GARMIN ECHOMAP UHD2 94SV 9 Inch Touchscreen Chartplotter User Manual

GARMIN.

ECHOMAP™ UHD2 6/7/9 SV
Owner's Manual

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Introduction

⚠️ **WARNING**

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

All route and navigation lines displayed on the chartplotter are only intended to provide general route guidance or to identify proper channels, and are not intended to be precisely followed. Always defer to the navaids and conditions on the water when navigating to avoid groundings or hazards that could result in vessel damage, personal injury, or death.

NOTE: Not all features are available on all models.

The Garmin® website at support.garmin.com presents up-to-date information about your product. The support pages will provide answers to frequently asked support questions, and you can download software and chart updates. There is also contact information to Garmin support should you have any questions.

Front View
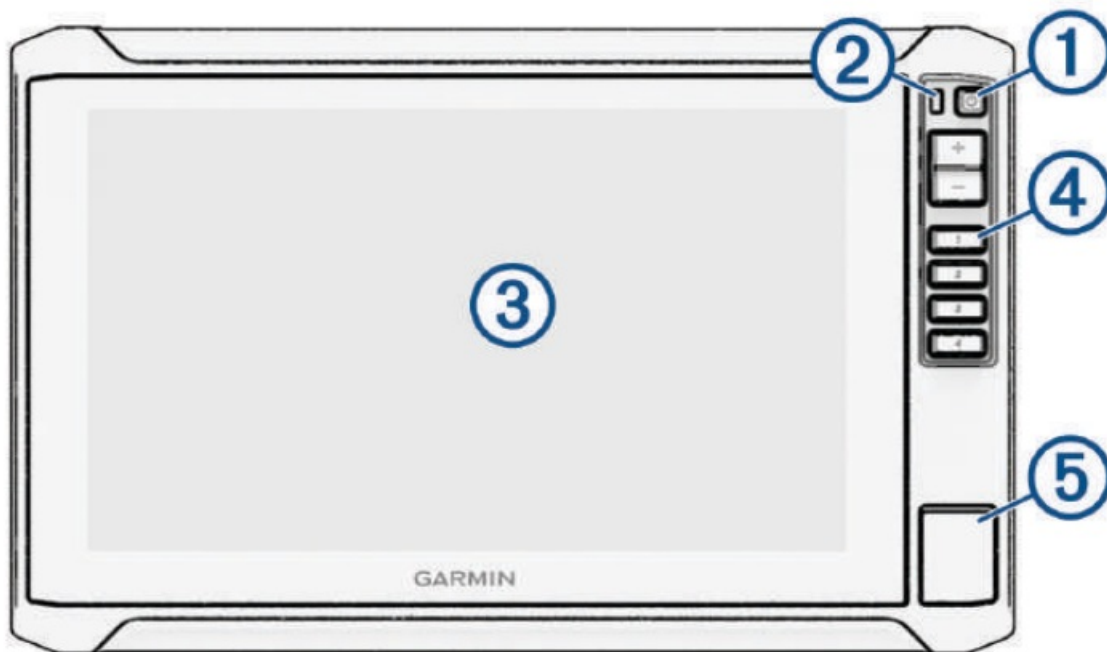
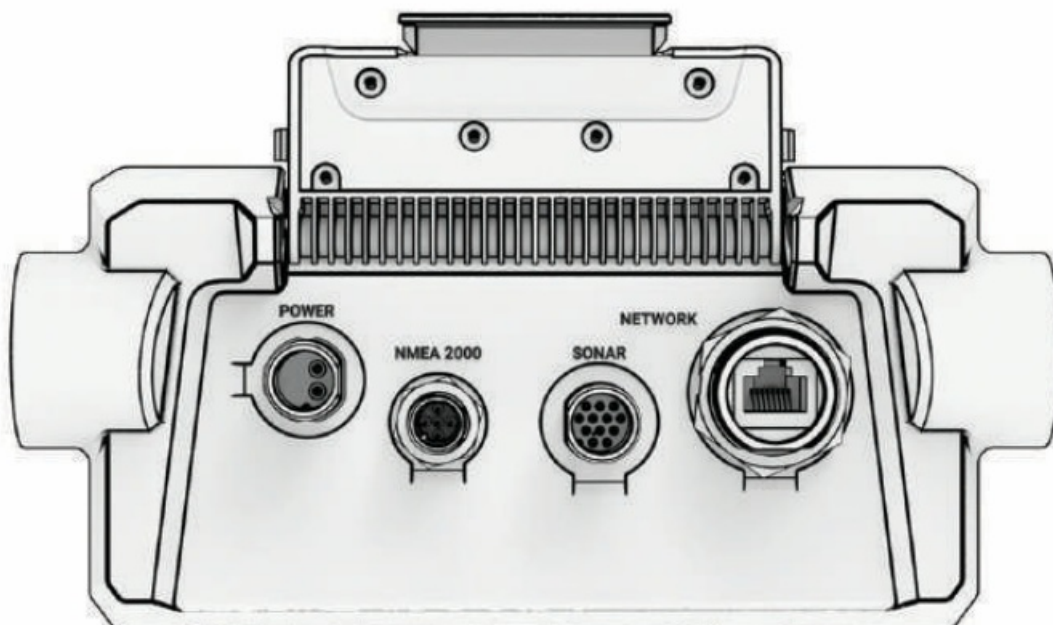| 1	Power key
2	Automatic backlight sensor
3	Touchscreen
4	Shortcut keys
5	microSD® memory card slot

Device Keys

⏻	Turns on and off the device when held. Opens a shortcut menu to backlight, color mode, and sonar transmission when quickly pressed and released.
	Scrolls through the brightness levels when pressed repeatedly.
1 2 3 4	Assigns a shortcut key to the active screen when held. Opens the assigned screen when pressed.

Assigning a Shortcut Key
You can quickly open commonly used screens by assigning a shortcut key. You can create a shortcut to screens such as sonar screens and charts.

1. Open a screen.
2. Hold a shortcut key, and select OK.

Connector View

POWER	Power cable port
NMEA 2000	NMEA 2000® cable port
SONAR	Transducer cable port
NETWORK	Garmin Marine Network cable port for connection to compatible Panoptix™ , GCV™ , and ECH OMAP devices **NOTE:** This device is not compatible with some Garmin Marine Network devices such as GPSM AP® , GSD™, and radar devices.

NOTICE
To prevent corrosion of the metal contacts, cover unused connectors with weather caps.

Tips and Shortcuts

- Press ⏻ to turn on the chartplotter.
- From any screen, press repeatedly to scroll through the brightness levels, if available. This can be helpful when the brightness is so low you cannot see the screen.
- Select Home from any screen to open to the home screen.
- Select to open additional settings about that screen.
- Select to close the menu when finished.
- Press ⏻ to open additional options, such as adjusting the backlight.
- Press ⏻ , and select Power > Turn Off System, or hold until the Turn Off System bar fills to turn off the chartplotter, when available.
- Press , and select Power > Sleep Station to set the chartplotter to standby mode, when available.

  To exit standby mode, select ⏻ .
- Depending on the features of your chartplotter, not all feature buttons are visible are on the home screen. Swipe right or left to view the additional feature buttons.

- On some menu buttons, select the button **1** to enable the option.

A green light on an option indicates the option is enabled **2** .

- When available, select ••• **3** to open the menu.

Accessing Owner's Manuals on the Chartplotter

1. Select Info > Owner's Manual.
2. Select a manual.
3. Select Open.

Accessing the Manuals from the Web
You can get the latest owner's manual and translations of manuals from the Garmin website. The owner's manual includes instructions for using device features and accessing regulatory information.

1. Go to **garmin.com/manuals/ECHOMAP_UHD2_579Xsv/**.
2. Select the Owner's Manual.

   A web manual opens. You can download the entire manual by selecting Download PDF.

Garmin Support Center
Go to **support.garmin.com** for help and information, such as product manuals, frequently asked questions, ideos, software updates, and customer support.

Inserting Memory Cards
This device supports up to a 32 GB microSD memory card, formatted to FAT32 with speed class 4 or higher. Use of an 8 GB or larger memory card with speed class 10 is recommended.

1. Open the access flap or door **1** on the front of the chartplotter.
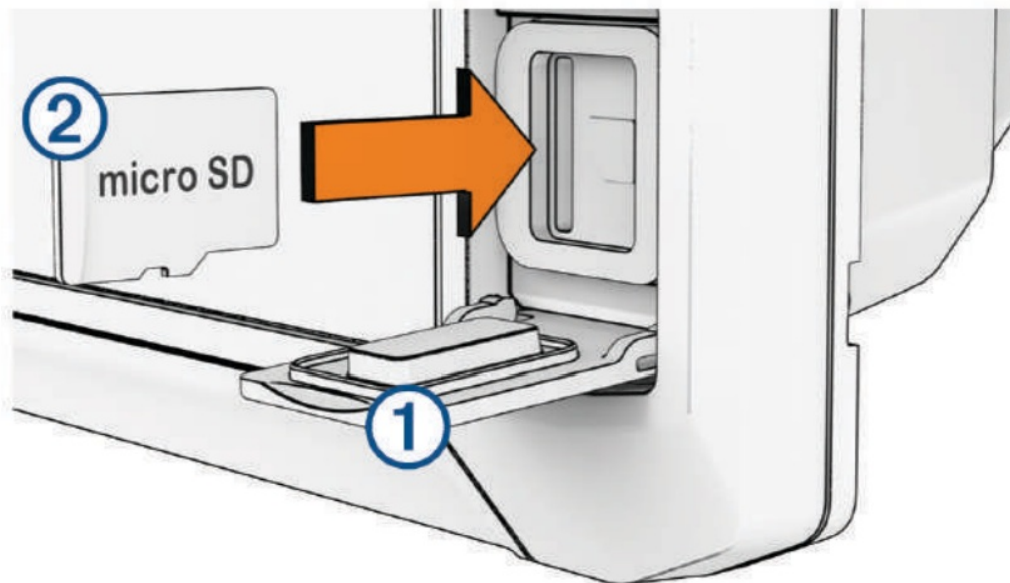
2. Fully insert the memory card **2** .

3. Clean and dry the gasket and door.

   NOTICE

   To prevent corrosion, be sure the memory card, gasket, and door are thoroughly dry before closing the door.

4. Close the door.

Acquiring GPS Satellite Signals

The device may need a clear view of the sky to acquire satellite signals. The time and date are set automatically based on the GPS position.

1. Turn on the device.

2. Wait while the device locates satellites.

   It may take 30 to 60 seconds to acquire satellite signals.

To view the GPS satellite signal strength, select Settings > System > Satellite Positioning.

If the device loses satellite signals, a flashing question mark appears over the boat position indicator on the chart.

For more information about GPS, go to **garmin.com/aboutGPS**. For help acquiring satellite signals, see My device will not acquire GPS signals, page 140.

### Selecting the GPS Source

You can select your preferred source for GPS data, if you have more than one GPS source.

1. Select Settings > System > Satellite Positioning > Source.

2. Select the source for GPS data.

Customizing the Chartplotter

Menu Bar

The menu bar along the bottom of the screen provides access to many functions of the chartplotter, the options menu, and the home screen.
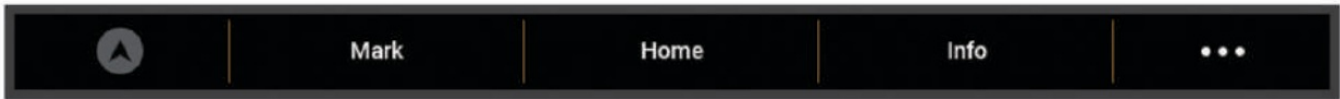
	Engages and disengages the autopilot (when connected to a compatible autopilot system)
Mark	Creates a waypoint at your location
Home	Opens the home screen TIP: Touch and drag to scroll through the home-screen items.
Info	Opens the Information menu
•••	Opens the options menu

**Hiding and Showing the Menu Bar**
You can hide the menu bar automatically to make more screen space available.

1. Select Settings > Preferences > Menu Bar Display > Auto.

   After a short period of time on a main page, such as a chart, the menu bar collapses down.

2. Swipe the screen from the bottom up to show the menu bar again.

Home Screen
The home screen is an overlay that provides access to all of the features in the chartplotter. The features are dependent on the accessories you have connected to the chartplotter. You may not have all of the options and features discussed in this manual.
When viewing any screen, you can return to the home screen by selecting Home.
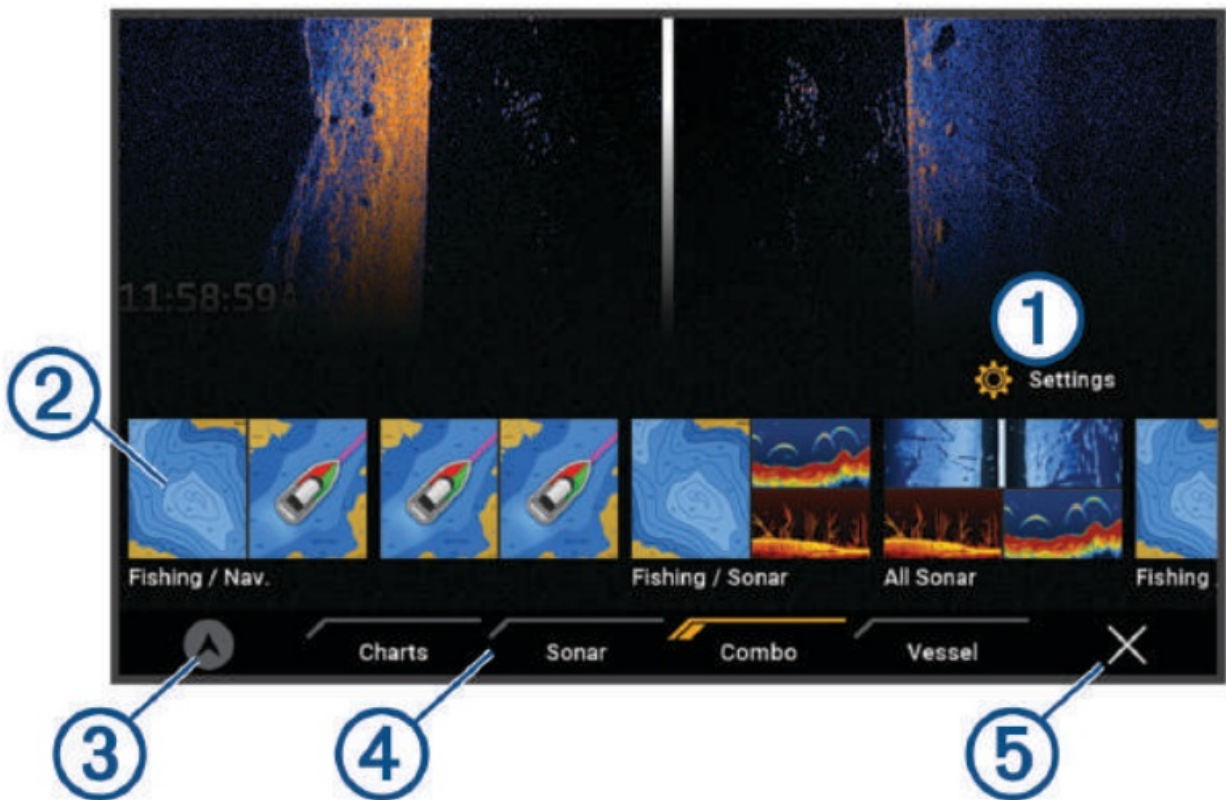
1	Settings menu button
2	Features buttons
3	Present time, present depth, or autopilot control button
4	Category tabs
5	Closes the home screen and returns to the previously open page

The categories tabs provide quick access to the main features of your chartplotter. For example, the Sonar tab displays the views and screens related to the sonar feature.
TIP: To view the available categories tabs, you may need to click and drag a tab to scroll left or right. When multiple displays are installed on the Garmin Marine Network, you can group them together into a station. A station enables the displays to work together, instead of as several separate displays. You can customize the layout of the screens on each display, making each screen different on each display. When you change the layout of a screen in one display, the changes appear on only that display. When you change the name and symbol of the layout, those changes appear on all displays in the station, to maintain a consistent appearance.

Rearranging the Category Items
You can customize the screen by rearranging the items in the categories.

1. Select a category to customize, such as Charts
2. Hold the button you want to move, such as Nav. Chart, until the menu appears.
3. Select Rearrange.

   Arrows appear on the feature buttons.
4. Reselect the button to move.
5. Select the new location for the button.
6. Repeat until you finish customizing the screen.
7. Select Back or Close when finished.

Assigning a Shortcut Key
You can quickly open commonly used screens by assigning a shortcut key. You can create a shortcut to screens such as sonar screens and charts.

1. Open a screen.
2. Hold a shortcut key, and select OK.

Setting the Vessel Type
You can select your boat type to configure the chartplotter settings and to use features customized for your boat type.

1. Select Settings > My Vessel > Vessel Type.
2. Select an option.

Adjusting the Backlight

1. Select Settings > System > Sounds and Display > Backlight.
2. Adjust the backlight.

TIP: From any screen, press ⏻ repeatedly to scroll through the brightness levels. This can be helpful when the brightness is so low you cannot see the screen.

Adjusting the Color Mode

1. Select Settings > System > Sounds and Display > Color Mode.

   TIP: Select ⏻ > Color Mode from any screen to access the color settings.

2. Select an option.

Turning On the Chartplotter Automatically

You can set the chartplotter to turn on automatically when the power is applied. Otherwise, you must turn on the chartplotter by pressing ⏻ .
Select Settings > System > Auto Power Up.

NOTE: When Auto Power Up is On, and the chartplotter is turned off using ⏻ , and power is removed and reapplied within less than two minutes, you may need to press ⏻ to restart the chartplotter.

Automatically Turning Off the System

You can set the chartplotter and the whole system to turn off automatically after it has been asleep for the selected length of time. Otherwise, you must press and hold ⏻ to turn off the system manually.

1. Select Settings > System > Auto Power Off.

2. Select an option.

Customizing Pages
Customizing the Startup Screen

You can personalize the image that is displayed when the chartplotter is turning on. For the best fit, the image should be 50 MB or less and conform to the recommended dimensions (Recommended Startup Image Dimensions, page 8).

1. Insert a memory card that contains the image you want to use.

2. Select Settings > System > Sounds and Display > Startup Image > Select Image.

3. Select the memory card slot.

4. Select the image.

5. Select Set as Startup Image.

The new image is shown when turning on the chartplotter.

Recommended Startup Image Dimensions

For the best fit for the startup images, use an image that has the following dimensions, in pixels.

Display resolution	Image width	Image height
WVGA	680	200
WSVGA	880	270

Customizing the Layout of a Combination Page

You can customize the layout and data shown in the combination pages.

1. Open a combination page to customize.
2. Select ●●● > Edit Combo.
3. Select an option:
   - To change the name, select Name, enter a new name, and select Done.
   - To change the number of functions shown and the layout of the screen, select Layout, and select an option.
   - To change the function of a portion of the screen, select the window to change, and select a function from the list on the right.
   - To change how the screens are split, drag the arrows to a new location.
   - To change the data shown on the page and additional data bars, select Overlays, and select an option.

   TIP: While viewing a screen with data overlay, hold an overlay box to quickly change the data in it.

Creating a New Combination Page
You can create a custom combination page to suit your needs.

1. Select Combo > Add Combo.
2. Select a window.
3. Select a function for the window.
4. Repeat these steps for each window of the page.
5. Hold a window to rearrange it.
6. Hold a data field to select new data.
7. Select Layout, and select a layout.

8. Select Name, enter a name for the page, and select Done.
9. Select Overlays, and select which data to show.
10. Select Done when you have finished customizing the page.

Deleting a Combination Page

1. Select Combo.
2. Press and hold a combination page to delete.
3. Select Delete Combo > Yes.

Customizing the Data Overlays

You can customize the data in the data overlays shown on a screen.

1. Select an option based on the type of screen you are viewing:
   - From a full screen view, select ••• > Edit Overlays.
   - From a combination screen, select ••• > Edit Combo > Overlays.

   TIP: To quickly change the data shown in an overlay box, hold the overlay box.
2. Select an item to customize the data and data bar:
   - To show the data overlays, select Data, select the location, and select Back.
   - To change the data shown in an overlay box, select the overlay box, select the new data to show, and select Back.
   - To customize the information shown when navigating, select Navigation, and select an option.
   - To turn on other data bars, select Top Bar or Bottom Bar, and select the necessary options.
3. Select Done.

ActiveCaptain® App

⚠ **WARNING**

This feature allows users to submit information. Garmin makes no representations about the accuracy, completeness, or timeliness of information submitted by users. Any use or reliance on the information submitted by users is at your own risk.

The ActiveCaptain app provides a connection to your ECHOMAP UHD2 chartplotter, maps and charts, and the ActiveCaptain community for a connected boating experience.

On your mobile device with the ActiveCaptain app, you can download, purchase, and update maps and charts. You can use the app to easily and quickly transfer user data, such as waypoints and routes, connect to the

Garmin Quickdraw™ Contours Community, update device software, and plan your trip.
You can connect to the ActiveCaptain community for up-to-date feedback on marinas and other points of interest.
ActiveCaptain Roles
Your level of interaction with the ECHOMAP UHD2 device using the ActiveCaptain app depends on your role.

Feature	Owner	Guest
Register device, built-in maps, and supplemental map cards to account	Yes	No
Update software	Yes	Yes
Automatically transfer Garmin Quickdraw contours you have downloaded or created	Yes	No
Automatically transfer user data, such as waypoints and routes	Yes	No
Begin navigating to a specific waypoint or navigating a specific route, and send that waypoint or route to the ECHOMAP UHD2 device	Yes	Yes

Getting Started with the ActiveCaptain App
You can connect a mobile device to the ECHOMAP UHD2 device using the ActiveCaptain app. The app provides a quick and easy way for you to interact with your ECHOMAP UHD2 device and complete such tasks as sharing data, registering, updating the device software.

1. From the ECHOMAP UHD2 device, select Vessel > ActiveCaptain.
2. From the ActiveCaptain page, select Wi-Fi Network > Wi-Fi > On.
3. Enter a name and password for this network.
4. Insert a memory card in the ECHOMAP UHD2 device's card slot (Inserting Memory Cards, page 4).
5. Select Set ActiveCaptain Card.

   NOTICE

   You might be prompted to format the memory card. Formatting the card deletes all information saved on the card. This includes any saved user data, such as waypoints. Formatting the card is recommended, but not required. Before formatting the card, you should save the data from the memory card onto the device internal memory (Copying User Data from a Memory Card, page 134). After formatting the card for the ActiveCaptain app, you can transfer the user data back to the card (Copying All User Data to a Memory Card, page 134).

   Be sure the card is inserted each time you want to use the ActiveCaptain feature.
6. From the application store on your mobile device, install and open the ActiveCaptain app.
7. Bring the mobile device within 32 m (105 ft.) of the ECHOMAP UHD2 device.
8. From your mobile device settings, open the Wi-Fi® connections page, and connect to the ECHOMAP UHD2 device, using the name and password you entered in step 3.

Updating Software with the ActiveCaptain App
If your device has Wi-Fi technology, you can use the ActiveCaptain app to download and install the latest software updates for your device.
NOTICE
Software updates may require the app to download large files. Regular data limits or charges from your Internet service provider apply. Contact your Internet service provider for more information about data limits or charges. The installation process can take several minutes.

1. Connect the mobile device to the ECHOMAP UHD2 device (Getting Started with the ActiveCaptain App, page 10).
2. When a software update is available and you have internet access on your mobile device, select Software Updates > Download.

   The ActiveCaptain app downloads the update to the mobile device. When you reconnect the app to the ECHOMAP UHD2 device, the update is transferred to the device. After the transfer is complete, you are prompted to install the update.
3. When you are prompted by the ECHOMAP UHD2 device, select an option to install the update.

   • To update the software immediately, select OK.

   • To delay the update, select Cancel. When you are ready to install the update, select ActiveCaptain > Software Updates > Install Now.

Updating Charts with ActiveCaptain

NOTE: Before you can update your charts, you must register them (Getting Started with the ActiveCaptain App, page 10).

You can use the ActiveCaptain app to download and transfer the latest chart updates for your device. To shorten download time and conserve storage space, you can download only the areas of the chart you need. After you download a chart or area for the first time, updates are automatic each time you open ActiveCaptain. If you are downloading an entire chart, you can use the Garmin Express™ app to download the map onto a memory card (Updating Your Charts Using the Garmin Express App, page 138). The Garmin Express app downloads large charts more quickly than the ActiveCaptain app.

NOTICE

Chart updates may require the app to download large files. Regular data limits or charges from your internet service provider apply. Contact your internet service provider for more information about data limits or charges.

1. When you have internet access on your mobile device, select Chart > ☰ > Download Charts.
2. Select the area to download.
3. Select Download.
4. If necessary, select the map to update.

   The ActiveCaptain app downloads the update to the mobile device. When you reconnect the app to the ECHOMAP UHD2 device, the update is transferred to that device. After the transfer is complete, the updated charts are available for use.

Chart Subscriptions

A chart subscription allows you to access the latest chart updates and additional content using the ActiveCaptain mobile app or the Garmin Express desktop app. You can download updated charts and content each day.

You can purchase chart subscriptions in a variety of ways.

- Digital purchase in the ActiveCaptain mobile app
- Digital purchase on garmin.com
- Physical chart card purchase at a retail location or through **garmin.com** or navionics.com
- Physical chart upgrade card purchase at a retail location (for upgrading the built-in charts)

Purchasing a Chart Subscription with ActiveCaptain

1. Connect your mobile device to the internet and open the ActiveCaptain app.
2. Select Chart > ☰ > My Charts > Add a Chart Subscription.

3. Select a chart.

4. Select Subscribe Now.

   NOTE: It might take a few hours to display the new subscription.

Activating the Chart Subscription Card

To use the ActiveCaptain app to activate your subscription, you must have internet access.

1. Insert the purchased chart subscription card into a memory card slot on the chartplotter.

2. Connect your mobile device to the chartplotter (Getting Started with the ActiveCaptain App, page 10).

3. Disconnect your mobile device from the chartplotter and connect it to the internet.

   ActiveCaptain activates the subscription.

4. After you see the new subscription in the ActiveCaptain list, disconnect your mobile device from the internet,

   and connect it to the chartplotter to complete the activation process.

   NOTE: It might take a few hours to display the new subscription. Wait time may vary depending on location

   and internet speed.

Renewing Your Subscription

Your cartography subscription expires after one year. After the subscription expires, you can continue using the downloaded charts, but you are not able to download the latest chart updates or additional content.

1. Connect your mobile device to the internet and open the ActiveCaptain app.

2. Select Chart > ≡ > My Charts.

3. Select the chart to renew.

4. Select Renew Now.

   NOTE: It might take a few hours to display the renewed subscription.

Wireless Sharing

You can connect two ECHOMAP UHD2 6/7/9 sv devices wirelessly to share user data and sonar (Connecting Two ECHOMAP UHD2 Devices to Share User Data and Sonar, page 13). The first time you open the wireless network settings, you are prompted to set up the wireless network on the host device. After you set up the network, you can also connect the device to other wireless devices, such as your phone, to use the ActiveCaptain app (Getting Started with the ActiveCaptain App, page 10).

Setting Up the Wi-Fi Network

This device can host a Wi-Fi network to which you can connect wireless devices such as another chartplotter or your phone. The first time you access the wireless network settings, you are prompted to set up the network.

1. Select Settings > Communications > Wi-Fi Network > Wi-Fi > On > OK.

2. If necessary, enter a name for this wireless network.

3. Enter a password.

   You will need this password to access the wireless network from a wireless device, such as your phone. The

   password is case-sensitive.

Connecting Two ECHOMAP UHD2 Devices to Share User Data and Sonar

You can connect two ECHOMAP UHD2 devices to share user data and sonar wirelessly.

User data is shared automatically between the two devices while they are connected. Sonar sharing may require

you to select a sonar source (Sonar Sharing, page 13).

To connect the two devices, you must designate one device as the host and the other device as the client. You can only connect two ECHOMAP UHD2 devices at a time. The host device can be connected to other wireless devices like your phone or tablet while it is connected with a ECHOMAP UHD2 device.

NOTE: A ECHOMAP UHD2 6/7/9 sv device cannot connect to a ECHOMAP UHD2 5/7 cv set as the host device. You must set up the ECHOMAP UHD2 6/7/9 sv device as the host in this situation.

1. Ensure the two ECHOMAP UHD2 devices are within range, 32 m (105 ft.), and turn on both devices.

2. On the ECHOMAP UHD2 that will host the network, set up the Wi-Fi network (Setting Up the Wi-Fi Network, page 12).

3. On the ECHOMAP UHD2 host device, select Settings > Communications > Wi-Fi Network > Wi-Fi > On > Host > Pair Chartplotter > Start.

4. On the ECHOMAP UHD2 client device, select Settings > Communications > Wi-Fi Network > Wi-Fi > On > Client > Pair Host > Start.

5. Select OK after devices connect successfully.

To unpair the devices and remove the wireless credentials so they do not attempt to connect in the future, on the client device select Settings > Communications > Wi-Fi Network > Unpair.

If you cannot connect the two devices, troubleshoot the connection and try again (Troubleshooting the Wireless Connection, page 13).

Sonar Sharing

Two ECHOMAP UHD2 6/7/9 sv devices connected over the Wi-Fi network can share sonar (Connecting Two ECHOMAP UHD2 Devices to Share User Data and Sonar, page 13).

If both of the ECHOMAP UHD2 6/7/9 sv devices have a transducer connected, each device uses its own sonar source automatically. You can switch the sonar source manually to the other device (Selecting a Sonar Source, page 68).

If only one ECHOMAP UHD2 6/7/9 sv device has a transducer connected, that device is the sonar source for both devices.

Troubleshooting the Wireless Connection

If you cannot connect two ECHOMAP UHD2 devices, check the following items and try again.

- If you are connecting a ECHOMAP UHD2 6/7/9 sv device and a ECHOMAP UHD2 5/7 cv device, you must set up the ECHOMAP UHD2 6/7/9 sv as the network host. A ECHOMAP UHD2 6/7/9 sv device cannot connect to a ECHOMAP UHD2 5/7 cv device set up as the host.

- Ensure the two devices are within range (32 m (105 ft.)).

- Check for signal obstructions between the devices, especially metal.

- Turn the devices off and on again, and try to connect again.

Connecting a Wireless Device to the Chartplotter

Before you can connect a wireless device to the chartplotter wireless network, you must configure the chartplotter wireless network (Setting Up the Wi-Fi Network, page 12).

You can connect multiple wireless devices to the chartplotter to share data.

1. From the wireless device, turn on the Wi-Fi technology and search for wireless networks.

2. Select the name of your chartplotter wireless network (Setting Up the Wi-Fi Network, page 12).

3. Enter the chartplotter password.

Managing the Wi-Fi Network
Changing the Wi-Fi Host

If there are multiple chartplotters with Wi-Fi technology on the Garmin marine network, you can change which chartplotter is the Wi-Fi host. This can be helpful if you are having trouble with Wi-Fi communications. Changing the Wi-Fi host allows you to select a chartplotter that is physically closer to your mobile device.

1. Select Settings > Communications > Wi-Fi Network > Advanced > Wi-Fi Host.
2. Follow the on-screen instructions.

Changing the Wireless Channel

You can change the wireless channel if you have trouble finding or connecting to a device, or if you experience interference.

1. Select Settings > Communications > Wi-Fi Network > Advanced > Channel.
2. Enter a new channel.

You do not need to change the wireless channel of devices connected to this network.

Wireless Wind Sensor
Connecting a Wireless Sensor to the Chartplotter

You can view data from a compatible wireless sensor on the chartplotter.

1. Select Settings > Communications > Wireless Devices.
2. Select the wind sensor.
3. Select Enable.

The chartplotter begins searching for and connecting to the wireless sensor.
To view data from the sensor, add the data to a data field or gauge.

Adjusting the Wind Sensor Orientation

You should adjust this setting if the sensor does not face the front of the boat, exactly parallel to the center line.
NOTE: The opening where the cable connects to the pole indicates the front of the sensor.

1. Estimate the angle, in degrees clockwise around the mast, by which the sensor points away from the center of

   the front of the boat:

   • If the sensor is facing starboard, the angle should be between 1 and 180 degrees.

   • If the sensor is facing port, the angle should be between -1 and -180 degrees.
2. Select Settings > Communications > Wireless Devices.
3. Select the wind sensor.
4. Select Wind Angle Offset.
5. Enter the angle observed in step 1.
6. Select Done.

Viewing Boat Data on a Garmin Watch

You can connect a compatible Garmin watch to a compatible chartplotter to view data from the chartplotter.

1. Bring the Garmin watch within range (3 m) of the chartplotter.
2. From the watch clock screen, select START > Boat Data > START.

   NOTE: If you have already connected to a chartplotter, and would like to connect to a different chartplotter,

open the Boat Data screen, hold UP, and select Pair new.

3. On the chartplotter, select Settings > Communications > Wireless Devices > Connect IQ™ Apps > Boat Data > Enable > New Connection.

   The chartplotter begins searching for and connecting to the wearable device.

4. Compare the code shown on the chartplotter with the one shown on the watch.

5. If the codes match, select Yes to complete the pairing process.

After the devices are paired, they connect automatically when they are turned on and within range.

Charts and 3D Chart Views

The charts and 3D chart views that are available depend on the map data and accessories used.
NOTE: 3D chart views are available with premium charts, in some areas.
You can access the charts and 3D chart views by selecting Charts.
Nav. Chart: Shows navigation data available on your pre-loaded maps and from supplemental maps, if available. The data includes buoys, lights, cables, depth soundings, marinas, and tide stations in an overhead view.
Fishing Chart: Provides a detailed view of the bottom contours and depth soundings on the chart. This chart removes navigational data from the chart, provides detailed bathymetric data, and enhances bottom contours for depth recognition. This chart is best for offshore deep-sea fishing.
NOTE: The Fishing chart is available with premium charts, in some areas.
Perspective 3D: Provides a view from above and behind the boat (according to your course) and provides a visual navigation aid. This view is helpful when navigating tricky shoals, reefs, bridges, or channels, and is beneficial when trying to identify entry and exit routes in unfamiliar harbors or anchorages.
3D Chart: Shows 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.
Fish Eye 3D: Provides an underwater view that visually represents the sea floor according to the chart information. When a sonar transducer is connected, suspended targets (such as fish) are indicated by red, green, and yellow spheres. Red indicates the largest targets and green indicates the smallest.
Relief Shading: Provides high resolution elevation shading of lakes and coastal waters. This chart can be helpful for fishing and diving.
NOTE: The Relief Shading chart is available with premium charts, in some areas.

Detailed Charts

This chartplotter is compatible with the latest Garmin Navionics+™ cartography and additional premium chart features. You can obtain these charts in three ways:

- You can purchase a chartplotter with preloaded detailed charts.
- You can purchase chart regions on a memory card from your Garmin dealer or from **garmin.com**.
- You can purchase chart regions in the ActiveCaptain app, and download them to your chartplotter.

NOTE: You must activate preloaded charts and charts purchased on a memory card using the ActiveCaptain app before you can access the full chart features on your chartplotter.

Activating a Marine Chart Subscription

Before you can use the full features of Garmin Navionics+ charts that are preloaded on your device or purchased on a memory card, you must activate your subscription using the ActiveCaptain app.
Your subscription allows you to access the latest chart updates and additional content included with your purchase.

1. If you purchased charts on a memory card, insert the card into a memory card slot on the chartplotter or

   Garmin memory card reader.

2. Open the ActiveCaptain app on your mobile device, and connect it to the chartplotter (Getting Started with the ActiveCaptain App, page 10).

3. After the ActiveCaptain app connects to the chartplotter, make sure your mobile device is connected to the internet.

4. In the ActiveCaptain app, select Chart > ☰ > My Charts, and verify that an active subscription for the charts is shown in the list.

5. If necessary, connect the ActiveCaptain app to the chartplotter to complete the activation process.

   The ActiveCaptain app activates the subscription automatically after it connects to the internet and then to the chartplotter. The ActiveCaptain app shows the subscription status in the My Charts list.

   NOTE: It might take a few hours to verify the new subscription.

Navigation Chart and Fishing Chart
NOTE: The Fishing chart is available with premium charts, in some areas.
The Nav. Chart is optimized for navigation. You can plan a course, view map information, and use the chart as a navigational aid. To open the Nav. Chart, select **Charts > Nav. Chart**.

The Fishing Chart provides a detailed view with more bottom detail and fishing content. This chart is optimized for use when fishing. To open the Fishing Chart, select **Charts > Fishing Chart**.
Chart Symbols
This table contains some of the common symbols you might see on the detailed charts.

Icon	Description
	Buoy
	Information
	Marine services
	Tide station
	Current station
	Overhead photo available
	Perspective photo available

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

Zooming In and Out Using the Touchscreen

You can quickly zoom in and out of many screens, such as the charts and sonar views.

- Pinch two fingers together to zoom out.
- Spread two fingers apart to zoom in.

Measuring a Distance on the Chart

1. From a chart, select a location.
2. Select Measure.

A push pin appears on the screen at your present location. The distance and angle from the pin is listed in the corner.

TIP: To reset the pin and measure from the current location of the cursor, select Set Reference.

Creating a Waypoint on the Chart

1. From a chart, select a location or object.

2. Select ![waypoint icon] .

Viewing Location and Object Information on a Chart

You can view information, such as tide, current, celestial, chart notes, or local services, about a location or an object on the Navigation chart or the Fishing chart.

1. From the Navigation chart or Fishing chart, select a location or object.

   A list of options appears. The options that appear vary based on the location or object you selected.

2. If necessary, select ![arrow icon] .

3. Select Information.

Viewing Details about Navaids

From the Navigation chart, Fishing chart, Perspective 3D chart view, or Mariner's Eye 3D chart view, you can view details about various types of navigation aids, including beacons, lights, and obstructions.

NOTE: The Fishing chart is available with premium charts, in some areas.

NOTE: 3D chart views are available with premium charts, in some areas.

1. 1 From a chart or 3D chart view, select a navaid.

   2 Select the name of the navaid.

Navigating to a Point on the Chart

⚠️ **WARNING**

All route and navigation lines displayed on the chartplotter are only intended to provide general route guidance or to identify proper channels, and are not intended to be precisely followed. Always defer to the navaids and conditions on the water when navigating to avoid groundings or hazards that could result in vessel damage, personal injury, or death.

The Auto Guidance feature is based on electronic chart information. That data does not ensure obstacle and bottom clearance. Carefully compare the course to all visual sightings, and avoid any land, shallow water, or other obstacles that may be in your path.

When using Go To, a direct course and a corrected course may pass over land or shallow water. Use visual sightings, and steer to avoid land, shallow water, and other dangerous objects.

NOTE: The Fishing chart is available with premium charts, in some areas.

NOTE: Auto Guidance is available with premium charts, in some areas.

1. From the Navigation chart or Fishing chart, select a location.

2. If necessary, select Navigate To.

3. Select an option:

   • To navigate directly to the location, select Go To or ⬉ .

   • To create a route to the location, including turns, select Route To or ⬈ .

   • To use Auto Guidance, select Auto Guidance or ⬈ .

4. Review the course indicated by the magenta line (Route Color Coding, page 36).

   NOTE: When using Auto Guidance, a gray segment within any part of the magenta line indicates that Auto Guidance cannot calculate part of the Auto Guidance line. This is due to the settings for minimum safe water depth and minimum safe obstacle height.

5. Follow the magenta line, steering to avoid land, shallow water, and other obstacles.

Premium Charts

⚠️ **WARNING**

All route and navigation lines displayed on the chartplotter are only intended to provide general route guidance or to identify proper channels, and are not intended to be precisely followed. Always defer to the navaids and conditions on the water when navigating to avoid groundings or hazards that could result in vessel damage, personal injury, or death.

The Auto Guidance feature is based on electronic chart information. That data does not ensure obstacle and bottom clearance. Carefully compare the course to all visual sightings, and avoid any land, shallow water, or other

obstacles that may be in your path.

NOTE: Not all models support all charts.

Optional premium charts, such as Garmin Navionics Vision+™ , allow you to get the most out of your chartplotter. In addition to detailed marine charting, premium charts may contain these features, which are available in some areas.

Mariner's Eye 3D: Provides a view from above and behind the boat for a three-dimensional navigation aid.

Fish Eye 3D: Provides an underwater, three-dimensional view that visually represents the sea floor according to the information on the chart.

Fishing Charts: Shows 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 (Showing Satellite Imagery on the Navigation Chart, page 21).

Aerial Photos: Shows marinas and other navigationally significant aerial photos to help you visualize your surroundings (Viewing Aerial Photos of Landmarks, page 21).

Detailed Roads and POI data: Shows detailed road and point of interest (POI) data, which includes highly detailed coastal roads and POIs such as restaurants, lodging, and local attractions.

Auto Guidance: Uses specified information about your vessel and chart data to determine the best path to your destination.

Sonar Imagery: Shows sonar imagery to help show the density of the bottom.

Relief Shading: Shows the gradient of the bottom with shading.

Fish Eye 3D Chart View

Using the depth contour lines of the premium charts, such as Garmin Navionics Vision+, the Fish Eye 3D chart view provides an underwater view of the sea floor or lake bottom.

Suspended targets, such as fish, are indicated by red, green, and yellow spheres. Red indicates the largest targets and green indicates the smallest.

Viewing Tide Station Information

WARNING

Tide and current information is for information purposes only. It is your responsibility to heed all posted water-related guidance, to remain aware of your surroundings, and to use safe judgment in, on, and around the water at all times. Failure to heed this warning could result in property damage, serious personal injury, or death.

The ◇ icon on the chart indicates a tide station. You can view a detailed graph for a tide station to help predict the tide level at different times or on different days.

NOTE: This feature is available with premium charts, in some areas.

1. From the Navigation chart or Fishing chart, select a tide station.

   Tide direction and tide level information appear near ◇ .

2. Select the station name.

Animated Tide and Current Indicators

⚠ **WARNING**

Tide and current information is for information purposes only. It is your responsibility to heed all posted water-related guidance, to remain aware of your surroundings, and to use safe judgment in, on, and around the water at all times. Failure to heed this warning could result in property damage, serious personal injury, or death.

NOTE: This feature is available with premium charts, in some areas.

You can view indicators for animated tide station and current direction on the Navigation chart or the Fishing chart. You must also enable animated icons in the chart settings (Showing Tides and Current Indicators, page 20).

An indicator for a tide station appears on the chart as a vertical bar graph with an arrow. A red arrow pointing downward indicates a falling tide, and a blue arrow pointing upward indicates a rising tide. When you move the cursor over the tide station indicator, the height of the tide at the station appears above the station indicator.

Current direction indicators appear as arrows on the chart. The direction of each arrow indicates the direction of the current at a specific location on the chart. The color of the current arrow indicates the range of speed for the current at that location. When you move the cursor over the current direction indicator, the specific current speed at the location appears above the direction indicator.

Color	Current Speed Range
Yellow	0 to 1 knot
Orange	1 to 2 knots
Red	2 or more knots

Showing Tides and Current Indicators

NOTE: This feature is available with premium charts, in some areas.

You can show static or animated tide and current station indicators on the Navigation chart or Fishing chart.

1. From the Navigation or Fishing chart, select ••• > Layers > Chart > Tides & Currents.

2. Select an option:

   • To show animated tide station indicators and animated current direction indicators on the chart, select Animated.

   • To enables the tides and current slider, which sets the time for which tides and currents are reported on the map, select Slider.

Showing Satellite Imagery on the Navigation Chart

NOTE: This feature is available with premium charts, in some areas.

You can overlay high-resolution satellite images on the land or on both land and sea portions of the Navigation chart.

NOTE: When enabled, high-resolution satellite images are present only at lower zoom levels. If you cannot see high-resolution images in your optional chart region, you can select to ✚ zoom in. You also can set the detail

level higher by changing the map zoom detail.

1. From the Navigation chart, select ●●● > Layers > Chart > Satellite Photos.
2. Select an option:

   • Select Land Only to show standard chart information on the water, with photos overlaying the land.

   NOTE: This setting must be enabled to view Standard Mapping® charts.

   • Select Photo Map to show photos on both the water and the land at a specified opacity. Use the slider bar to adjust the photo opacity. The higher you set the percentage, the more the satellite photos cover both land and water.

Viewing Aerial Photos of Landmarks

Before you can view aerial photos on the Navigation chart, you must turn on the Photo Points setting in the chart setup (Chart Layers, page 27).

NOTE: This feature is available with premium charts, in some areas.

You can use aerial photographs of landmarks, marinas, and harbors to help orient yourself to your surroundings or to acquaint yourself with a marina or a harbor prior to arrival.

1. From the Navigation chart, select a camera icon:

   • To view an overhead photo, select .

   • To view a perspective photo, select . The photo was taken from the location of the camera, pointed in the direction of the cone.
2. Select Photo.

Automatic Identification System

The Automatic Identification System (AIS) enables you to identify and track other vessels, and alerts you to area traffic. When connected to an external AIS device, the chartplotter can show some AIS information about other vessels that are within range, that are equipped with a transponder, and that are actively transmitting AIS information.

The information reported for each vessel includes the Maritime Mobile Service Identity (MMSI), location, GPS speed, GPS heading, time that has elapsed since the last position of the vessel was reported, nearest approach, and time to the nearest approach.

Some chartplotter models also support Blue Force Tracking. Vessels being tracked with Blue Force Tracking are indicated on the chartplotter with a blue-green color.

AIS Targeting Symbols

Symbol	Description
Δ	AIS vessel. The vessel is reporting AIS information. The direction in which the triangle is pointing indicates the direction in which the AIS vessel is moving.
Δ	Target is selected.
✕	Target is activated. The target appears larger on the chart. A green line attached to the target indicates the heading of the target. The MMSI, speed, and direction of the vessel appear beneath the target, if the details setting has been set to Show. If the AIS transmission from the vessel is lost, a message banner appears.
✕	Target is lost. A green X indicates that the AIS transmission from the vessel is lost, and the chartplotter displays a message banner asking whether the vessel should continue to be tracked. If you discontinue vessel tracking, the lost target symbol disappears from the chart or the 3D chart view.
◤	Dangerous target in range. The target flashes while an alarm sounds and a message banner appears. After the alarm has been acknowledged, a solid red triangle with a red line attached to it indicates the location and the heading of the target. If the safe-zone collision alarm has been set to Off, the target flashes, but the audible alarm does not sound and the alarm banner does not appear.If the AIS transmission from the vessel is lost, a message banner appears.
✕	Dangerous target is lost. A red X indicates that the AIS transmission from the vessel is lost, and the chartplotter displays a message banner asking whether the vessel should continue to be tracked. If you discontinue vessel tracking, the lost dangerous target symbol disappears from the chart or the 3D chart view.
⚓	The location of this symbol indicates the closest point of approach to a dangerous target, and the numbers near the symbol indicate the time to the closest point of approach to that target.

NOTE: Vessels being tracked with the Blue Force Tracking feature are indicated with a blue-green color regardless of their status.

⚠

366124586

Wind Hold – App.

① ② ③

051 °M

30 60 90 120 150 180 150 120 90 60 30

A

10.3 kt

AWS

Gybe Port

Tack Starboard

<1°   1°>   10°>>

Chirp 455 kHz

93 75 60 45 30 15 0 15 30 45 60 75 93

38.9 ft
47.16 °F
0.00 mph
11.5 v
05:16 PM
①
②
③

35.9 ft
61.75 °F
10.1 mph
__.__ v
05:59 PM

⟨ ⟩ ▤
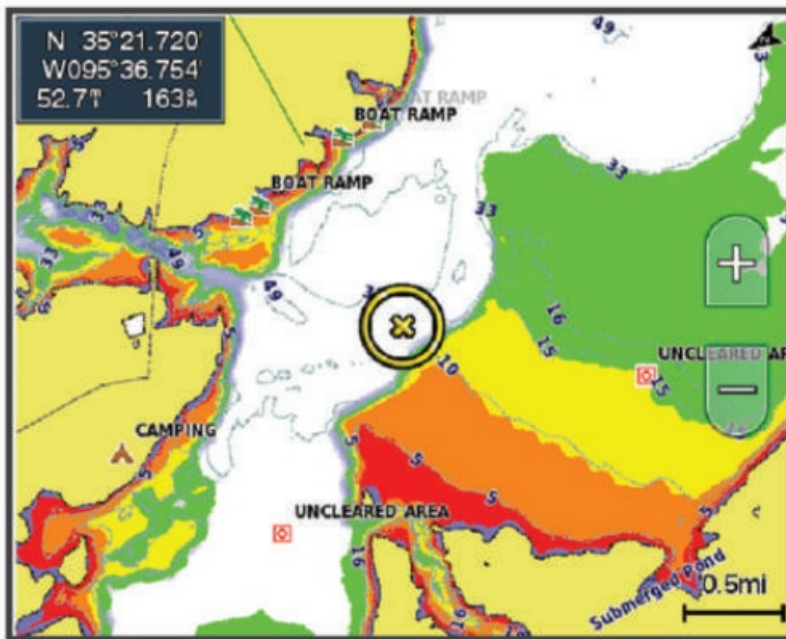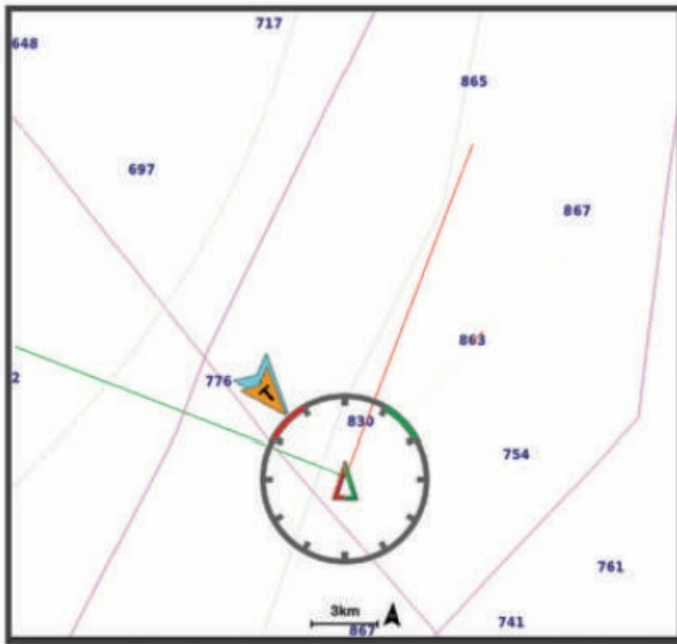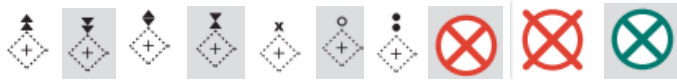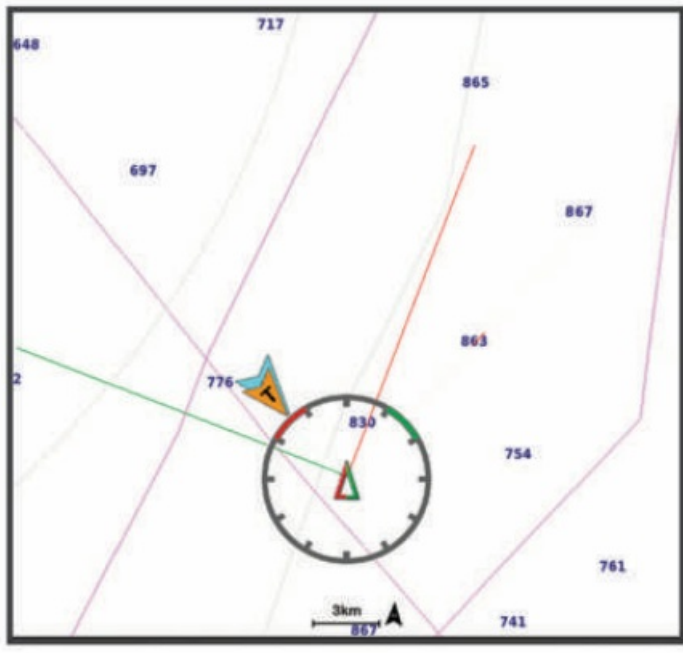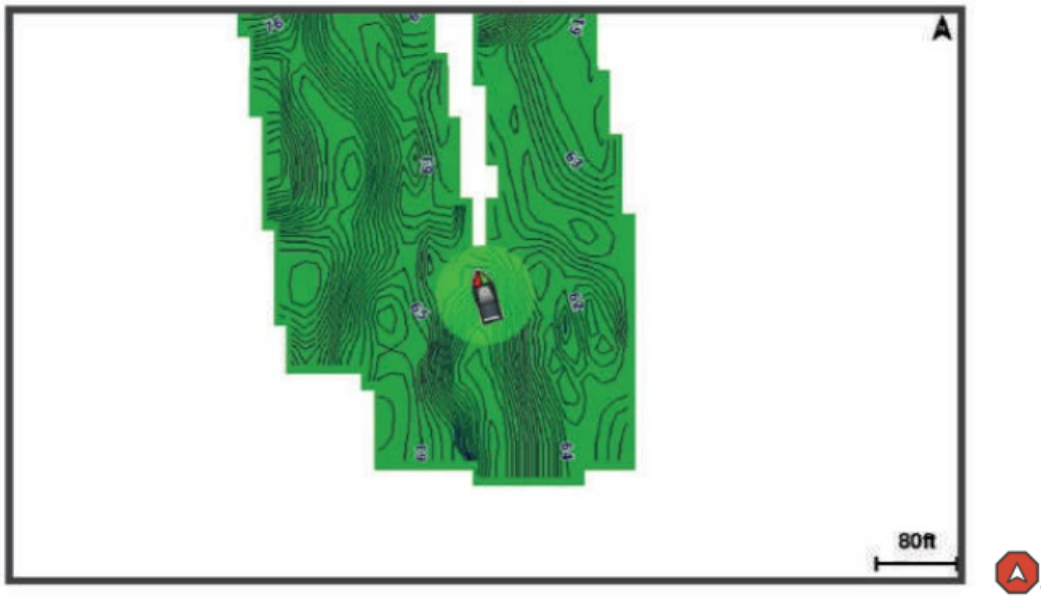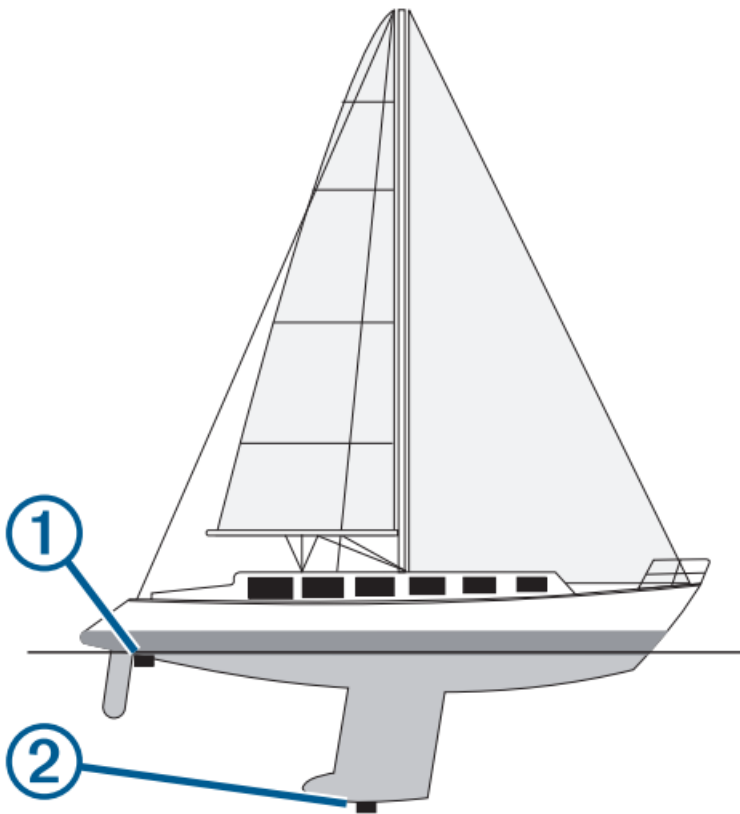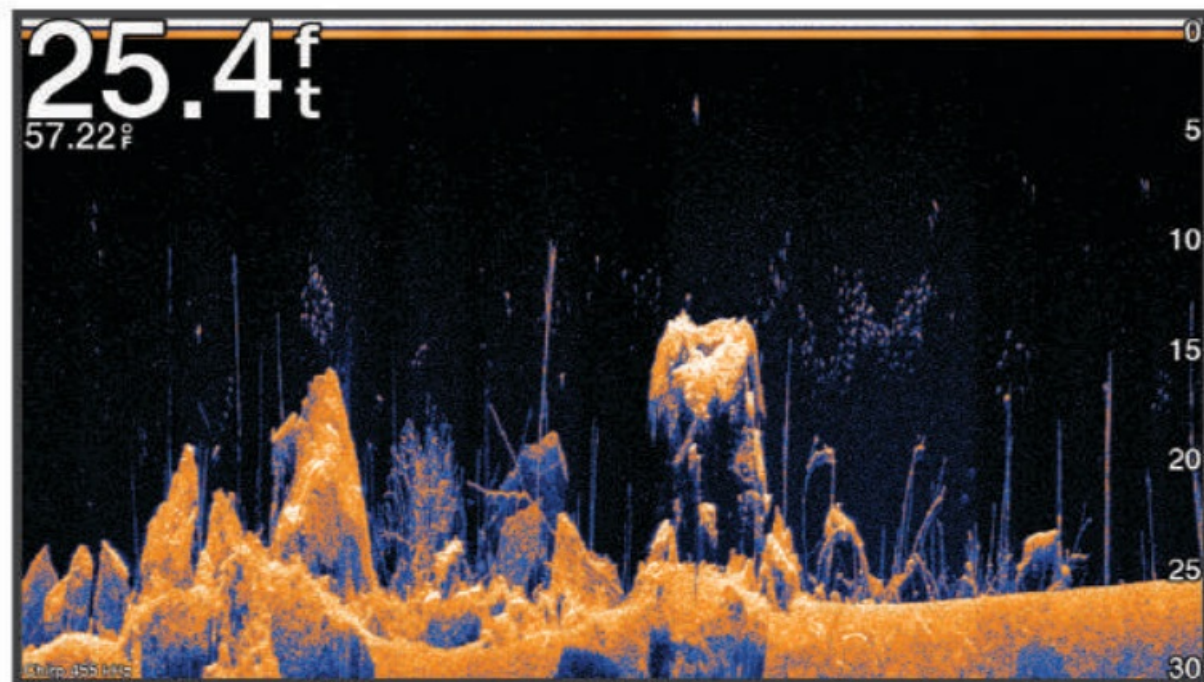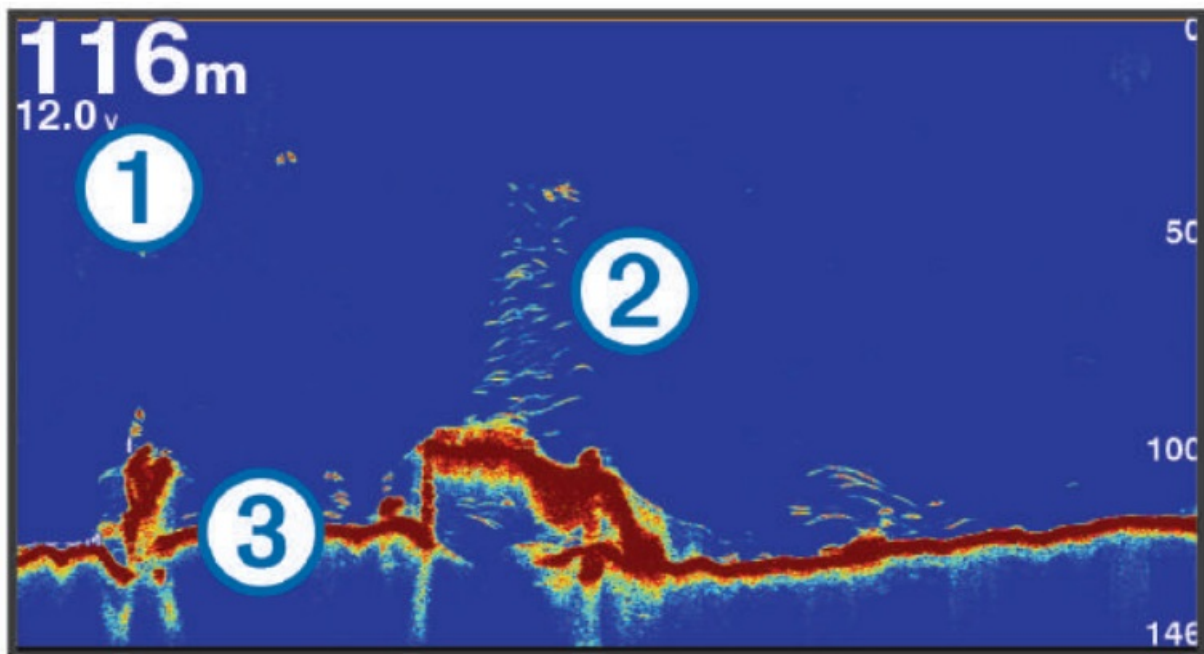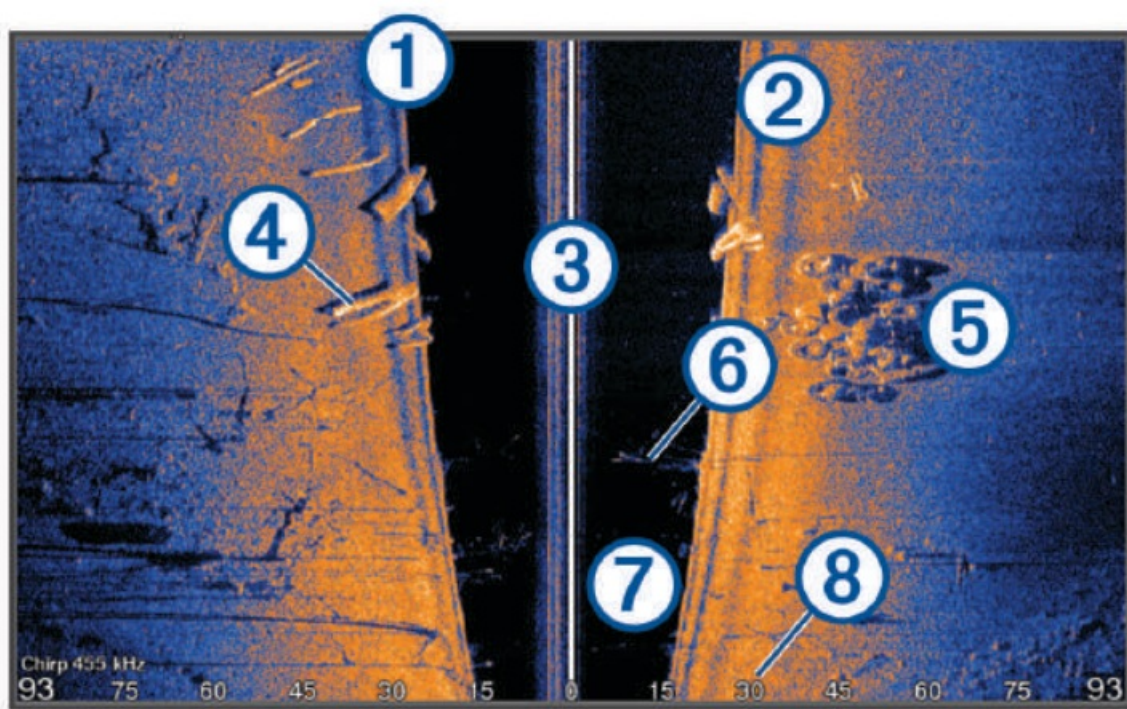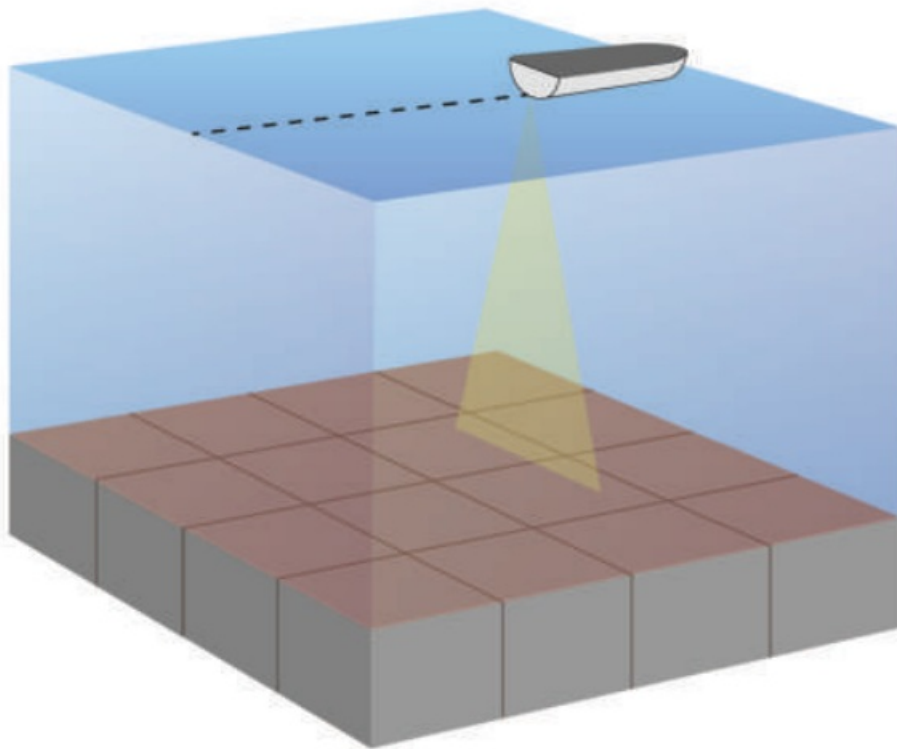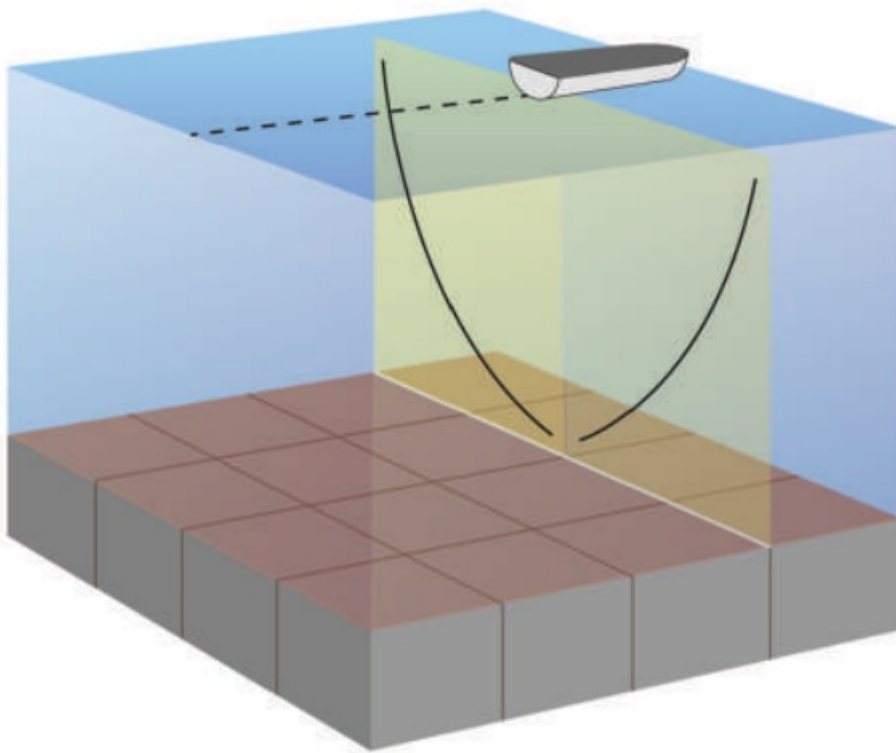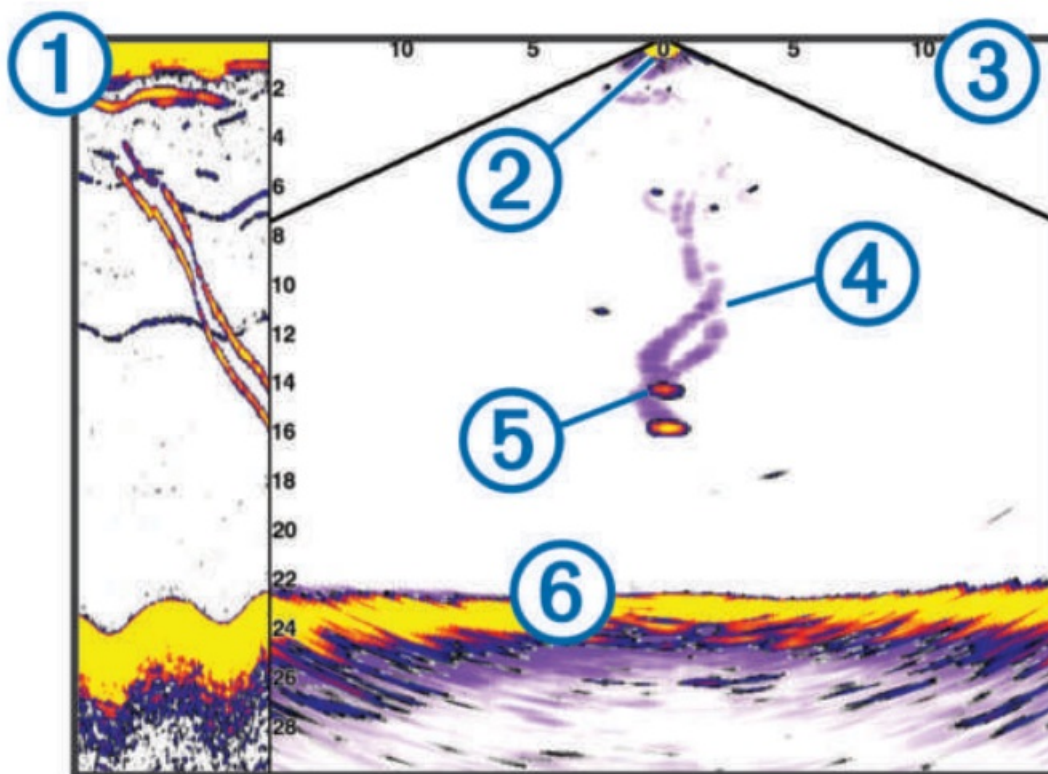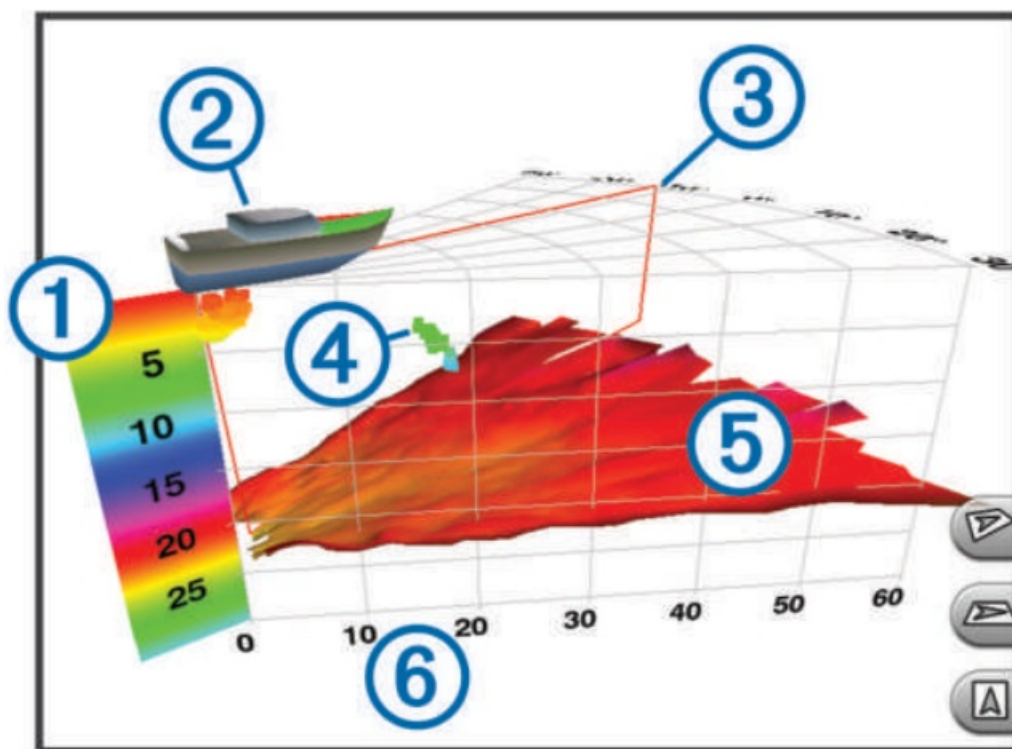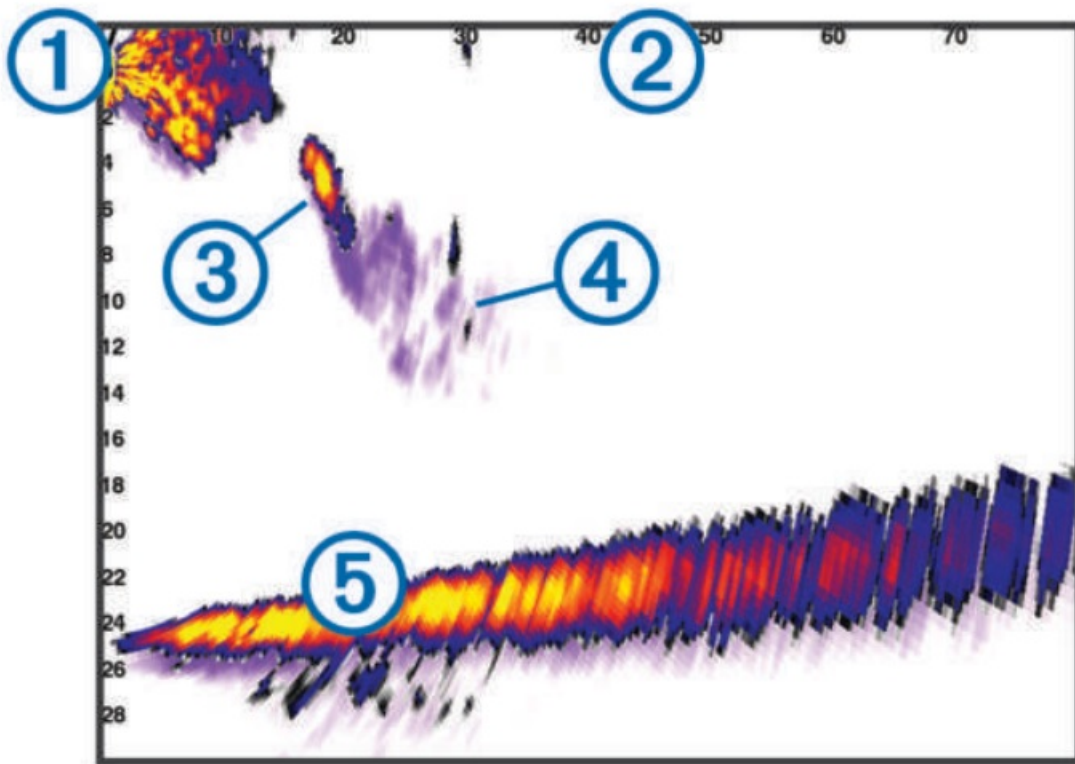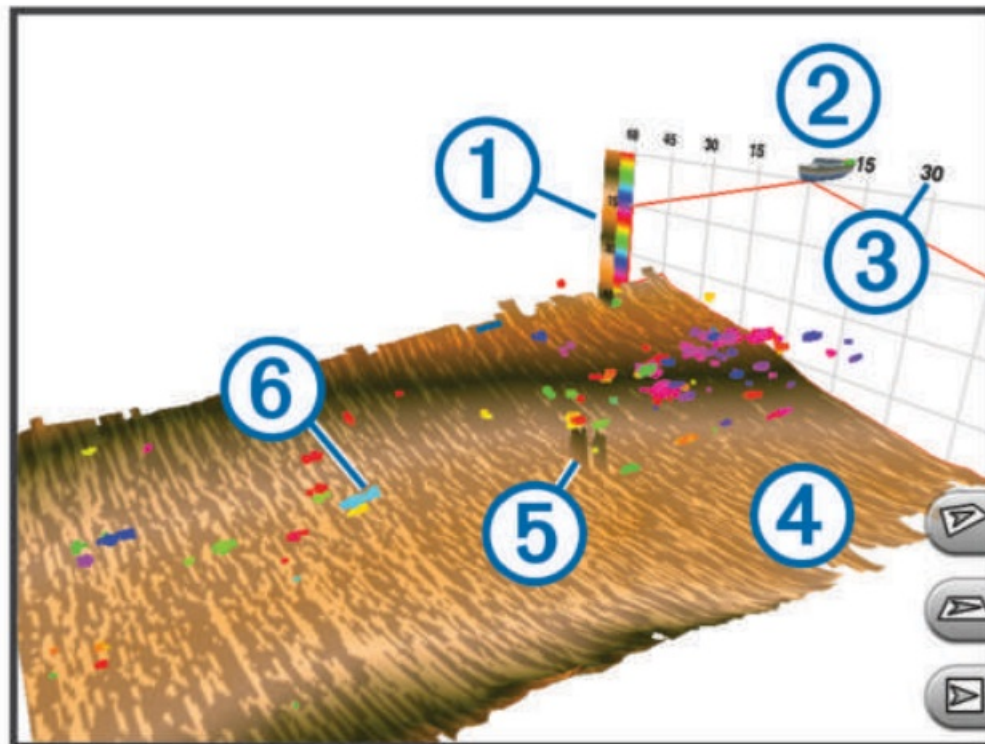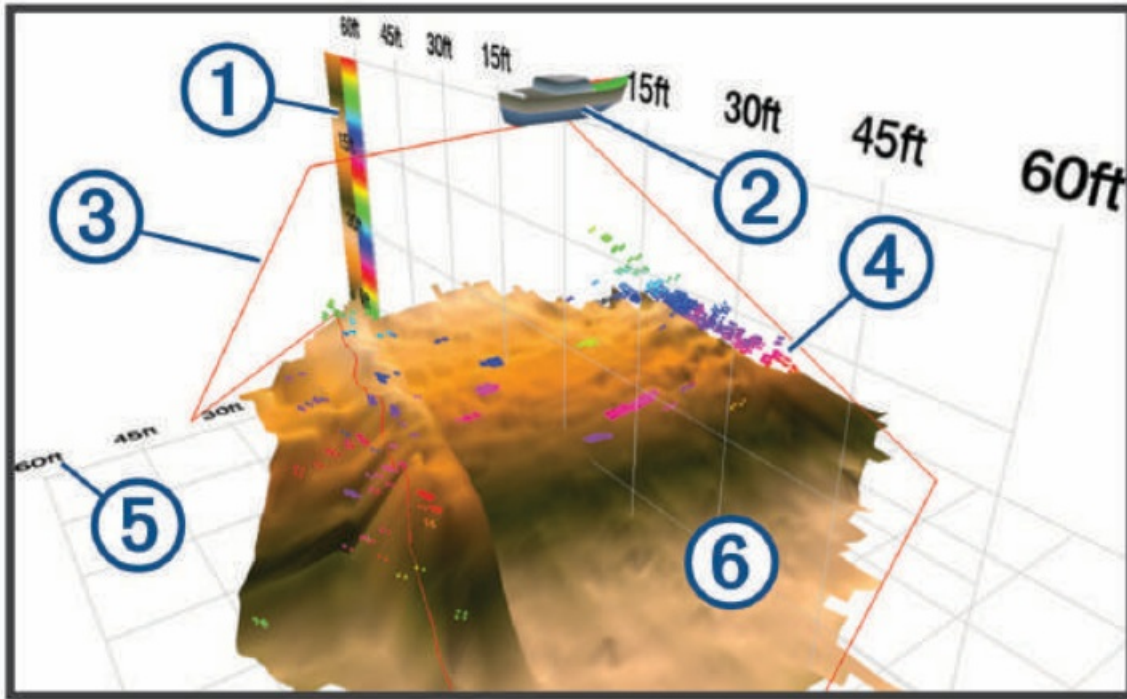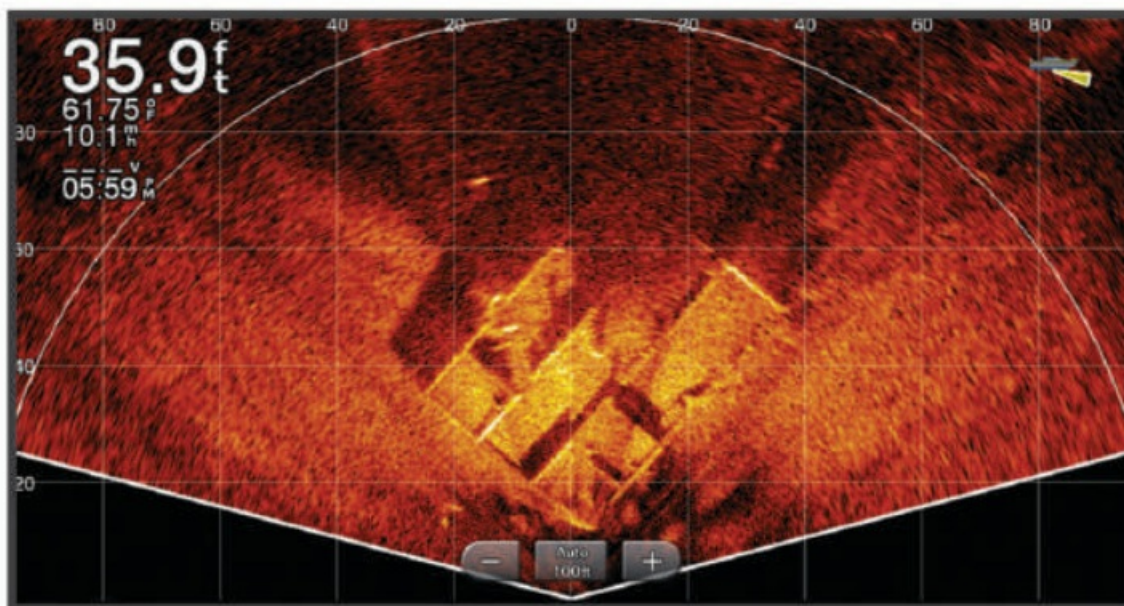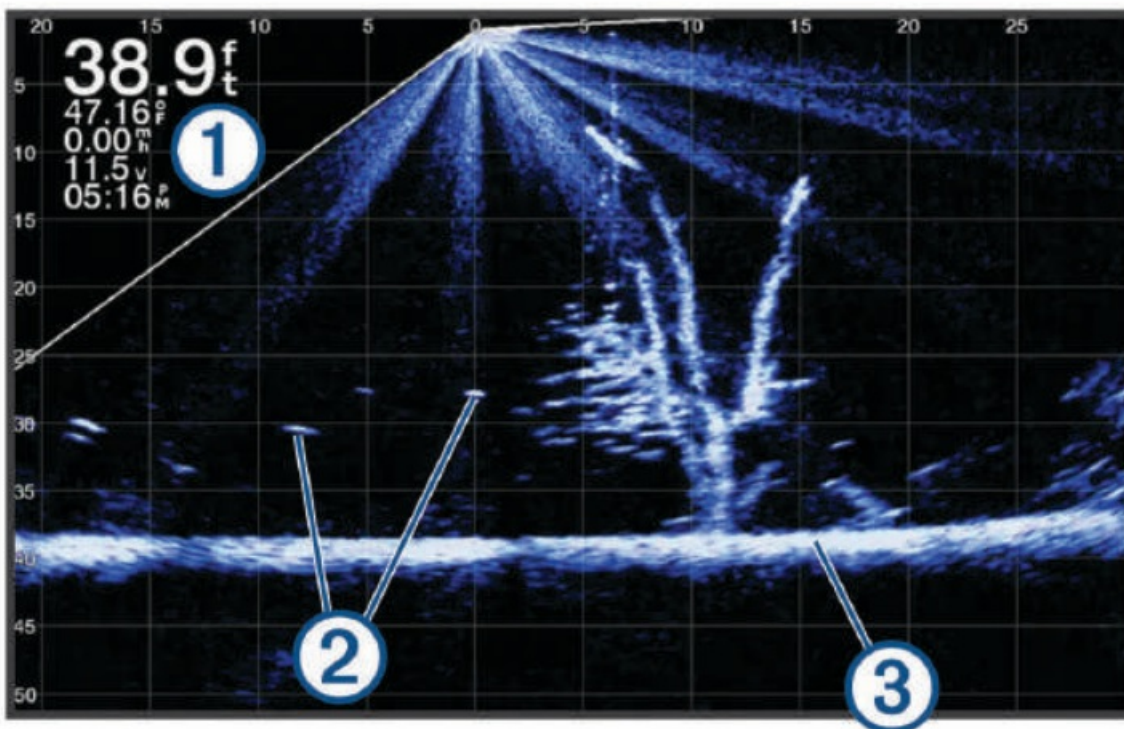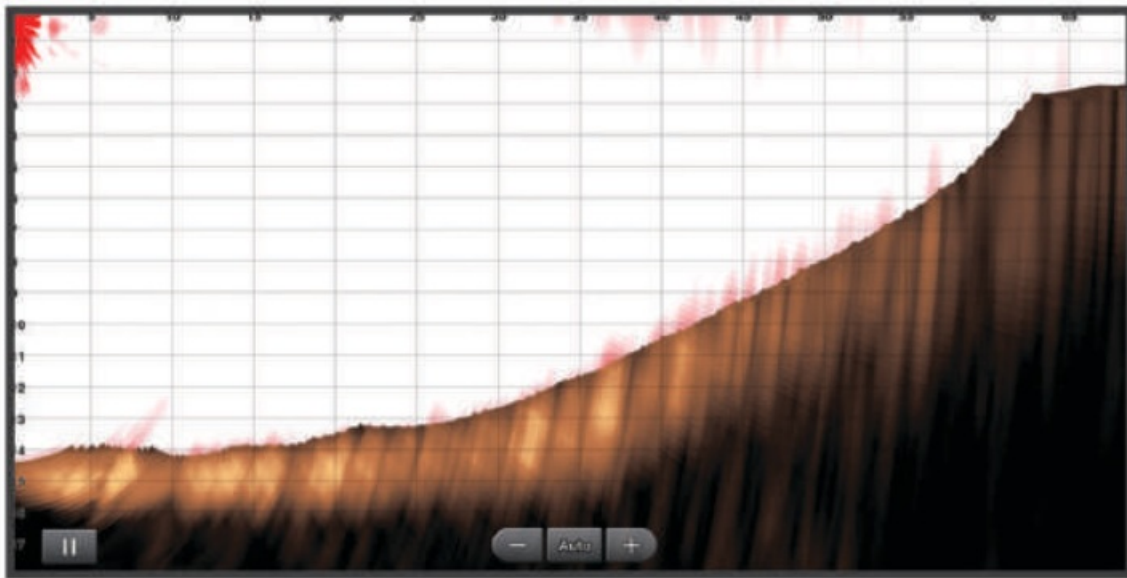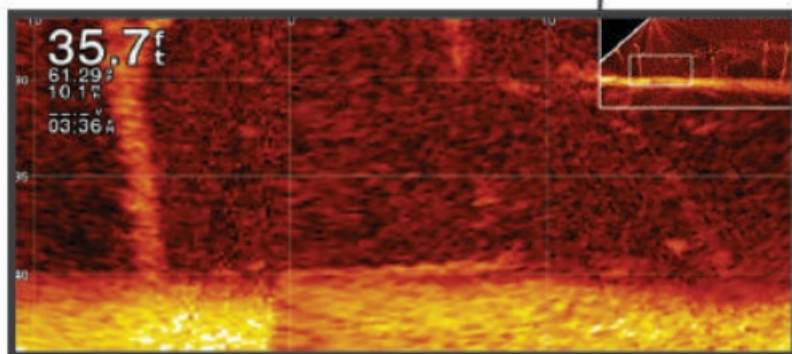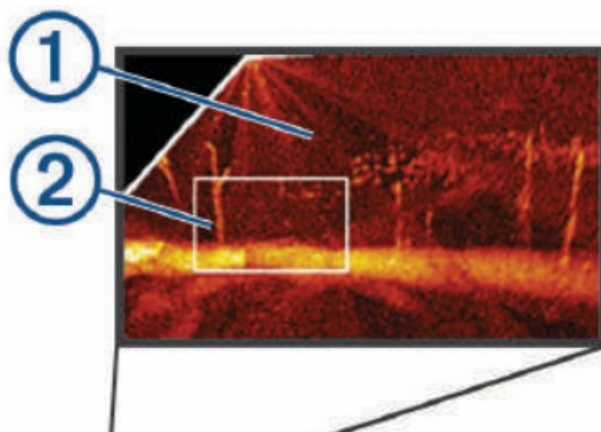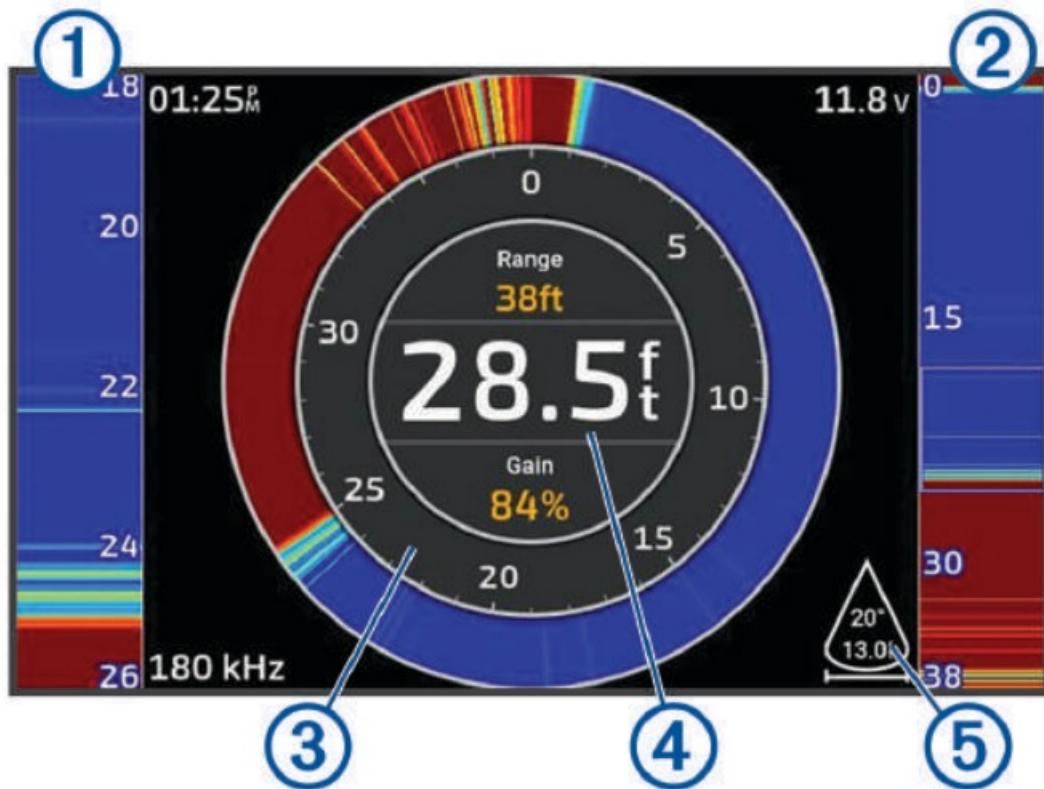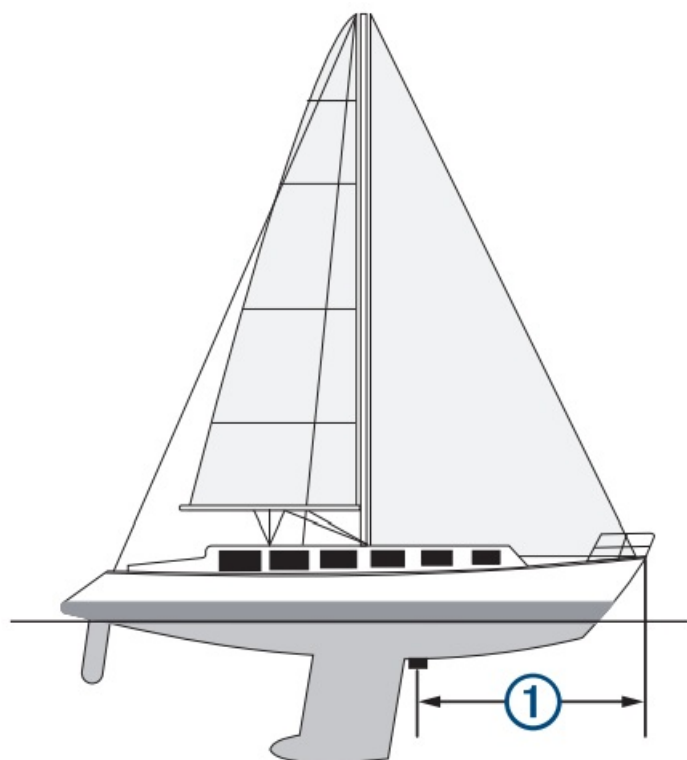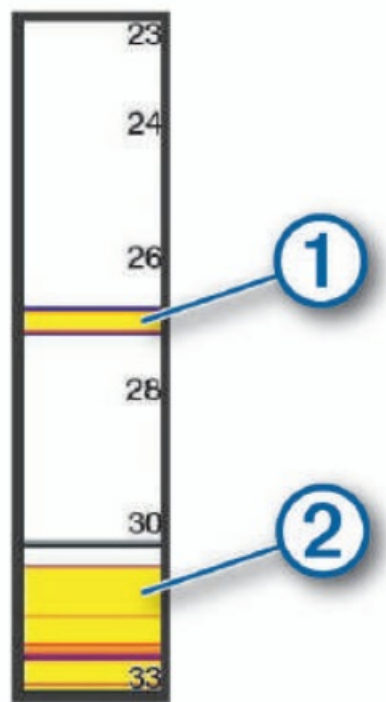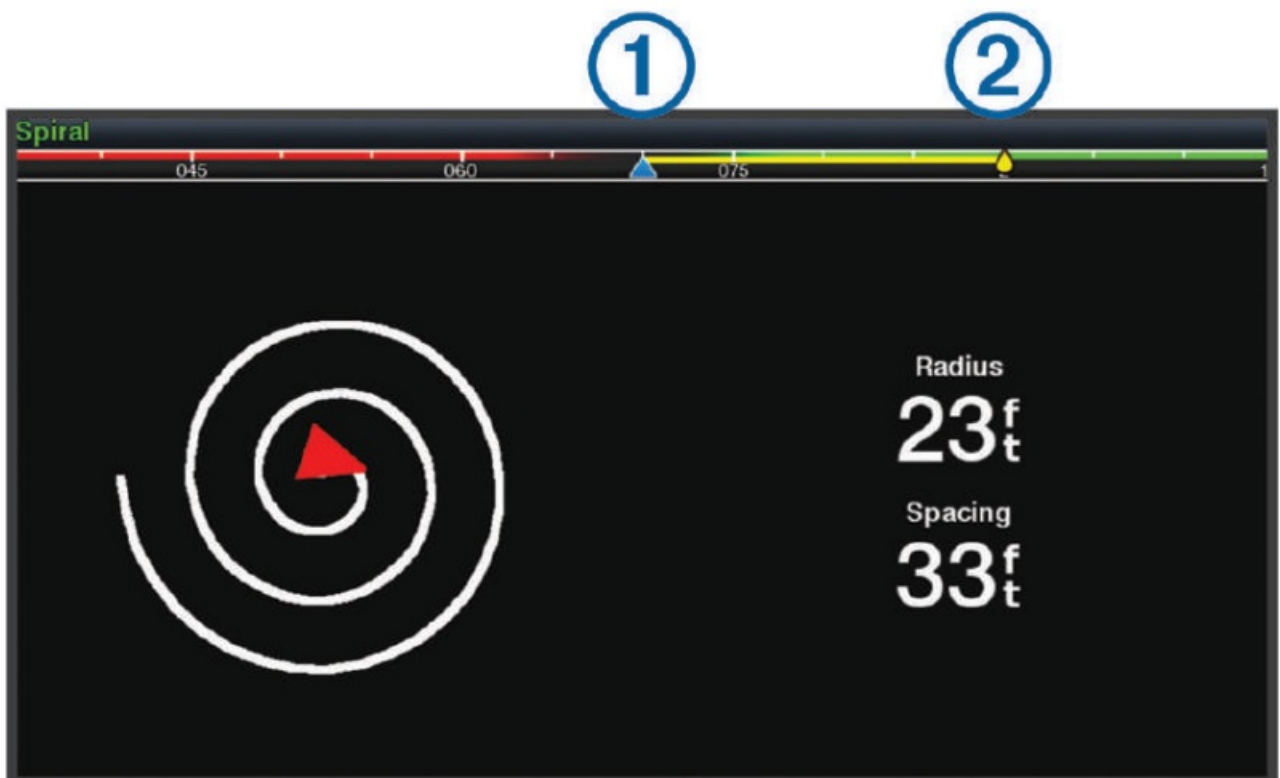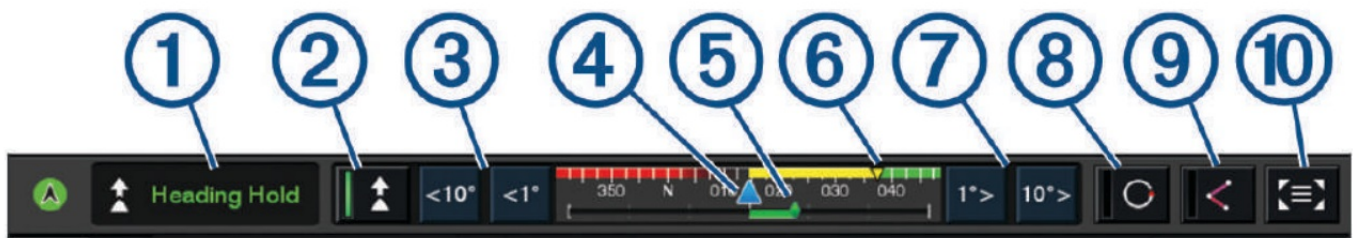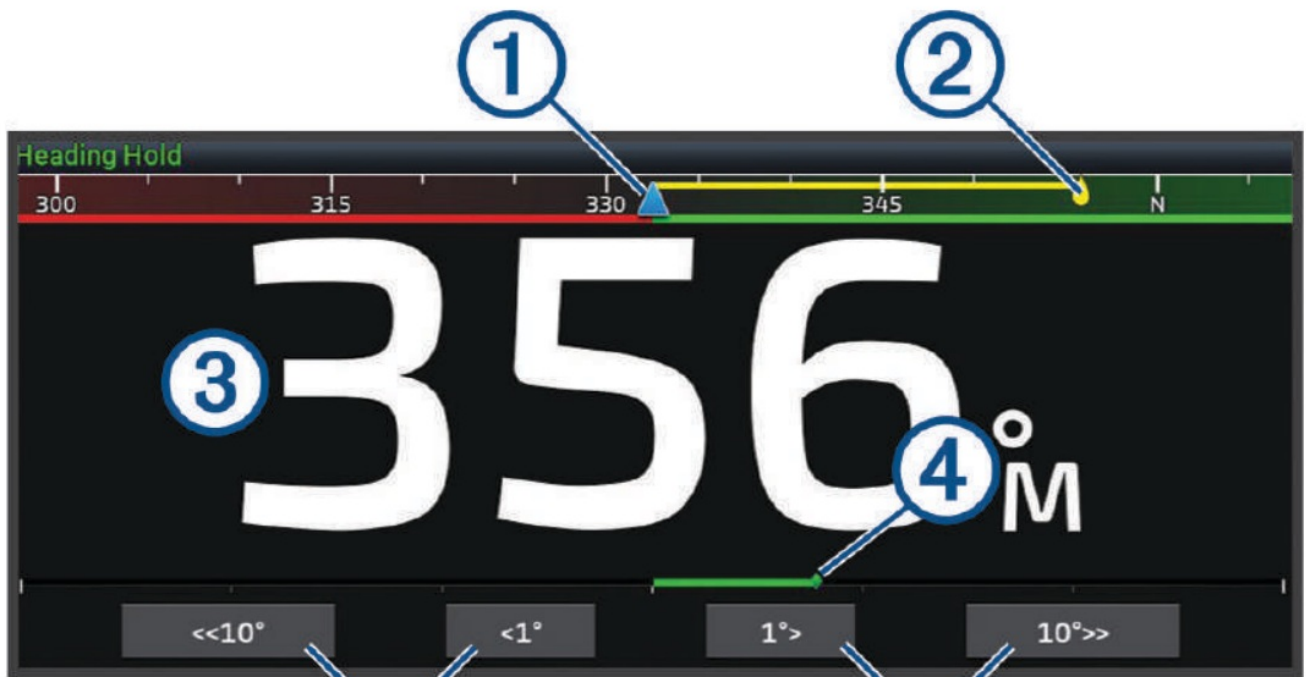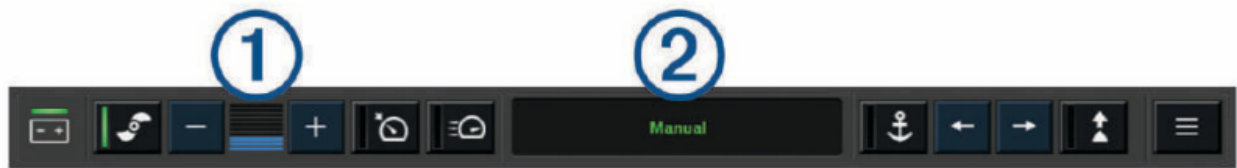
⊟	Trolling motor battery status.
🌀	Turns the propeller on and off.
▬	Reduces the speed.
①	Speed indicator.
✚	Increases the speed.
⏱	Enables the cruise control at the current speed over ground (SOG).
⊜	Engages the propellor at full speed.
②	Trolling motor status.
⚓	Enables anchor lock, which uses the trolling motor to hold your position.
↔	Steers the trolling motor. When in anchor lock, jogs the anchor lock position forward, backward, left, or right.
↕	Enables heading hold (set and maintain the current heading). When the trolling motor is in heading hold, an autopilot bar appears in the trolling motor bar.
☰	Opens the trolling motor settings.

② ①

GPS Speed
0.00 MPH

GPS Hdg (COG)
007° M

GPS Position
N 25°45.563'
W080°10.426'

Depth
386.7 ft

① TRIP	**0.3** mile	TRIP	**0.0** h			11:30A ②

③ AUTO PILOT

SPEED
0.0 mph

④

⑤

⑥ MODE

⑦ BOAT STATUS

USED **6.4** gal

FLOW **3.0** gph

ECON **0.0** mpg

RUDDER
30 0 30

⑧ N

10
⑨ x100 r/min

15.0 v

⑩
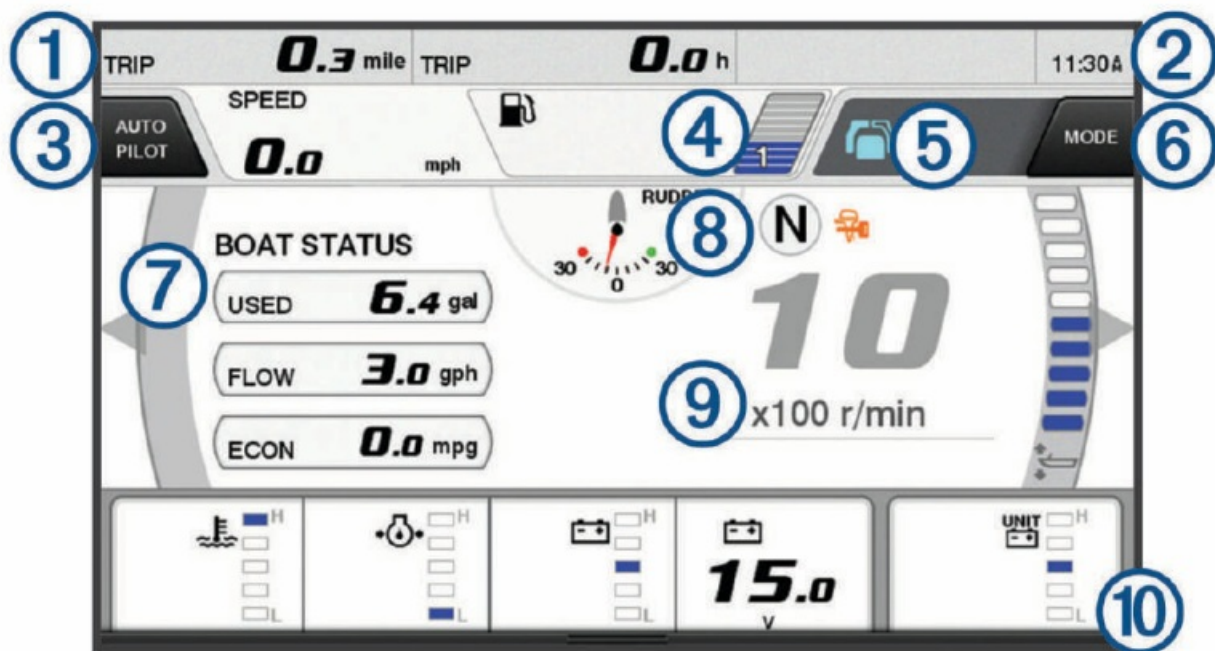
⊘	Select to control both anchors simultaneously Deselect to control the anchors independently
⟰	Select to fully retract the anchor
⟱	Select to fully extend the anchor
⌃	Hold to retract the anchor manually Release to stop the anchor
⌄	Hold to extend the anchor manually Release to stop the anchor
☰	Select to open the menu
PORT	Port side anchor control buttons
STBD	Starboard side anchor control buttons

−	Select to decrease the target speed
①	Target speed
+	Select to increase the target speed
②	Actual speed
Enable	Select to engage the Mercury Troll feature
Disable	Select to disengage the Mercury Troll feature

①	Port engine RPM
②	Starboard engine RPM
③	Total available fuel
④	Fuel usage
⑤	Sport Exhaust control (if supported) (*Enabling the Mercury Engine Sport Exhaust Setting,* page 110)

①	Control mode
②	Optimus control buttons
③	Rudder
④	Standby button

━	Select to decrease the target speed
①	Target speed
✚	Select to increase the target speed
②	Actual speed
Enable	Select to engage the cruise control
Disable	Select to disengage the cruise control

Documents / Resources

ECHOMAP™ UHD2 6/7/9 SV Owner's Manual	**GARMIN ECHOMAP UHD2 94SV 9 Inch Touchscreen Chartplotter** [pdf] User Manual ECHOMAP UHD2 94SV 9 Inch Touchscreen Chartplotter, ECHOMAP UHD2 94SV, 9 Inch Touchscreen Chartplotter, Touchscreen Chartplotter, Chartplotter

References

- **SiriusXM**
- **Garmin Connect |**
- **Garmin International | Home**
- **What is GPS? | Garmin**
- **Garmin Express - Windows | Garmin**
- **Reactorâ„¢ Autopilot Remote Control | Garmin Customer Support**
- **Garmin International | Home**
- **Transducers for Boats | Thru-hull & In-hull | Garmin**
- **Navionics**
- **Activate Now | SiriusXM**
- **Garmin Customer Support**
- **Garmin International | Home**
- **What is GPS? | Garmin**
- **Garmin Express - Windows | Garmin**
- **Garmin International | Home**
- **Transducers for Boats | Thru-hull & In-hull | Garmin**

- ▲ **[Water Rating Definitions | Garmin](#)**
- ⬈ **[Navionics](#)**
- 📶 **[Activate Now | SiriusXM](#)**
- ▲ **[Reactorâ„¢ Autopilot Remote Control | Garmin Customer Support](#)**
- ▲ **[Garmin International | Home](#)**
- **[User Manual](#)**

Manuals+,