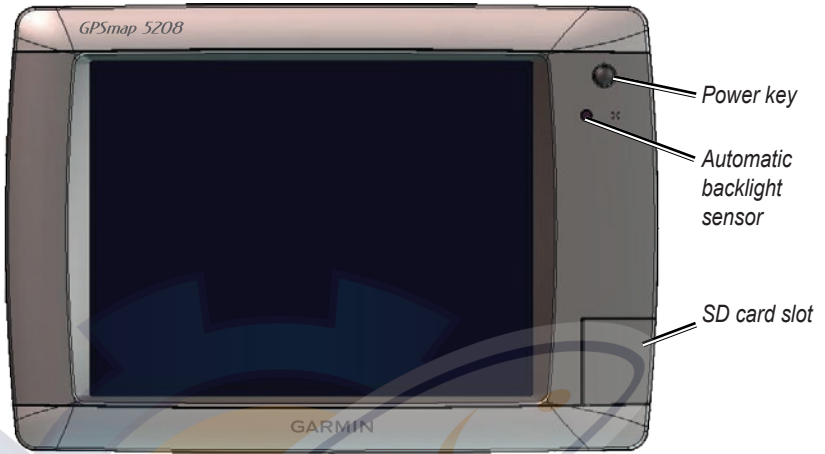
GPSMAP 5212 - Back

Turning the Chartplotter On or Off

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

> **NOTE:** The first time you power on your unit, you must go through a setup sequence. See page 62 for details.

Warning Screen

Home Screen

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

Adjusting the Backlight

1. While the unit is on, press and release the ⏻ **Power** key.
2. Touch **Backlight**.
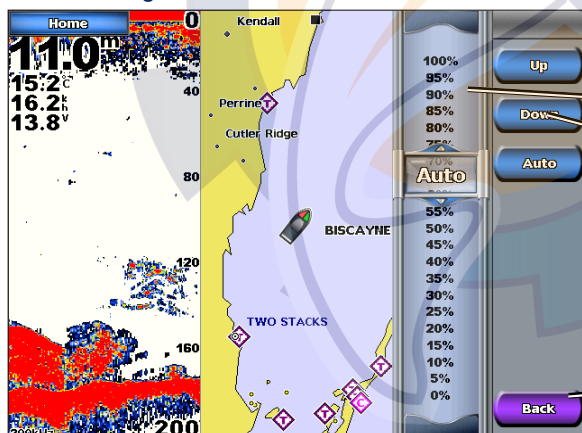
To manually adjust the backlight, either touch and drag the brightness bar or touch and hold Up or Down.

To return to the previous screen, touch Back.

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

Adjusting the Color Mode

1. Press and release the ⏻ **Power** key.
2. Touch **Color Mode**.
3. Touch **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 a

flashing question mark is indicated on the boat icon (on the chart screen).

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

Inserting and Removing SD Cards

Your unit supports SD (Secure Digital) 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 it in until it clicks. Press the card in again and release it to eject it from the chartplotter.

Card label
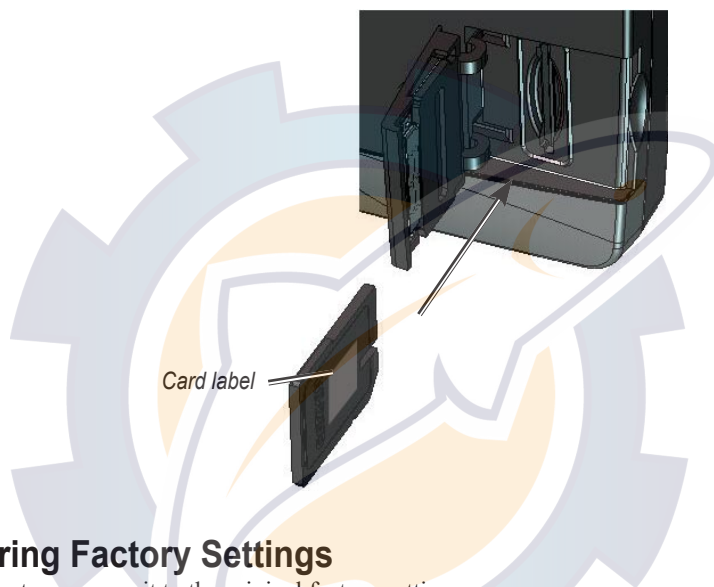
Restoring Factory Settings

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, touch
   Configure > **System** > **System Information** > **Factory Settings** > **Reset**.
2. Touch **OK** to restore all factory settings or touch **Cancel**.

Viewing System Information

You can view the software version, basemap version, unit ID number, and your XM WX weather radio ID (if available). You may need this information to update the system software or purchase additional map data information.

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

Using the 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 the Simulator Mode on:

From the Home screen, touch **Configure** > **System** > **Simulator** > **On**.

Touch **Setup** to set speed, track control (simulated heading), position, simulator time, and simulator date.

Understanding the Home Screen

Use the Home screen to access all other screens.

⚠ **NOTE:** Options on this screen vary based on the unit type and optional connected network devices.

- **Charts**—provides Navigation chart, Mariner's Eye, Mariner's Eye 3D, Fish Eye 3D, Fishing Chart, 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.

- **Sonar**—sets up and provides sonar information (only available if the unit is connected to a Garmin sonar module) (page 49).

- **Combinations**—sets up the screen to view a chart, sonar, radar, and video in a 2, 3, or 4-field split screen (page 19).

- **Information**—shows information including tides, currents, celestial data, user data, information about other boats, gauges, and video (page 29).

- **Mark**—marks, edits, or deletes your current location as a waypoint or Man Overboard (page 24).

- **Where To?**—provides navigation features (page 21).

- **Radar**—sets up and displays radar (only available if the unit is connected to a radar module) (page 44).

- **Weather**—sets up and displays various weather parameters, including precipitation, forecast, fishing, sea conditions, and visibility (only available if the unit is connected to a weather module and you have an XM subscription) (page 53).

- **Configure**—allows you to view and edit your unit and system settings (page 35).

- **Man Overboard**—navigate to a Man Overboard location (page 24).

Using Charts

The GPSMAP 5000 series chartplotters have a basic worldwide imagery map, and built-in detailed BlueChart g2 offshore cartography for US waters.

- **Navigation Chart**—displays navigation data available on your preloaded maps, including buoys, lights, cables, depth soundings, marinas, and tide stations in an overhead view.
- **Mariner's Eye** and Mariner's Eye 3D—displays a view from above and behind your boat for a visual navigation aid.

Fishing Charts and Fish Eye 3D views are available when using optional Blue Chart g2 Vision preprogrammed SD cards (See).

- **Fishing Chart**—removes navigational data from the chart and enhances bottom contours for depth recognition.
- **Fish Eye 3D**—provides an underwater view that visually represents the sea floor according to the chart's information.

The unit selectively displays navigation data after you select the type of navigation you want.

Using the Navigation Chart

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

To access a Navigation chart from the Home screen, touch **Charts** > **Navigation Chart**.
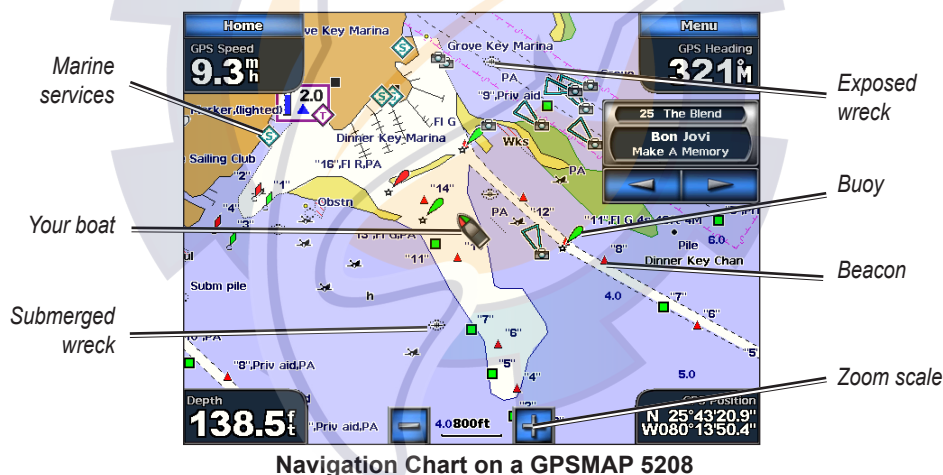
Navigation Chart on a GPSMAP 5208

Navigation Chart Settings

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

Weather—turns the NEXRAD weather overlay on or off. Only available when connected to a Garmin XM network device. See for more information.

Overlay Numbers—controls how charting numbers appear on the screen. Choose to show or hide the numbers by category. When set to **Auto**, the overlay numbers appear only when that category is active.

- Cruising: GPS position, GPS heading, GPS speed, and depth. Depth is only available if connected to a sonar unit (page 49).
- Navigation: GPS position, Distance to destination, arrival (time), bearing (to destination), GPS heading, and GPS speed. These numbers appear only when navigating to a destination (page 21).
- Fishing: GPS position, depth, water temperature, and water speed. Depth, temperature, and speed are only available when connected to a sonar unit (page 49).
- Sailing: GPS position, waypoint velocity made good (VMG), wind speed, wind direction, water speed, and depth. Wind speed and direction are only available when connected to a NMEA 0183 wind sensor. Water speed and depth are only available when connected to a sonar unit. If you have a wind sensor, setting the sailing overlay numbers to Auto places an indicator around the boat icon on the Navigation chart to represent wind speed and direction.

Chart Setup—customizes the Navigation chart. See page 13.

Understanding Chart Data

BlueChart g2 and BlueChart g2 Vision charts use graphic symbols to denote map features. Some common symbols you might see include, but are not limited to, the following:*

Dangerous Rock	Exposed Rock	Beacon
Pilot Boarding Area	Airport/Seaplane Base	Buoy
Anchorage Berth	Precautionary Area	Church
Anchoring Prohibited	Radio Report Point	
Exposed Wreck	Recommended Anchorage	
Fishing Harbor	Rescue Station	
Fishing Prohibited	Tide Station	
Information	Yacht Harbor	
Current Station	Marine Services	

*Some symbols might appear differently on your Garmin unit.

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.

Zooming In and Out on the Map

The ⊞ and ⊟ keys control the zoom level, indicated by the scale at the bottom of the Navigation chart (0.2mi). The bar under the number represents that distance on the map.

Navigating to a Point on the chart

1. From the Home screen, touch **Charts**.
2. Touch **Navigation Chart**, **Fishing Chart**, or **Radar Overlay**.
3. Touch the point on the chart where you want to go.
4. Touch **Navigate To**.

5. Touch **Go To** (or **Guide To** when using a preprogrammed BlueChart g2 Vision card for Auto Guidance, page 27).

6. Follow the colored line on the screen to the destination.

To create a route to a point on the chart, see page 26.

Panning the Navigation Chart

Touch and drag the Navigation screen to pan away from your current location and to scroll to other areas on the Navigation chart. 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 you can keep track of your current position.

As you pan, the Depth at your current location remains in the lower-left corner of the screen (if your unit is connected to a sonar device through a Garmin Marine Network).

Inset map
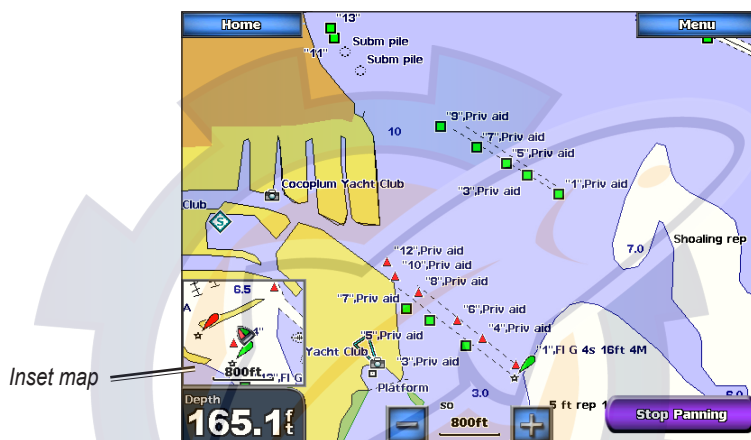
Panning on a Navigation Chart

To stop panning and return the screen to your boat's current location, touch **Stop Panning**.

When you touch a point on the Navigation screen without dragging, a pointer ( ) appears at that spot, and a list of options appear along the right side. These options change, depending on the point you touched. Touch a button to access that option.

Review—(Review does 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 vicinity of the pointer. When you touch Review, you are presented with a list of all the objects near the pointer.

Create Waypoint—marks a waypoint at the pointer location (page 23).

Information—allows you to view tide (page 29), current (page 29), celestial (page 30), weather (if available, see page 53), or chart information near the pointer.

You can change the position of the pointer by touching and dragging it to the desired location.

USING CHARTS

Accessing Additional Object Information
Touch an item on the screen to view information about map items, waypoints, weather (if available), and charts. Touch the button with the item's name to view the information.

Selected item

Additional object information

Object Selected on a GPSMAP 5208

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.

Tide level

Detailed tide station information
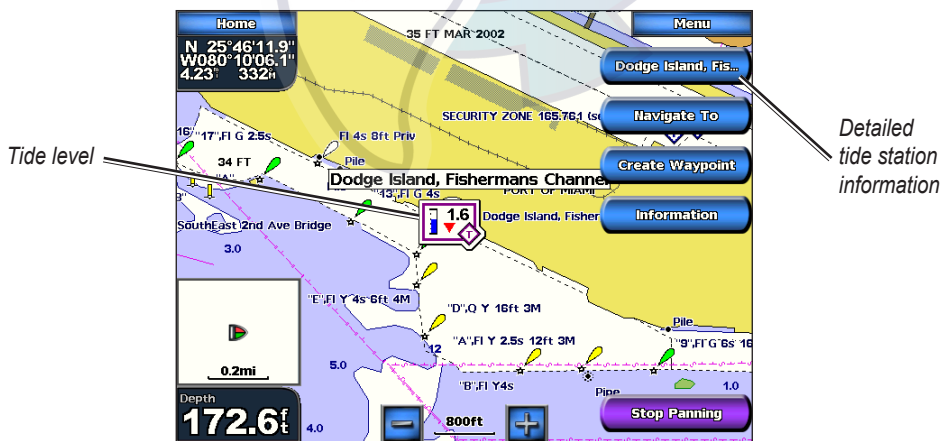
Tide Station Selected on a GPSMAP 5208

Touch a tide station icon (🔱), then touch the button with the station name (or **Review** if more than one item is in the vicinity) to view a detailed tide graph. For more information about tides, see page 29.

Using Mariner's Eye

Mariner's Eye 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 and exit routes in unfamiliar harbors or anchorages.

To access the Mariner's Eye screen from the Home screen, touch **Charts** > **Mariner's Eye**.

Mariner's Eye   **Navigation Chart**

Touch the ➕ button to move the view closer to your boat and lower to the water. Touch the ➖ button to move the view away from the boat. This is momentarily indicated by the scale (**39%**) at the bottom of the screen.

Mariner's Eye Settings

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

Rings—toggles the range rings on or off.

Tracks—turns the visible tracklog on or off. The chartplotter continues to record tracks if you turn this setting off, but they are hidden from view.

Safe Depth—adjusts the depth at which red indicates shallow water. This feature is only available with an optional BlueChart g2 Vision SD card.

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).

Show Radar—If you are connected to a Garmin Marine Radar through the Garmin Marine Network, you can overlay radar readings on the Mariner's Eye screen.
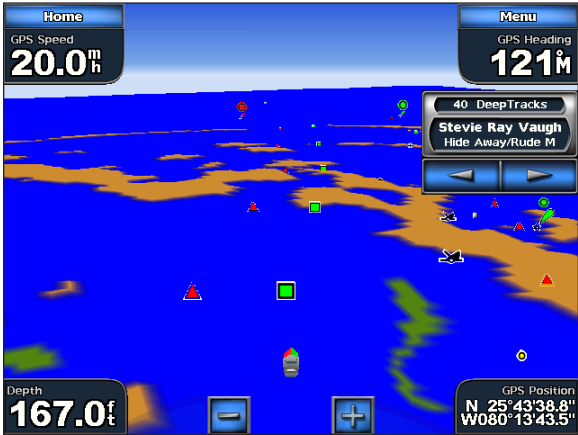
Mariner's Eye With Radar Information

Overlay Numbers—shows or hides cruising, navigation, fishing, and sailing numbers.

Using BlueChart g2 Vision

Optional BlueChart g2 Vision preprogrammed SD cards allow you to get the most out of your chartplotter. 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, three-dimensional view that visually represents the sea floor according to the information on the chart.

- **Fishing Charts**—displays 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**—displays marinas and other navigationally significant aerial photos to help you visualize your surroundings.

- **Detailed Roads and POI data**—displays roads, restaurants, and other points of interest (POIs) along the shore.

- **Auto Guidance**—uses specified boat safe depth and chart data to determine the best course to your destination.

Using the SD Card

You can insert or remove a BlueChart g2 Vision SD card while your Garmin GPS unit is on or off. To insert the SD card, open the access door and press the SD card in until it clicks. Press in again to eject the SD card.

BlueChart g2 Vision SD cards are not waterproof. When you are not using the card, keep it in the original packaging for safekeeping and store it away from exposure to sun and rain.

BlueChart g2 Vision SD cards are susceptible to damage from static electricity. In low humidity environments, you should ground yourself on a large metal object before handling the card.

Card label

GPSMAP 5208
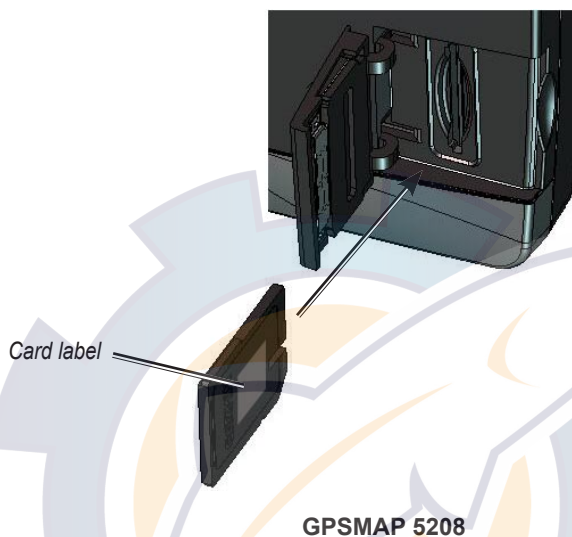
NOTE: BlueChart g2 Vision data cannot be transferred from the SD card to your computer for backup or viewing purposes. You can use the SD card only on BlueChart g2 Vision compatible Garmin GPS units.

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 when trying to identify entry and exit routes in unfamiliar harbors or anchorages.
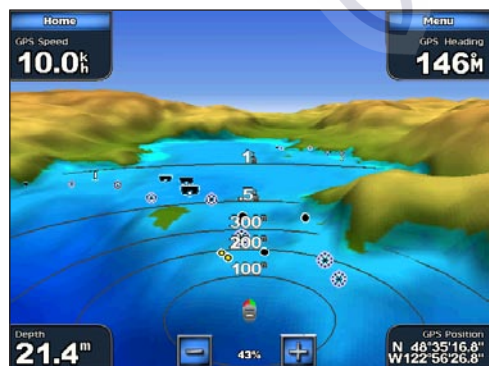
Mariner's Eye 3D   **Navigation Chart**
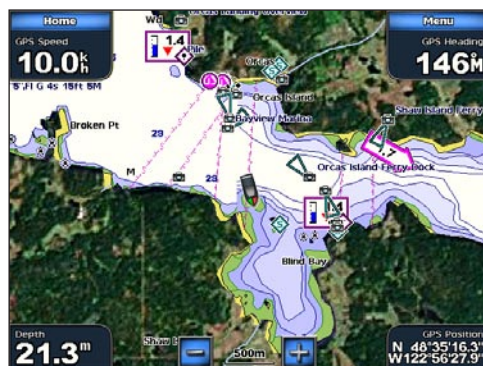
Touch the ⊞ button to move the view closer to your boat and lower to the water. Touch the ⊟ button to move the view away from the boat. This is indicated by the scale (**58%**) temporarily displayed at the bottom of the screen.

Mariner's Eye 3D Settings

To access additional settings or options from the Mariner's Eye 3D screen, touch **Menu.** The options and additional settings are the same as the Mariner's Eye screen (page 9), with the exception of Colors.

Colors—selects between **Normal** (Default), **Water Hazard**, and **All Hazard**. The **Normal** setting shows the land as seen from the water. The **Water Hazard** settings indicates shallow water and land with a color scale. Blue indicates deep water, yellow is shallow water, and red is very shallow. The **Water Hazard** setting indicates land in green and brown, and the **All Hazard** shows land as dark red.

Mariner's Eye 3D, Normal Colors   **Mariner's Eye 3D, Hazard Colors**
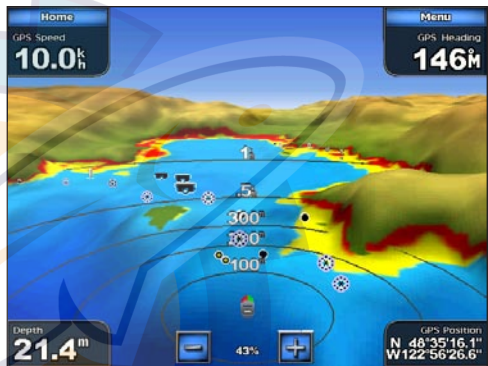
Using Fish Eye 3D

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. The ⊞ and ⊟ buttons adjust the view in the same way as the Mariner's Eye 3D.
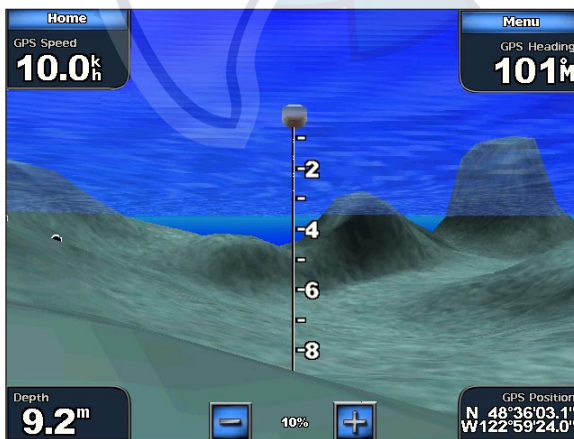
Fish Eye 3D

Fish Eye 3D Settings

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

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

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.

Overlay Numbers—shows or hides cruising, navigation, fishing, sailing, fuel, or XM audio numbers just as on the Navigation chart (page 6).

Changing the Chart Settings

To change chart settings from the Home screen, touch **Charts** > **Chart Setup**, or touch **Menu** > **Chart Setup** while viewing the navigation chart.

Orientation—changes the perspective of the map display:

* **North Up**—sets the top of the map display to a north heading.
* **Track 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 it is shown.
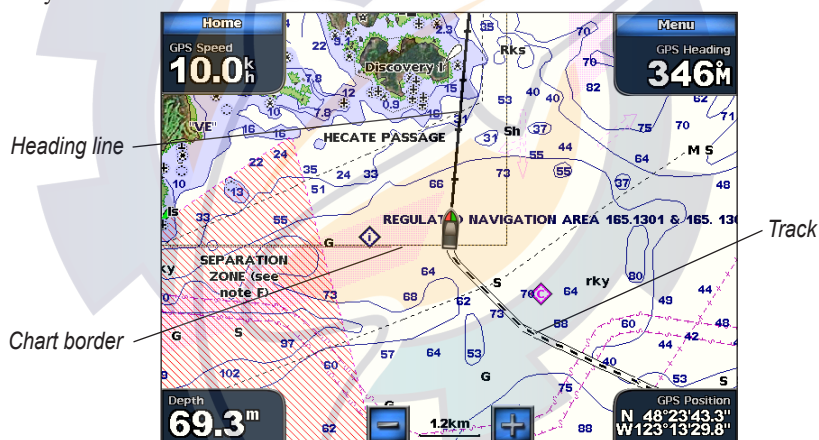
Heading Line—draws an extension from the bow of the boat in the direction of travel.

* **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.

Chart Borders—turns chart borders on when using a BlueChart g2 Vision SD card and you want to see what area the maps cover.

Tracks—turns the visible track log on or off (page 14). The chartplotter continues to record tracks if you turn this setting off, but they are hidden from view.

Inset Map—turns the inset map on or off when panning (page 7).

www.reelschematic.com

Appearance—customizes how items are shown on the Navigation chart.

- **Detail**—adjusts the amount of detail shown on the map.
- **Photos**—sets the high resolution satellite images to on, off, land only, or blend (page 16).
- **Spot Depth**—turns on spot soundings and sets a dangerous depth.
- **Light Sectors**—adjusts the drawing of light sectors on the map.
- **Symbols**—sets the navaid symbol set (NOAA or IALA).
- **Symbol Size**—adjusts the size of the symbols shown on the map.
- **Animated Tides**—provides additional tide and current information when a tide or current icon is touched.

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 chart, touch **Menu** > **Chart Setup** > **Tracks** > **On**. A trailing line on the chart indicates your track.

To save the active track:
1. From the Home screen, touch **Information** > **User Data** > **Tracks** > **Save Active Track**.
2. Touch 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, touch **Edit Track**.

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

To edit or delete a saved track:
1. From the Home screen, touch **Information** > **User Data** > **Tracks** > **Saved Tracks**.
2. Touch the track you want to edit or delete.
3. Touch **Edit Track** to change the name or color of the track or touch Delete to delete it.

To set active Track Options:
From the Home screen, touch **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. (Press **Change** to set the quantity.)
  - **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.
- **Color**—sets the color of the track plot.

Using Fishing Charts

Use the fishing chart for a detailed 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**, touch **Menu** > **Chart Setup** > **Appearance** > **Photos**.

2. Touch 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.

   • **Blend**—photos overlay both the water and the land at a specified opacity. The higher you set the percentage, the more the satellite photos cover both land and water.

⚠ **NOTE:** When enabled, the high resolution satellite images are only present at lower zoom levels. If you cannot see the high resolution images in your BlueChart g2 Vision region, either zoom in further by touching the ➕ and ➖ buttons, or set the detail level higher by touching **Chart Setup** > **Appearance** > **Detail**.

Photo Overlay Off
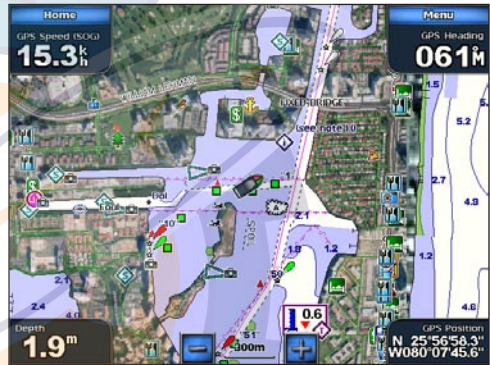
Land Only Photo Overlay

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.

Aerial Photo

NOTE: Touch ➕ and ➖ to zoom in and out while viewing the aerial photo on the full screen.

To access aerial photos from the navigation chart:

❶ Touch a camera icon, and then touch **Review**.

Overhead

Perspective

❷ Touch **Aerial Photo**.

❸ Touch **View Fullscreen**.
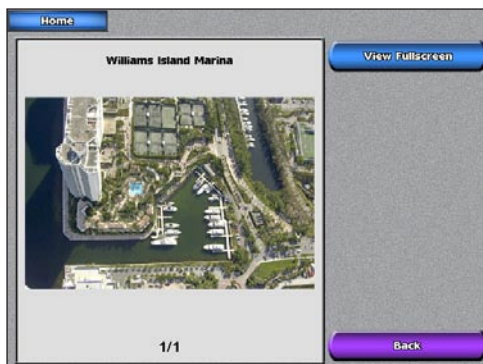
Viewing Current Station Information

If current stations are available in your g2 Vision region, they appear on the Navigation chart as a highlighted arrow. This detailed icon shows the current's speed and direction at a glance. Touch Review or the name of the station to display a current graph.

Current Station icon
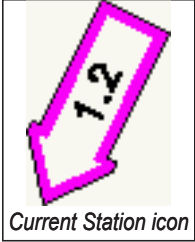
Detailed Road and POI Data

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 on .

Using Automatic Guidance

Automatic Guidance automatically creates and suggests passage based on available BlueChart g2 Vision chart information. See for instructions on setting up Automatic Guidance for your boat. See to use Automatic Guidance.

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 GPSMAP 5000 series unit and whether you are using an optional BlueChart g2 Vision SD card. You can choose to combine two, three, or four screens.

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

Combinations Screen

The Combinations screen shows a list of possible screen combinations. Once you select a combination, you can customize it.

Radar, Sonar, and Navigation Combination

When viewing three combination screens, one is larger than the rest, and acts as the screen in focus. To switch screens, touch **Menu** > **Change Combination**. The charts are numbered, with a corresponding button on the right of the screen. Touch the numbered button of the display you want to change and then touch the type of screen you want to appear in that window. Touch one of the screens to view it at full screen. Press **Back** to return to the Combination screen.

To customize the Combination screen:

1. While viewing a combinations screen, touch **Menu** > **Change Combination.**

   OR

   From the Home screen, touch **Combinations** > **Unused Combo** (if one is available).

Combination screen 1

Combination screen 2

XM bar

Data bar

Select the number of combination screens

Change to vertical or horizontal layout

Turn the XM bar on or off

Turn the data bar on or off

Change combination screens
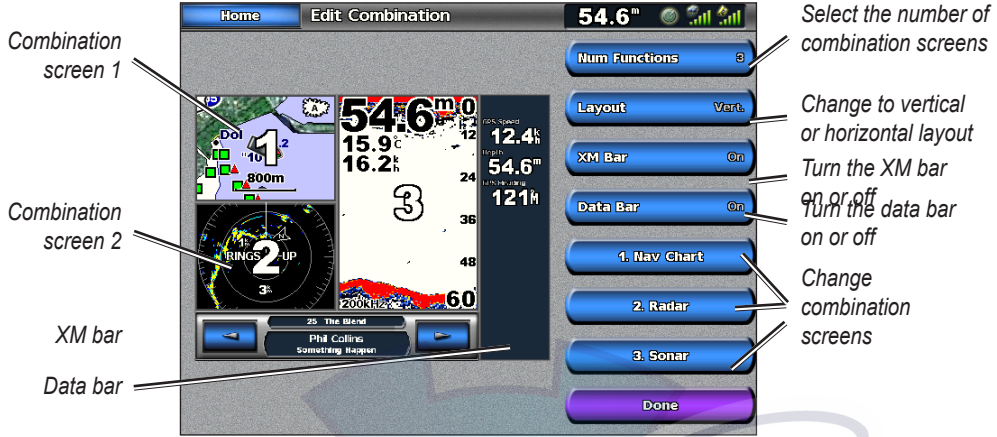
2. Customize the Combinations screen:

   • Touch **Num Functions** to change the number of combination screens (1-4).

   • Touch **Layout** to change to a vertical or horizontal layout.

   • Touch **XM Bar** to hide or show the XM bar.

   • Touch **Data Bar** to turn the data bar on the right side on or off.

   • Touch the screen buttons to change what is displayed on each of the screens.

3. Touch **Done**.

   NOTE: When you select the combination screens to view, you are only able to choose from the options available to your unit. You can increase the number of screens available by using a BlueChart g2 Vision SD card and adding network devices, such as sonar and radar.

To add additional data fields:

1. While viewing the Combinations screen, touch an unused data field.
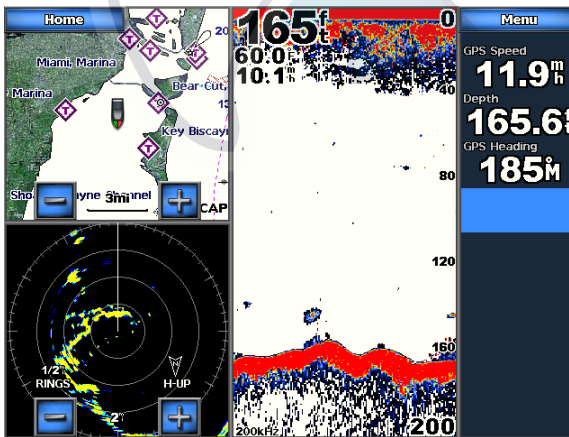
2. Touch the Digital Item to be displayed on the Combinations Screen. Available options vary, based on the unit and network configuration.

To edit an existing data field:

While viewing the Combinations screen, touch a data field. Touch the item to be displayed.

Where To?

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

> **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 assure obstacle and bottom clearance. For safety, always resolve any discrepancies or questions before continuing navigation.

Navigating to a Destination

To begin navigating:

1. From the Home screen, touch **Where To?**.
2. Touch the marine service category to which you want to navigate. The unit shows the list of the 50 nearest locations and the distance and bearing to each.

3. Touch the marine service item to which you want to navigate. A screen containing information about the selected marine service appears.
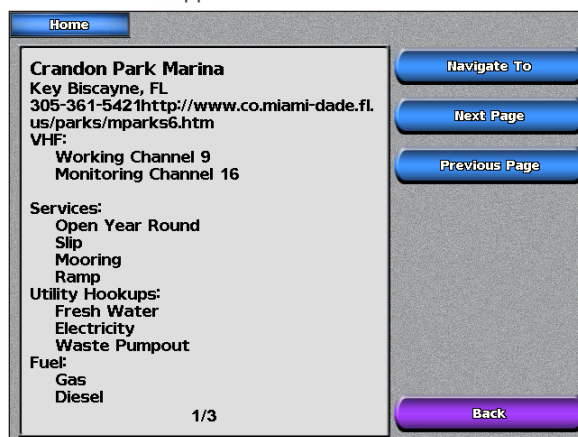
4. Touch **Navigate To**.

5. Touch **Go To**.

   OR

   Touch **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.

Go To Screen

Guide To Screen (with g2 Vision Card)

To stop navigating:

From the Navigation chart, Touch **Menu**, and then touch **Stop Navigating**.

To search for a destination by name:

1. From the Home screen, touch **Where To?** > **Search by Name**.

2. Touch characters to spell at least a portion of the name of your destination.
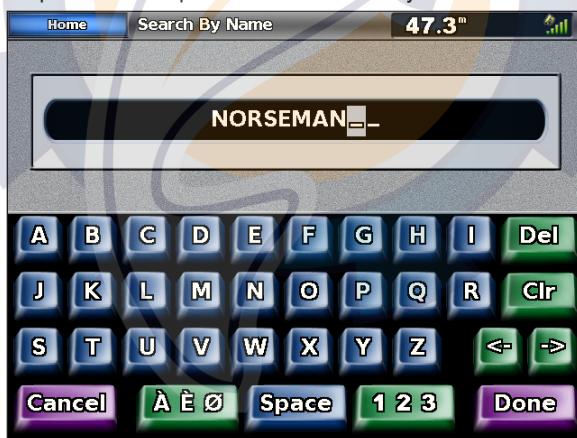
3. Touch **Done** to view the 50 nearest destinations that contain your search criteria.

4. Touch the desired location > **Navigate To** > **Go To** (or **Route To**).

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, touch **Charts** > **Navigation Chart**.

2. Touch the location you want to designate as a waypoint. A pointer ⊗ marks the waypoint.

3. Touch **Create Waypoint**.
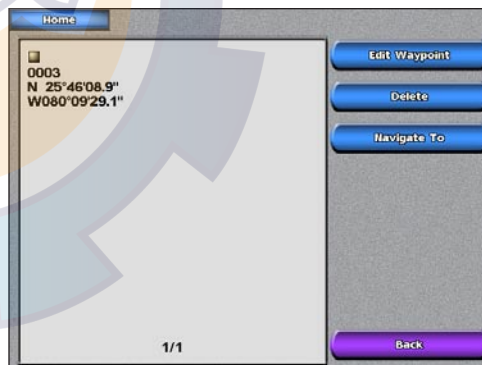
4. Touch one of the following:

    • **Edit Waypoint**—designates a specific name, symbol, water depth, water temperature, or position.

    • **Delete**—deletes the waypoint.

    • **Navigate To**—goes to the waypoint.

    • **Back**—returns to the Navigation chart.

To mark your current location as a waypoint:
From the Home screen, touch **Mark**.

- **Edit Waypoint**—designates a specific name, symbol, water depth, water temperature, or position.
- **Delete**—deletes the waypoint.
- **Man Overboard**—designates the current location as a Man Overboard location.
- **Next Page/Previous Page**—switches between waypoint information and the Navigation chart.
- **Back**—saves the waypoint and returns to the Navigation chart.

⚠ **NOTE:** Touching **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. From the Home screen, touch **Man Overboard.**
2. Touch **Yes** to begin navigating to the **MOB** location.
   OR
1. From the Home screen, touch **Mark**.
2. Touch **Man Overboard**.

To edit an existing waypoint on the Navigation screen:
1. Touch the waypoint on the Navigation chart.
2. Touch the button for the waypoint you want to edit.

3. Touch **Edit Waypoint**.

4   Touch the waypoint attribute you want to change (**Name**, **Symbol**, **Depth**, **Water Temp**, or **Position**).

NOTE: From the Home screen, touch **Information** > **User Data** > **Waypoints** to display the list of all waypoints. Touch the waypoint you want to edit.

To move the waypoint on the Navigation chart:
1. Touch the waypoint on the Navigation chart.
2. Touch **Review** (not necessary if the waypoint is not near other waypoints or markers).
3. Touch the button for the waypoint you want to edit.
4. Touch **Edit Waypoint** > **Position**.

5. Touch **Use Chart** or **Enter Coordinates**.
6. If entering coordinates, use the screen keyboard to enter the new coordinates for the waypoint. If using the chart, touch the new location and then touch **Move Waypoint**. The waypoint moves to the new location.

To view a list of all waypoints:
From the Home screen, touch **Information** > **User Data** > **Waypoints**.

To delete a waypoint or MOB:
1. From the Home screen, touch **Information** > **User Data** > **Waypoints**.
2. Touch the waypoint or MOB you want to delete.
3. Touch **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, touch your destination. The destination is indicated by a pointer ⊗.
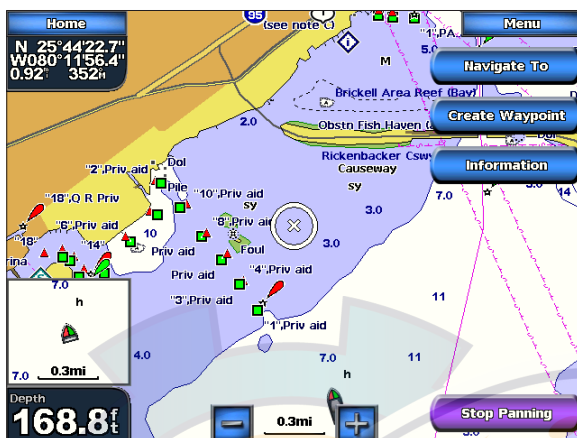
2. Touch **Navigate To** > **Route To**.
3. Touch the location where you want to make the last turn toward your destination.
4. Touch **Add Turn**.

5. To add additional turns, continue to touch the location where you want to make a turn (working backward from the destination) and then touch **Add Turn**.
6. Touch **Done** to finish the route or **Cancel Route** to delete the route.

To create a route in another location:

1. From the Home screen, touch **Information** > **User Data** > **Routes** > **New Route**.

2. If necessary, touch and drag the screen until the route's starting point is displayed. Touch the route's starting point. The starting point is indicated by the pointer ⊗.

3. Touch **Add Turn** to mark the starting point of the route.

4. Touch the location of the first turn and then touch **Add Turn**. Repeat until the route is complete.
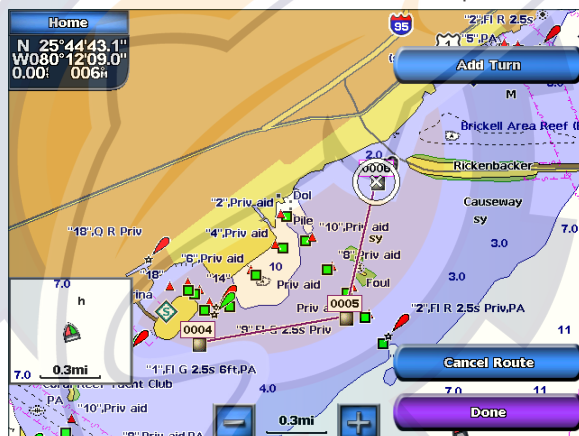
5. Touch **Done.**

To create a route using Auto Guidance:

Auto Guidance is available with a preprogrammed BlueChart g2 Vision SD card.

1. From the Navigation chart, touch your destination.

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

⚠ **NOTE:** To change the auto guidance path to a route, touch the end of the path and then touch **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, touch **Information** > **User Data** > **Routes**.

2. Touch the route to edit.

3. Touch **Edit Route**. You can edit the route name or edit the route turns.

To delete a route:

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

2. Touch the route to edit > **Delete**.

To bypass a waypoint on a route:

1. Create a route as previously described.

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

3. Touch **Navigate To** > **Go To** (or **Route To**).
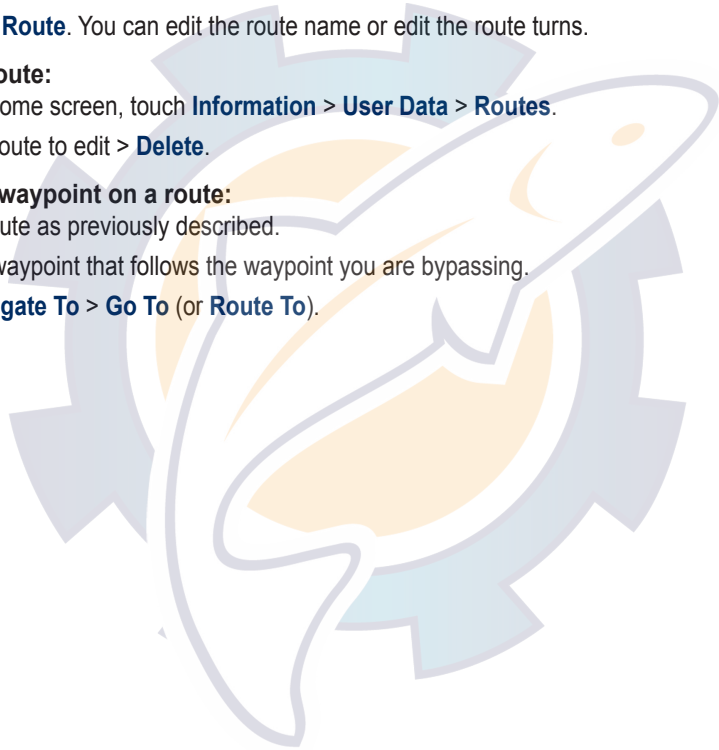
Viewing Information

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

You can also select tide, current, and celestial information for a specific station directly from the Navigation chart. Touch near the desired station > **Information** and either **Tides**, **Currents**, **Celestial,** or **Chart Notes**.

Viewing Tide Station Information

To view tide information from the Home screen, touch **Information** > **Tides**. Information for the most-recently viewed tide station is shown.

Tide station

Current tide height

Time of next high tide

Local time
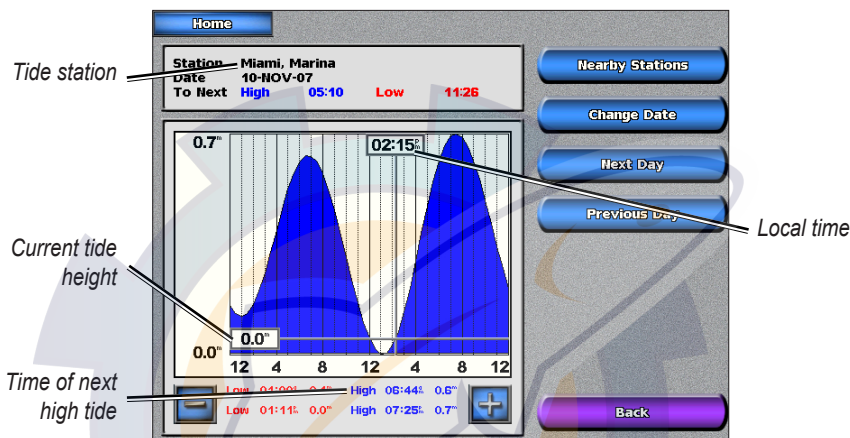
Touch **Nearby Stations** to view other stations close to the one you selected. Touch **Change Date** > **Manual** to view tide information for a different date.

Viewing Current Information

Use the Current Prediction screen to view information for currents.

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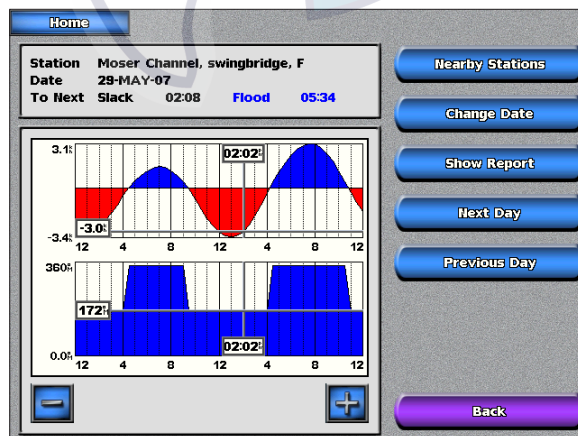
Touch **Nearby Stations** to view other current stations close to your current location. Touch **Change Date** > **Manual** to view tide information for a different date.

VIEWING INFORMATION

To view the Current Report for the selected station, touch **Show Report**.

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, touch **Information** > **Celestial**. Touch **Change Date** > **Manual** to view information for a different date. Touch **Change Time** to view information for a specified time on that date. Touch **Moon Phase** to view the moon phase at the specified date and time.
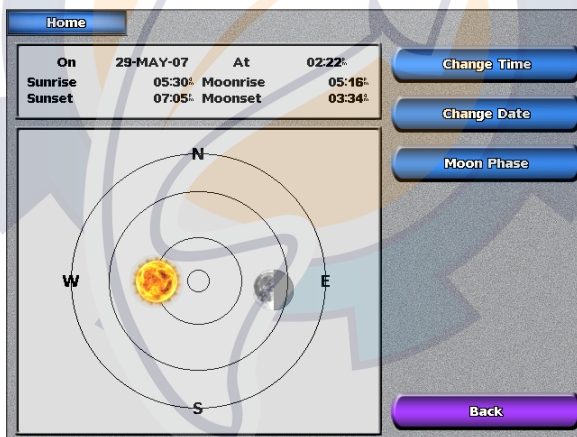
Viewing User Data

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

- **Waypoints**—displays a list of all saved waypoints (page 25).
- **Routes**—displays a list of saved routes (page 26).
- **Tracks**—displays a list of saved tracks (page 14).
- **Data Transfer**—transfers waypoints, routes, and tracks to and from an SD card or network.
- **Clear User Data**—erases 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 its 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 your PC 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 PC.

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, touch **Information** > **User Data** > **Data Transfer** > **Card**.

9. Touch **Replace From Card** or **Merge From Card** to copy or merge the data into your chartplotter.

To transfer data (waypoints, routes, tracks) to or 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, touch **Information** > **User Data** > **Data Transfer** > **Card**.

Complete one of the following:

- Touch **Save To Card** to save waypoints, routes, and tracks to the SD card.
- Touch **Merge From Card** to transfer data from the SD card to the unit and combine it with existing user data.
- Touch **Replace From Card** to overwrite items on your unit.

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, touch **Information** > **User Data** > **Data Transfer** > **Network**.

Complete one of the following:

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

To back up data to a PC:

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

2. From the Home screen, touch **Information** > **User Data** > **Data Transfer** > **Card** > **Save to Card**.

3. Remove the SD card from the chartplotter and insert it into an SD card reader that is attached to a PC.

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

5. Copy the UserData.ADM file on the card and paste it to any location on the PC.

To restore backup data to your chartplotter:

1. Copy the UserData.ADM file from your PC to an SD card in a folder named Garmin\UserData.

2. Insert the SD card into your chartplotter.

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

VIEWING INFORMATION

Viewing Information on Other Boats

To view information about other boats from the Home screen, touch **Information** > **Other Boats**.

> **NOTE:** To view information about other boats, your unit must be connected to an external AIS (Automatic Identification System) or DSC (Digital Selective Calling) device.

AIS List—displays information about all of the boats your unit is monitoring. Touch **AIS List** to view the MMSIs (Maritime Mobile Service Identities) or names (if the boat is broadcasting a name) of nearby AIS-equipped boats. The AIS list is sorted by range, with the nearest boat at the top of the list.
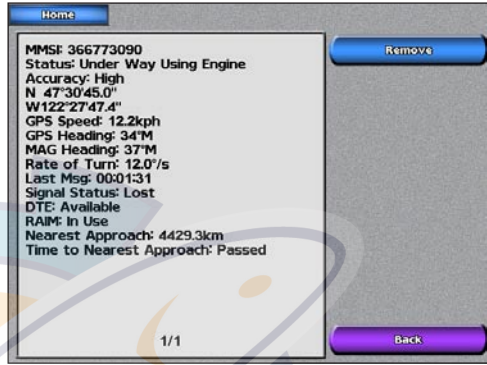
DSC Log—displays a list of all DSC calls, sorted by most recent, sender, or by type (distress calls or position reports).

- **View By Time**—shows the most recent DSC calls received, sorted and listed chronologically by time and date. Calls with identical time and date information show the same information in the list.
- **View By Sender**—shows an alphanumerical list of senders.
- **View By Type**—shows the most recent distress calls or position reports, sorted chronologically.
- **Delete All**—deletes all log entries

DSC Call List—displays the 100 most-recent calls. The DSC Call 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.

Directory—displays a list of all DSC entries. You can view by name or by MMSI. You can also add an entry.

Viewing Gauges

To view analog or digital engine gauges from the Home screen, touch **Information** > **Engine**.
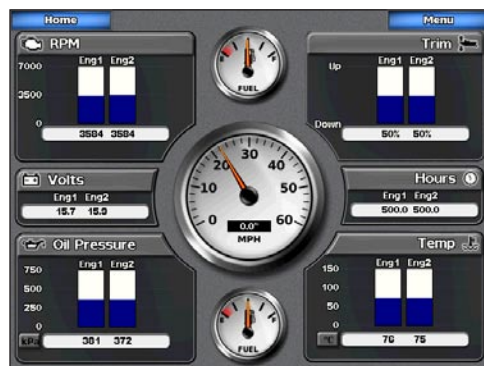
> ⚠ **NOTE:** You must be connected to a NMEA (National Marine Electronics Association) 2000 network capable of sensing engine data to view the gauges. See the *GPSMAP 4000/5000 Series Installation Instructions* for details.

To select analog or digital gauges:

1. To view the Gauges from the Home screen, touch **Information** > **Engine**.

2. To select an analog or digital screen, touch **Menu** from the Engine Gauges screen.

> ⚠ **NOTE:** 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.

Viewing Fuel Gauges

To view fuel gauges from the Home screen, touch **Information** > **Fuel**. Fuel flow for each engine, total fuel flow, fuel level in each tank, total fuel remaining, fuel economy, and the range for your boat are shown.

To reset the odometer (located on the speedometer), select **Reset Odometer**.

> ⚠ **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 touch **Information** > **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.

- **Econ Source**—Select to specify the speed source (GPS Speed or Water Speed) for the fuel economy gauge.

- **Reset Odometer**—Select to reset the odometer (located on the speedometer).

Viewing Video

Your unit can display video if you are connected to a video source (or sources) using the supplied video cable. See the *GPSMAP 4000/5000 Series Installation Instructions* for details.

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

Touch **Menu** to setup the following:

- **Source**—selects the video device (Video 1 or Video 2) that displays the video. If you have two video sources and wish to alternate between the two, touch **Alternate** to define the amount of time each video screen 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 5212/5215.
- **Brightness**—adjusts the brightness of the video feed up or down. Touch **Auto** to allow the unit to automatically adjust the brightness.
- **Saturation**—adjusts the color saturation up or down. Touch **Auto** to allow the unit to automatically adjust the saturation.
- **Contrast**—adjusts the contrast up or down. Touch **Auto** to allow the unit to automatically adjust the contrast.
- **Standard**—selects the video format used by the source (PAL or NTSC). Touch **Auto** to let the unit automatically select the source format.

VIEWING INFORMATION
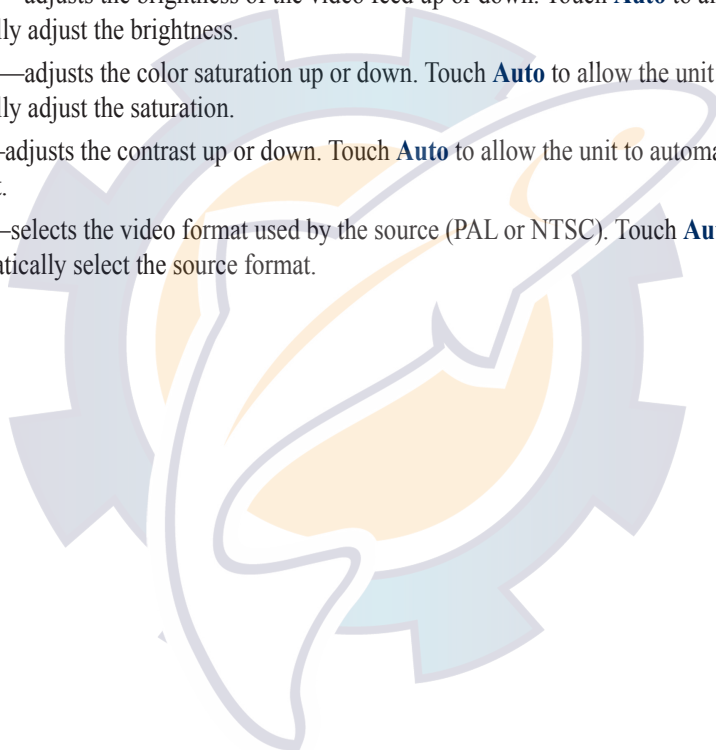
Configuring the Unit

Use the Configure screen to configure unit settings.

Configuring System Settings

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

Simulator—turn Simulator Mode **On** or **Off**. Touch **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.**)

Language—touch the desired on-screen language (English, Spanish, or French).

Auto Power Up (GPSMAP 5215 only)—turn Auto Power Up **On** or **Off**. When **On** is selected, the chartplotter automatically turns on whenever power is applied. When **Off** is selected, the chartplotter must be turned on with the ⏻ **Power** key.

> **NOTE:** If Auto Power Up is **On** and the chartplotter is turned off using the ⏻ **Power** key, and power is removed and then reapplied within less than 2 minutes, you may have to press the ⏻ **Power** key to restart the chartplotter.

Beeper/Display—set Beeper options, Backlight, and Color Mode.

- **Beeper**—touch **Beeper** to set when the unit makes audible sounds. The settings are **Off**, **Alarms Only** (default), and **Key and Alarm** (keys and alarms).
- **Backlight**—touch **Backlight** to adjust the intensity of the backlight. Touch **Auto** to allow the unit to automatically adjust the backlight based on ambient light.
- **Color Mode**—touch **Color Mode** to select **Day Colors** or **Night Colors**, or touch **Auto** to allow the unit to adjust the colors.

GPS—view GPS satellites and set the speed filter to On, Off, or Auto. The speed filter averages the speed of your boat over a short period of time for smoother speed values.

System Information—view system information, restore 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.

Overlay Numbers—view or edit the options for Wind (**Apparent Wind** or **True Wind**) and Next Turn numbers (**Distance** or **Time**) for routes.

Changing Units of Measure

To change units of measure from the Home screen, touch **Configure** > **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**. Touch **Custom** to individually define units of measure for:

- **Depth**—individually sets the units of measure for depth to **Feet**, **Fathoms**, or **Meters**.
- **Temperature**—individually sets units of measure for temperature to **Fahrenheit (ºF)** or **Celsius (ºC)**.

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

- **Distance**—individually sets the units of measure for distance readings (**Miles**, **Kilometers**, or **Nautical Miles**).

CONFIGURING THE UNIT

- **Speed**—individually sets the units of measure for speed readings (**Miles Per Hour**, **Kilometers Per Hour**, or **Knots**).
- **Elevation**—individually sets the units of measure for elevation readings (**Feet** or **Meters**).
- **Volume**—individually sets the units of measure for volume readings (**Liters**, **US Gallons**, or **UK Gallons**).
- **Pressure**—individually sets the units of measure for gauge (kPa or psi) and atmospheric (Millibars or Inches of Mercury) pressure readings.

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—sets the coordinate system 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—sets coordinate system in which the map is structured. The default setting is WGS 84. Do not change the map datum unless you are using a map or chart that specifies a different position format.

Time Format—sets the time format (12 hour, 24 hour, or UTC) for time readings.

Time Zone—sets the time zone displayed for time readings.

Daylight Saving Time—indicates whether you want daylight saving time **Off**, **On**, or **Auto**. The **Auto** setting changes 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, touch **Configure** > **Communications**.

Port Types—selects the input/output format (**NMEA Std.** or **NMEA High Speed**) for each port to use when connecting your unit 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 high speed 0183 data for most AIS receivers.

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

To enable or disable NMEA 0183 output sentences:
1. From the Home screen, touch **Configure** > **Communications** > **NMEA 0183 Setup**.
2. Touch a setting (**Sounder**, **Route**, **System**, or **Garmin**).

3. Touch the NMEA output sentence.

4. Touch **Off** to disable, or touch **On** to enable the 0183 NMEA output sentence.
   • **Posn. Precision**—adjusts 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**—selects how the unit outputs waypoint identifiers (**Names** or **Numbers**).
   • **Defaults**—resets NMEA 0183 settings to their default settings (**OK** or **Cancel**).

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 the NMEA 2000 device has configuration options or settings, select the device for a list of options.
• **Output Bridging**—enables or disables the output from Garmin sensors or NMEA 0183 devices to your NMEA 2000 network.

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

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

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, touch **Configure** > **Alarms**.
2. Touch an alarm category (**Navigation**, **Engine**, **System**, **Sonar, Weather**, or **Fuel**) and set to **On** or **Off**. Alarms include:
   • **Navigation**—Anchor Drag, Arrival, Off Course
   • **System**—Clock, Battery, GPS Accuracy
   • **Sonar**—Shallow Water, Deep Water, Water Temperature, Fish
   • **Weather** (only if XM WX weather is available)—Marine, Tornado, Severe Storm, Flood, Flash Flood
   • **Fuel**—Total Fuel Onboard

3. Touch **On** to turn the alarm on and then use the touch screen keyboard to specify alarm information.
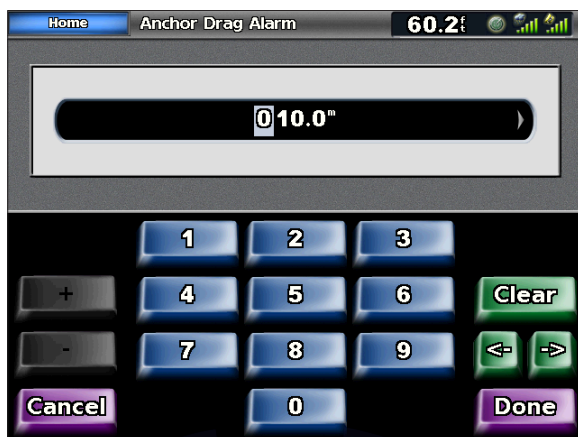
Setting Navigation Alarms

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

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

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

Off Course—sets 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, touch **Configure** > **Alarms** > **System**.

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

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

GPS Accuracy—sets 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, touch **Configure** > **Alarms** > **Sonar**.

Shallow Water/Deep Water—sets an alarm to sound when the depth is less than or greater than the specified value.

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

Fish—sets 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

NOTE: You must have an optional sonar module and a transducer connected via NMEA 0183 or the Garmin Marine Network to receive sonar information.

Setting Weather Alarms

To set a weather alarm from the Home screen, touch **Configure** > **Alarms** > **Weather**. Turn the following alarms on or off:

- Marine
- Tornado
- Severe Storm
- Flood
- Flash Flood

NOTE: You must have a subscription to XM WX Weather and a GDL 30/30A connected via the Garmin Marine Network to view weather information. Refer to for more information.

Configuring My Boat

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

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

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

Keel Offset—offsets 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. You can enter a negative number to compensate for a large vessel that may draw several feet of water.

To adjust the Keel Offset:
1. From the Home screen, touch **Configure** > **My Boat** > **Keel Offset**.
2. Use the touch screen keyboard to specify the offset.
3. Touch **Done** to accept the number.

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

Transducer at Surface
*Enter a (+) positive number
to show depth from the
bottom of the keel.*

Transducer at Bottom of Keel
*Enter a (-) negative
number to show depth
from the surface.*

Keel Offset
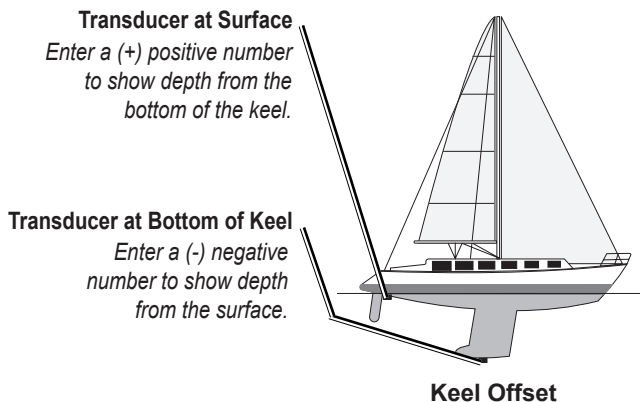
Transducer—selects sonar cone angles and calibrates water speed.

• **Sonar Cone Angles**—when using a transducer other than the standard Garmin transducer, you can set the angle, in degrees, of the sonar cone so that it is accurately depicted on the Fish Eye 3D screen. Touch either **200kHz** or **50kHz** and use the touch screen keyboard to enter the angle.

 NOTE: The Sonar Cone Angles setting does not affect a standard Garmin transducer, and should only be used to match the specifications of a non-standard transducer.

• **Calibrate Water Speed**—calibrates a speed-sensing device. Follow the onscreen directions for calibration. If you do not have a speed-sensing transducer, 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. Touch **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.

Configuring Other Boats

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

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.

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

CONFIGURING
THE UNIT

To customize safe-zone settings:
From the Home screen, touch **Configure** > **Other Boats** > **Safe Zone** > **Setup**.

- **Ring**—show or hide a ring on the Navigation chart showing the safe zone for your boat.

- **Range**—change the measured radius of the safe zone ring to a specified distance from 0.1 to 2.0 nm (or 0.2 to 5.0 km, or 0.1 to 2.0 mi).

- **Time to (Safe Zone)**—sounds an alarm if AIS (Automatic Identification System) or MARPA (Mini Automatic Radar Plotting Aid) determines that a target will intersect the Safe Zone within the defined time interval (ranging from 3 to 24 minutes).

Details—shows or hides the name, speed, and bearing of AIS or MARPA onscreen targets. The details appear next to the AIS or MARPA target icon.

Configuring XM Audio

To configure XM audio from the Home screen, touch **Configure** > **XM Audio**.

Channel Guide—selects the specific XM channel within the currently selected category.

Channel Entry—allows you to enter a channel using the screen keyboard.

Save Preset—saves the current XM channel in the Presets list. Press Delete Preset to remove the current channel from the list. Presets is displayed as a category in the category list.

Category—selects the category of channels that are displayed in the Channel Guide.

Mute—silences the audio.

> **NOTE:** You must connect the optional GDL 30A XM receiver into the Garmin Marine Network, and have a subscription to XM Radio to use XM audio features. For more information, refer to page 53.

Using the 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 5000 series chartplotters as well as the GPSMAP 4000 series units 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 or GPS 17x antenna wired to one chartplotter with every chartplotter connected to the Garmin Marine Network.

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

> **NOTE:** Both the GPS 17 or GPS 17X 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, the data is shared with any GPSMAP 5000 series chartplotters connected to the network. All GSD 21 settings must be configured on the GPSMAP 3006/3010 chartplotter. A GSD 21 cannot be wired to a 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**—provides radar data when connected to the Garmin Marine Network. Radar data is shared by all chartplotters on the network.
- **GDL 30/GDL 30A**—provides XM WX weather and XM Radio data when connected to the Garmin Marine Network. XM WX weather data is shared by all chartplotters on the network. Connect the GDL 30A (the GDL 30 unit provides only weather) to the audio input source on your boat to listen to XM audio. The station can be changed by any chartplotter on the network.

> **NOTE:** Currently, the XM Satellite service is only available in North America. The GDL 30/30A functions only when used in North America.

- Share BlueChart g2 Vision cartography data from an SD card inserted in one GPSMAP 4000 or GPSMAP 5000 series chartplotter with every GPSMAP 4000/5000 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, touch **Configure > System > System Information > Network Devices**.

Network Devices

Each connected device is listed along the right side of the screen. To assign a name to one of the devices for identification purposes, touch the device's button. Use the onscreen keyboard to name the device. There is a 28-character limit on the name.

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 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 360° 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 12.5° above and 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, touch **Radar** > **Cruising**.

   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 scanner is clear before beginning radar transmission. It is important to remember that the microwave energy transmitted by the scanner can potentially be dangerous.

2. When the message "Ready to Transmit" appears, touch **Menu** (or press and release the ⏻ **Power** key).

3. On the lower-right portion of the screen, touch **Transmit Radar**. A "Spinning Up" message appears for a few moments, then the radar begins painting an image.
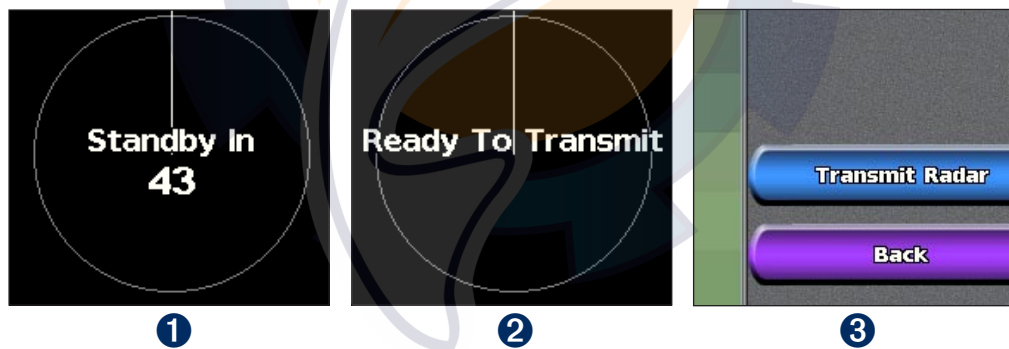
To turn off the Radar:

Touch **Menu** > **Go To Standby**.

Understanding the Cruising Screen

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.

Range rings

Zoom scale

Heading line

Distance between rings

Radar - Cruising Screen

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 miles, each ring represents one mile from the center out. Adjust the zoom scale by touching the and buttons.

Cruising Screen Settings

To access additional settings or options for the radar cruising screen, touch **Menu.**

Gain—controls the sensitivity of the radar receiver. The default setting, Auto, adjusts automatically to provide optimal performance. Touch **Up** or *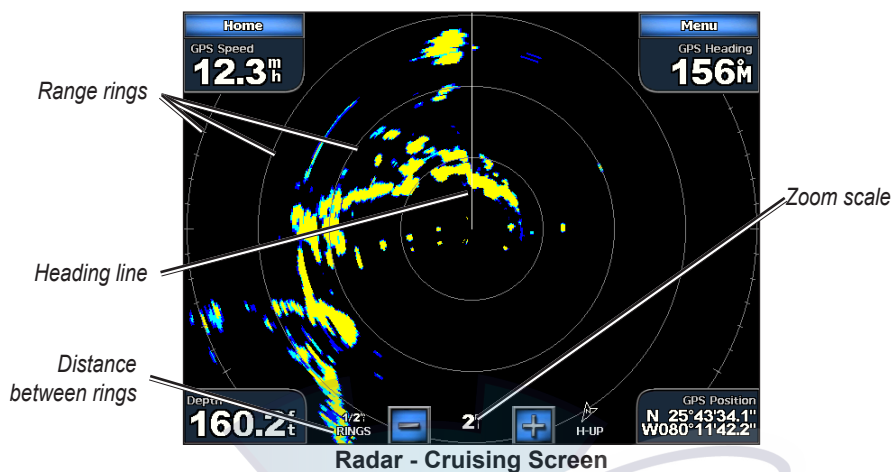*Down** (or drag the adjustment bar) to manually adjust the gain. Touch **Auto** to return the gain to the default setting.

- **Rain Cltr**—adjusts the gain for unwanted clutter caused by rain at close ranges. Touch **Up** or **Down** (or drag the adjustment bar) to adjust the rain clutter sensitivity.

- **Sea Cltr**—adjusts the gain for clutter caused by choppy sea conditions. Touch **Nxt Prset** to cycle between **Rough**, **Medium**, **Calm**, or **Off**. Touch **Up** or **Down** (or drag the adjustment bar) to manually adjust the sea clutter sensitivity.

Guard Zone—defines a safe zone either fully or partially surrounding your boat. An alarm sounds when a detected object enters this zone. Touch **On** or **Off**. If the guard zone is on, you can define the boundaries by touching **Adjust Guard Zone:**

- **Corner 1** (and **Corner 2**): Touch **Corner 1**, and then touch the point on the screen where you want the first corner of the guard zone. Repeat this with **Corner 2**.

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

Corner 1   *Corner 2*   *Circular*

USING **R**ADAR
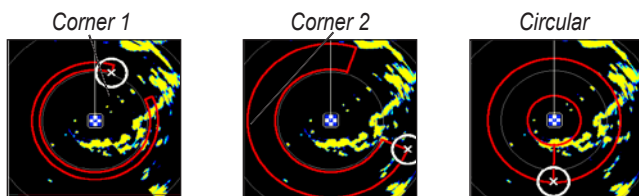
Nav Features—shows or hides distance, arrival time, and bearing when navigating to a destination.

Overlay Numbers—shows or hides cruising, navigation, fishing, or sailing numbers as on the Navigation chart (page 6).

Radar Setup—accesses advanced radar settings (page 48).

Targeting on the Cruising Screen

Touch the target location on the cruising screen to begin targeting. A green ring and a green line appear. The green ring corresponds with the range rings to help define an object's distance from your location. The green line corresponds with the heading line to help define an object's bearing from your location. The intersection of the green ring and green line indicate your target. If you select a target on the side of the screen, the radar shifts to permit easier intersection with the target. You can reposition the radar by touching and dragging the screen.
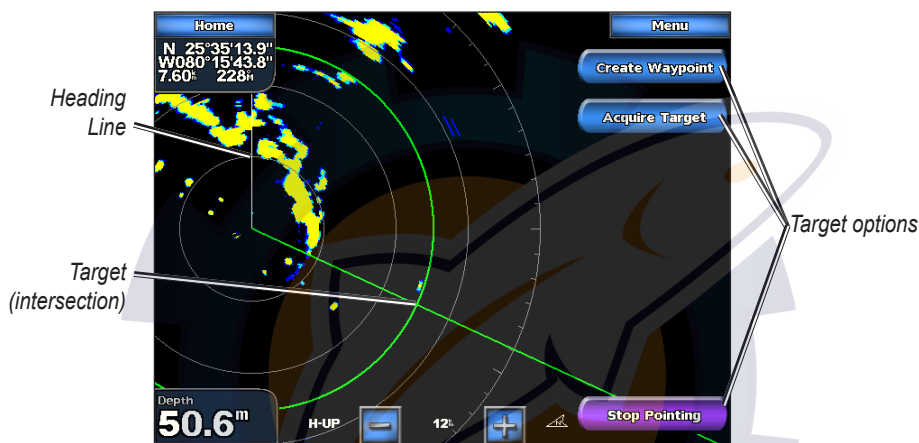
Cruising Screen - Targeting

To stop targeting and recenter your location, touch **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.

USING RADAR

MARPA Target (only appears when you are targeting a tagged MARPA object)—opens the MARPA target information window. You can get MARPA information or remove MARPA objects from this window.

MARPA target status unknown (Lost)

Tracking MARPA object

MARPA object targeted

Dangerous MARPA object

Opens MARPA target information window
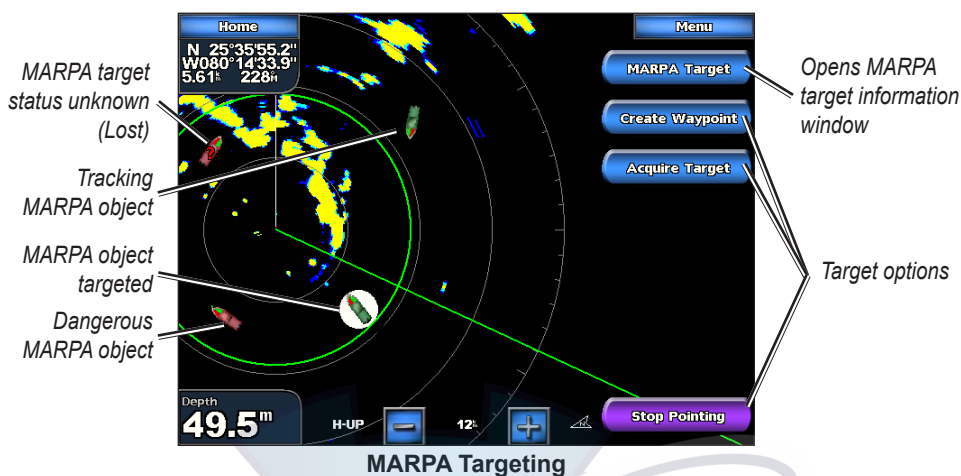
Target options

MARPA Targeting

Understanding the Radar Overlay Screen

Use the radar overlay option to overlay radar information on the Navigation chart. From the Home screen, touch **Radar** > **Radar Overlay**.

Radar range

Radar Overlay Screen

Using Radar

Changing Radar Settings

To change radar settings from the Home screen, touch **Radar** > **Radar Setup**, or touch **Menu** while viewing the radar cruising screen or radar overlay screen and then touch **Radar Setup**.

Orientation—changes the perspective of the radar display:

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

Heading Line—shows or hides a line in the direction of travel.

Rings—shows or hides the radar range rings.

Look-Ahd Spd—shifts your current location toward the bottom of the screen as your speed increases. Enter your expected top speed for best results.

Timed Xmit—sets and customizes a transmit/standby cycle. Define the transmission time (**Xmit Time**) and standby time (**Stdby Time**) in minutes.

Xtalk Reject (Crosstalk)—filters out interference caused by another radar operating in close proximity.

Advanced—opens a menu of advanced settings:

- **FTC** (fast time constant)— controls unwanted screen clutter caused by rain at a distance. Set to **High**, **Medium**, **Low**, or **Off**.
- **Front of Boat**—sets the offset of the front of the boat if you mount the radar at an angle.
- **Antenna Size** (GMR 404/406 only)—selects the size of your antenna. Touch **4 Foot** if you have a GMR 404; touch **6 foot** if you have a GMR 406.
- **Motor Speed** (GMR 404/406 only)—sets the motor speed of your GMR 404/406 radar to **Medium Speed** or **High Speed**. **High Speed** increases the speed at which the antenna rotates, which increases the speed at which the screen updates.

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

From the Home screen, touch **Sonar** > **Full Screen** to view a full-screen graph of the transducer's sonar readings. 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.

Depth, temperature, and water speed

Suspended target

Bottom

GPS speed and GPS heading

Transducer frequency

Range

Sonar Full Screen
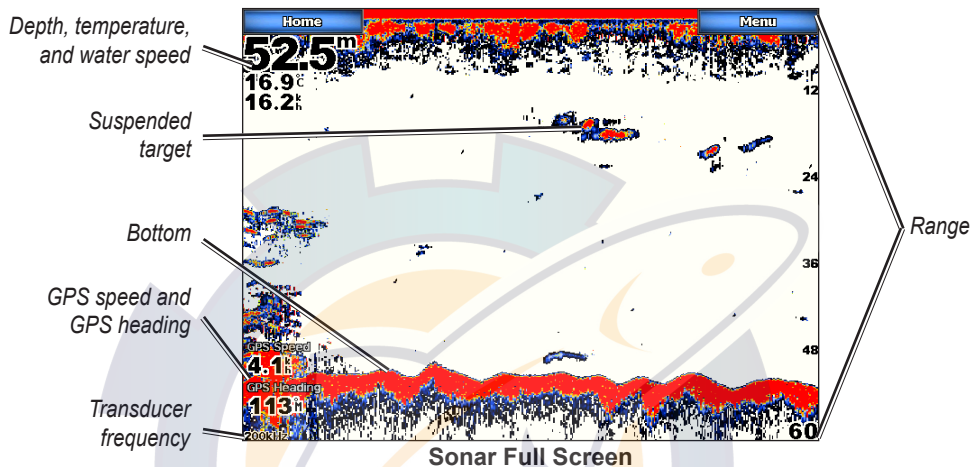
Understanding the Split Zoom Screen

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, touch **Sonar** > **Split Zoom**.

Depth, temperature, and water speed

Zoomed depth scale

GPS speed and GPS heading

Zoom level

Transducer frequency

Zoom window

Range

Sonar Split Zoom
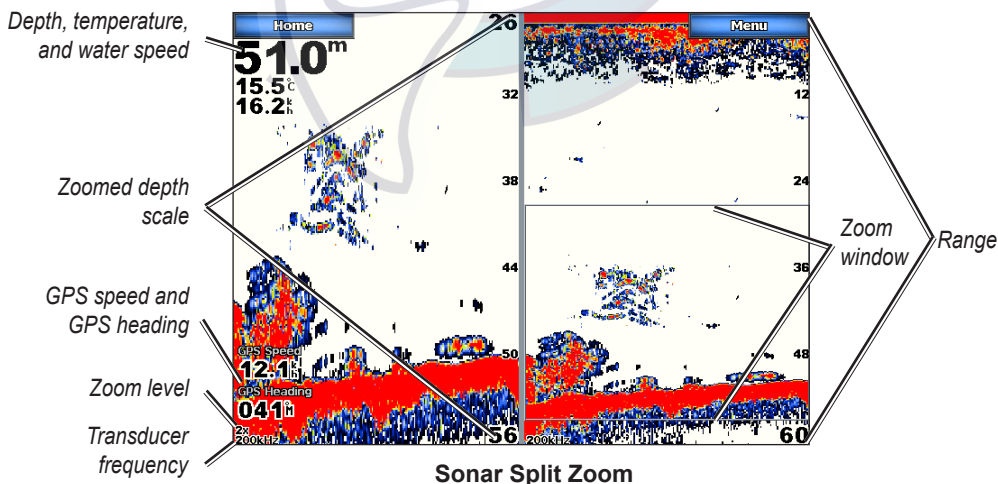
Using Sonar

Understanding the Split Frequency Screen

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

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

Depth, temperature, and water speed

GPS speed and GPS heading

Range

Transducer frequencies

Sonar Split Frequency
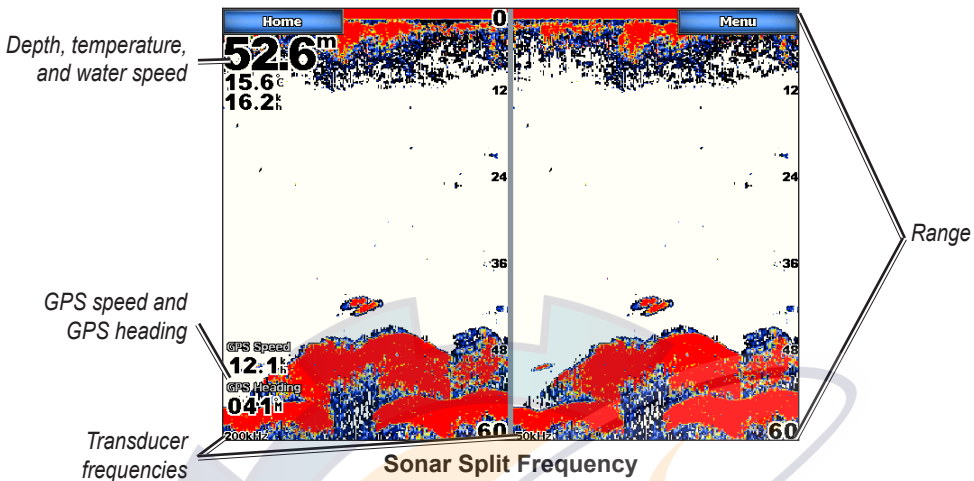
Understanding the Temp Log

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, touch **Sonar** > **Temp Log**.

Temperature and depth

Temperature range

Time elapsed

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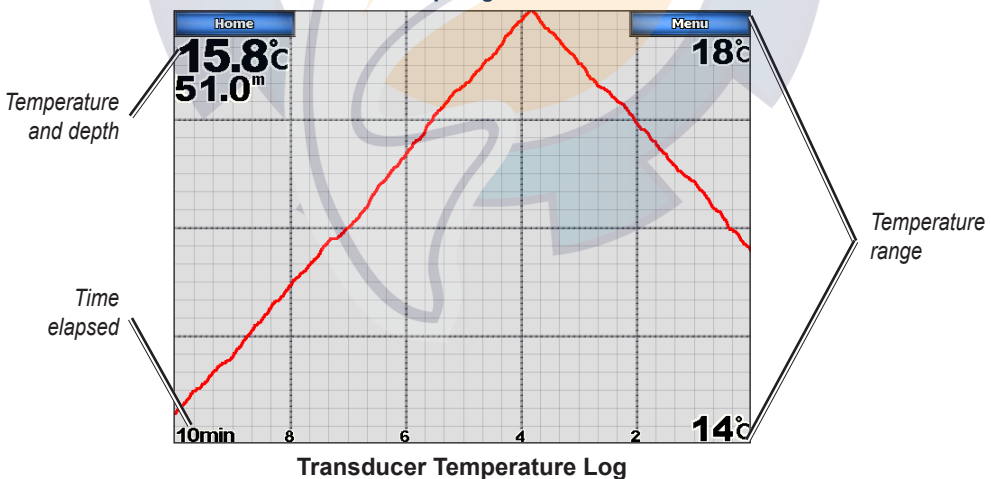
The temperature appears along the right side and the time elapsed appears along the bottom. The graph scrolls to the left as information is received.

Touch **MENU** to access scale settings. Touch **Duration** to set the time elapsed scale. Touch **Scale** to set the temperature range scale.

Setting Up Sonar

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

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

Color Scheme—choose white (black, if using night mode colors) or blue. This affects the background on all sonar screens, but does not change the Temp Log screen.

Fish Symbols—sets 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—adjusts the rate at which the sonar scrolls from right to left (**Ultrascroll**, **Fast**, **Medium**, or **Slow**). If you are using a speed-capable transducer, touch **Auto** to have the scroll speed automatically adjust to the water speed of your boat.

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

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.

Overlay Numbers—shows or hides water temperature, water speed (if your transducer is capable), and navigation. If **Auto** is selected and the transducer is capable, the data is shown.

USING SONAR

Advanced Sonar Settings

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

Range—adjusts the range of the depth scale on the right side of the screen. Touch **Auto** or touch **Up** or **Down** (or drag the adjustment bar) to manually adjust the range.

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

Frequency—selects how the frequencies appear on screen (**200kHz**, **50kHz**, or **Dual**) when using a dual frequency transducer.

Zoom—zooms in to a section of the Full screen. The zoom is off (**No Zoom)** by default. Three other options are available:

- **2x Zoom**—twice the magnification. Touch **Up**, **Down**, or **Auto** to set the depth range of the magnified area.
- **4x Zoom**—four times the magnification. Touch **Up**, **Down**, or **Auto** to set the depth range of the magnified area.
- **Bottom Lock**—locks the zoom window to the bottom. Touch **Up** or **Down** to set the depth range of the magnified area.

Depth Line—quickly references a specific depth (**On** or **Off**). When **On** is selected, touch and drag the line to set the depth of the reference line.

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

Sonar Setup—opens the Sonar Setup screen. See .

Using XM WX Weather™ and Audio

To use XM WX Satellite Weather, you must have a Garmin GDL 30 or 30A XM receiver and an activated XM WX weather subscription. To use XM Audio, you must have the Garmin GDL 30A XM receiver and an XM Audio subscription.

Using XM WX Weather

The GDL 30/30A receives XM WX Weather data and shows it on your unit's Navigation chart and other screens throughout the unit. The weather data for each feature comes from reputable weather data centers such as the National Weather Service and the Hydrometerological Prediction Center. (See the XM WX Satellite Weather Web site at http://weather.xmradio.com/weather for more information.) Any weather feature can change in appearance or interpretation if the source that provides the information changes.

XM WX Weather data is broadcast at set rates. For example, NEXRAD (**NEX**t Generation Weather **RAD**ar) data is broadcast at five minute intervals. When the Garmin unit is turned on or when a new feature is selected, the GDL 30/30A has to receive new data before it can be shown. You might experience a delay before weather data or a new feature appears on the map.

> **NOTE:** You might experience a delay before weather data or a new feature appears on the map.

Setting the XM WX Weather Options

To configure the weather settings from the Home screen, touch **Weather** > **Weather Setup**. From this menu, you can turn the **NEXRAD Loop** on or off and hide or show the weather **Legend**.

Viewing Precipitation Information

Precipitation shows NEXRAD radar, storm cells, lighting strikes, and hurricane warnings. To view the Precipitation screen from the Home screen, touch **Weather** > **Precipitation**.

Viewing NEXRAD Radar Information

NEXRAD shows precipitation from very light rain and snow up to strong thunderstorms in varying shades and colors. To turn the NEXRAD loop on from the Home screen, touch **Weather** > **Weather Setup** > **NEXRAD Loop** > **On**.

In the lower-left corner of the screen is a Time Stamp. The Time Stamp indicates the elapsed time since the National Weather Service last updated the information.

USING XM

To view the weather legend from the Home screen, touch **Weather** > **Weather Setup** > **Legend** > **Show**. NEXRAD is shown independently or with a variety of other weather information.
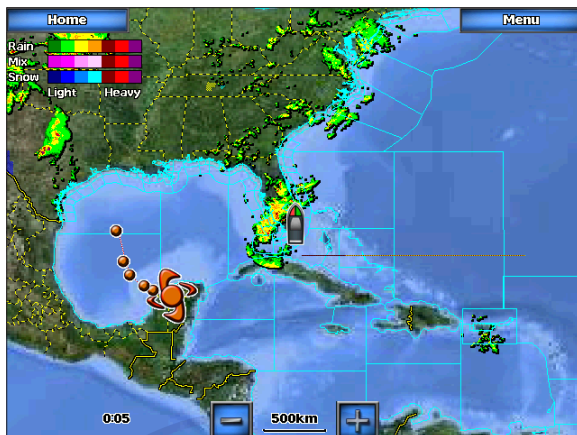
To turn cloud cover on or off, touch **Menu** > **Cloud Cover** > **Hide** or **Show**.

Understanding Storm Cell Information

The storm cells show storms as well as the storm's projected path in the immediate future.

The direction of the red cone indicates the projected path of the storm cell. The red bars that appear in the cone indicate where the storm will most likely be in the future. Each bar represents 15 minutes.

Storm cell

Lightning

Understanding Lightning Information

Lightning strikes are represented by lightning bolt icons. Lightning appears on the map if strikes were detected within the last seven minutes. The ground-based lightning detection network only detects cloud-to-ground lightning.

Understanding Hurricane Information

The Hurricanes feature shows the current position of a hurricane, tropical storm, or tropical depression, as well as its projected path (indicated by a red line). The darkened dots that appear along the red line display the projected locations received from the National Hurricane Center. The center provides four forecasts at 12-hour intervals (12 Hrs, 24 Hrs, 36 Hrs, and 48 Hrs), as well as the current conditions (Now).

USING XM

Hurricane
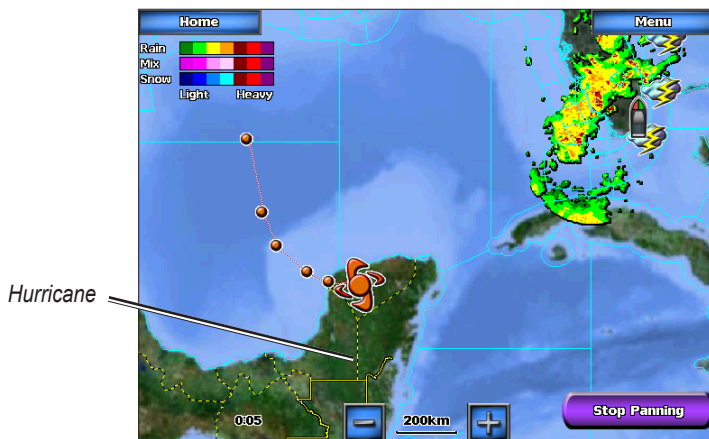
Understanding Marine Warnings

When a Marine Warning is issued, the area for the warning is highlighted in red. To view information about the warning, touch the warning area. The light blue lines on the chart indicate marine weather warning zones.

Marine Warning
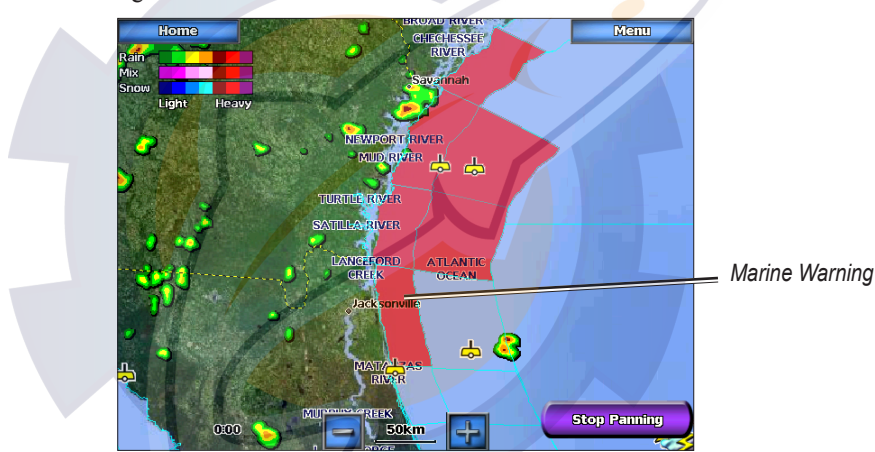
Understanding County Warnings

When the National Weather Service issues a weather warning for a county, the county is highlighted with the color corresponding to the warning. To view information about the warning, touch the county.

|	
🟥	*Tornado Warning*
🟨	*Severe Thunderstorm Warning*
🟦	*Flood Warning*
🟦	*Flash Flood Warning*

USING XM

Viewing Forecast Information

Forecasts show the weather conditions including fronts and precipitation. To view the forecast for another time period, touch **Next Forecast**. The forecasted weather for the next 12 hours is shown. Continue to touch **Next Forecast** to view forecasts for the next 24, 36, and 48 hours. To view forecast information for another location, touch and drag the screen until the desired location appears.

Understanding Fronts

The Fronts show lines indicating the leading edge of an air mass. This feature also shows pressure centers. Pressure centers are represented by a large Red "L" for low pressure centers or a large Blue "H" for high pressure centers. Pressure centers represent an area where pressure is measured to be either the highest or lowest relative to the surrounding area.

Cold Front
Warm Front
Stationary Front
Occluded Front
Trough

Indicates a Low Pressure Center. A Low Pressure Center is an area where the measured pressure is lowest relative to the surrounding area. Moving away from a Low Pressure Center in any horizontal direction results in increased pressure. Winds flow counterclockwise around Low Pressure Centers in North America.

Indicates a High Pressure Center. A High Pressure Center is an area where the measured pressure is highest relative to the surrounding area. Moving away from a High Pressure Center in any horizontal direction results in decreased pressure. Winds flow clockwise around High Pressure Centers in North America.

Understanding City Forecasts

City forecasts appear as standard weather symbols. The forecast is viewed in 12-hour increments for the next 48 hours.

Using XM

Viewing Sea Conditions

Sea Conditions provide surface conditions including winds, wave height, wave period, and wave direction.

Understanding Surface Winds

Wind barbs indicate from which direction the wind is coming. The wind barb is a circle with a tail. Wind speed is indicated by the different combination of flags that are attached to the tail.

Wind Direction

Calm		15 knots	
5 knots		20 knots	
10 knots		50 knots	
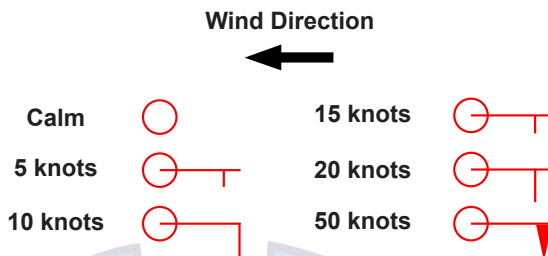
Understanding Wave Height

The Wave Height feature shows wave heights. The wave heights for an area are shown in color intensities.

Understanding Wave Period

The Wave Period feature provides the time (in seconds) between successive waves.

Understanding Wave Direction

The Wave Direction feature shows the direction in which a wave is moving, as indicated by the direction of the red arrow.

Viewing Fishing Information

The Fishing view contains current water temperature, surface pressure conditions, and fishing forecasts.

Understanding Surface Pressure

This feature shows pressure isobars and pressure centers. The isobars connect points of equal pressure. Pressure readings can help determine weather and wind conditions in an area. High pressure areas are generally associated with fair weather. Low pressure areas are generally associated with clouds and the chance of precipitation. Isobars packed closely together show a strong pressure gradient. Strong pressure gradients are associated with areas of stronger winds.

Pressure units are shown in Millibars (mb), Inches of Mercury (in), and Hectopascals (hPa).

Understanding Water Temperature Data

The Water Temperature feature indicates the water's surface temperature, as indicated by the legend on the left of the screen. The temperature breaks are indicated by isotherm lines.

Viewing Fish Forecasting

To view areas that contain optimal weather conditions for specific species of fish, from the Home screen touch **Weather** > **Fishing > Menu > Fish Species**. Touch a species of fish. Shaded areas indicate optimal fishing areas.

Viewing Visibility Information

To view visibility information from the Home screen touch **Weather** > **Visibility**. Visibility is the forecast maximum horizontal distance that can be seen at the surface, as indicated by the legend on the left of the screen. Contour lines on the Visibility feature show the forecasted change in surface visibility. To view the forecasted visibility for another time period, touch **Next Forecast**. The forecasted visibility for the next 12 hours is shown. Continue to touch **Next Forecast** to view forecasts for the next 24 and 36 hours.
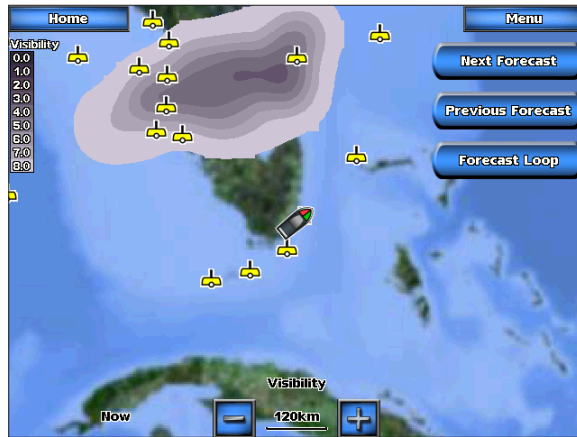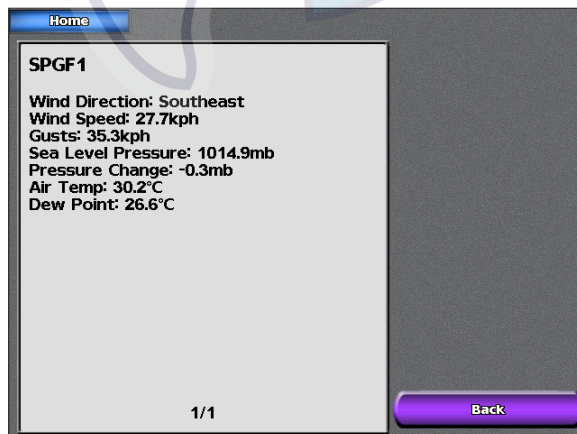
Viewing Buoy Reports

Report readings are taken from buoys and coastal observation stations. These readings are used to determine air temperature, dew point, water temperature, tide, wave height and period, wind direction and speed, visibility, and barometric pressure.

To view a buoy report, touch a buoy 🚤 on the screen. Touch **Buoy**.

USING XM

Using XM Audio

When a GDL 30A is connected to the Garmin Marine Network and to the audio input of your boat, you can listen to XM Audio channels.

To display the XM Audio interface while navigating:

From the Navigation screen, touch **Menu** > **Overlay Numbers** > **XM Audio** > **Auto**.

Channel display

Channel select

To select an XM Audio Channel:

Touch the right or left channel select arrows to change to the next channel in the current category.

To use the XM Audio Guide:

Touch the channel display bar.

Channel Guide—selects the specific XM channel within the currently selected category.

Channel Entry—allows you to enter a channel using the screen keyboard.

Save Preset—saves the current XM channel in the Presets list. Press Delete Preset to remove the current channel from the list. Presets is displayed as a category in the category list.

Category—selects the category of channels that are displayed in the Channel Guide.

Mute—silences the audio.

Appendix

Specifications

Physical Specifications

Size: GPSMAP 5208: 6⅞ in. H × 10⅛ in. W × 4⅛ in. D (173.5 × 256 × 105.9 mm)
GPSMAP 5212: 9½ in. H × 13 in. W × 4¾ in. D (240.5 × 330 × 119.2 mm)
GPSMAP 5215: 11⅝ in. H × 15½ in. W × 5⅝ in. D (295.8 × 394.9 × 143.8 mm)

Weight: GPSMAP 5208: 5 lb., 15 oz. (2.7 kg)
GPSMAP 5212: 9 lb., 8 oz. (4.3 kg)
GPSMAP 5215: 12 lb., 14 oz. (5.4 kg)

Display: GPSMAP 5208: 5 in. H × 6¾ in. W (128.2 × 170.9 mm)
GPSMAP 5212: 7⅛ in. H × 9¼ in. W (180.5 × 236 mm)
GPSMAP 5215: 9 in. H × 12 in. W (228.1 × 304.1 mm)

Case: Fully Gasketed, high-impact plastic and aluminum alloy, waterproof to IEC 529-IPX-7

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

Compass Safe Distance: GPSMAP 5208: 31½ in. (80 cm)
GPSMAP 5212: 39½ in. (1 m)
GPSMAP 5215: 15¾ in. (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

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

WAAS Accuracy:
> **Position:** <3 m (9.8 ft), 95% typical
> **Velocity:** 0.05 meters/second steady state
> **Dynamics:** 6gs

Power:

Source: 10-35 VDC

Usage: 5208: 35 W max. at 10 VDC
5212: 40 W max at 10 VDC
5215: 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

APPENDIX

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 (page 3). All of these settings can be configured later from the Configure screen.

The settings are as follows:

- **Language**—Touch the language that you want shown on your screen.
- **Welcome**—Touch **OK**.
- **Position Format**—Specify the coordinate system to use for location readings.
- **Time Format**—Specify whether you want the time displayed in a **12-hour**, **24-hour**, or **UTC** (Universal Time Code) format.
- **Time Zone**—Select your time zone.
- **Units**—Specify units for onscreen measurements as **Statute**, **Metric**, or **Nautical**.
- **Minimum Safe Depth**—Specify the minimum safe depth for your boat. Refer to your boat specifications for more information.
- **Minimum Overhead Clearance**— Specify the minimum overhead clearance for your boat. Refer to your boat specifications for more information.

Calibrating the Touchscreen

Your unit's touchscreen does not normally require calibration. However, if the buttons do not seem to be responding properly, use the following process to calibrate the screen.

1. While the unit is turned off, press the ⏻ **Power** key.
2. When the Warning screen appears (with the **I Agree** button), touch anywhere on the black portion of the screen for approximately 15 seconds until the Calibration screen is displayed.
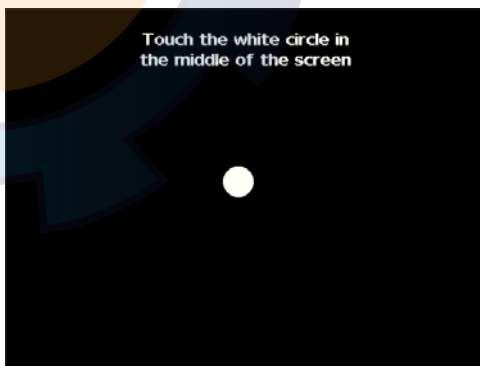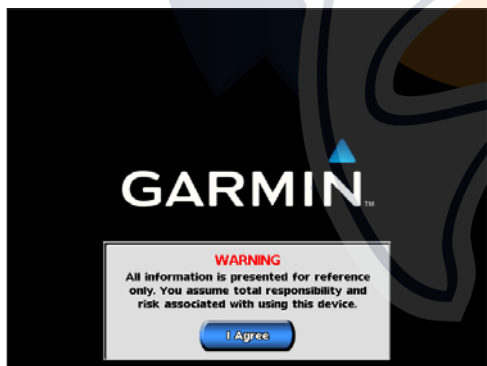
3. Follow the instructions on the screen until "Calibration is complete" is displayed.
4. Touch **OK**.

NMEA 0183 and NMEA 2000

A GPSMAP 5000 series chartplotter can accept data from both NMEA 0183 compliant devices and certain NMEA 2000 devices connected to an existing NMEA 2000 network on your boat.

NMEA 0183

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

The GPSMAP 5000 series chartplotter 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 the GPSMAP 5000 series unit 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 sees these NMEA 0183 sentences, see .

NMEA 2000

GPSMAP 5000 series chartplotters are NMEA 2000 certified, and can receive data from a NMEA 2000 network installed on the boat to show specific information on the Information screen, such as depth, speed, water temperature, wind speed/direction, and engine data.

To connect a 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 5000 series units are NMEA 2000 certified.

Messages and Alarms

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

Alarm Clock— the alarm clock alarm has sounded.

Anchor Drag Alarm—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>—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. Ending position not within safe depth—(BlueChart g2 Vision) auto-guidance cannot calculate the route; choose an end point within the specified safe depth.

Auto-guidance unable to calculate route. Starting position not within safe depth—(BlueChart g2 Vision) auto-guidance cannot calculate the route; travel to water within the specified safe depth.

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

Battery Alarm—user-set battery alarm has sounded.

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.

Calibration is complete—touchscreen calibration successful.

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 product support for assistance updating your unit software.

Check XM Antenna—XM antenna not connected. Check connectivity.

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

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

Database Error—general database error. Contact product support.

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

Directory Item With This MMSI Already Exists—MMSI unit 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>—distress call has been received by the DSC module.

Drift Alarm—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.

Flash Flood Warning Alarm—(XM WX weather) there is a flash flood warning in effect.

Flood Warning Alarm—(XM WX weather) there is a flood warning effective.

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

GPS Antenna Has Lost Its Stored Settings—The GPS antenna's memory has been cleared somehow. Contact product support.

GPS Service Incompatible. Software Update Required—a GPS service software update is needed. Contact 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 product support for assistance updating your network.

Invalid Date—an invalid date was entered.

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.

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

Lost Remote GPS Connection—lost connection to the remote GPS. 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.

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

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

Marine Weather Warning—(XM WX weather) there is a weather warning in effect.

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

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

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

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

No DGPS Position—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.

No XM Signal—(XM WX weather) no XM satellite signal detected. Make sure you have a clear view of the sky.

Not All Maps Fit, Some Maps Will Not Be Drawn—there are more maps present on the SD card than what the unit can support. Some of the 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 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. Choose 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 unit's Route memory as a whole 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.

Severe Storm Warning—(XM WX weather) there is a severe storm warning in effect.

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 product support.

Sonar Service Incompatible. Software Update Required—a software update is needed. Contact 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—tide has reached user-specified tide alarm range.

Tornado Warning Alarm—(XM WX weather) a tornado warning is in effect.

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

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

Track Memory is Full, Can't Create Track—the saved track memory is full.

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 auto-guidance route.

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

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.

Water Speed Sensor is 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.

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

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

Weather Service Incompatible. Software Update Required—an XM WX weather software update is needed. Contact product support for assistance updating your network.

Weather Service Lost—(XM WX weather) the weather service is no longer communicating. Make sure you have a strong XM signal. Check the network and the XM wiring.

XM Service Incompatible. Software Update Required—an XM service software update is needed. Contact product support for assistance updating your network.

APPENDIX

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 if you have any questions while using your 5000 series chartplotter. In the USA contact Garmin Product Support by phone: (913) 397-8200 or (800) 800-1020, or go to www.garmin.com/support/.

In Europe, contact Garmin (Europe) Ltd. at +44 (0) 870.8501241 (outside the UK) or 0808 2380000 (within the UK).

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/products/chartplotters. Click on your product, click **Manuals**, and then select the **Declaration of Conformity** link.

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