LOWRANCE

Hook Reveal Series
Operator Manual

ENGLISH

Preface

Disclaimer

As Navico is continuously improving this product, we retain the right to make changes to the product at any time which may not be reflected in this version of the manual. Please contact your nearest distributor if you require any further assistance.

It is the owner's sole responsibility to install and use the equipment in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing maritime safety practices.

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Governing language

This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of the Documentation, the English language version of the Documentation will be the official version of the Documentation.

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Navico product references

This manual refers to the following Navico products:
• DownScan Imaging™ (DownScan)

- DownScan Overlay™ (Overlay)
- FishReveal™ (FishReveal)
- Genesis® (Genesis)
- StructureMap™ (StructureMap)

Copyright

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Warranty

The warranty card is supplied as a separate document. In case of any queries, refer to the brand website of your unit or system:

www.lowrance.com

Compliance statements

Declarations

The relevant declarations of conformity are available at:

www.lowrance.com

Europe

Navico declare under our sole responsibility that the product conforms with the requirements of:

- CE under RED 2014/53/EU

United States of America

⚠ Warning: The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Australia and New Zealand

Navico declare under our sole responsibility that the product conforms with the requirements of:

- level 2 devices of the Radiocommunications (Electromagnetic Compatibility) standard 2017

About this manual

This manual is a reference guide for operating a Hook Reveal Series unit. Because of size differences, screenshots of menus and dialogs may not match the look of your unit.

These units are only capable of the sonar views and frequencies indicated in the specification included in the transducer's installation guide for the transducer provided with the unit.

Transducers added via one of the optional transducer adapter cables will still only have the available views and frequencies that the display is designed to work with. Airmar transducers are not supported via the adapter cable.

In the manual, important text that requires special attention from the reader is emphasized as follows:

→ *Note:* Used to draw the reader's attention to a comment or some important information.

⚠ Warning: Used when it is necessary to warn personnel that they should proceed carefully to prevent risk of injury and/or damage to equipment/ personnel.

Manual version

This manual is written for the first version of software delivered with Hook Reveal Series. The manual is continually updated to match new software releases. The latest available manual version can be downloaded from www.lowrance.com.

The Software version

The software version currently on this unit can be found in the About dialog. The About dialog is available in the System Settings dialog.

For information regarding upgrading your software, refer to *"Software updates"* on page 78.

Contents

1

Introduction

Front controls
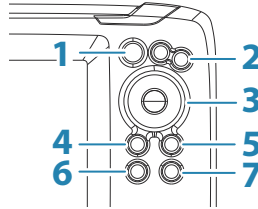
1. **Pages** - Press to activate the Home page.

2. **Zoom in/out** - Press to zoom the image.
   Press both keys simultaneously to create a MOB (Man Over Board) waypoint at the vessel's position.

3. **Arrows** - On any full screen page: press to position the cursor on the image. Press to pan the image in any direction.
   On multiple panel pages: press to select a panel.
   In menus and dialogs: press to highlight an option.

4. **Exit (X)** - On a maximized multiple panel page: press to return to the multiple panel page.
   In menus and dialogs: press to return to previous menu level and to exit a dialog.

5. **Menu/Enter** - On any full screen page with no menu or dialog active: press to display the menu.
   On multiple panel pages: press to maximize the current selected panel.
   In menus and dialogs: press to confirm a selection.

6. **Cursor/Waypoint** - Press to activate/deactivate the cursor. Press and hold to save a waypoint.

7. **Power** - Press to display the System Controls dialog.
   Press and hold to power the unit on/off.

Micro SD card

Depending on model the card reader is located either on the side or on the front.
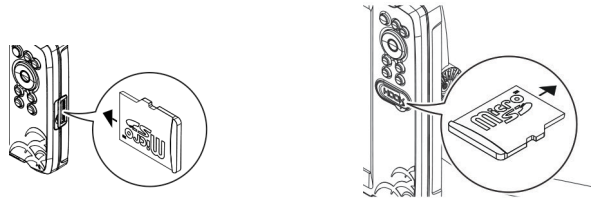
The Home page

The Home page is accessed from any operation by a short press on the Pages key.

→ *Note:* Page icons on the Home page vary with model type.
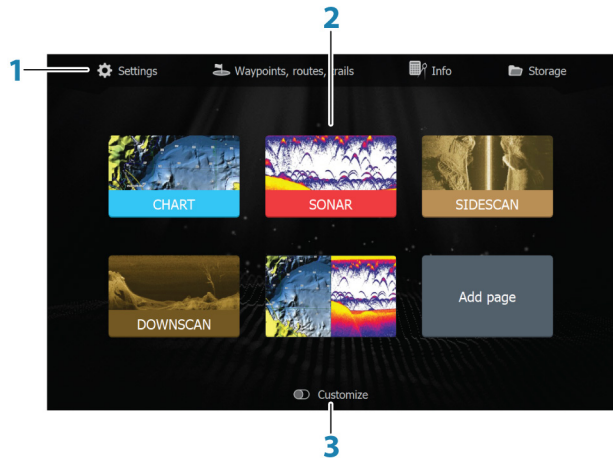
1   **Tools panel** - Select a button to access dialogs used for carrying out a task, or for browsing stored information.

2   **Application page icons** - Select a button to display the application page.

3   **Customize** - Activate customize mode to delete or modify custom pages.

Application pages
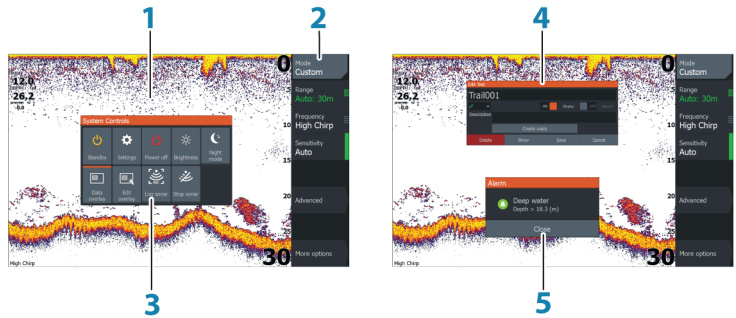
1 **Application panel**

2 **Menu** - Panel specific menu.

3 **System Controls dialog** - Quick access to basic system settings.

4 **Dialog** - Information to or input from the user.

5 **Alarm message** - Displayed if dangerous situations or system faults occur.

Each application connected to the system is presented on panels.

The application can be presented as a full page, or in combination with other panels in a multiple panel page.

All application pages are accessed from the Home page.

Custom pages

The system is delivered with one preconfigured custom page, and you can create your own. All custom pages can be modified and deleted. To add a custom page, refer to *"Adding new custom pages"* on page 20.

To edit or delete a custom page, refer to *"Edit or delete custom pages"* on page 21.

Multiple panel custom pages

You can have up to 4 panels on a custom page. Refer to *"Adding new custom pages"* on page 20.
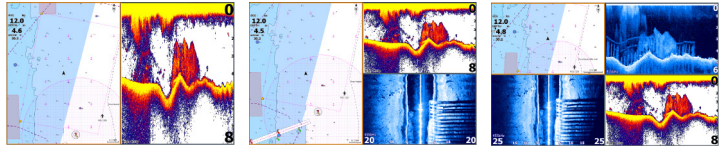
| 2 panels page | 3 panels page | 4 panels page |

Panel sizes in a multiple panel page can be adjusted from the System Controls dialog. Refer to *"Adjusting the split on multiple panel pages"* on page 21.

- With the cursor not active on any panel, switch active panel by using the Arrow keys. An active panel is indicated with an orange border.
- Maximize the active panel by pressing the Menu/Enter key. Press the Exit (X) key to go back to the multiple panel page.
- To display the panel menu, it must first be maximized. Once maximized, press the Menu/Enter key (again) to display the menu for the maximized pane. Press the Exit (X) key to close the menu, press the Exit (X) key again to go back to the multiple panel page.
- Activate the cursor on the active or maximized panel by pressing the Cursor/Waypoint key, then use the Arrow keys to position the cursor. Press the Cursor/Waypoint key again to remove the cursor.

Device registration

You are prompted to register your device during startup. You can also register by selecting the register option in the System settings dialog. Registration can be done:

- From a smart device with internet access
- Over the phone

2

Basic operation

Turning the system on and off

The system is turned on by pressing the Power key.

Press and hold the Power key to turn the unit off.

If the key is released before the shut-down is completed, the power off process is cancelled.

You can also turn the unit off from the System Controls dialog.

First time startup

When the unit is started for the first time, or after a reset, the unit displays a series of dialogs. Respond to the dialog prompts to make fundamental settings.

You can perform further setup and later change settings using the system settings dialogs.

System Controls dialog

The System Controls dialog provides quick access to basic system settings. You display the dialog by making a short press on the Power key.

The icons displayed on the dialog can vary. For example, the adjust splits option is only available if you are viewing a multiple panel page when you open the System Controls dialog.

Activating functions

Select the icon of the function you want to set or toggle on or off. For those functions that toggle on and off, an orange bar across the top of the icon indicates the function is activated, as shown in the Data overlay icon above.

Standby mode

In Standby mode, the Sonar and the backlight for the screen are turned off to save power. The system continues to run in the background.

You select Standby mode from the System Controls dialog.

Switch from Standby mode to normal operation by a short press on the Power key.

Display illumination

Brightness

You can cycle the preset backlight levels by short presses on the Power key.

The display backlighting can also be adjusted from the System Controls dialog.

Night mode

The night mode can be activated from the System Controls dialog.

The night mode option optimizes the color palette for low light conditions.

Using menus and dialogs

Menus

The menu is used to operate the system and to adjust settings.

Press the Menu/Enter key to display the page menu. Press the Menu/Enter key again to close the menu.

Use the Arrow keys to highlight a menu option, then press the Menu/Enter key to confirm the selection.

Scroll bars - activate the scroll bar in the menu and use the Arrow keys to adjust it. Press the Menu/Enter key to save your adjustment.

The status of the cursor (active vs. inactive) changes the menu options.

Dialog boxes

Use the Arrow keys to highlight a dialog option, then press the Menu/Enter key to confirm the selection.

Numeric and alphanumeric keyboards are automatically displayed when required for entering user information in dialogs.

A dialog is closed by saving or cancelling the entry. A dialog can also be closed by pressing the Exit (X) key.

Using the cursor on the panel

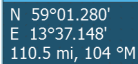The cursor can be used to mark a position, and to select items.

By default, the cursor is not shown on the panel.

Display the cursor by pressing the Cursor/Waypoint key and use the Arrow keys to move the cursor on the panel.

N 59°01.280'
E 13°37.148'
110.5 mi, 104 °M

When the cursor is active on the chart panel, the cursor position window is displayed. The bottom line of the window shows the distance and heading from the vessel to the cursor.

When the cursor is active on the sonar panel, the window also shows the depth and temperature at the cursor.

To remove the cursor and cursor elements from the panel, press the Cursor/Waypoint key.

Man Overboard waypoint

If an emergency situation should occur, you can save a Man Overboard (MOB) waypoint at the vessel's current position.

Create a MOB

To create a Man Overboard (MOB) waypoint:

• Simultaneously press the Zoom In (+) and Zoom out (-) keys

When you activate the MOB function, the following actions are automatically performed:

• A MOB waypoint is created at the vessel's position
• The display switches to a zoomed chart panel, centered on the vessel's position
• The system displays navigation information back to the MOB waypoint

Multiple MOB waypoints can be created. The vessel continues to show navigation information to the initial MOB waypoint. Navigation to subsequent MOB waypoints needs to be done manually.

Delete a MOB

A MOB waypoint can be deleted from the menu when the MOB is activated.
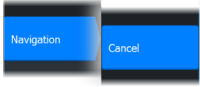
Stop navigating to MOB

The system continues to display navigational information towards the MOB waypoint until you cancel the navigation from the menu.

Screen capture

To take a screen capture:

· Simultaneously press the pages key and the power key

3

Customizing your system

Customizing the Home page wallpaper

The Home page's wallpaper can be customized. You can select one of the pictures included with the system, or you can use your own picture in .jpg or .png format.

The images can be available on any location that can be seen in the files browser. When a picture is chosen as the wallpaper, it is automatically copied to the Wallpaper folder.
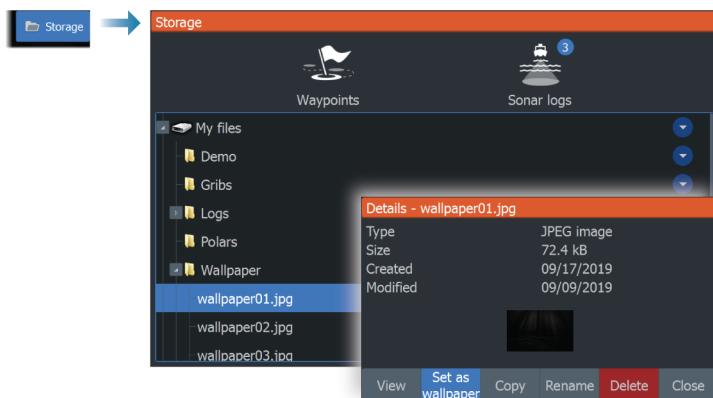
Data overlay

You can have data information as overlay on a page.
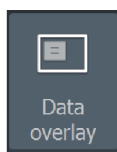
Turning Data overlay on and off

You can turn overlay data on or off for any active page by selecting the Data overlay icon on the System Controls dialog. When Data overlay is on, an orange bar appears above the icon.

Edit overlay data

Use the Edit overlay option on the System Controls dialog to access edit menu options to:
- Add a new data overlay to the active panel.
- Delete a selected data overlay.
- Change a selected data overlay to display different data.
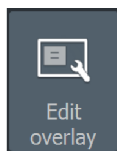
- Configure a selected data overlay appearance (digital or analog, size, etc.).
- Re-locate an item by selecting it and then the Move menu option. Use the Arrow keys to move selected item.

Custom pages

Adding new custom pages
A maximum of 9 pages are allowed. You can have up to 4 panels on a custom page.

1. Select the add page icon on the Home page to open the page editor dialog
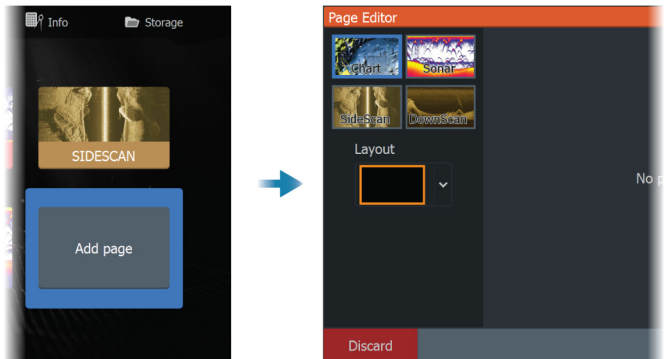
2. Use the Arrow keys to highlight a panel, then press the Menu/Enter key. The panel is added to the page.

3. (Optional) Repeat step 2 to add additional panels. A maximum of 4 panels are allowed.

- To change the layout: use the Arrow keys to select the layout option. Use this option to specify how you want the panels displayed.
- To remove a panel: use the Arrow keys to select the pane on the right side of the dialog and to highlight the delete (X) icon in the top right corner of the panel. Press the Menu/Enter key. The panel is removed from the pane on the right side of the dialog.
- To move a panel: use the Arrow keys to select the pane on the right side of the dialog and to highlight the arrows icon in the top left corner of the panel you want to move. Press the Menu/Enter key. A larger arrows icon is displayed. Use the

Arrow keys to move the highlighted panel. Press the Menu/ Enter key to save your adjustment.

4. Save the page layout.

The system displays the new custom page, and an icon for the new page is included on the Home page.

Edit or delete custom pages

1. On the Home page, use the Arrow keys to highlight the customize option and press the Enter/Menu key to turn ON the customize option.
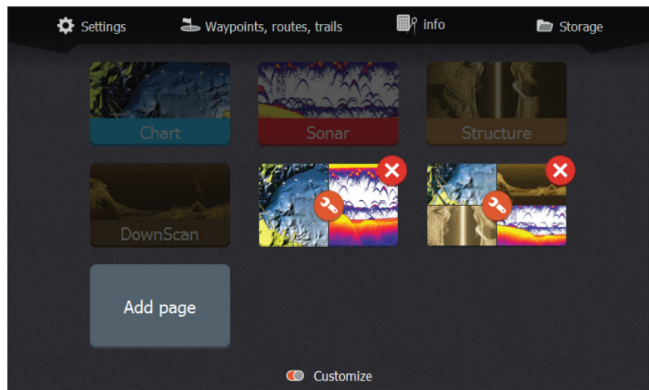
2. Use the Arrow keys to:
- Select the X option on a custom page icon, and press the Menu/Enter key to remove the page
- Select the tool option on a custom page icon, and press the Menu/Enter key to display the page editor dialog

3. Change the layout, add, and remove panels using the custom page editor dialog. Refer to Step 3 in *"Adding new custom pages"* on page 20.

4. Save or discard your changes to leave edit mode.

Adjusting the split on multiple panel pages

1. Open the multiple panel page
2. Quick-press the Power key to open the System Controls dialog
3. Select the Adjust splits option. The cursor arrows icon appears on the multiple panel page.
4. Use the Arrow keys to move the split to the desired position
5. Press the Menu/Enter key to save the split adjustment.
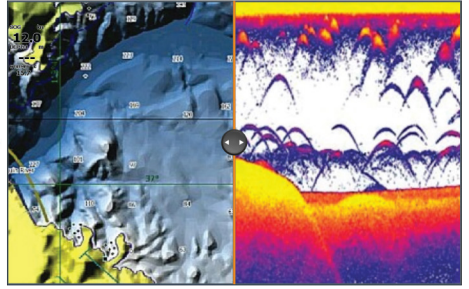
4 Charts

The Chart panel
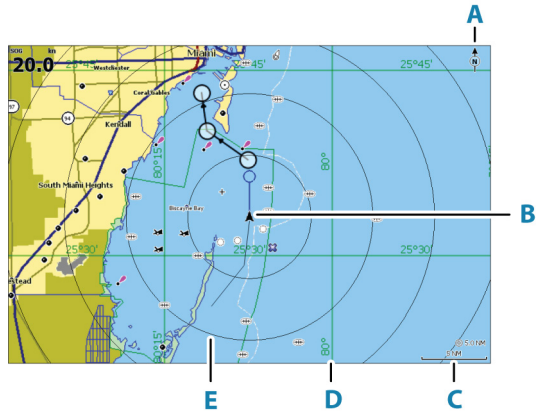
A North indicator

B Vessel

C Chart range scale

D Grid lines*

E Range rings*

* Optional chart items. Optional chart items can be turned on/off individually from the chart settings dialog.

Chart data

The system can be delivered with preloaded cartography.

For a full selection of supported charts, visit the product web site.

→ **Note:** Chart menu options vary depending on the chart you are using.

→ **Note:** The system does not automatically switch to preloaded cartography if the chart card is removed. A low-resolution chart will be displayed until you re-insert the card or manually switch back to the preloaded cartography.

Selecting chart type

You specify the chart type shown on the Chart panel by selecting one of the available chart types in the chart settings dialog. Refer to *"Chart settings"* on page 33.

Vessel symbol

When the system has a valid GPS position lock, the vessel symbol indicates vessel position. If no GPS position is available, the vessel symbol includes a question mark.

Chart scale

You zoom in and out on the chart by using the Zoom keys.

Chart range scale and range rings interval (when turned on) are shown in the lower right corner of the chart panel.

Panning the chart

You can move the chart in any direction by using the Arrow keys to move the cursor to the edge of the chart panel in the desired direction.

To remove the cursor and cursor elements from the panel, press the Cursor/Waypoint key. This also centers the chart to the vessel position.

Waypoints, Routes, and Trails

You can position and manage waypoints, routes and trails on the page. For more information, refer to *"Waypoints, routes, and trails"* on page 35.

Navigating

You can use the page for navigating to the cursor, to a waypoint, or navigate a route. Refer to *"Navigating"* on page 44.

Displaying information about chart items

When you position the cursor over a chart item, waypoint, trail or a route, basic information for the selected item is displayed as a pop-up.

→ **Note:** Pop-up information has to be enabled in chart settings to see basic item information.

Select the info option in the menu to display a list of items near the cursor. Select an item in the list to display all available information for that item.
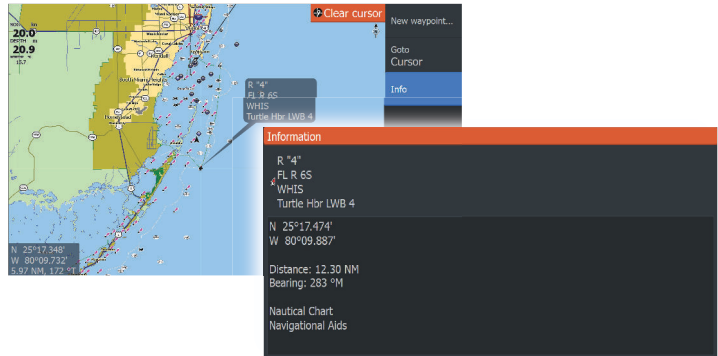
Find objects on chart panels

Select the find menu option to search for chart items.

More options
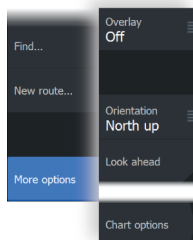
Chart overlay

You can add overlays on the chart panel.

When an overlay is selected, the chart menu expands to include basic menu options for the selected overlay.

Information about the overlay menu options are described in more detail below or in their separate sections in this manual.

Structure overlay

Structure (StructureMap) information can be displayed as overlay on your chart panel.

→ **Note:** Structure overlay (StructureMap) is only available on TripleShot models that have SideScan capability.
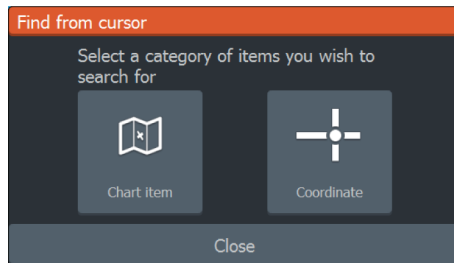
When Structure overlay is selected, the chart menu expands to include basic menu functions for the overlay. Refer to *"StructureMap"* on page 68.

Genesis live

→ **Note:** Only available when viewing Lowrance or C-MAP chart source.

Genesis live is a real-time feature where the unit creates an overlay of depth contour mapping based on live sonar soundings. The Genesis live sonar soundings are recorded onto and viewed from the unit's memory card.

If at any time the memory card is removed or runs out of space, the feature will turn itself off and the option is disabled in the menu.

• The more passes of an area included in the live sonar soundings log, results in better Genesis live maps.
• Genesis live is accurate up to 20 knots.

→ **Note:** Genesis Live data is not adjusted for tidal offset.
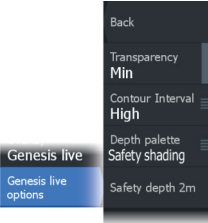
Genesis live menu options

Transparency
Adjusts the transparency of the overlay.

Contour interval
Defines the density of live depth contours shown.

Depth palette
Controls the color palette used to color the depth areas.

- Chart sync – syncs the Genesis live layer to the same palette as the chart depth palette defined in the chart menu (under Chart options, View, Depth palette). This option also allows custom palettes to be defined in the chart menu and applied to the Genesis layer.
- Navigation – uses the navigation palette.
- Depth shading – uses the depth shading palette.
- Paper chart – uses the paper chart palette.
- Safety shading – uses the safety depth setting to shade the color lower than the set safety depth. Also enables the Safety depth option on the Genesis live menu.

Safety depth
Sets the safety depth. Areas that are shallower than the safe minimum depth are shaded. This option is only available if the Safety shading palette is selected.

Chart orientation
You can specify how the chart is rotated in the panel. The chart orientation symbol in the panel's upper right corner indicates the north direction.
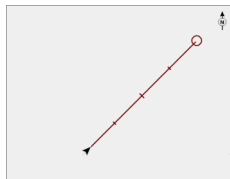
North up *Course up*

North up
Displays the chart with north upward.

Course up
The chart direction is depending on if navigating or not:
- when navigating: the desired course line is oriented up
- if not navigating: the direction the vessel is actually traveling (COG) is oriented up

Look ahead
Moves the vessel icon on the panel to maximize your view ahead of the vessel.

C-MAP charts
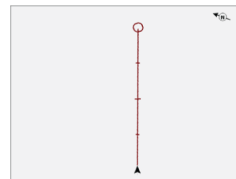All possible menu options for C-MAP charts are described below. The features and menu options available can vary depending on the charts you use. This section shows menus from a C-MAP chart.

→ **Note:** A menu option is greyed out if the feature is not available on the chart displayed.

C-MAP specific chart options
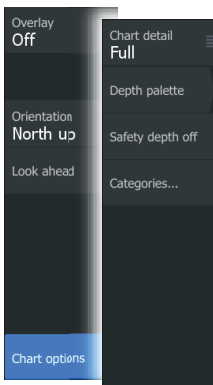
Chart detail
- Full - displays all available information for the chart in use.
- Medium - displays minimum information sufficient for navigation.
- Low - displays basic level of information that cannot be removed, and includes information that is required in all geographic areas. It is not intended to be sufficient for safe navigation.

Genesis Layer
The Genesis Layer displays high-resolution contours contributed by Genesis users that have passed a quality check.

This option toggles the Genesis layer on/off on the chart image.

Available only if the C-MAP chart contains Genesis Layer data.

Depth palette
Controls the Depth palette used on the map.

Depth filter
Filters out depth values shallower than the selected depth filter limit.

Safety depth
Charts use different shades of blue to distinguish between shallow (lighter shades) and deep (darker shades) water. After enabling the safety shading depth palette, specify the desired safety depth limit. The Safety depth sets the limit at which depths will be drawn without blue shading.

Chart categories
Several categories and sub-categories are included. You can turn on/off the categories individually depending on which information you want to see.
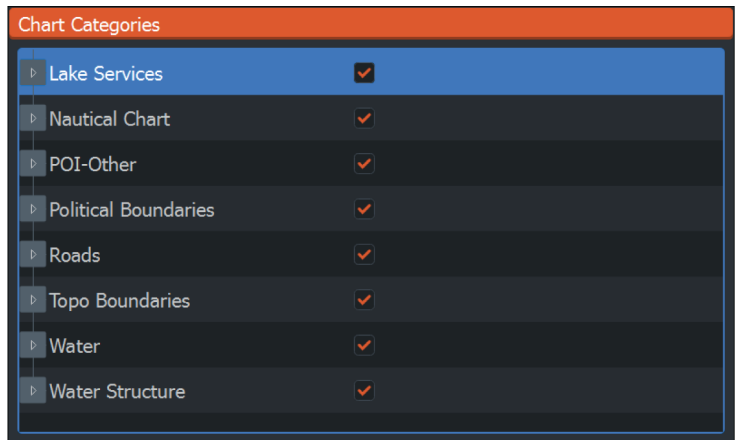
Navionics charts
Some Navionics features require the most current data from Navionics. For those features, a message is displayed stating that the feature is unavailable if you do not have the appropriate Navionics charts or chart card inserted. For more information on what is required for these features, refer to www.navionics.com.

You can also get a message if you try to use a restricted feature when the Navionics chart card is not activated. To activate the card, contact Navionics.

Navionics specific chart options

Chart overlay, orientation, and look ahead options (previously described in this section) are common to both C-MAP and Navionics charts. The following describe Navionics specific chart options.

Community edits

Toggles on the chart layer including Navionics edits. These are user information or edits uploaded to Navionics Community by users, and made available in Navionics charts.
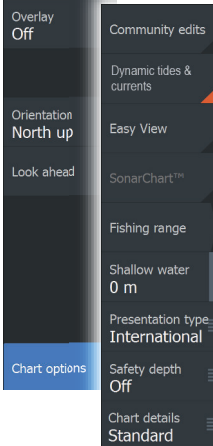
For more information, refer to Navionics information included with your chart, or to Navionics website: www.navionics.com.

SonarChart

The system supports the Navionics SonarChart feature.

SonarChart displays a bathymetry map showing high resolution contour detail and standard navigational data. For more information, refer to www.navionics.com.

SonarChart Live

SonarChart Live is a real-time feature where the device creates an overlay of depth contours based on your own live sonar soundings.

When you select SonarChart Live overlay the menu expands to display SonarChart Live options.
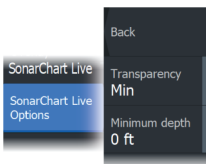
Transparency

The SonarChart Live overlay is drawn on top of other chart data. The chart data is completely covered at minimum transparency. Adjust the transparency to allow the chart details to be seen.

Minimum depth

Adjusts what SonarChart Live rendering treats as the safety depth. This affects the coloring of the SonarChart Live area. As the vessel approaches the safety depth, the SonarChart Live area will gradually change from a simple grey/white to red.

SCL History

Select to display previously recorded data on the chart overlay.

SC Density

Controls the density of the SonarChart and SonarChart Live contours.

Navionics Dynamic tides and current icons

Shows tides and currents with a gauge and an arrow instead of the diamond icons used for static tides and current information.

The tide and current data available in Navionics charts are related to a specific date and time. The system animates the arrows and/or gauges to show the tides and currents evolution over time.
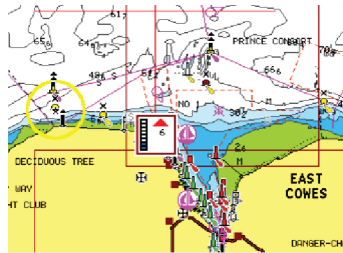
Dynamic tide information   *Dynamic current information*
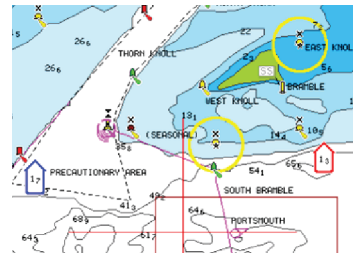
The following icons and symbology are used:

Current speed

The arrow length depends on the rate, and the symbol is rotated according to flow direction. Flow rate is shown inside the arrow symbol. The red symbol is used when current speed is increasing, and the blue symbol is used when current speed is decreasing.

Tide height

The gauge has 8 labels and is set according to absolute max/min value of the evaluated day. The red arrow is used when tide is rising, and the blue arrow is used when tide is falling.

➜ *Note:* All numeric values are shown in the relevant system units (unit of measurement) set by user.

Easy View

Magnifying feature that increases the size of chart items and text.

➔ **Note:** There is no indication on the chart showing that this feature is active.

Fishing range

Select a range of depths between which Navionics fills with a different color.

This allows you to highlight a specific range of depths for fishing purposes. The range is only as accurate as the underlying chart data, meaning that if the chart only contains 5 meter intervals for contour lines, the shading is rounded to the nearest available contour line.
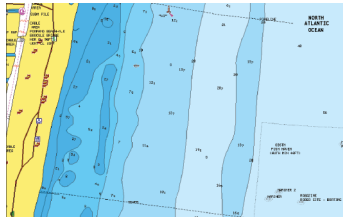
No Depth highlight range
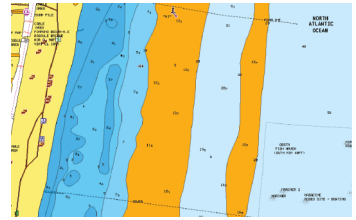
Depth highlight range: 6 m - 12 m

Shallow water highlight

This highlights areas of shallow water between 0 and the selected depth (up to 10 meters/30 feet).
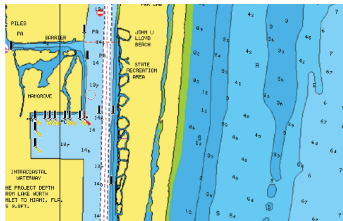
No shallow water highlighted
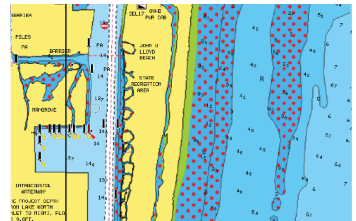
Shallow water highlight: 0 m - 3 m

Presentation type

Displays marine charting information such as symbols, colors of the navigation chart and wording for either International or U.S. presentation types.

Safety depth

The Navionics charts use different shades of blue to distinguish between shallow and deep water.

Safety depth, based on a selected limit, is drawn without blue shading.

→ **Note:** The built in Navionics database features data down to 20 m, after which it is all white.

Chart details

Provides you with different levels of geographical layer information.

Chart settings

Select the settings option in the System Controls dialog to access the chart settings dialog.
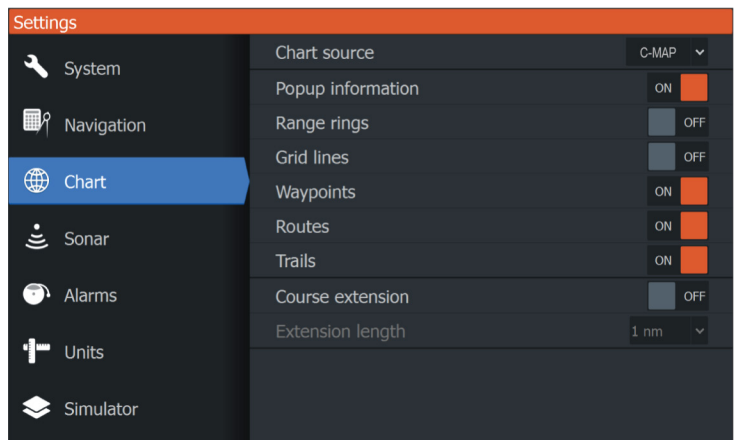
Chart source

Change chart source if a chart card is inserted.

Pop-up information

Determines whether basic information for panel items is displayed when you select the item.

Range rings

The range rings can be used to present the distance from your vessel to other panel objects.

The range scale is set automatically by the system to suit the panel scale.

Grid lines

Turns on/off viewing of longitude and latitude grid lines on the panel.

Waypoints, Routes, Trails

Turns on/off displaying these items on panels.

Course extension line

Turns on/off displaying the Course Over Ground (COG) extension line on the panel. The COG is based on information from the GPS.

Extension line length

When the course extension option is turned on, specify the length of the line to be displayed.

SonarChart Live tide correction

When selected, the tide correction feature uses information from nearby tide stations (if available) to adjust the depth values used by SonarChart Live as the sonar is recorded.

5

Waypoints, routes, and trails

Waypoints, Routes, and Trails dialogs

The Waypoints, Routes, and Trails dialogs give access to advanced edit functions and settings for these items.

The dialogs are accessed from the Tools panel on the Home page.

Waypoints, routes, trails
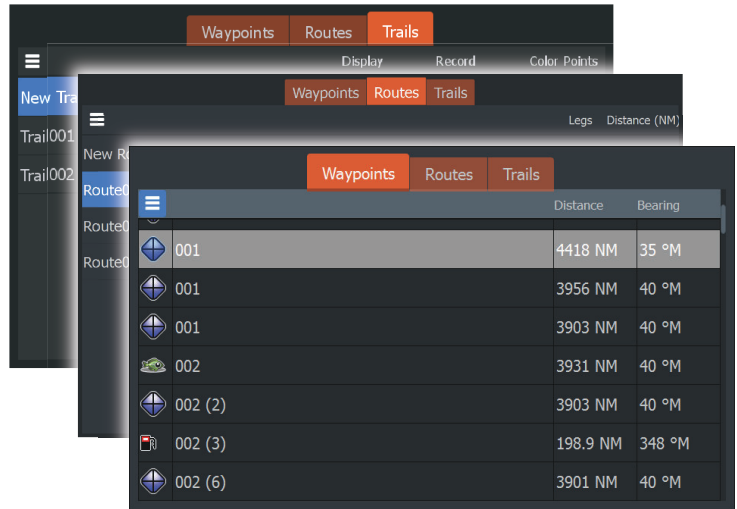
Select the menu icon on the dialog to access additional options.
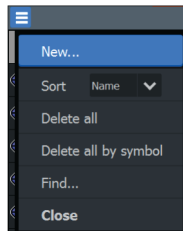
Waypoint options
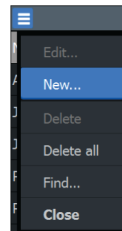
Routes options
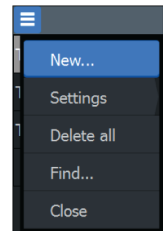
Trails options

Waypoints

A waypoint is a user generated mark positioned on the chart panel.

Each waypoint has an exact position with latitude and longitude coordinates. A waypoint is used to mark a position you later may want to return to. Two or more waypoints can also be combined to create a route.

Saving waypoints

Press and hold the Cursor/Waypoint key to save a new waypoint.
- With cursor inactive, the waypoint is placed at the vessel's position
- With cursor active, the waypoint is placed at the cursor position

Moving a waypoint

1. Press the Cursor/Waypoint key.
2. Maneuver the cursor so it is over the waypoint
3. Activate the menu and select the waypoint in the menu. The menu expands to include the move option.
4. Select the move option in the menu
5. Use the Arrow keys to move the waypoint to the new position
6. Press the Menu/Enter key.

The waypoint is saved at the new position.

Edit a waypoint

You can edit all information about a waypoint from the Edit Waypoint dialog.

The dialog is activated by positioning the cursor over the waypoint, selecting the waypoint in the menu, and then the Edit menu option.

The dialog can also be accessed by activating the Waypoints, Routes, Trails dialog on the tools panel on the Home page. Select the Waypoints tab and then the waypoint you want to edit.
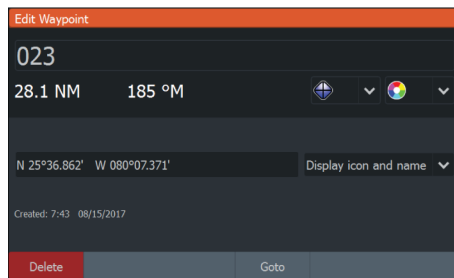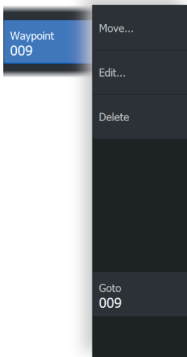
Delete a waypoint

You can delete a waypoint from the Edit Waypoint dialog or by selecting the Delete menu option when the waypoint is activated.

The Edit Waypoint dialog is activated by positioning the cursor over the waypoint, selecting the waypoint in the menu, and then the delete menu option.

The Edit Waypoint dialog can also be accessed by activating the Waypoints, Routes, Trails dialog on the tools panel on the Home page. Select the Waypoints tab, the waypoint you want to delete and then the delete option.

You can delete MOB waypoints the same way.

Waypoint alarm settings

You can set an alarm radius for each individual waypoint you create. The alarm is set in the **Edit Waypoint** dialog.

→ *Note:* The waypoint radius alarm must be toggled ON in the alarm dialog to activate an alarm when your vessel comes within the defined radius. For more information, refer to *"Alarms dialog"* on page 72.

Routes

A route consists of a series of routepoints entered in the order that you want to navigate them.

When you select a route on the panel it turns green, and the route name is displayed.
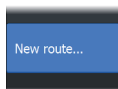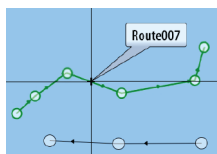
Creating a new route on the page

1. Select the new route option from the menu
2. Press the Cursor/Waypoint key to activate the cursor on the panel
3. Use the Arrow keys to position the cursor at the first routepoint on the panel
4. Press the Menu/Enter key to create the routepoint
5. Repeat steps 3 and 4 to continue positioning new routepoints on the panel until the route is completed
6. Press the Exit (X) key when completed and save the route.

Edit a route from the panel

You can edit a route by placing the cursor over the route and then selecting the route in the menu. Select the edit option in the menu. This opens the Edit route dialog.

The dialog can also be accessed by activating the Waypoints, Routes, Trails dialog on the tools panel on the Home page. Select the Route tab and then the route you want to edit.

To edit the route from the panel:

1. Maneuver the cursor over the route in the panel. The route pop-up is displayed.
2. Press the Menu/Enter key and use the Arrow keys to select the route in the menu. The menu expands with additional options.
   - The edit option allows you to move and remove routepoints on the panel.
   - The details option opens the edit route dialog where you can set route options, rename and manage details.
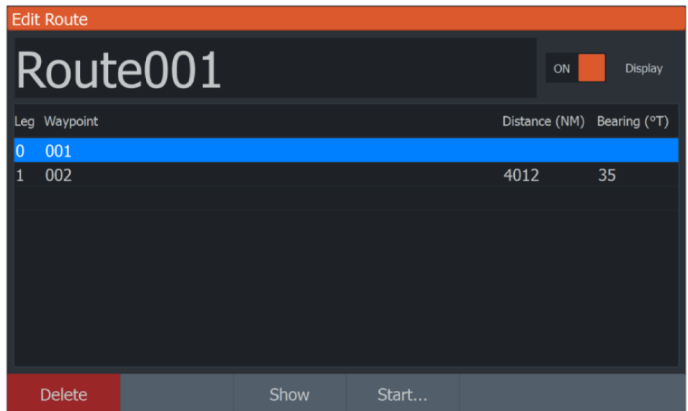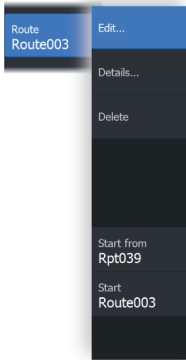
3. Use the Arrow keys to select the option you want to use and press the Menu/Enter key.
4. Follow the prompts to make changes and save your changes.

Delete a route

You can delete a route by placing the cursor over the route and then selecting the route in the menu and then select the delete option in the expanded menu.

Creating routes using existing waypoints

You can create a new route by combining existing waypoints from the New Routes dialog.

The dialog is activated by selecting the route tab in the dialog displayed when you select the Waypoint, Routes, and Trails tool on the Home page. Next, select the New route option.
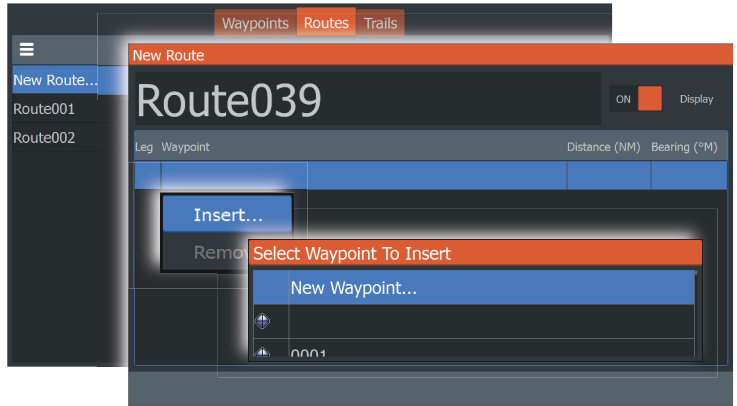
You can also insert existing waypoints in an existing route from the Edit Routes dialog.

From the Edit Routes dialog, select the routepoint in the list where you want to insert the waypoint and press the Menu/Enter key.
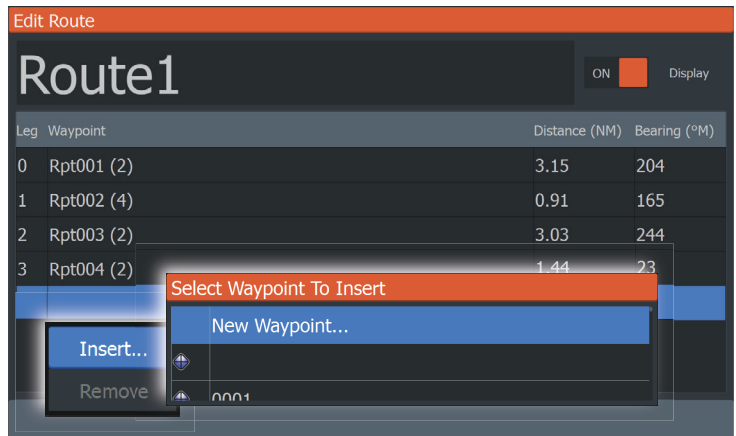
Converting trails to routes

You can convert a trail to a route from the Edit Trail dialog. The dialog is activated by activating the trail, then selecting the trail's pop-up, or the Trail menu option.

The Edit Trail dialog can also be accessed by selecting the Waypoints tool on the Home page.
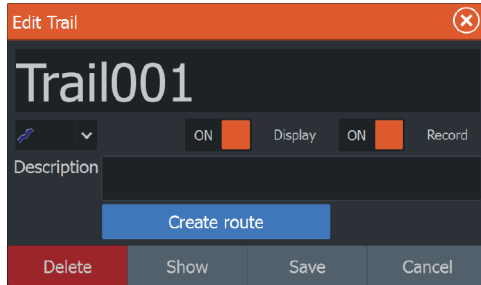
The Edit Route dialog

You can add and remove routepoints, and change route properties using the Edit Route dialog.

This dialog is activated by placing the cursor over the route and selecting the route in the menu.

The dialog can also be accessed by selecting the route tab in the dialog displayed when you select the Waypoint, Routes, and Trails tool on the Home page.

Select the name field to change the name. Turn on Display to show the route on the panel.
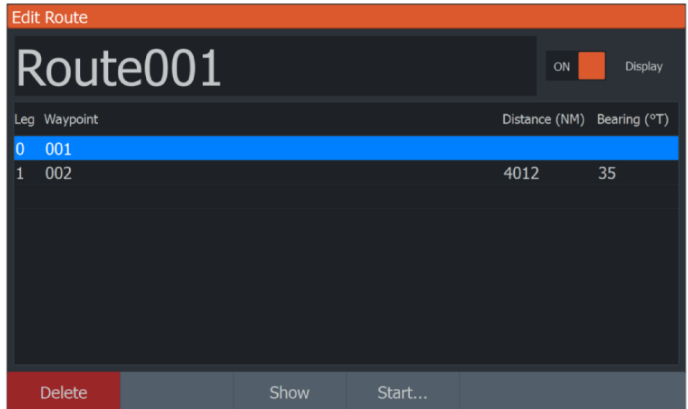
Trails
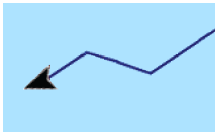
Trails are a graphical presentation of the historical path of the vessel, allowing you to retrace where you have travelled.

Trails can be converted to routes from the Edit Trails dialog. Refer to *"Converting trails to routes"* on page 40.
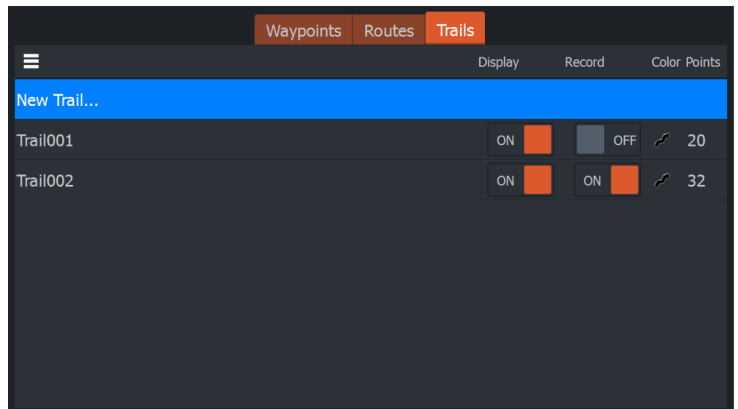
From the factory, the system is set to automatically track and draw the vessel's movement on the panel. The system continues to record the trail until the length reaches the maximum points, and then automatically begins overwriting the oldest points.

The automatic tracking function (record) can be turned off from the Edit Trails dialog.

Creating new Trails

You can start a new trail from the Trails dialog, activated by using the Waypoints, Routes, Trails tool on the Home page and selecting the Trails tab.

Trails settings

Trails are made up of a series of points connected by line segments whose length depends on the frequency of the recording.

You can select to position trail points based on time settings, distance, or by letting the system position a trail point automatically when a course change is registered.

→ **Note:** The Trails option must also be turned ON in the panel settings dialog to be visible.
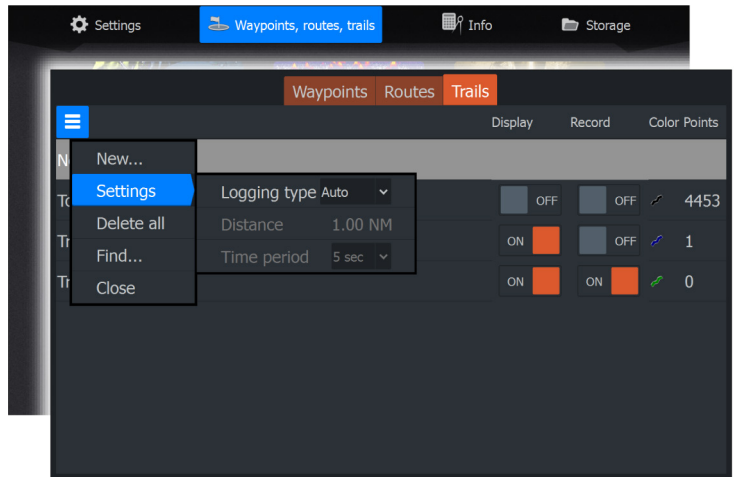
Coloring trails

To color trails:

- Select the trail in the Trails dialog and set the color for the entire trail in the Edit Trail dialog.

Edit Trail

Trail001

ON ☐ Display | ☐ OFF Record

tion

Create route

| Delete | Show | Save | Cancel |
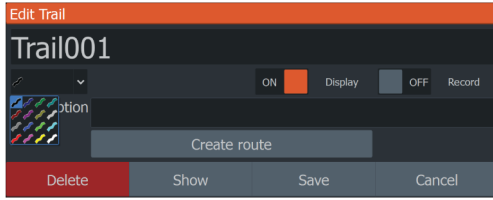
6

Navigating

About navigating

The navigation function included in the system allows you to navigate to the cursor position, to a waypoint, or along a predefined route.

For information about positioning waypoints and creating routes, refer to *"Waypoints, routes, and trails"* on page 35.

Menu options

You can use menu options to:

New Waypoint...

Goto
Cursor

Goto
Waypoint-006
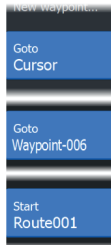
Start
Route001

- navigate to cursor
- navigate to a waypoint
- navigate a route

While navigating, the menu expands to provide options to:

Skip
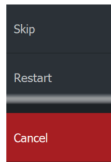
Restart

Cancel

- skip waypoints when navigating a route
- restart navigating to cursor, a waypoint or a route
- cancel navigating to cursor, a waypoint or a route

Navigate to cursor position

You can start navigating to a cursor position on any chart/GPS plotter or sonar panel.

Position the cursor at the selected destination on the panel, and then select the Goto Cursor option in the menu.

→ **Note:** The Goto Cursor menu option is not available if you are already navigating.

Navigate to a waypoint

You can start navigating towards a waypoint on the panel. Position the cursor over the waypoint, select the waypoint in the menu and then the Goto waypoint option in the menu.

Navigate a route

You can navigate a route on the image by positioning the cursor over the route, selecting the route in the menu and then the start route option in the menu.

When route navigation is started, select the Navigation menu option for canceling the navigation, skipping a waypoint, and restarting the route from current vessel position.

Navigation settings

Settings		
System	Arrival radius...	0.05 NM
Navigation	XTE limit...	0.05 NM
Chart	XTE Alarm	ON
Sonar	Trails...	
Alarms	Logging type	Auto
Units	Distance	1.00 NM
Simulator	Time period	5 sec
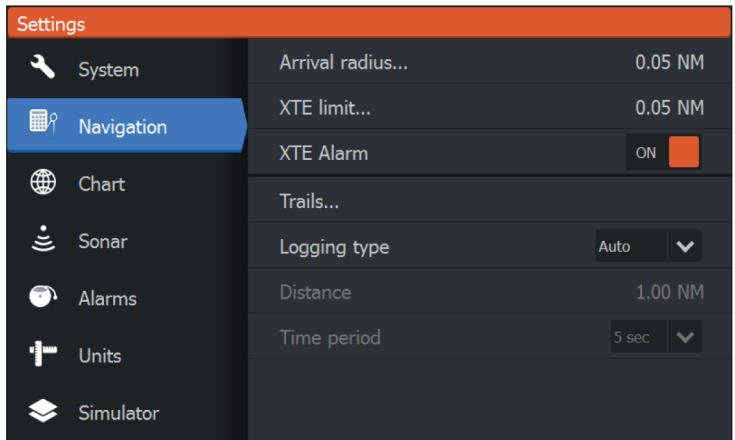
Arrival radius

Sets an invisible circle around the destination waypoint.

The vessel is considered arrived at the waypoint when it is within this radius.

XTE limit

This setting defines how far the vessel can deviate from the selected route, if the vessel goes beyond this limit, an alarm is activated.

XTE alarm (Cross track error)

Turns on/off the XTE alarm.

Trails

Opens the Trails dialog where trails settings can be adjusted and trails can be converted into routes for navigation. Refer to *"Trails"* on page 41.

Logging type

You can select to record trail points based on time, distance, or by letting the unit position a point automatically when a course change is registered.

Specify one of the following logging types in the Navigating Settings dialog:

- **Auto** - the unit positions a point automatically when a course change is registered.
- **Distance** - select the Distance field and enter the distance you want to record.
- **Time** - select the Time field and enter the time you want to record.

7

Sonar

The Sonar function provides a view of the water and bottom beneath your vessel, allowing you to detect fish and examine the structure of the bottom.

The Sonar image
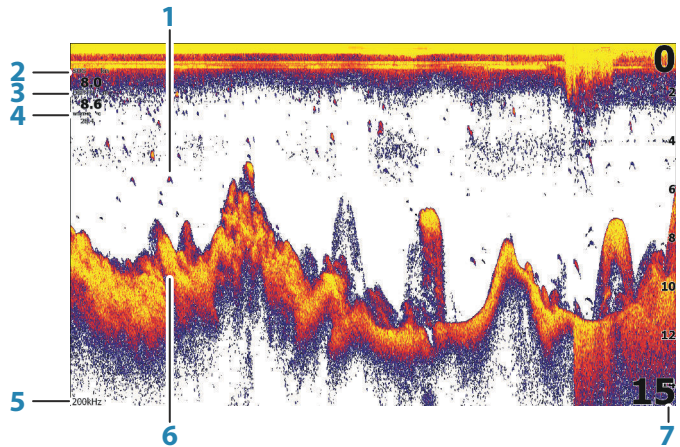
1	Fish arches
2	Speed over ground*
3	Depth*
4	Water Temperature*
5	Frequency
6	Bottom
7	Range scale

* Optional Sonar data overlay that you can modify. Refer to *"Data overlay"* on page 19.

Zooming the image

You can zoom the image by using the Zoom keys.

The zoom level is shown on the bottom left side of the image.

When zooming with no active cursor, the sea floor is kept near the bottom of the screen. If the cursor is active, the unit zooms where the cursor is pointed.

You can also zoom the image as a split screen and display zoom bars. Refer to split screen *"Zoom"* on page 53.

Using the cursor on the image

When you position the cursor on the image the screen pauses, the depth at the cursor position is shown, and the information window and the history bar are activated.

Viewing history

You can view sonar history by panning the image. To pan the image, position the cursor on the image. This stops automatic scrolling.

- Use the left Arrow key to move the cursor to left edge of the image. Continue pressing the left Arrow key so the image pans to the left and the historical image is viewed.
- Use the right Arrow key in the same manner to pan the image back to the right and display the most current image.
- To resume normal scrolling, press the Cursor/Waypoint key to remove the cursor from the image.

Start recording sonar log data

You can start recording sonar log data and save the file internally in the unit, or save it onto a card inserted into the unit's card reader.

The Log sonar dialog is activated from the System Controls, or from the Sonar Settings dialog.

Log Sonar	
Filename Sonar0002	
File format sl2 (Sonar & Structure)	
Save to Internal	
Create StructureMap	✔
Time remaining 12:11:08	
Record	Cancel
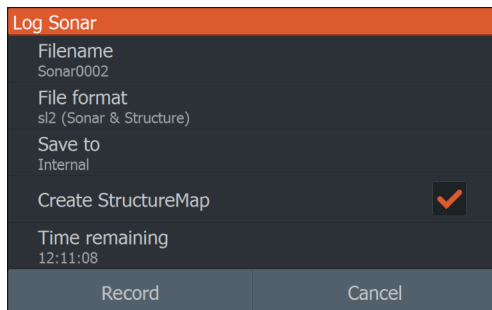
When the data is being recorded, there is a flashing red symbol in the top left corner and a message appears periodically at the bottom of the screen.

Filename
Specify the name of the recording (log).

File format
Select a file format from the drop-down, slg (Sonar only), xtf (Structure only*), or sl2 (Sonar and Structure).

→ **Note:** XTF format is for use only with select 3rd party Sonar viewing tools.

Save to
Select whether the recording is to be saved internally or to a storage device connected to the unit.

Create StructureMap

→ **Note:** This option is only available on TripleShot models that have SideScan capability.

You can convert the SideScan (.sl2) logs to StructureMap format (.smf) when recording completes.

SideScan log files can also be converted to StructureMap format using the Storage toolbar feature.

Time remaining
Shows the remaining allocated space available for recordings.

Stop recording sonar log data

Select Stop logging in the System Controls dialog and then Stop in the Logging Sonar dialog to stop the recording of all sonar log data.

Logging Sonar	
Filename	Sonar0001.sl2
Time remaining	12:11:14
Time elapsed	0:00:05
File size	397.9 kB
Stop	Close

Viewing the recorded sounder data

Both internally and externally stored sounder records may be reviewed when the view sonar log option is selected in the Sonar settings dialog. Refer to *"Sonar settings"* on page 55.

Customize the image settings

By default the unit is set to Auto mode, and most settings are automated. It is recommended that only experienced sonar users use the customize settings to further customize the image.

Select Auto in the menu and change to custom or ice fishing mode to customize image settings.

Use More options in the menu, to set access additional options for the image. Refer to *"More options"* on page 53.
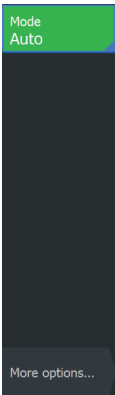
Custom and Ice Fishing mode options

Custom and Ice fishing modes allow access to controls for manually tuning the sonar.

→ **Note:** The options below are only visible in Custom or Ice Fishing modes.
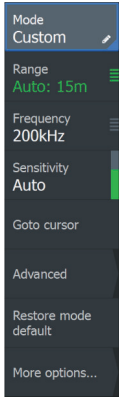
The range

The range setting determines the water depth that is visible on the screen.

Frequency

The unit supports several transducer frequencies. Available frequencies depend on the transducer model that is connected.

Sensitivity

Increasing Sensitivity shows more detail on the screen. Decreasing Sensitivity displays less. Too much detail clutters the screen. Conversely, desired echoes may not be displayed if Sensitivity is set too low.

→ **Note:** Auto Sensitivity is the preferred mode for most conditions.
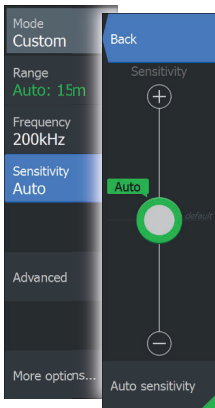
Auto sensitivity

Auto sensitivity automatically adjusts the sonar return to the optimal levels. Auto sensitivity can be adjusted (+/-) to your preference while still maintaining the auto sensitivity functionality.

Adjusting Sensitivity

1. Select the Auto sensitivity menu option to turn off the auto setting.
2. Use the Arrow keys to highlight the scroll bar menu option.
3. Press the Menu/Enter key to activate it.
4. Use the Arrow keys to adjust it.
5. Press the Menu/Enter key to confirm the setting.
6. Press the Exit (X) key to leave the menu.
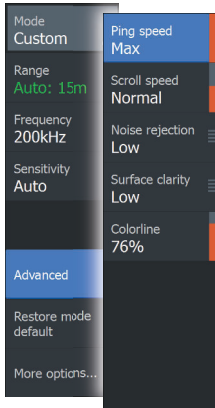
Advanced options

Ping speed

Ping speed controls the rate the transducer transmits the signal into the water. By default, the ping speed is set to max. It may be necessary to adjust the ping speed to limit interference.

Scroll speed

You can select the scrolling speed of the image on the screen. A high scroll speed updates the image fast, while a low scroll speed presents a longer history.

→ **Note:** In certain conditions it may be necessary to adjust the scroll speed to get a more useful image. Such as adjusting the image to a faster speed when vertically fishing without moving.

Noise rejection

Signal interference from bilge pumps, engine vibration and air bubbles can clutter the image.

The noise rejection option filters the signal interference and reduces the on-screen clutter.

Surface clarity

Wave action, boat wakes, and temperature inversion can cause onscreen clutter near the surface. The surface clarity option reduces surface clutter by decreasing the sensitivity of the receiver near the surface.

Colorline

Allows the user to adjust the colors of the display to help differentiate softer targets from harder ones. Adjusting the Colorline can help separate fish and important structures on or near the bottom from the actual bottom.

Use the up and down Arrow keys to adjust the scroll bar.

Restore mode default

This menu option is available if you customize one or more settings. When selected all the customized settings are changed back to the default settings.

More options
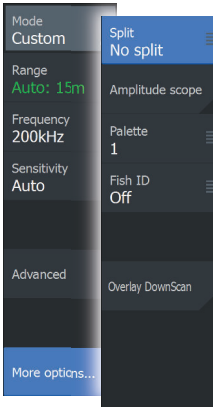
Split screen options

Split screen options are available on the split screen sub-menu.

Zoom
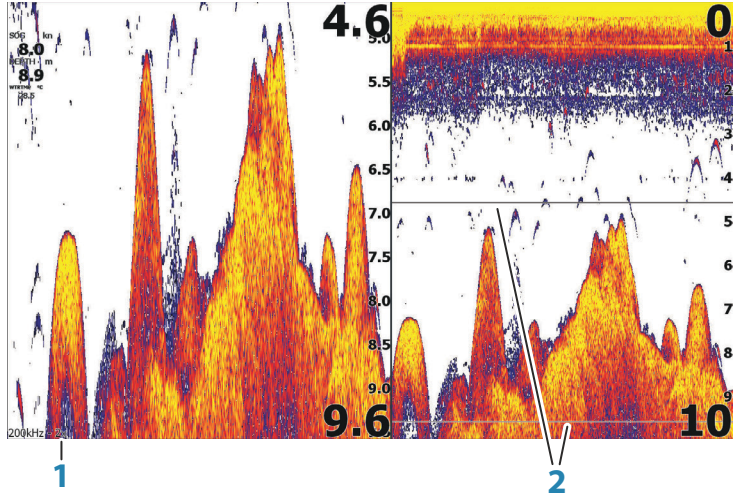
1 Zoom level

2 Zoom bars

The Zoom mode presents a magnified view of the sounder image on the left side of the panel. By default, the zoom level is set to 2x. You can zoom up to 8x, using the Zoom keys. The range zoom bars on the right side of the display shows the range that is magnified. If you increase the zooming factor the range is reduced. You see this as reduced distance between the zoom bars.

Bottom lock

The bottom lock mode is useful when you want to view targets close to the bottom. In this mode, the left side of the panel shows an image where the bottom is flattened. The range scale is changed to measure from the seabed (0) and upwards. The bottom and the zero line are always shown on the left image, independent of the

range scale. The scaling factor for the image on the left side of the panel is adjusted as described for the Zoom option.

Flasher

The Flasher mode shows a flasher-style sonar view in the left panel and a normal sonar view in the right panel.

Amplitude scope

The amplitude scope is a display of an echo sounding on the panel. The strength of the actual echoes are indicated by both width and color intensity.

Palettes

You can select between several display palettes.

Fish ID

You can select how you want the fish targets to appear on the screen. You can also select if you want to be notified by a beep when a fish ID appears on the panel.
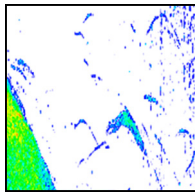
Traditional fish arches

Fish symbols

Fish symbols and depth indication

➔ **Note:** Not all fish symbols are actual fish.

Fish ID beeps

When selected the system beeps when a fish is identified.

Overlay DownScan

When a DownScan capable transducer is connected to your system, you can overlay DownScan images on the regular Sonar image.

When overlay DownScan is activated, the Sonar panel menu expands to include basic DownScan options.

Measuring distance

The cursor can be used to measure the distance between the position of two observations on the image.

1. Position the cursor on the point from where you want to measure the distance
2. Start the measuring function from the More options menu option

→ **Note:** The measure function is not available in the menu unless the cursor is placed on the image.

3. Position the cursor on the second measuring point
    - A line is drawn between the measuring points, and the distance listed in the Cursor Information window
4. Continue selecting new measuring points if required

You can use the menu to re-position the start point and the end point as long as the measuring function is active.

When you select Finish measuring or press the Exit (X) key, the measuring function stops. Press the Cursor/Waypoint key to remove the cursor from the image and the image resumes to normal scrolling.

Sonar settings
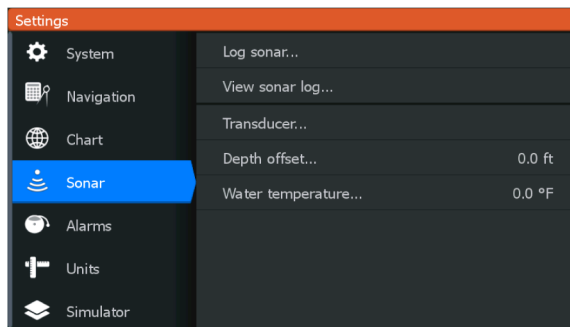
Log sonar

Select to start and stop recording of Sonar data. For more information, refer to *"Start recording sonar log data"* on page 48.

View Sonar log

Used to view sonar recordings.

The log file is displayed as a paused image. You control the scrolling and display from the Control menu option. You can use the cursor on the replay image, and pan the image as on a normal sonar image.

You exit the view function by pressing the Exit (X) key.

Transducer

Select the transducer model connected to the unit. The transducer selected will determine the applications available (Sonar, DownScan, and SideScan) and what frequencies can be selected during sonar operation.

Depth offset

All transducers measure water depth from the transducer to the bottom. As a result, water depth readings do not account for the distance from the transducer to the lowest point of the boat (for example; bottom of the keel, rudder, or skeg) in the water or from the transducer to the water surface.

Before setting the offset, measure the distance from the transducer to the lowest point of the boat in the water or from the transducer to the water surface.
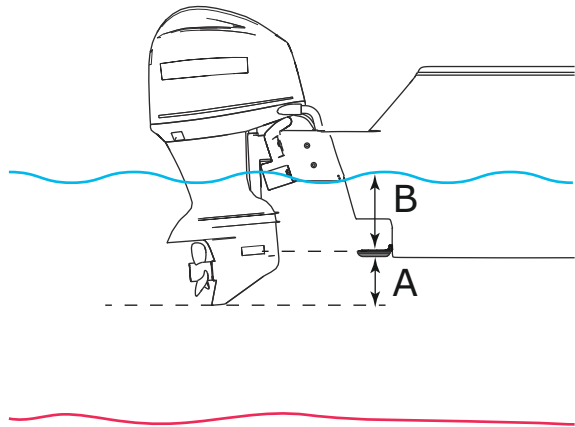
A Lowest point of vessel offset: Set the distance from the transducer to the lowest point of the boat in the water - this should be set as a negative value. For example, - 0.3 m (-1 ft).

B Depth below surface (waterline) offset: Set the distance from the transducer to the surface - this should be set as a positive value. For example, +0.5 m (+1.77 ft).

For depth below transducer, set the offset to 0.

Water temperature calibration

Temperature calibration is used to adjust the water temperature value from the sonar transducer. It may be required to correct for localized influences to the measured temperature.

Calibration range: -9.9° - +9.9°. Default is 0°.

→ *Note:* Water temperature calibration only appears if the transducer is temperature capable.

8

SideScan

About SideScan

SideScan provides a wide coverage in high detail of the seabed to the sides of your boat.

→ **Note:** SideScan is only available on TripleShot models with a SideScan capable transducer connected.

The SideScan image

The SideScan image can be set up to show left side, right side, or both left and right side scanning.
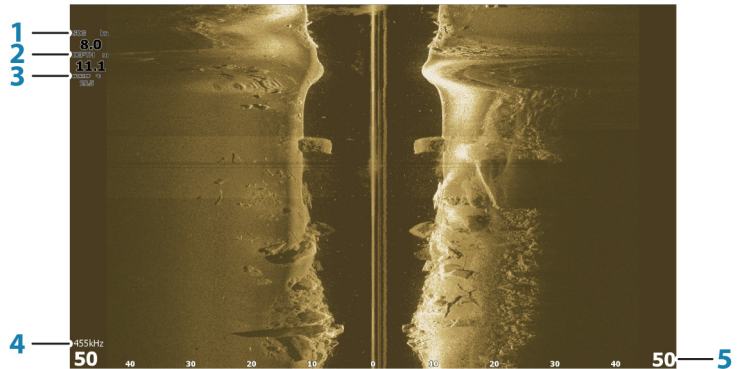
1	Speed over ground
2	Depth
3	Temperature
4	Frequency
5	Range scale

Zooming the image

To specify the distance out to the left and right of the center displayed in the image:

• use the zoom keys
• use the range menu setting

A change in the range causes a zoom in or out of the image.

Using the cursor on the panel

By default, the cursor is not shown on the image. To position the cursor on the image, press the Cursor/Waypoint key. Use the Arrow keys to position the cursor.

When you position the cursor on the image, the screen pauses, and the cursor information window is activated. The left/right distance from the vessel to the cursor are shown at the cursor position.

To remove the cursor and the cursor elements from the panel, press the Cursor/Waypoint key.
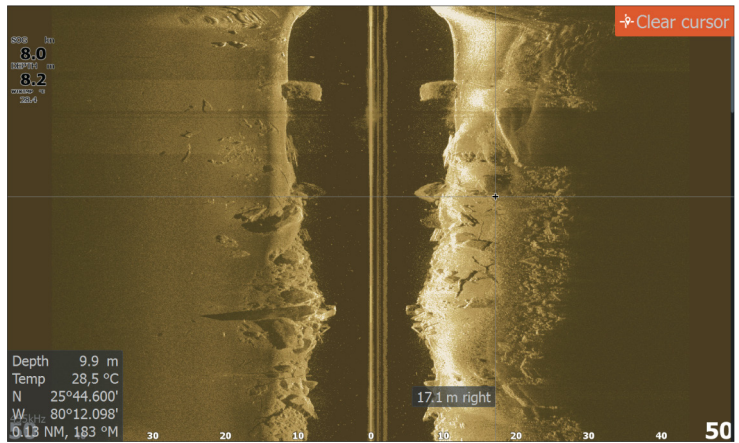
Viewing history

You can view history by panning the image. To pan the image, press the Cursor/Waypoint key to position the cursor on the image. This stops automatic scrolling.

- Use the down arrow key to move the cursor to bottom edge of the image. Continue pressing the down arrow key so the image pans down and the historical image is viewed.
- Use the up arrow key in the same manner to pan the image back up and display the most current image.
- To resume normal scrolling, press the Cursor/Waypoint key to remove the cursor from the image.

Recording SideScan data

You can record SideScan data and save the file internally in the unit, or onto a memory card as described in *"Start recording sonar data"* on page 48.

Setting up the SideScan image

By default the unit is set to Auto mode, and most settings are automated. It is recommended that only experienced sonar users use the customize settings to further customize the image. Select Auto in the menu and change to custom mode to customize image settings. Refer to *"Custom options"* on page 60

Additional options are available for the Auto and Custom modes. Refer to *"More options"* on page 62.

When the cursor is active, some options in the menu are replaced with cursor mode features. Press the Cursor/Waypoint key to remove the cursor from the image and cursor menu options.
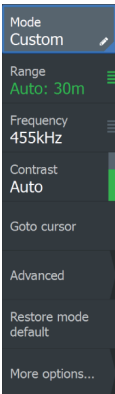
Custom options

Range
The range setting determines the water depth and SideScan range that is visible on the screen.

Auto range
When the range is set to Auto the system automatically sets the range depending on the water depth.

Preset range levels
You can select between several preset range levels.

Frequencies
Two frequencies are supported. 455 kHz provides ideal range and image quality in most situations, while 800 kHz is used to provide higher detail in shallow water.

Contrast
Determines the brightness ratio between light and dark areas of the screen.

→ **Note:** We recommend you use Auto contrast.

To adjust the contrast setting:

1. Select the contrast option in the menu
2. Select Auto contrast and press the Menu/Enter key to turn off auto-contrast
3. Use the Arrow keys to highlight the adjustment bar and press the Menu/Enter key to activate it
4. Use the Arrow keys to adjust the setting
5. Press the Menu/Enter key to save your settings

Advanced settings
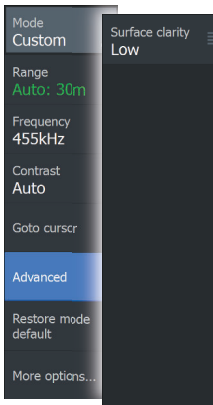
Surface clarity

Wave action, boat wakes and temperature inversions can cause on-screen clutter near the surface.

The surface clarity option reduces surface clutter by decreasing the sensitivity of the receiver near the surface.

→ **Note:** By default, surface clarity is set to Low, for optimal image return and clarity.

Restore mode default

This menu option is available if you customize one or more settings. When selected all the customized settings are changed back to the default settings.

More options

Mode
Custom

Range
18 m

Frequency
455kHz

Contrast
Auto

Advanced

**Restore mode
default**

More options...

Flip left/right

Range lines

Palette
5

View
Left + right

Measure...
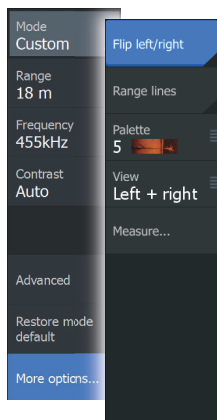
Flipping the image left/right
If required, flips the left/right side of the image to match the
direction of the transducer installation.

Range Lines
Range lines can be added to the image to make it easier to estimate
distance.

Palettes
You can select between several display palettes.

View
Specifies if the SideScan page displays the left side of the image
only, right side only, or left and right side at the same time.

Measuring distance
The cursor can be used to measure the distance between the
position of two observations on the image.

1. Position the cursor on the point from where you want to
   measure the distance
2. Start the measuring function from the More options menu
   option

→ **Note:** The measure function is not available in the menu unless
   the cursor is placed on the image.

3. Position the cursor on the second measuring point
   - A line is drawn between the measuring points, and the
     distance listed in the Cursor Information window
4. Continue selecting new measuring points if required

You can use the menu to re-position the start point and the end
point as long as the measuring function is active.

When you select Finish measuring or press the Exit (X) key, the
measuring function stops. Press the Cursor/Waypoint key to remove
the cursor from the image and the image resumes to normal
scrolling.

9

DownScan

About DownScan

DownScan provides detailed images of structure and fish directly below your boat. The DownScan panel is available when a DownScan capable transducer is connected to the system.

The DownScan panel
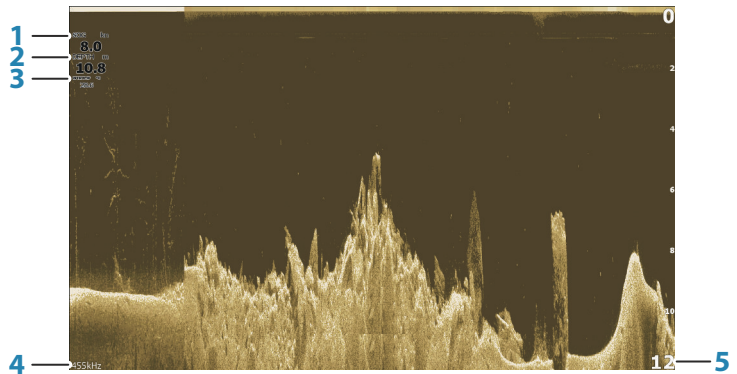
1	Speed over ground
2	Depth
3	Temperature
4	Frequency Depth
5	Range scale

Zooming the DownScan image

You can zoom a DownScan image by using the Zoom keys.

Using the cursor on the DownScan panel

By default, the cursor is not shown on the DownScan image. To position the cursor on the image, press the Cursor/Waypoint key.

Use the Arrow keys to position the cursor. When you position the cursor on a DownScan image, the screen pauses, and the cursor information window is activated. The distance from the vessel to the cursor is shown in the bottom row of the cursor information window.

The cursor depth is shown to the left of the cursor position.

To remove the cursor and the cursor elements from the panel, press the Cursor/Waypoint key.

Goto cursor

You can navigate to a selected position on the image by positioning the cursor on the panel, then using the Goto cursor option in the menu.

Viewing DownScan history

You can view DownScan history by panning the image. To pan the image, press the Cursor/Waypoint key to position the cursor on the image. This stops automatic scrolling.

- Use the left Arrow key to move the cursor to left edge of the image. Continue pressing the left Arrow key so the image pans to the left and the historical image is viewed.
- Use the right Arrow key in the same manner to pan the image back to the right and display the most current image.
- To resume normal scrolling, press the Cursor/Waypoint key to remove the cursor from the image.

Recording DownScan data

DownScan data can be recorded by selecting the correct file format in the record dialog. Refer to *"Start recording sonar data"* on page 48.

## Customize the image settings

By default the unit is set to Auto mode, and most settings are automated. It is recommended that only experienced sonar users use the customize settings to further customize the sonar image. Select Auto in the menu and change to custom mode to customize image settings.

Additional options are available for the Auto and Custom modes. Refer to *"More options"* on page 67.

When the cursor is active, some options in the menu are replaced with cursor mode features. Press the Cursor/Waypoint key to remove the cursor from the image and cursor menu options.

Custom mode options

When the custom mode is selected the menu expands with more options. Use these menu options to customize the image.
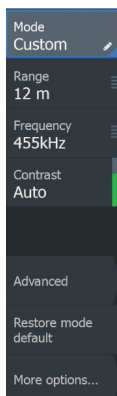
Range

The range setting determines the water depth that is visible on the image.

Auto range

By default, the range is set to Auto. With Auto, the system automatically displays the whole range from the water surface to the bottom.

Preset range levels

Allows for the selection of a specific depth range that is not tied to the depth of the water.

Frequency

DownScan can be used at 800 kHz or 455 kHz. 800 kHz provides the highest resolution with less range. 455 kHz has the best range, but with lower resolution.

Restore mode default

This menu option is available if you customize one or more settings. When selected all the customized settings are changed back to the default settings.

Contrast

Determines the brightness ratio between light and dark areas of the screen.

➔ **Note:** We recommend you use Auto contrast.

To adjust the contrast setting:

1. Select the contrast option in the menu
2. Select Auto contrast and press the Menu/Enter key to turn off auto-contrast

3. Use the Arrow keys to highlight the adjustment bar and press the Menu/Enter key to activate it

4. Use the Arrow keys to adjust the setting

5. Press the Menu/Enter key to save your settings

FishReveal

Select FishReveal to display fish arches in the image.

When FishReveal is enabled, the menu expands to include FishReveal options.
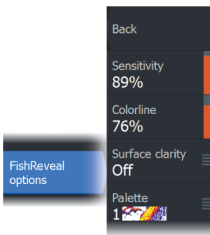
Sensitivity

Controls the sensitivity of the FishReveal data. Increasing sensitivity shows more detail on the screen. Decreasing sensitivity displays less. Too much detail clutters the screen. If the sensitivity is set too low, weak fish arch data might not be displayed.

Colorline

Adjusts the colors of the fish arch data to help differentiate them from other targets. Adjusting the colorline can help separate fish and important structures on or near the bottom from the actual bottom.

Surface clarity

Wave action, boat wakes and temperature inversions can cause onscreen clutter near the surface. The surface clarity option reduces surface clutter by decreasing the sensitivity of the receiver near the surface.

Palette

Select between several display palettes optimized for a variety of fishing conditions.

→ **Note:** Palette choice is often a user preference, and may vary depending on the fishing conditions. It is best to select a palette that provides good contrast between the image details and FishReveal arches.
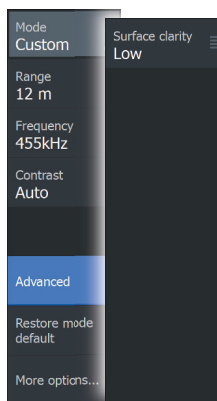
Advanced options

Surface clarity

Wave action, boat wakes and temperature inversions can cause on-screen clutter near the surface.

The surface clarity option reduces surface clutter by decreasing the sensitivity of the receiver near the surface.

→ **Note:** By default, surface clarity is set to Low, for optimal image return and clarity.

More options

Range Lines

Range lines can be added to the image to make it easier to estimate depth.
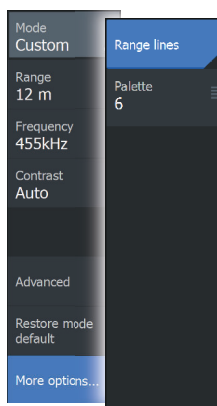
Palettes

You can select between several display palettes.

Measuring distance

The cursor can be used to measure the distance between the position of two observations on the image.

1. Position the cursor on the point from where you want to measure the distance
2. Start the measuring function from the More options menu option

→ **Note:** The measure function is not available in the menu unless the cursor is placed on the image.

3. Position the cursor on the second measuring point
   - A line is drawn between the measuring points, and the distance listed in the Cursor Information window
4. Continue selecting new measuring points if required

You can use the menu to re-position the start point and the end point as long as the measuring function is active.

When you select Finish measuring or press the Exit (X) key, the measuring function stops. Press the Cursor/Waypoint key to remove the cursor from the image and the image resumes to normal scrolling.

10 StructureMap

About StructureMap

The StructureMap feature overlays SideScan images from a SideScan source on the map. This makes it easier to visualize the underwater environment in relation to your position, and aids in interpreting SideScan images.

→ **Note:** SideScan is only available on TripleShot models with a SideScan capable transducer connected.

The StructureMap image

StructureMap can be displayed as an overlay on your chart panel. When Structure overlay is selected in the chart panel menu, the menu increases to show options for the Structure overlay.

The example below shows a chart panel with Structure overlay, combined with a traditional SideScan panel.
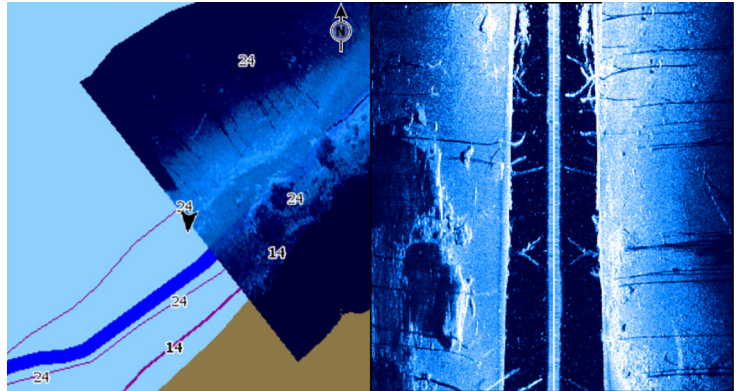
You move around in the chart panel as usual when you have a Structure overlay. Use the Zoom keys to zoom the chart and the scanned image.

StructureMap tips

- To get a picture of taller structures (a wreck, etc.) — do not drive over it, instead, steer the boat so the structure is on the left or right side of your vessel.
- Do not overlap history trails when conducting a side-by-side scan of an area.

Recording StructureMap data

Use the log sonar option in the system controls dialog to record SideScan data and convert it to StructureMap data.

The recording can be started from the system controls dialog when the dialog is opened from the SideScan panel or the chart panel with Structure overlay enabled.

When SideScan data is being recorded, there is a flashing red symbol and a message appears periodically at the bottom of the screen.

→ **Note:** The message includes information about file size. Keep the size of your logs to 100MB or less to allow for faster file conversion.

The recording is stopped by selecting the stop logging function in the system controls dialog.

Converting SideScan data to StructureMap format

A SideScan log file (.sl2) is converted to StructureMap format (.smf) after recording from the recording dialog, or from the files browser.

You can create standard or high resolution files. High resolution .smf files capture more detail, but take longer to convert and are larger than standard resolution files.

To save space it is recommended to remove the SideScan (.sl2) files after conversion.

Using StructureMap with mapping cards

StructureMap allows you to maintain full chart capability and can be used with preloaded cartography as well as C-MAP, Navionics, and other third-party charting cards compatible with the system.

When using StructureMap with mapping cards, copy the StructureMap (.smf) files to the unit's internal memory. We

recommend keeping copies of StructureMap files on external mapping cards.

Structure options

You adjust the StructureMap settings from the Structure options menu. The menu is available when Structure overlay is enabled.

Not all options are available when saved StructureMap files are used as the source. Unavailable options are greyed.
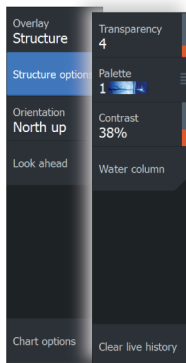
Transparency

Sets the opaqueness of the Structure overlay. With minimum transparency settings, the chart details are almost hidden by the StructureMap overlay.

Palettes

Used for selecting the image's color palette.

Contrast

Determines the brightness ratio between light and dark areas of the screen.

Water column

Shows/hides the water column in Live mode.

If turned OFF schools of bait fish might not be seen on the SideScan image.

If turned ON the accuracy of the SideScan image on the map might be affected by the water depth.

Clear live history

Clears existing live history data from the screen and begins showing only the most current data.

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Alarms

Alarm system

The system continuously checks for dangerous situations and system faults while the system is running. When an alarm situation occurs, an alarm message pops up on the screen.

If you have enabled the siren, the alarm message is followed by an audible alarm.

The alarm is recorded in the alarm listing so that you can see the details and take the appropriate corrective action.

Type of messages

The messages are classified according to how the reported situation affects your vessel. The following color codes are used:

Color	Importance
Red	Critical alarm
Orange	Important alarm
Yellow	Standard alarm
Blue	Warning
Green	Lite warning

Alarm messages

Alarm - No GPS fix
No GPS fix
Close

An alarm message is displayed with the name of the alarm as the title, and with details for the alarm.
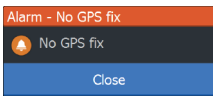
Acknowledging a message

The alarm dialog options for acknowledging a message vary depending on the alarm:

• Close
   Sets the alarm state to acknowledged. The siren/buzzer stops and the alarm dialog is removed.
   However, the alarm remains active in the alarm listing until the reason for the alarm has been removed.

- Disable

  Disables the current alarm setting. The alarm does not show again unless you turn it back on in the alarm settings dialog.

There is no time-out on a message or the siren. They remain active until they are acknowledged or until the reason for the message is rectified.

Alarms dialog

Enable the alarm siren from the Alarms dialog.
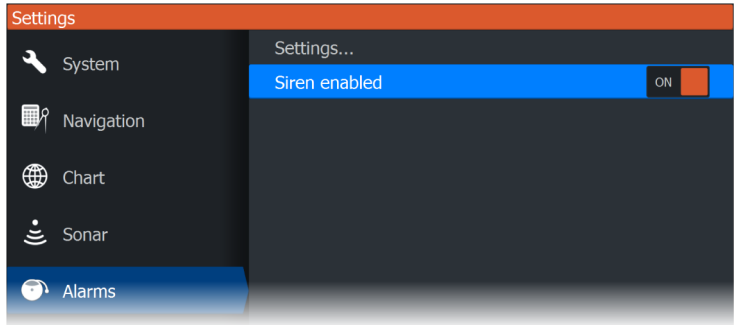
Select the settings option to open the Alarms Settings dialog. All alarms are setup in the Alarms Settings dialog.
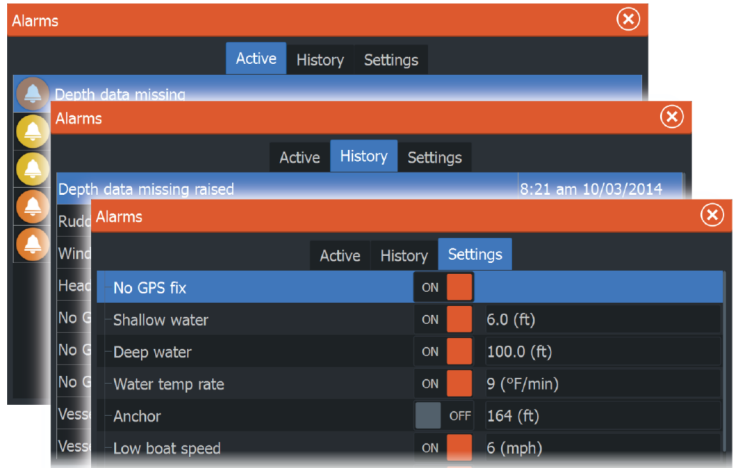
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Tools

The Tools panel includes icons used for accessing options and tools that are not specific to any panel.

The Tools panel is located on the Home page.
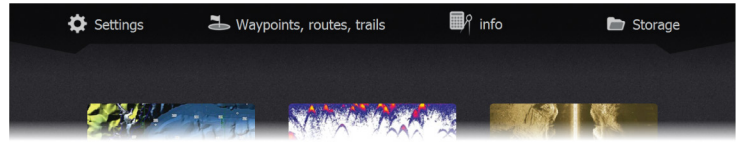
Settings

Provides access to application and system settings.

System settings
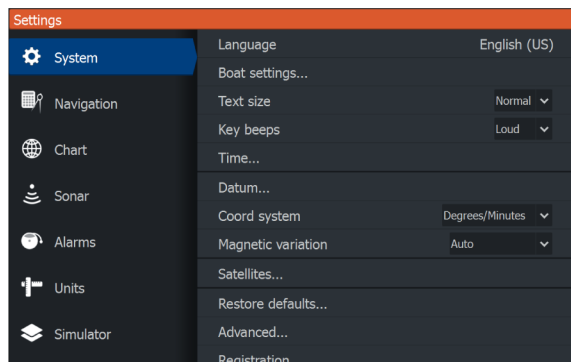
The system settings provides access to the following options.

Language
Controls the language used on this unit for panels, menus, and dialogs. Changing the language causes the unit to restart.

Boat settings
Used to specify the physical attributes of the boat.

Text size
Used for setting the text size in menus and dialogs.

Key beeps
Controls the loudness of the beep sound when a key is pressed.

Time
Controls the local time zone offset, and the format of the time and date.

Datum
Most paper charts are made in the WGS84 format.

If your paper charts are in a different format, you can change the datum settings accordingly to match your paper charts.

Coordinate system
Several coordinate systems can be used to control the format for latitude and longitude coordinates displayed on the panel.

Magnetic variation
Magnetic variation is the difference between true bearings and magnetic bearings, caused by different locations of the Geographic and the Magnetic north poles. Any local anomalies such as iron deposits might also affect the magnetic bearings.

When set to Auto, the system automatically converts magnetic north to true north. Select manual mode if you need to enter your own local magnetic variation.

Satellites
Status page for active satellites.

Restore defaults
Allows you to select which settings are to be restored to their original factory settings.

> ⚠ Warning: If waypoints, routes, and trails are selected, they are permanently deleted.

Advanced

Shows a panel with more advanced settings. Used for setting how your system displays various user interface information. In addition, controls which features are shown in the interface.

Registration

Prompts you to register your device. Registration can be done:

- From a smart device with internet access
- Over the phone

About

Displays copyright information, software version, and technical information for this unit.

The Support option accesses the service assistant, refer to *"Service assistant"* on page 77.

Navigation

Provides options and dialogs where you specify settings for your navigation, such as arrival radius, XTE limit, XTE Alarm, Trails, and Logging Type. Refer to *"Navigation settings"* on page 45.

Chart

Provides options and dialogs where you specify settings for your charts. Settings and display options made in the Chart settings page are common for all chart panels. Refer to *"Chart settings"* on page 33.

Sonar

Provides options and dialogs where you specify settings for your sonar. Refer to *"Sonar settings"* on page 55.

Alarms

Provides the option to enable the siren. It also provides a dialog where you specify turning on alarms for items, and includes active alarm information and alarm history. Refer to *"Alarms dialog"* on page 72.

Units

Provides setup of units of measure used on various data types.

Simulator

Provides for manually controlling the simulator. For more information, refer to *"Simulator"* on page 82.

Waypoints/routes/trails

List of waypoints, routes, and trails with details. For more information, refer to *"Waypoints, routes, and trails"* on page 35.

Info

Access to Sun/moon, Tides and Trip information.

Sun, Moon

Displays sunrise, sunset, moonrise and moonset for a position based on entered date and the position's latitude/longitude.

Tides

Displays tide information for the tide station nearest to your vessel.

Available tide stations can be selected from the Tide station field.

To change the date, use the Arrow keys to access the date field and press the Menu/Enter key to access the calendar function.

Trip

Provides trip information. Use to reset trip information.

Storage

Access to the file management system. Use to browse and manage the contents of the unit's internal memory and storage devices connected to the unit.

Copying files to a storage device

You can copy user data such as screen captures, logs, etc. to a storage device connected to the unit. You can also export user data such as System Settings, Waypoints, Routes, and Trails to the storage device. Exporting files is covered in the section *"Maintenance"* on page 77.

13 Maintenance

Preventive maintenance

The unit does not contain any field serviceable components. Therefore, the operator is required to perform only a very limited amount of preventative maintenance.

It is recommended that you always fit the protective sun cover when the unit is not in use.

→ ***Note:*** The protective sun cover is an accessory (sold separately). Refer to the Installation guide provided with your unit.

Cleaning the display unit

To clean the screen:

* A micro-fiber or a soft cotton cloth should be used to clean the screen. Use plenty of water to dissolve and take away salt remains. Crystallized salt, sand, dirt, etc. can scratch the protective coating if using a damp cloth. Use a light fresh water spray then wipe the unit dry with a micro-fiber or a soft cotton cloth. Do not apply pressure with the cloth.

To clean the housing:

* Use warm water with a dash of liquid dish soap or detergent.

Avoid using abrasive cleaning products or products containing solvents (acetone, mineral turpentine, etc.), acid, ammonia, or alcohol as they can damage the display and plastic housing.

Do not use a jet or high pressure wash. Do not run your unit through a car wash.

Checking the connectors

Push the connector plugs into the connector. If the connector plugs are equipped with a lock or a position key, ensure that it is in the correct position.

Service assistant

The system has a built-in service assistant that creates a report of the unit which includes the software version, serial number, and

information from the settings file to assist in technical support enquiries.

1. Insert an empty memory card in the unit.
2. Open the About page of the System settings dialog
3. Select Support and then Create report
4. Follow the instructions
5. Save the report to the memory card.

You can add screenshots and log files that will be attached to the report. There is a 20MB limit for the report attachments. If you call technical support first, you can enter an incident number to assist with tracking.

Email the report from the memory card to support using a smart device or PC connected to the internet.

Software updates

Before initiating an update to the unit, be sure to back up any potentially valuable user data. Refer to *"Backing up your system data"* on page 78.

Update software

→ *Note:* Do not download software updates to mapping cards. Use a non-mapping memory card with sufficient storage for software updates, or saving reports or files to it.

→ *Note:* Do not turn off the unit until the update is completed.

1. Download the software update from www.lowrance.com to a memory card inserted in a smart device or PC connected to the internet.
2. Power off your unit and then insert the card containing the software updates in your unit.
3. Power on your unit. A progress bar appears showing the software is being updated. Let the update complete, do not power off the unit. Do not remove the card until after the unit has restarted.

Backing up your system data

It is recommended to regularly copy user data and your system settings database as part of your back-up routine.

Export all Waypoints, Routes and Trails

Use the export option if you want to backup all Waypoints, Routes, and Trails on your system.
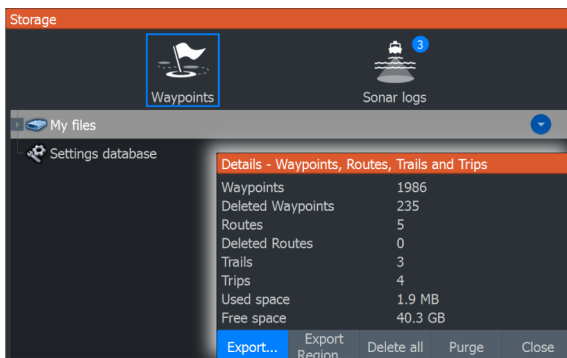
Export region

The export region option allows you to select the area from where you want to export data.

1. Select export region
2. Place the cursor over one of the boundary box corners and press the Menu/Entry key. to select it
3. Use the Arrow keys to move the selected boundary box corner to expand the box
4. Press the Menu/Entry key to place the corner
5. If needed, repeat steps 2-4 to the other boundary box corner
6. Press the Exit (X) key to indicate that the box covers the region you want to export. The Export Region dialog opens.
7. Select the export option
8. Select the appropriate file format
9. Select Export and follow the prompts for specifying the destination folder and a file name.

Export format

The following formats are available for export:

*   **User Data File version 6**
    Used to export waypoints, routes and colored tracks/trails.

- **User Data File version 5**
  Used to export waypoints and routes with a standardized universally unique identifier (UUID), which is very reliable and easy to use. The data includes such information as the time and date when a route was created.
- **User Data File version 4**
  Best used when transferring data from one system to another, since it contains all the extra bits of information these systems store about items.
- **User Data file version 3 (w/depth)**
  Should be used when transferring user data from one system to a legacy product
- **User data file version 2 (no depth)**
  Can be used when transferring user data from one system to a legacy product
- **GPX (GPS Exchange, no depth)**
  This is the format most used on the web that shares among most GPS systems. Use this format if you are taking data to a competitor's unit.

Purging user data

Deleted user data are stored in the unit's memory until the data is purged. If you have numerous deleted, unpurged user data, purging may improve the performance of your system.

→ **Note:** When user data is deleted and/or purged from the memory, it cannot be recovered.

Exporting the settings database

Use the settings database option in the storage dialog to export your user settings.
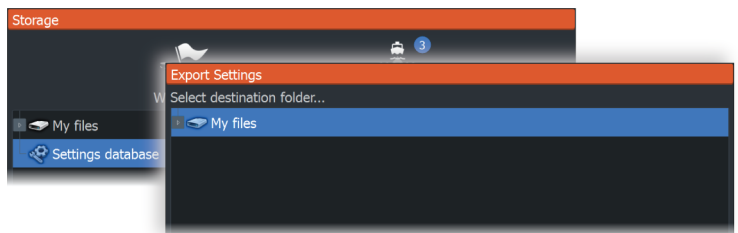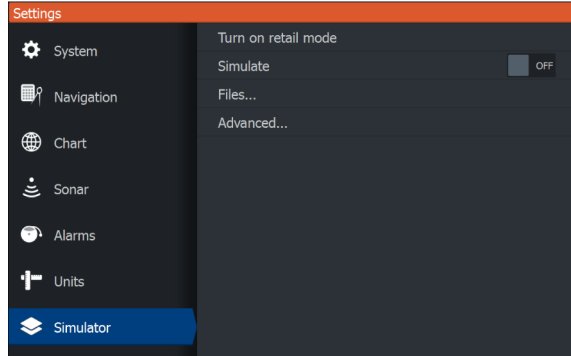
Importing backed up files

1. Insert the memory card containing the backed up files in the unit's card reader.
2. Open the Storage dialog from the tool panel and select the memory card.
3. Browse to the file you want to import and select it. This opens the details dialog.
4. Select the import option and follow the prompts.

A message advises when the import is completed.

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Simulator

The simulation feature lets you see how the unit works in a stationary position and without being connected to other devices.

You access the simulator from Settings tool.

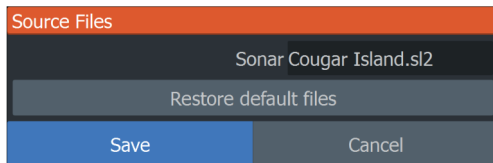| Settings		
⚙ System	Turn on retail mode	
📖 Navigation	Simulate	OFF
	Files...	
🌐 Chart	Advanced...	
⬚ Sonar		
🔔 Alarms		
🎚 Units		
◆ Simulator		

Retail mode

In this mode a retail demonstration for the selected region is shown.

If you operate the unit when retail mode is running, the demonstration pauses.

After a time-out period, retail mode resumes.

➔ **Note:** Retail mode is designed for retail/showroom demonstrations.

Simulator source files

You can select which sonar data files are used by the simulator. A set of source files is included in your system, and you can import files by using a card inserted into the card reader. You can also use your own recorded sonar log data files in the simulator.

Source Files	
Sonar Cougar Island.sl2	
Restore default files	
Save	Cancel

Advanced simulator settings

The Advanced simulator settings allows for manually controlling the simulator.
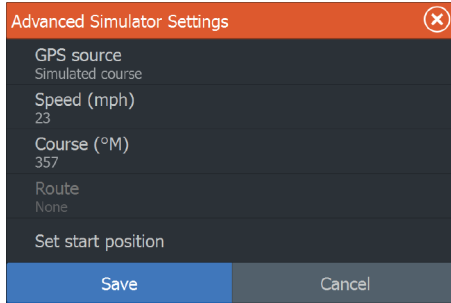
GPS source

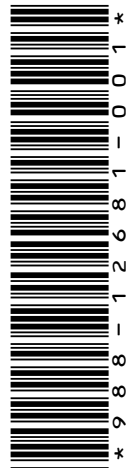Selects the file for the simulated GPS data.

Speed and Course

Used for manually entering values when GPS source is set to Simulated course. Otherwise, GPS data including speed and course come from the selected source file.

Set start position

Sets your simulated vessel position to the current cursor position.

→ **Note:** This option is only available when the GPS source is set to simulated course.

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