LOWRANCE

ELITE Ti²

Operator Manual

ENGLISH

www.lowrance.com

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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This manual represents the product as at the time of printing. Navico Holding AS and its subsidiaries, branches and affiliates reserve the right to make changes to specifications without notice.

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:

- Active Imaging™ (Active Imaging)
- DownScan Imaging™ (DownScan)
- DownScan Overlay™ (Overlay)
- FishReveal™ (FishReveal)
- GoFree™ (GoFree)
- Genesis® (Genesis)
- SmartSteer™ (SmartSteer)
- SonicHub® (SonicHub)
- StructureMap™ (StructureMap)

Copyright

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

Europe

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

- CE under RED 2014/53/EU

The relevant declaration of conformity is available in the product's section at the following website:

- www.lowrance.com

Countries of intended use in the EU

AT - Austria
BE - Belgium
BG - Bulgaria
CY - Cyprus
CZ - Czech Republic
DK - Denmark
EE - Estonia
FI - Finland
FR - France
DE - Germany
GR - Greece
HU - Hungary
IS - Iceland
IE - Ireland
IT - Italy
LV - Latvia
LI - Liechtenstein
LT - Lithuania
LU - Luxembourg
MT - Malta
NL - Netherlands
NO - Norway
PL - Poland
PT - Portugal
RO - Romania
SK - Slovak Republic
SI - Slovenia
ES - Spain
SE - Sweden
CH - Switzerland
TR - Turkey
UK - United Kingdom

United States of America

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

- Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

⚠ 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.

→ ***Note:*** This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or

television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that of the receiver is connected
- Consult the dealer or an experienced technician for help

Industry Canada

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et. (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnemen.

Industry Canada Statement: Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée quivalente (p.i.r.e.) ne dépassepas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

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
- radiocommunications (Short Range Devices) Standards 2014

Internet usage

Some features in this product use an internet connection to perform data downloads and uploads. Internet usage via a connected mobile/cell phone internet connection or a pay-per-MB type internet connection may require large data usage. Your service provider may charge you based on the amount of data you transfer. If you are unsure, contact your service provider to confirm rates and restrictions.

About this manual

This manual is a reference guide for operating the unit. It assumes that all equipment is installed and configured, and that the system is ready to use.

Some features may not be activated or available for screenshots in the manual. As a result, screenshots of menus and dialogs may not match the look of your unit.

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 software version 1.0. The manual is continually updated to match new software releases. The latest available manual version can be downloaded from the product's support section at the following website:

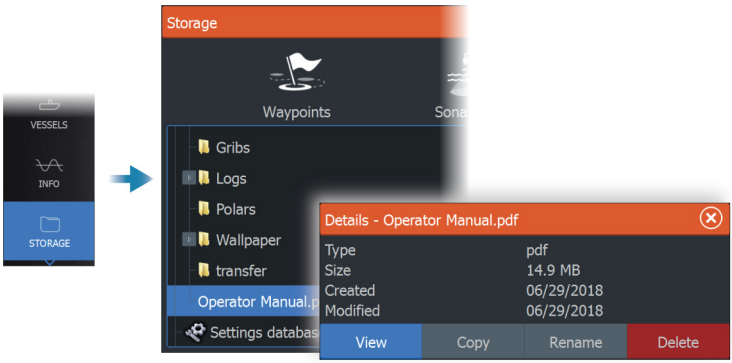
- www.lowrance.com

Viewing the manual on the screen

The PDF viewer included in the unit makes it possible to read the manuals and other PDF files on the screen. Manuals can be downloaded from the product's support section at the following website:

- www.lowrance.com

The manuals can be read from a storage device connected to the unit or copied to the unit's internal memory.

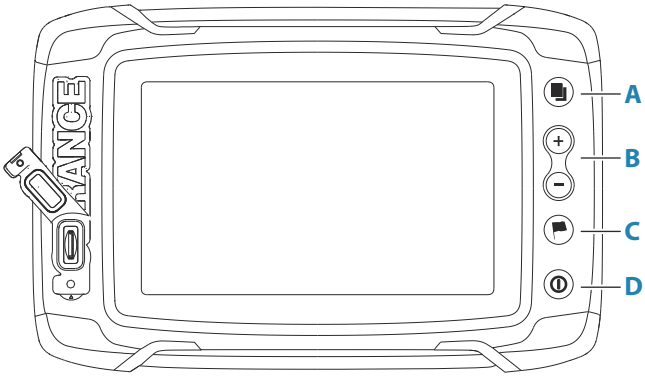


Contents

1 Introduction

Keys

ELITE Ti²



A Pages key

- Press once to activate the home page, repeat short presses to cycle the favorite pages

B Zoom Out / Zoom In keys and MOB key

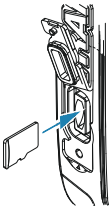
- Press to zoom in and out
- Simultaneous press both keys to save a Man Overboard (MOB) waypoint at the current vessel position

C Waypoint key

- Press to open the new waypoint dialog
- Press twice to save a waypoint
- Press and hold to access the find dialog.

D Power key

- Press to turn the unit ON
- Press and hold to turn the unit OFF
- When ON press once to display the System Controls dialog, repeat short presses to cycle the backlight brightness



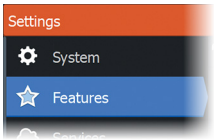
Card reader

A memory card can be used for:

- Chart data
- Software updates
- Transfer of user data
- System backup

➔ ***Note:*** Do not download, transfer or copy files to a chart card. Doing so can damage chart information on the chart card.

Feature unlock



Some additional features can be sold separately. These features can be unlocked by entering an unlock code.

Select the feature you want to unlock. Follow the instructions to purchase and enter the feature unlock code.

After a feature unlock code is entered in the unit, the feature is available for use.

➔ ***Note:*** The feature unlock option is only available if your unit supports a locked feature.

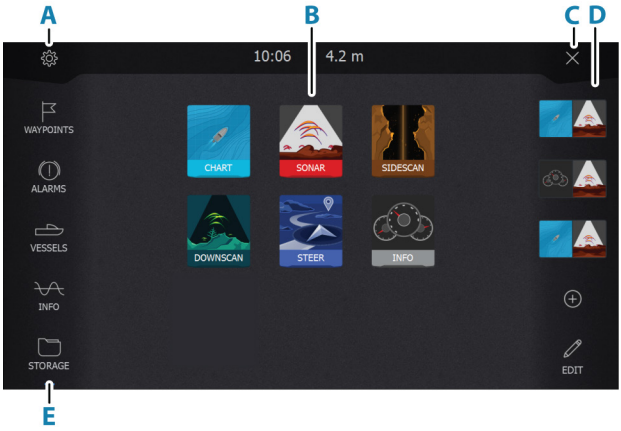
Device registration

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 the device if it is connected to the internet
- From a smart device with internet access
- Over the phone

2 The user interface

The Home page



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

A **Settings**
Opens the settings dialog. Use it to configure the system.

B **Applications**
Select a button to display the application as a full page panel.
Press and hold a button to display pre-defined quick split pages for the application.

C **Close button**
Select to exit the Home page and return to the previous active page.

D **Favorites**
Select a button to display the panel combination.
Press and hold a favorite button to enter edit mode for the Favorites panel.

E **Toolbar**
Select a button to access dialogs used for carrying out a task, or for browsing stored information.

Multiple panel pages

You can have several panels on a page. The number of panels on a page depends on the size of your unit.

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 24.

In a multiple panel page, only one panel can be active at a time. The active panel is outlined with a border.

You can only access the page menu of an active panel.

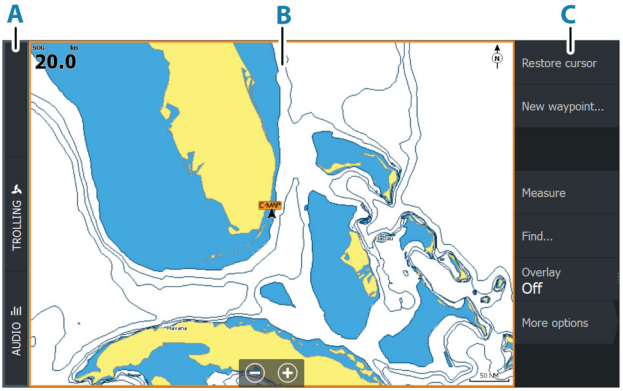
To activate a panel:

- Tap the panel you want to activate

2 panels page

3 panels page

Application pages



A Control bar

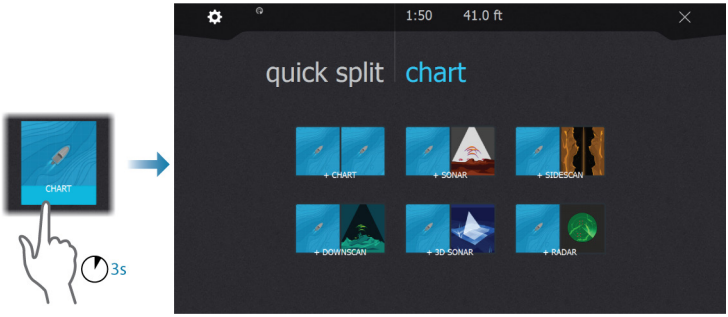
B Application panel

Quick split pages

Each full screen application has several pre-configured quick split pages. They show the selected application combined with one of the other panels.

→ ***Note:*** The number of quick split pages cannot be changed, and the pages cannot be customized or deleted.

Access a quick split page by pressing and holding the application button on the home page.



Favorite pages

The system is delivered with preconfigured favorite pages. The preconfigured pages can be modified and you can add your own favorite pages. Refer to *"Adding new favorite pages"* on page 25.

The unit display size determines the number of application panels that can be included on a favorite page.

System controls dialog

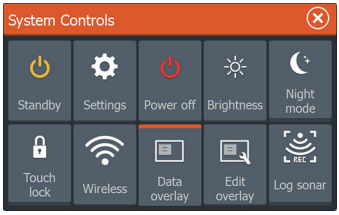
The System Controls dialog provides quick access to basic system settings.

The icons displayed on the dialog vary with operational mode and connected equipment.

For those functions that toggle on and off, an orange bar across the top of the icon indicates the function is activated.

Display the dialog by:

- pressing the power key



3 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.

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

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

First time startup

When the unit is started for the first time, or after a factory default, 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.

Standby mode

In Standby mode, the Sonar and the backlight for screen and keys 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 and backlight for low light conditions.

Pages and panels

Pages are selected from the Home page.

Full page panels:

- Select the relevant application button

Favorite pages:

- Select the relevant favorite button

Predefined quick split pages:

- Press and hold the relevant application button

In a multiple panel page, only one panel can be active at a time. The active panel is outlined with a border. You can only access the page menu of an active panel.

To active a panel in a multiple panel page:

- Tap the panel

Menus

To display a panel menu:

- Select the menu button

To return to previous menu level:

- Select the back menu option

To hide a panel menu:

- Swipe the menu to the right

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

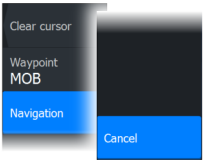
- The display switches to a zoomed chart panel, centered on the vessel's position
- The system displays navigation information back to the MOB waypoint

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.

Locking the touchscreen

You can temporarily lock a touch screen to prevent accidental operation of the system.

You lock the touch screen from the system controls dialog.

When the touch lock is active, you can still operate the unit from the keys.

You remove the lock function by pressing on the power key.

Screen capture

To take a screen capture:

- Simultaneously press the pages key and the power key

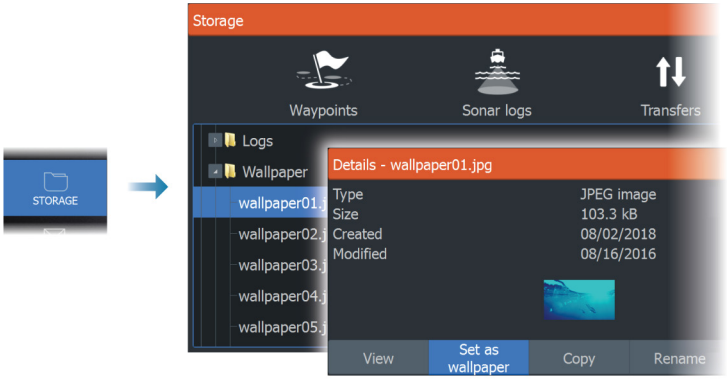
Screen captures are saved to internal memory.

4 Customizing your system

Customizing the Home page wallpaper

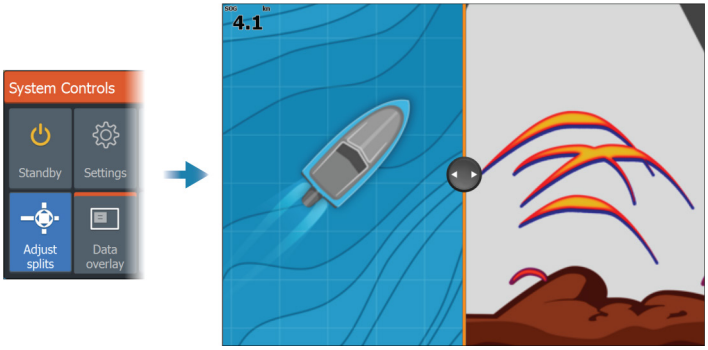
The Home page's wallpaper can be customized. You can select one of the pictures included with the system, or you can use your own picture in .jpg or .png format.

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.



Adjusting the split on multiple panel pages

1. Open the multiple panel page
2. Open the System Controls dialog
3. Select the adjust splits option. The adjustment icon appears on the multiple panel page.
4. Select the adjustment icon and move the split to the desired position
5. Use menu options to save or discard your changes.

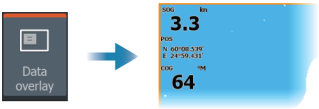


Data overlay

You can have data information as overlay on chart and sonar pages. The data overlay is set individually for each default page, favorite pages and for the predefined split pages.

The information can be any data available on the network.

You turn overlay data on or off from the system controls dialog.



Edit overlay data

Use the edit overlay button on the system controls dialog to edit the overlay data.

When in edit mode, select the data overlay to be edited, then:

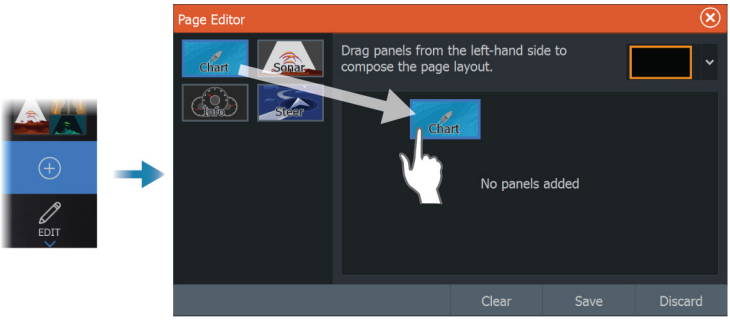
- use the menu option to change or configure the data
- drag the overlay data box to reposition the overlay

Favorite pages

Adding new favorite pages

1. Select the New icon in the favorite panel on the Home page to open the page editor dialog
2. Drag and drop page icons to set up a new page
3. (Optional) Change the panel arrangement (only possible when 2 or more panels)

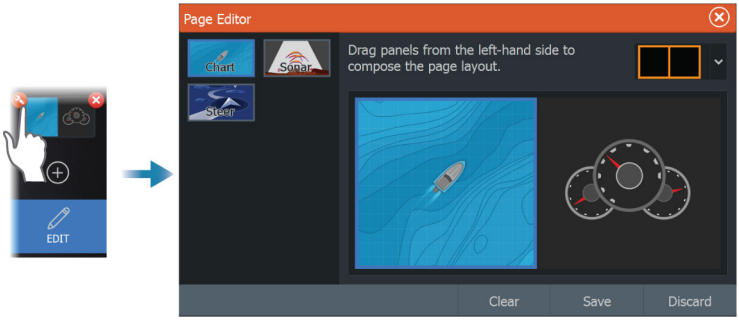
4. Save the page layout.



The system displays the new favorite page, and the new page is included in the list of favorite pages on the Home page.

Edit favorite pages

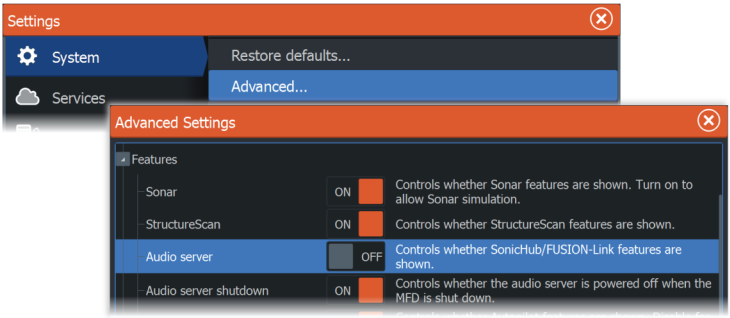
1. Select the edit icon in the favorite panel:
   - Select the X icon on a favorite icon to remove the page
   - Select the tool icon on a favorite icon to display the page editor dialog
2. Add or remove panels in the page editor dialog
3. Save or discard your changes to leave the favorite edit mode.



Enabling or disabling features

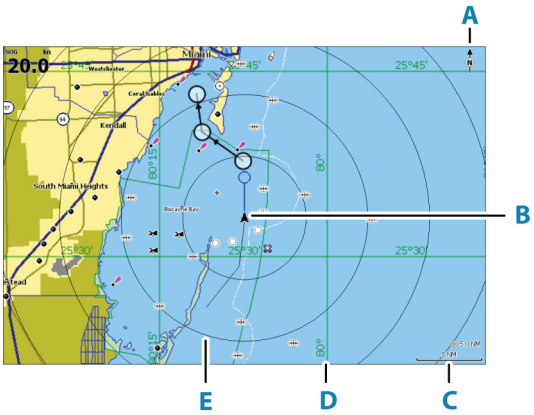
A compatible device connected to the NMEA 2000 network should automatically be identified by the system. If not, enable the feature from the advanced settings dialog.

Features can also be disabled using this dialog.


Settings
System
Services
Restore defaults...
Advanced...
Advanced Settings
Features
Sonar
ON
Controls whether Sonar features are shown. Turn on to allow Sonar simulation.
StructureScan
ON
Controls whether StructureScan features are shown.
Audio server
OFF
Controls whether SonicHub/FUSION-Link features are shown.
Audio server shutdown
ON
Controls whether the audio server is powered off when the MFD is shut down.

5 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

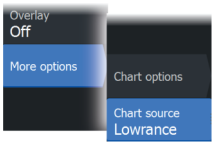
The system can be delivered with preloaded cartography.

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 source



Available chart sources are listed in the menu.

If you have identical chart sources available, the system automatically selects the chart with most chart details for your displayed region.

Showing dual chart sources

If you have different chart sources available, you can show two different chart sources simultaneously on a page that has two chart panels.

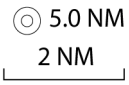
Activate each chart page and select its source in the menu.

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.

→ ***Note:*** Without a heading sensor on the network, the vessel icon orientates itself using COG (Course over Ground).

Zooming the chart



The chart range scale and range rings interval (when turned on) are shown on the chart panel. You change the scale by zooming the chart in or out.

You zoom the chart by:

- Selecting the zoom (+ or -) buttons
- Pressing the + and - keys

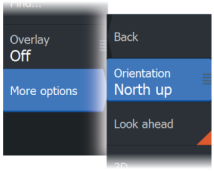
Panning the chart

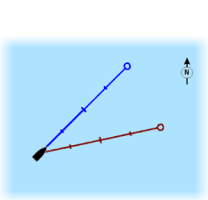
You can move the chart in any direction by:

- Dragging your finger on the screen

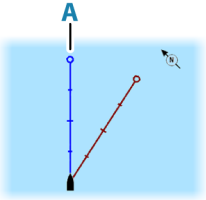
Chart orientation

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.

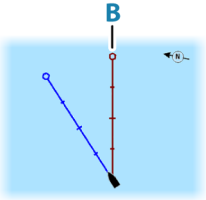




North up



Heading up



Course up

North up

Displays the chart with north upward.

Heading up

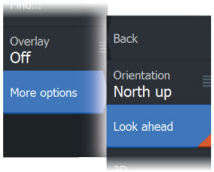
Displays the chart with the vessel's heading (**A**) directed upward. Heading information is received from a compass. If heading is not available, then the COG from the GPS is used.

Course up

The chart direction is depending on if navigating or not:

- When navigating: the desired course line (**B**) is oriented up
- When not navigating: the direction the vessel is actually traveling (COG) is oriented up

Look ahead



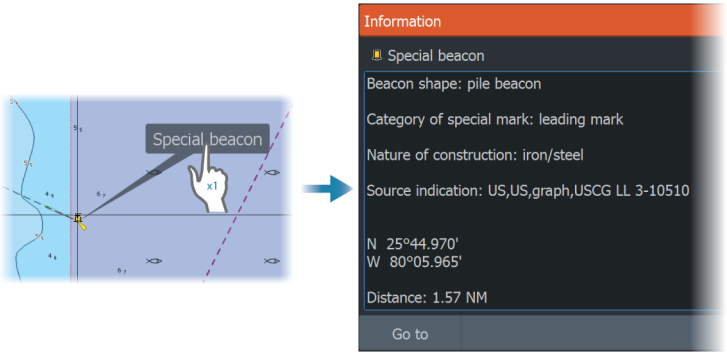
Moves the vessel icon on the panel to maximize your view ahead of the vessel.

Displaying information about chart items

When you select a chart item, a waypoint, a route, or a target, basic information for the selected item is displayed. Select the chart item's pop-up to display all available information for that item. You can also activate the detailed information dialog from the menu.

→ ***Note:*** If you are viewing applicable C-MAP charts on your system, you can select marine objects to display information about services and available multimedia (photos) associated with the location or object.

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



Using the cursor on the chart panel

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

When you activate the cursor, the cursor position window is displayed. When the cursor is active, the chart does not pan or rotate to follow the vessel.

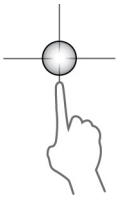
Select the clear cursor menu option to remove the cursor and the cursor window from the panel. This also centers the chart to the vessel position.

Select the restore cursor menu option to display the cursor at its previous location. The clear cursor and restore cursor options are useful features for toggling between the vessel's current location and the cursor position.

Go to cursor

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

The cursor assist function



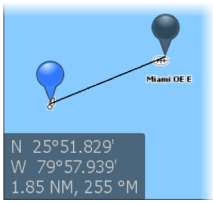
The cursor assist function allows for fine tuning and precision placement of the cursor without covering details with your finger.

Activate the cursor on the panel, then press and hold your finger on the screen to switch the cursor symbol to a selection circle, appearing above your finger.

Without removing your finger from the screen, drag the selection circle to the desired position.

When you remove your finger from the screen the cursor reverts to normal cursor operation.

Measuring distance



The cursor can be used to measure the distance between your vessel and a selected position, or between 2 points on the chart panel.

1. Position the cursor on the point where you want to measure the distance to. Start the measure function from the menu
   - The measuring icons appear with a line drawn from the vessel center to the cursor position, and the distance is listed in the cursor information window.
2. The measuring points can be repositioned by dragging either icon while the measuring function is active.

→ ***Note:*** The bearing is always measured from the grey icon to the blue icon.

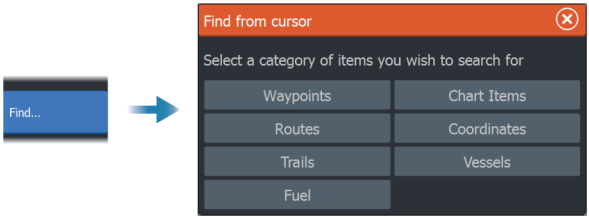
The start measuring function can also be started without an active cursor. Both measuring icons are then initially located at the vessel position. The grey icon follows the vessel as the vessel moves, while the blue icon remains at the position given when you activated the function. The measuring points can then be repositioned by dragging either icon.

Terminate the measuring function by selecting the finish measuring menu option.

Find objects on chart panels

You can search for other vessels or various chart items from a chart panel.

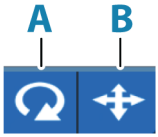
Activate the cursor on the panel to search from the cursor position. If the cursor is not active, the system searches for items from the vessel's position.



→ ***Note:*** You must have an AIS receiver connected to search for vessels.

3D charts

The 3D option provides a three dimensional graphical view of land and sea contours.



→ ***Note:*** All chart types work in 3D mode, but without 3D cartography for the appropriate area the chart appears flat.

When the 3D chart option is selected, the rotate (**A**) and the pan (**B**) icons appear on the chart panel.

Controlling the view angle

You can control the view angle by selecting the rotate icon, and then panning the chart panel.

- To change the direction you are viewing, pan horizontally
- To change the tilt angle of the view, pan vertically

→ ***Note:*** When centered on the vessel position, only the tilt angle can be adjusted. The view direction is controlled by the chart orientation setting. Refer to *"Chart orientation"* on page 29.

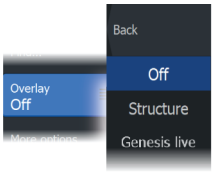
Panning the 3D chart

You can move the chart in any direction by selecting the Pan icon and then panning in the desired direction.

To return the chart to vessel position:

- Press the exit key
- Select the return to vessel menu option

Chart overlay



You can add various overlays on a 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.

Genesis live

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

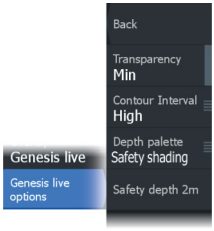
Genesis live is a real-time feature where the unit creates an overlay of depth contour mapping based on live sonar soundings. The Genesis live sonar soundings are recorded onto and viewed from the unit's memory card.

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.
- Genesis live can record from a networked transducer.
- The data logging and display is for the unit with the memory card. Genesis live maps are not shared over the network.

→ ***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.

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.

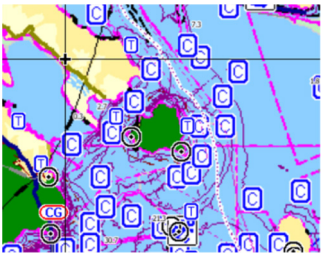
C-MAP tides and currents

The system can display C-MAP tides and currents. With this information it is possible to predict the time, level, direction and strength of currents and tides. This is an important tool when considering planning and navigation of a trip.

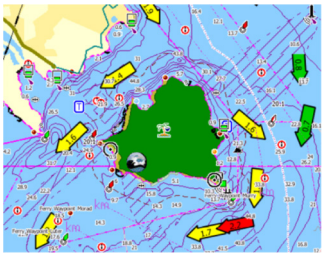
In large zoom ranges the tides and currents are displayed as a square icon including the letter **T** (Tides) or **C** (Current). When you select one of the icons, tidal or current information for that location are displayed.

Dynamic current data can be viewed by zooming inside a 1-nautical mile zoom range. At that range, the Current icon changes to an animated dynamic icon that shows the speed and direction of the current. Dynamic icons are colored in black (greater than 6 knots), red (greater than 2 knots and less than or equal to 6 knots), yellow (greater than 1 knot and less than or equal to 2 knots) or green (equal to or less than 1 knot), depending on the current in that location.

If there is no current (0 knots) this will be shown as a white, square icon.

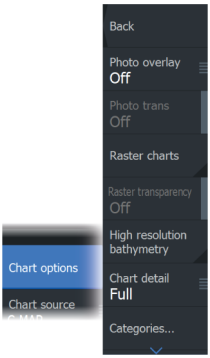


Static Current and Tide icons



Dynamic Current icons

C-MAP specific chart options

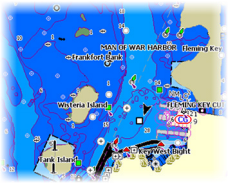


Orientation, Look ahead, 3D, and change Chart source (previously described in this section) are common for all chart types.

Photo overlay

Photo overlay enables you to view satellite photo images of an area as an overlay on the chart. The availability of such photos is limited to certain regions, and cartography versions.

You can view photo overlays in either 2D or 3D modes.



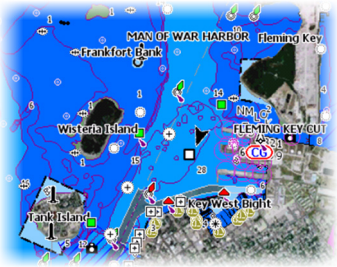
No Photo overlay

Photo overlay, land only

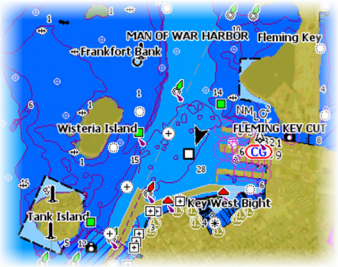
Full Photo overlay

Photo transparency

The Photo transparency sets the opaqueness of the photo overlay. With minimum transparency settings the chart details are almost hidden by the photo.



Minimum transparency



Transparency at 80

Raster charts

Changes the view to that of a traditional paper chart.

Raster transparency

Controls the transparency of raster imagery.

High resolution bathymetry

Enables and disables higher concentration of contour lines.

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.

Chart categories

Several categories and sub-categories are included. You can turn on/off individually depending on which information you want to see.

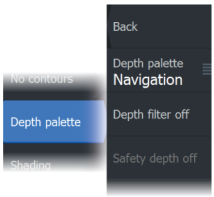
The categories listed in the dialog are dependent on the charts used.

Shaded relief

Shades seabed terrain.

No contours

Removes contour lines from the chart.



Depth palette

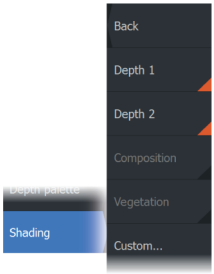
Controls the Depth palette used on the map.

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 Safety depth, specify the desired safety depth limit. The Safety depth sets the limit at which depths will be drawn without blue shading.



Shading

Shades different areas of the seabed, depending on the selected Shading category.

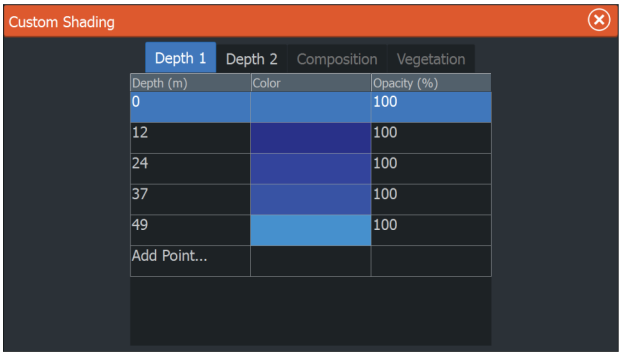
→ ***Note:*** Composition and Vegetation shading are not applicable to C-MAP charts.

Depth 1 and Depth 2

Depth presets that shade different depths in different colors.

Custom

You can adjust the depth threshold, color and opacity (transparency) of color shading for Depth 1 and Depth 2.



3D exaggeration

Graphical settings that are available in 3D mode only. Exaggeration is a multiplier applied to the drawn height of hills on land, and troughs in water to make them look taller or deeper.

→ ***Note:*** This option is grayed out if the data is not available in the map card inserted.

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.

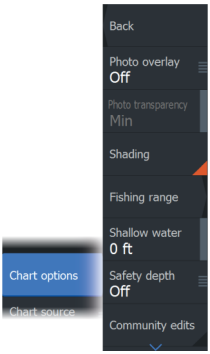
Available only if the C-MAP chart contains Genesis Layer data.

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



Orientation, Look ahead, 3D and change Chart source (previously described in this section) are common for all chart types.

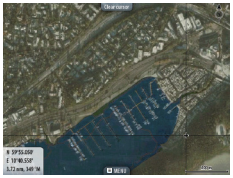
Photo overlay

Photo overlay enables you to view satellite photo images of an area as an overlay on the chart. The availability of such photos is limited to certain regions, and cartography versions.

You can view photo overlays in either 2D or 3D modes.

No Photo overlay

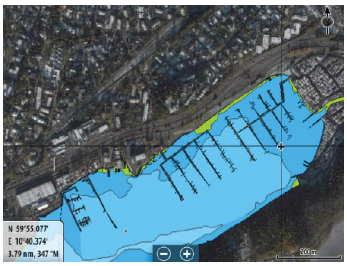
Photo overlay, land only



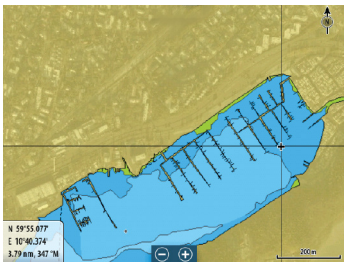
Full Photo overlay

Photo transparency

The Photo transparency sets the opaqueness of the photo overlay. With minimum transparency settings the chart details are almost hidden by the photo.



Minimum transparency



Maximum transparency

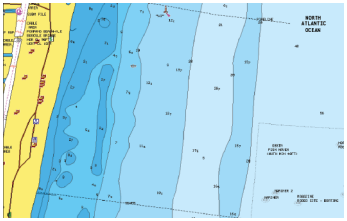
Chart shading

Shading adds terrain information to the chart.

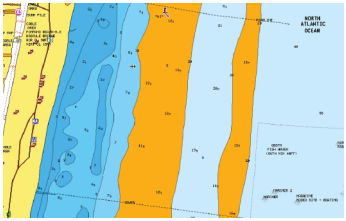
Fishing range

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.



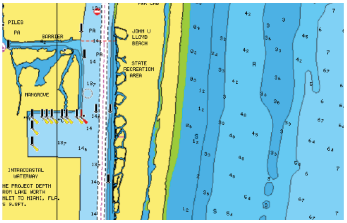
No Depth highlight range



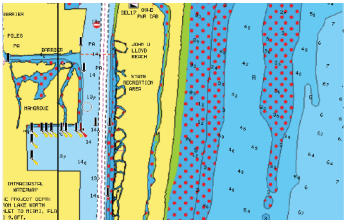
Depth highlight range: 6 m - 12 m

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

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.

Community edits

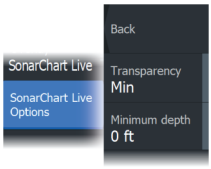
Toggles on the chart layer including Navionics edits. These are user information or edits uploaded to Navionics Community by users, and made available in Navionics charts.

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

→ ***Note:*** If no active Navionics chart subscription is found, the SonarChart Live menu option changes to SCL History.

Select to display previously recorded data on the chart overlay.

SC Density

Controls the density of the SonarChart and SonarChart Live contours.

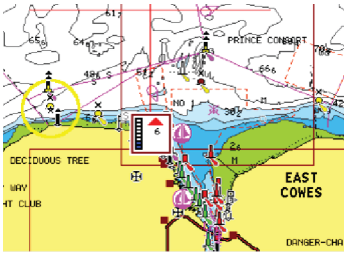
Colored seabed areas

Used for displaying different depth areas in different shades of blue.

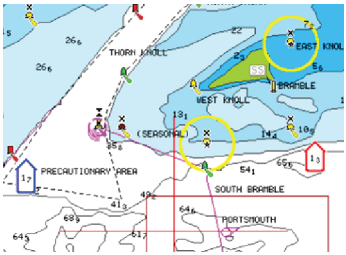
Navionics Dynamic tides and current icons

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.

Rock filter level

Hides rock identification on the chart beneath a given depth.

This helps you to declutter charts in areas where there are many rocks located at depths well below your vessel's draught.

Contours depth

Determines which contours you see on the chart down to the selected safety depth value.

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

Annotation
Determines what area information, such as names of locations and notes of areas, is available to display.

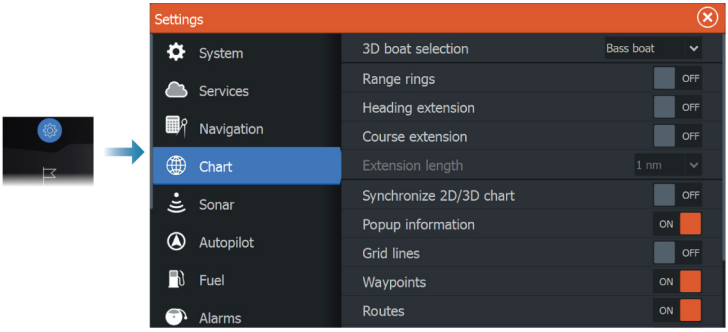
Chart details
Provides you with different levels of geographical layer information.

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.

Chart settings

The options in the chart settings dialog depends on which chart source is selected in the system.



3D boat selection

Determines which icon to use on 3D charts.

Range rings

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

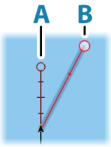
The range scale is set automatically by the system to suit the panel scale.

Extension lines

Heading extension and Course extension

Select to show or hide the heading and course extension lines for your vessel.

Extension length



Sets the lengths of the heading and course extension lines for your vessel. For setting extension line lengths on other vessels shown as AIS targets, refer to AIS *"Course extension"* on page 105.

A: Heading

B: Course Over Ground (COG)

The lengths of the extension lines are either set as a fixed distance, or to indicate the distance the vessel moves in the selected time period. If no options are turned on for the vessel then no extension lines are shown for your vessel.

Your vessel heading is based on information from the active heading sensor and the COG is based on information from the active GPS sensor.

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.

Synchronize 2D/3D chart

Links the position shown on one chart with the position shown on the other chart when a 2D and a 3D chart are shown side by side.

Pop-up information

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

Grid lines

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

Waypoints
Turns on/off displaying waypoints on charts.

Routes
Turns on/off displaying routes on charts.

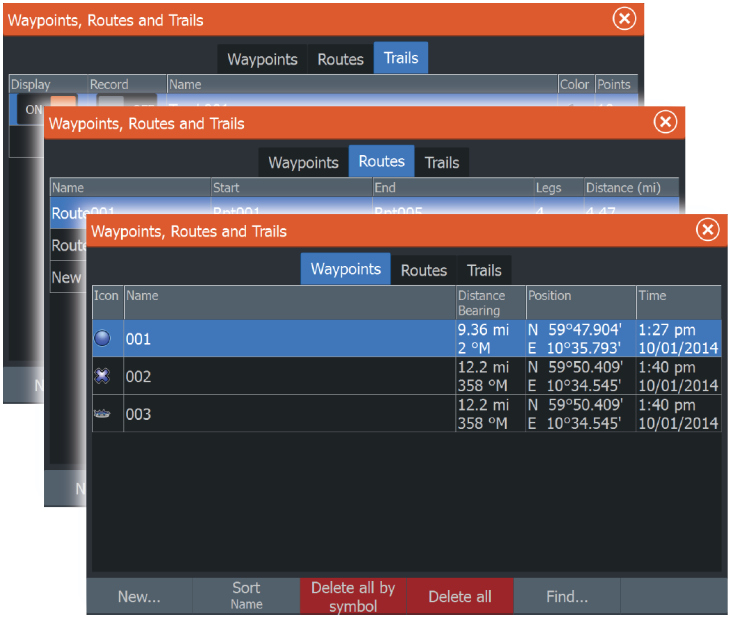
Trails
Turns on/off displaying trails on charts.

Waypoints, Routes, Trails
Opens the Waypoints, Routes, and Trails dialog where these items can be created, edited, deleted, and searched.

6 Waypoints, routes, and trails

Waypoints, routes and trail dialogs

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



Waypoints

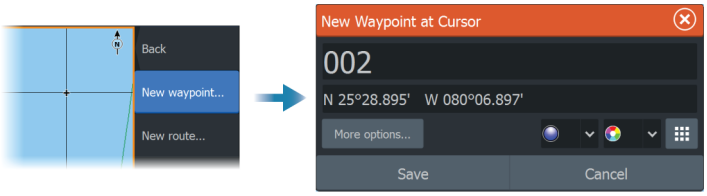
A waypoint is a user generated mark positioned on a chart, or on the Sonar image. Each waypoint has an exact position with latitude and longitude coordinates. A waypoint positioned on the Sonar image has a depth value, in addition to position information. A waypoint is used to mark a position you later may want to return to. Two or more waypoints can also be combined to create a route.

Saving waypoints

A waypoint is saved at the cursor position if active or at the vessel's position if the cursor is not active on the panel. To save a waypoint:

- Use the new waypoint option in the menu

- Press the Waypoint key
  - Press once to display the New Waypoint dialog
  - Press twice to quickly save a waypoint.

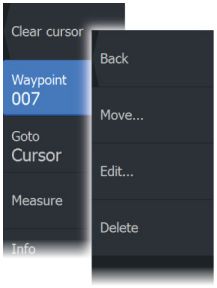


New Waypoint icon

When selected, the dialog with waypoint symbol alternatives is displayed. Selecting a waypoint symbol creates the waypoint at cursor or vessel position with the selected symbol. This mode is persistent, the next time you create a new waypoint the same dialog opens and if you select a symbol a waypoint is created with the symbol.

Instead of selecting a symbol, select the menu button in the bottom-right corner to return to the previous New Waypoint dialog. This selection becomes the persistent mode, the next time you create a new waypoint the New Waypoint dialog is displayed.

Moving a waypoint



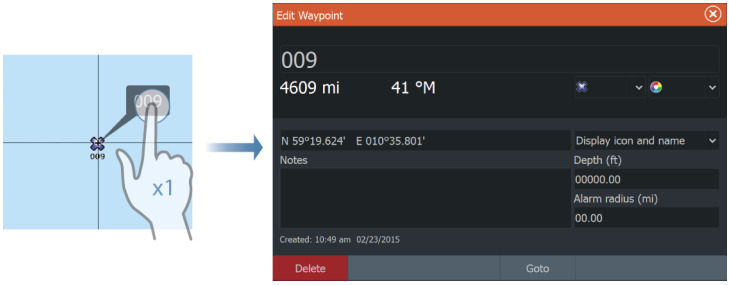
1. Select the waypoint you want to move. The waypoint icon expands to indicate that it is active.
2. Activate the menu and select the waypoint in the menu
3. Select the move option
4. Select the new waypoint position
5. Select the finish moving menu option.

The waypoint is now automatically saved at the new position.

Edit a waypoint

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

The dialog can also be accessed from the Waypoints tool on the **Home** page.



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.

You can also delete waypoints from the Waypoints tool on the **Home** page.

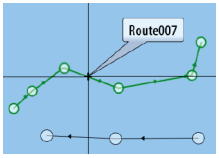
You can delete MOB waypoints the same way.

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 *"Alarm dialogs"* on page 108.

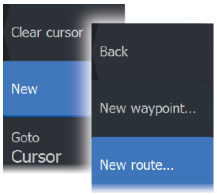
Routes



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 chart panel it turns green, and the route name is displayed.

The system includes support for Navionics Autorouting and C-MAP Easy Routing. This feature automatically suggests routepoints between the first and last routepoint of a route, or between selected routepoints in a complex route. You can use the feature when you create a new route, or you can use it to edit already saved routes.



Creating a new route on the chart panel

1. Activate the cursor on the chart panel
2. Select the new route option from the menu
3. Position the first waypoint on the chart panel
4. Continue positioning new routepoints on the chart panel until the route is completed
5. Save the route by selecting the save option in the menu.

Edit a route from the chart panel

1. Select the route to make it active
2. Select the route edit option in the menu
3. Position the new routepoint on the chart panel:
   - If you set the new routepoint on a leg, a new point is added between existing routepoints
   - If you set the new routepoint outside the route, the new routepoint is added after the last point in the route
4. Drag a routepoint to move it to a new position
5. Save the route by selecting the save option in the menu.

→ ***Note:*** The menu changes depending on the selected edit option. All edits are confirmed or cancelled from the menu.

Delete a route

You can delete a route by selecting the Delete menu option when the route is activated.

You can also delete routes from the edit routes dialog. Refer to *"The edit route dialog"* on page 52.

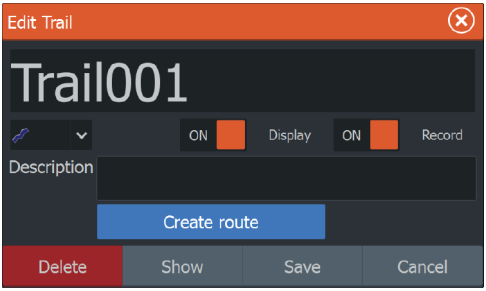
Creating routes using existing waypoints

A new route can be created by combining existing waypoints from the Routes dialog. The dialog is activated by using the Waypoints tool on the Home page and then selecting the Routes tab.

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.



Dock-to-dock Autorouting and Easy Routing

The Dock-to-dock Autorouting and Easy Routing suggest new routepoint positions based on information in the map and on your boat's size. Before you can start using this feature the boat draught, width and height must be entered into the system. The boat settings dialog is automatically displayed if the information is missing when you start the feature. To enter boat settings, refer to *"System settings"* on page 119.

→ ***Note:*** It is not possible to start the Dock-to-dock Autorouting or Easy Routing if one of the selected routepoints is located in an unsafe area. A warning dialog is displayed, and you have to move the relevant routepoint(s) to a safe area to proceed.

→ ***Note:*** If no compatible cartography is available, the Dock-to-dock Autorouting or Easy Routing menu option is not available. Compatible cartography includes C-MAP MAX-N+, Navionics+ and Navionics Platinum. For a full selection of available charts, visit www.gofreemarine.com, www.c-map.com or www.navionics.com.

1. Position at least two routepoints on a new route, or open an existing route for editing.
2. Select the Dock-to-dock Autorouting menu option, followed by:
   - Entire Route - if you want the system to add new routepoints between the first and the last routepoint of the open route.
   - Selection - if you want to manually select the routepoints that define the limits for the autorouting, then select the relevant routepoints. Selected routepoints are colored red. Only two routepoints can be selected, and the system discards any routepoints between your selected start and end points.
3. Select the accept option to start the automatic routing.

- When the automatic routing is completed the route appears in preview mode, and the legs are color coded to indicate safe or unsafe areas. Navionics uses red (unsafe) and green (safe), while C-MAP uses red (unsafe), yellow (dangerous) and green (safe).

4. Move any routepoints if required when the route is in preview mode.
5. Select the keep option to accept the routepoints positions.
6. Eventually repeat step 2 (selection) and step 3 if you want the system to automatically position routepoints for other parts of the route.
7. Select the save option to complete the automatic routing and save the route.

Dock-to-dock Autorouting and Easy Routing examples

- **Entire route** option used when first and last route points are selected.

First and last routepoint

Result after automatic routing

- **Selection** option used for autorouting part of a route.

Two routepoints selected

Result after automatic routing

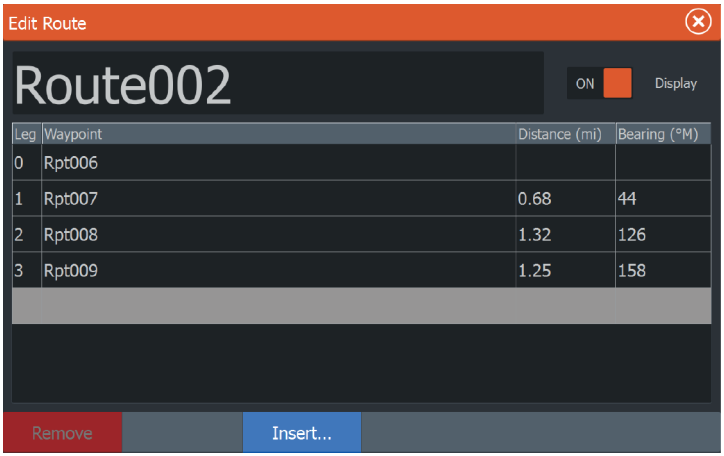
The edit route dialog

You can add and remove routepoints, and change route properties using the Edit Route dialog. This dialog is activated by selecting an

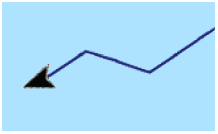
active route's pop-up or from the menu by selecting the route then the details option.

The dialog can also be accessed by using the Waypoints tool on the Home page.

Select Display to show the route on the chart.



About trails



Trails are a graphical presentation of the historical path of the vessel. They allow for retracing where your boat has travelled. Trails can be converted to routes from the edit dialog.

From the factory, the system is set to automatically track and draw the vessel's movement on the chart panel. The system continues to record the trails until the length reaches the maximum points, and then automatically begins overwriting the oldest points.

The automatic trail function can be turned off from the trails dialog.

Creating a new trail

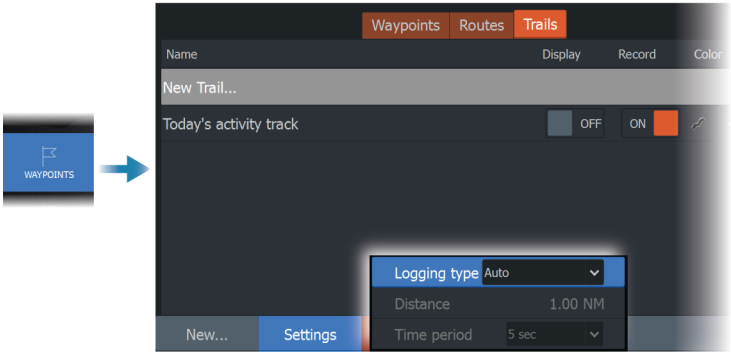
You can start a new trail from the Trails dialog. The dialog is activated by using the Waypoints tool on the Home page and selecting the Trails tab.

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.

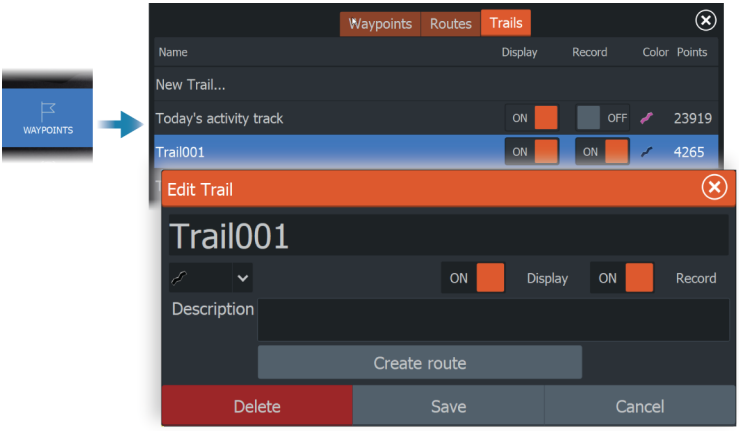


Editing or deleting trails

Use the edit trail dialog to edit or delete a trail.

Open the edit trail dialog by:

- selecting the trail on the chart and then the trail's pop-up
- selecting the trail on the chart and then the trail in the menu
- selecting the trail in the trails dialog



7 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.

If autopilot functionality is included in your system, the autopilot can be set to automatically navigate the vessel.

For information about positioning waypoints and creating routes, refer to *"Waypoints, routes, and trails"* on page 47.

Steer panel

The Steer panel can be used to display information when you are navigating.

A Data fields

B Vessel heading

C Bearing to waypoint

D Destination point

E Bearing line with allowed off course limit
When travelling on a route the bearing line shows the intended course from one waypoint towards the next. When navigating towards a waypoint (cursor position, MOB, or an entered latitude and longitude position), the bearing line shows the intended course from the point at which navigation was started towards the waypoint.

F Vessel symbol
Indicates distance and bearing relative to the intended course. If the XTE (Cross Track Error) exceeds the defined XTE limit, this is indicated with a red arrow including the distance from the track line.
Refer to *"XTE limit"* on page 58.

Navigate to cursor position

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

Position the cursor at the selected destination on the panel, and then select the go to cursor menu option.

→ ***Note:*** The go to cursor menu option is not available if you are already navigating.

Navigate a route

When route navigation is started, the menu expands and shows options for canceling the navigation, for skipping a waypoint, and for restarting the route from current vessel position.

Starting a route from the chart panel

Activate a route on the panel, and then select the route navigation option from the menu.

You can select a routepoint to start navigating from a selected position.

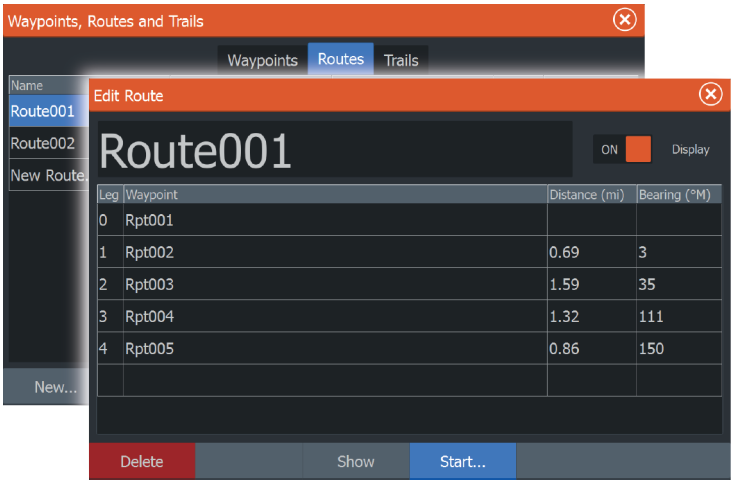
Starting a route from the steer panel

Select the start route option on the menu, and then details from the dialogs.

Start navigating a route from the edit route dialog

You can start navigating from the edit route dialog. Activate the dialog by:

- Selecting the waypoint tool from the home page and then selecting the routes tab
- Selecting the route details option from the menu



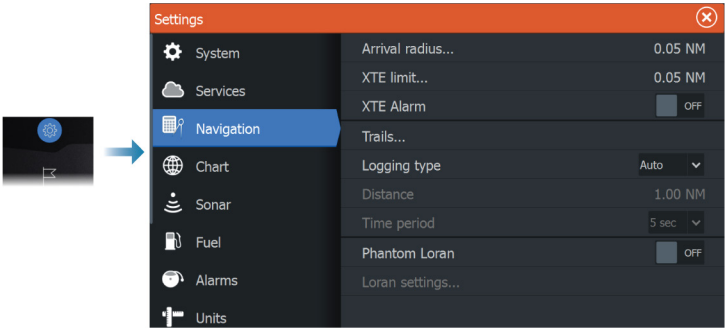
Navigating with the autopilot

When you start navigation on a system with autopilot functionality, you are prompted to set the autopilot to navigation mode.

If you choose not to engage the autopilot, the autopilot can be set to navigation mode from the Autopilot Controller later on.

For more information about autopilot functionality, refer to *"Trolling motor autopilot"* on page 88.

Navigation settings



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 *"About trails"* on page 53.

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.

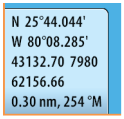
Specify one of the following logging types in the Navigating Settings dialog:

- **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.

Phantom Loran

Enables use of Phantom Loran positioning system.

Loran settings



Defines Loran chains (GRI) and preferred station for waypoint entry, cursor position and position panel.

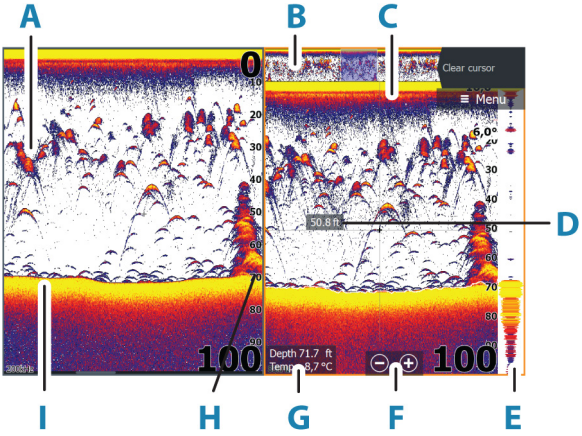
The graphic example shows a cursor position window with Loran position information.

For more information refer to your Loran system documentation.

8 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 image



A Fish arches
B History preview*
C Temperature graph*
D Depth at cursor
E Amplitude scope*
F Zoom (range) buttons
G Water depth and Water temperature at cursor location
H Range scale
I Bottom

* Optional items that you can turn on/off individually. Refer to *"More options"* on page 69.

Multiple sources

You can specify the source for the image in the active panel. You can display different sources simultaneously, using a multi-panel page configuration. For more information how to select the source for a panel, refer to *"Source"* on page 67.

Zooming the image

You can zoom the image by:

- using the zoom (+ or -) buttons
- using the +/- keys

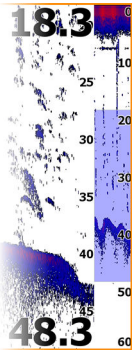
The zoom level is shown on the bottom left side of the image.

When zooming in, the sea floor is kept near the bottom of the screen, irrespective of whether it is in auto-range or manual range.

If the range is set considerably less than the actual depth, the unit is not able to find the bottom when zooming.

If the cursor is active, the system zooms in where the cursor is positioned.

Zoom bar



The zoom bar is displayed when you zoom the image.

Drag the zoom bar vertically to view different parts of the water column.

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.

Measuring distance

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

1. Position the cursor on the point from where you want to measure the distance
2. Select the measure menu option

→ ***Note:*** The measure option is not available 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

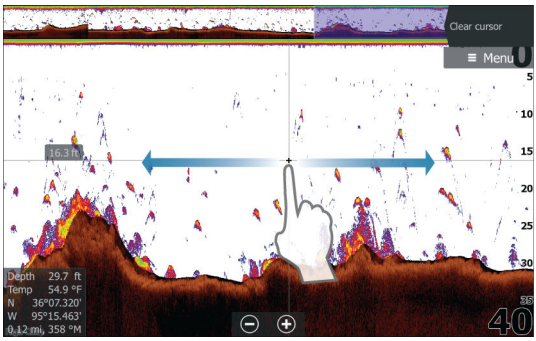
Use menu options to re-position the start point and the end point as long as the measuring function is active.

Select the finish measuring menu option to resume normal image scrolling.

Viewing history

You can view sonar history by panning the image. You can also use the preview feature to pan history, refer to *"Preview"* on page 71.

To resume normal scrolling, select the Clear cursor option.



Recording log data

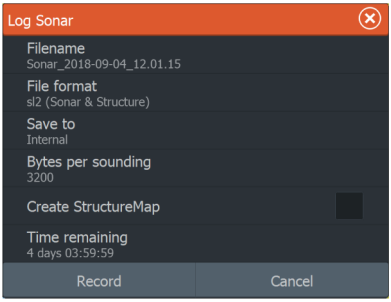
Start recording log data

You can start recording log data and save the file internally in the unit, or save it onto a storage device connected to the unit.

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

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.

When you select to start recording, the record sonar log dialog is displayed where you specify recording settings.



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.

Bytes per sounding

Select how many bytes per sounding that are to be used when saving the log file. More bytes yield better resolution, but cause the record file to increase in size compared to using lower byte settings.

Create StructureMap

If a StructureScan transducer is connected to the unit, you can convert logs to StructureMap format (.smf) when recording completes.

The log file can also be converted to StructureMap format from the files manager.

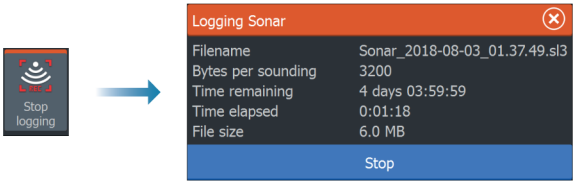
Privacy

If allowed by your selected C-MAP Genesis account, you can choose between setting the recorded log files as Private or Public at C-MAP Genesis.

Time remaining
Shows the remaining allocated space available for recordings.

Stop recording log data

Select the stop logging option in the system controls dialog and then stop in the Logging Sonar dialog to fully stop the recording of all sonar log data.



→ ***Note:*** If you have selected the Upload to C-MAP Genesis option and are connected to a wireless hotspot, your recorded files are transmitted to C-MAP Genesis when you select Stop.

Viewing recorded 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 72.

The log file is displayed as a paused image, and you control the scrolling and display from the replay menu option.

You can use the cursor on the replay image, and pan the image as on a live image.

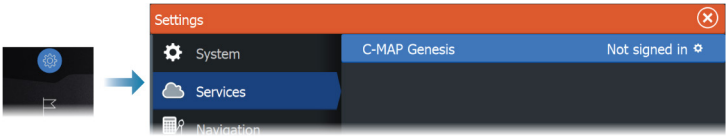
If more than one channel was recorded in the selected file, you can select which channel to display.

You exit the replay mode by pressing the exit key or by selecting the X icon in the upper right corner of the replay image.

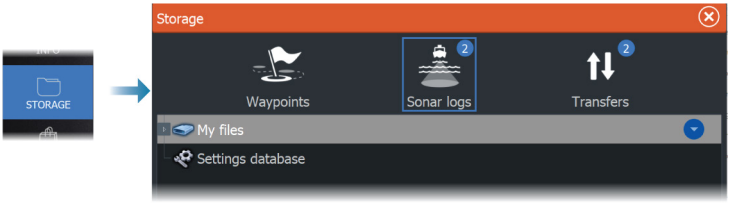
Upload sonar logs to C-MAP Genesis

To upload sonar logs to C-MAP Genesis do one of the following:

- Use the services option. Follow the prompts to sign in and transfer the log files to C-MAP Genesis.

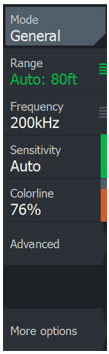


- Use the Storage dialog. Select the sonar logs option and the logs you want to transfer. The files are moved to transfer status. If you are already signed in to C-MAP Genesis the files are transferred. If you are not signed in, select the transfers icon and follow the prompts to sign in and transfer the log files to C-MAP Genesis. You can sign in and transfer files at a later time when the unit is connected to the internet.



Setting up the image

Use menu options to set up the image.



Fishing mode

This feature consists of preset packages of sonar settings designed for specific fishing conditions.

→ ***Note:*** Selecting the proper fishing mode is critical to optimal sonar performance.

Fishing mode	Depth	Palette
General Use	≤ 1,000 ft	White background
Shallow Water	≤ 60 ft	White background
Fresh Water	≤ 400 ft	White background
Deep Water	≤ 5,000 ft	Deep Blue
Slow Trolling	≤ 400 ft	White background
Fast Trolling	≤ 400 ft	White background
Clear Water	≤ 400 ft	White background

Fishing mode	Depth	Palette
Ice Fishing	≤ 400 ft	White background

Range

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

➔ ***Note:*** Setting a deep range in shallow water may cause the system to lose track of the depth.

Preset range levels

Select a preset range level manually from the menu.

Auto range

In auto range, the system automatically displays the whole range from the water surface to the bottom.

Auto is the preferred setting for fish finding.

Select the range option and then the auto option in the menu.

Custom range

This option allows you to manually set both upper and lower range limits.

Set a custom range by selecting the range menu option and then the custom option.

➔ ***Note:*** Setting a custom range puts the system in manual range mode.

Frequency

The unit supports several transducer frequencies. Available frequencies depend on the transducer model that is configured for use.

➔ ***Note:*** This unit cannot operate CHIRP frequencies and SideScan at the same time. If you turn on StructureScan Left/Right view, you will not be able to use the CHIRP sonar.

You can view two frequencies at the same time by selecting dual Sonar panels from the **Home** page.

Sensitivity

Increasing sensitivity shows more detail on the screen. Decreasing sensitivity displays less. Too much detail clutters the screen. Conversely, desired targets 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.

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.

Source

→ ***Note:*** Available only if multiple sources with the same capability are available.

Used to specify the source for the image in the active panel.

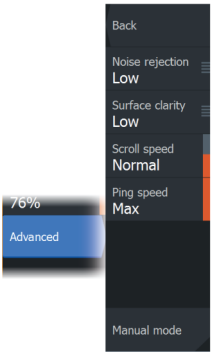
You can display different sources simultaneously, using a multi-panel page configuration. Menu options for each panel are independent.

→ ***Note:*** Using transducers at the same frequency can cause interference.

For source setup information, refer to the ELITE Ti^2 Installation Manual.

Advanced options

The Advanced option is only available when the cursor is not active.



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.

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.

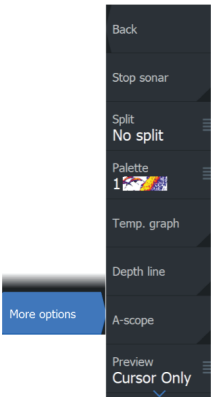
Ping speed

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.

Manual mode

Manual mode is an advanced user mode that restricts digital depth capability, so the unit only processes sonar signals in the selected range. This allows the display to continue smooth scrolling if the bottom depth is out of transducer range. When the unit is in manual mode, you might not receive any depth readings, or you might receive incorrect depth information.

More options

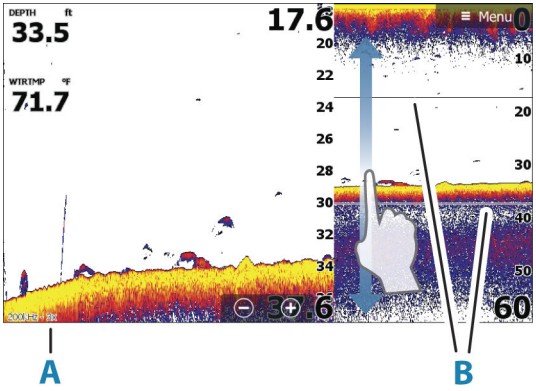


Stop Sonar

When selected, stops the sonar from pinging. Use the option anytime you want to disable the sonar but not power off the unit.

Split screen options

Zoom



A Zoom level

B 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 select up to 8x zoom. To change the zoom level, use:

- the +/- keys
- the zoom (+ or -) buttons

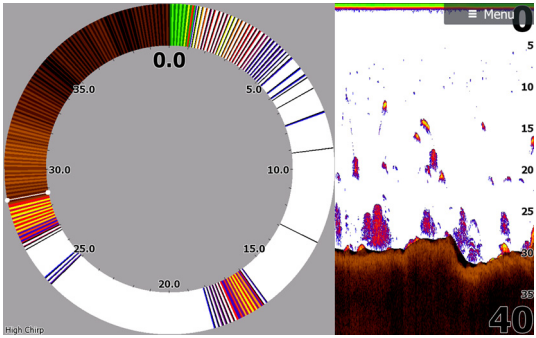
The range zoom bars on the right side of the display shows the range that is magnified. If you increase the zooming factor the range is reduced. You see this as reduced distance between the zoom bars.

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.



Palettes

You can select between several display palettes.

Temperature graph

The temperature graph is used to illustrate changes in water temperature.

When toggled on, a colored line and temperature digits are shown on the Sonar image.

Depth line

A depth line can be added to the bottom surface to make it easier to distinguish the bottom from fish and structures.

Amplitude scope

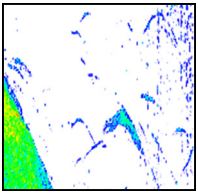
The Amplitude scope is a display of real-time targets as they appear on the panel. The strength of the actual targets is indicated by both width and color intensity.

Preview

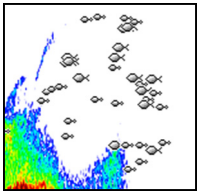
You can have all available sonar history shown at the top of the sonar screen. The Preview bar is a snapshot of available sonar history. You can scroll through sonar history by dragging the preview slider horizontally. By default, Preview is turned on when the cursor is active.

Fish ID

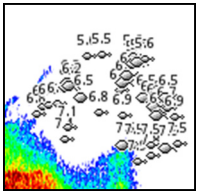
You can select how you want the fish targets to appear on the screen. You can also select if you want to be notified by a beep when a fish ID appears on the panel.



Traditional fish arches



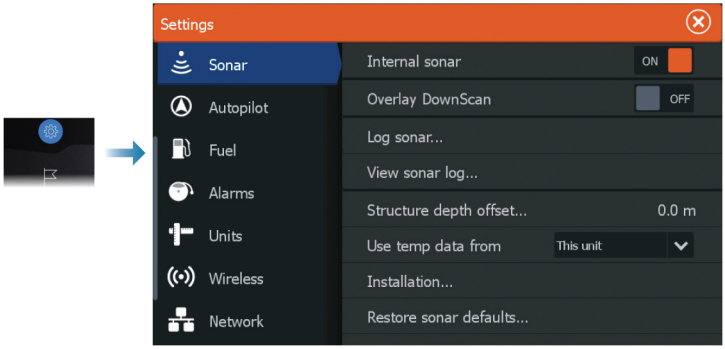
Fish symbols



Fish symbols and depth indication

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

Sonar settings



Internal sonar

Used for making the internal sonar available for selection in the sonar panel menu.

When de-activated, the internal sonar will not be listed as a sonar source for any unit on the network.

De-activate this option on units which do not have a transducer connected.

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.

Log sonar

Select to start and stop recording of Sonar data. For more information, refer to *"Start recording log data"* on page 62.

This option is also available from the System Controls dialog.

View Sonar log

Used to view Sonar recordings. The log file is displayed as a paused image, and you control the scrolling and display from the menu.

You can use the cursor on the image, measure distance, and set view options as on a live Sonar image. If more than one channel was

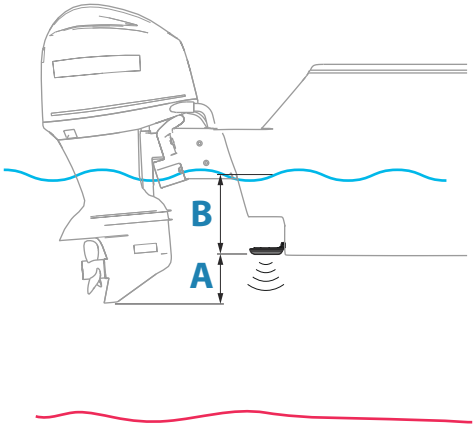
recorded in the selected Sonar file, you can select which channel to display.

You exit the view function by selecting the **X** in the upper right corner.

Structure depth offset

Setting for Structure transducers.

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 in the water or from the transducer to the water surface.



- To show the depth from the lowest point of the vessel to the bottom, set the offset equal to the vertical distance between the transducer and the lowest part of the vessel, **A** (negative value).
- To show the depth from the water surface to the bottom, set the offset equal to the vertical distance between the transducer and the water surface, **B** (positive value)
- For depth below transducer, set the offset to 0.

Use temp data from

Selects from which source the temperature data is shared on the NMEA 2000 network.

Installation

Used for installation and setup. See the separate Installation manual.

Restore sonar defaults

Restore sonar settings to the factory supplied defaults.

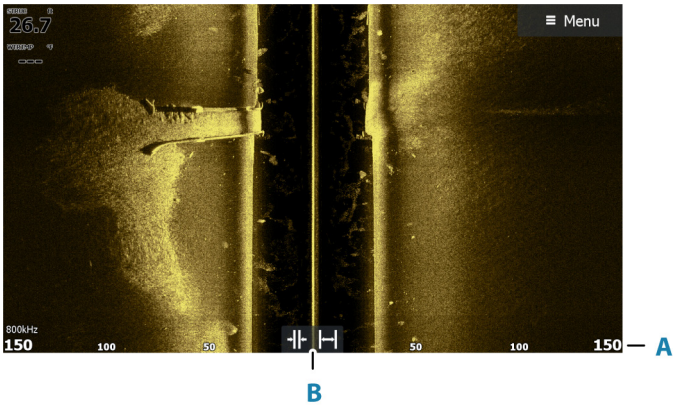
9 SideScan

About SideScan

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

The SideScan panel is available when a SideScan capable transducer is connected to the system.

The SideScan panel



A Range scale

B Range icons

Zooming the image

Use the range icons or change the range menu setting to specify the distance out to the left and right of the center displayed in the image. A change in the range causes a zoom in or out of the image.

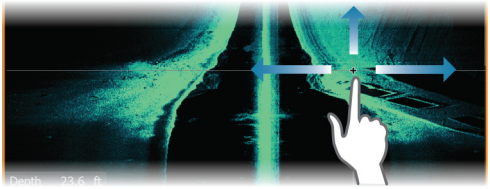
Using the cursor on the panel

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

Viewing history

In a SideScan view, pan the image to see sides and history by dragging the image left, right, and up.

To resume normal SideScan scrolling, select the clear cursor option.

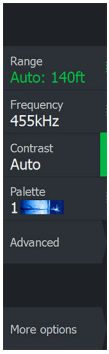


Recording SideScan data

SideScan data can be recorded by selecting the correct file format in the record dialog. Refer to *"Start recording sonar data"* on page 62.

Setting up the image

Use the SideScan menu to set up the image. When the cursor is active, some options in the menu are replaced with cursor mode features. Select the clear cursor option to return to the normal menu.



Source

→ ***Note:*** Available only if multiple sources with the same capability are available.

Used to specify the source for the image in the active panel.

You can display different sources simultaneously, using a multi-panel page configuration. Menu options for each panel are independent.

→ ***Note:*** Using transducers at the same frequency can cause interference.

For source setup information, refer to the ELITE Ti^2 Installation Manual.

Range

The range setting determines the distance out to the left and right of the center.

Preset range levels

Select a preset range level manually from the menu.

Auto range

In auto range, the system automatically displays the whole range from the water surface to the bottom.

Auto is the preferred setting for fish finding.

Select the range option and then the auto option in the menu.

Frequencies

Two frequencies are supported. 800 kHz provides the sharpest image without sacrificing range. While 455 kHz can be used in deeper waters, or for expanded range capabilities.

Contrast

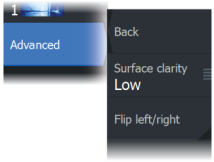
Determines the brightness ratio between light and dark areas of the screen.

→ ***Note:*** We recommend that you use the auto contrast option.

Palettes

Used for selecting the image's color palette.

Advanced options



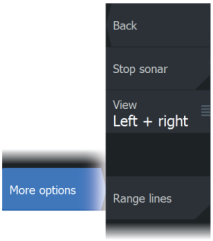
Surface clarity

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.

Flipping the image left/right

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

More options



Stop Sonar

When selected, stops the sonar from pinging. Use the option anytime you want to disable the sonar but not power off the unit.

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.

Range Lines

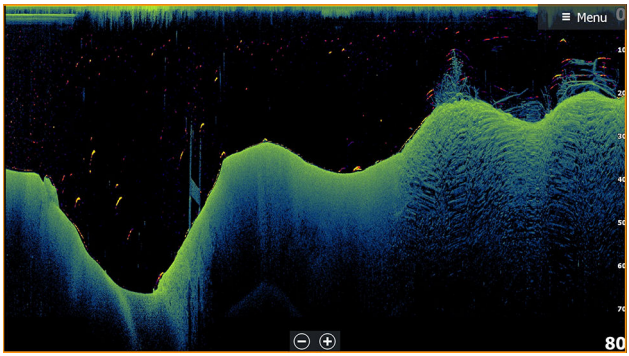
Range lines can be added to the image to make it easier to estimate distance.

10 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



Zooming the image

You can zoom the image by:

- using the zoom (+ or -) buttons
- using the +/- keys

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

Using the cursor on the panel

When you position the cursor on the panel, the image pauses and the cursor information window is activated. The depth of the cursor is shown at the cursor position.

Viewing DownScan history

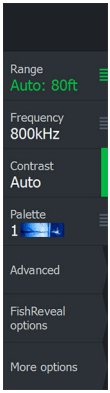
You can pan the image history by dragging the image to the left and right.

To resume normal DownScan scrolling, select the Clear cursor menu option.

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 62.

Setting up the DownScan image



Use the DownScan menu to set up the image. When the cursor is active, some options in the menu are replaced with cursor mode features. Select the clear cursor menu option to return to the normal menu.

Source

→ ***Note:*** Available only if multiple sources with the same capability are available.

Used to specify the source for the image in the active panel.

You can display different sources simultaneously, using a multi-panel page configuration. Menu options for each panel are independent.

→ ***Note:*** Using transducers at the same frequency can cause interference.

For source setup information, refer to the ELITE Ti^2 Installation Manual.

Range

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

Preset range levels

Select a preset range level manually from the menu.

Auto range

In auto range, the system automatically displays the whole range from the water surface to the bottom.

Auto is the preferred setting for fish finding.

Select the range option and then the auto option in the menu.

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.

Contrast

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

→ ***Note:*** We recommend that you use the auto contrast option.

Palettes

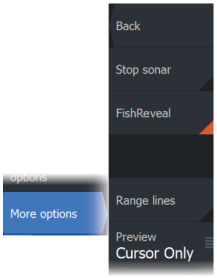
Used for selecting the image's color palette.

Advanced options

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.

More options



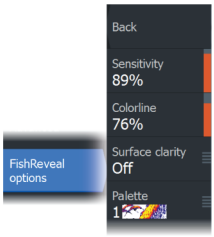
Stop Sonar

When selected, stops the sonar from pinging. Use the option anytime you want to disable the sonar but not power off the unit.

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.

Range lines

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

Preview

You can have all available sonar history shown at the top of the sonar screen. The Preview bar is a snapshot of available sonar history. You can scroll through sonar history by dragging the preview slider horizontally. By default, Preview is turned on when the cursor is active.

11 StructureMap

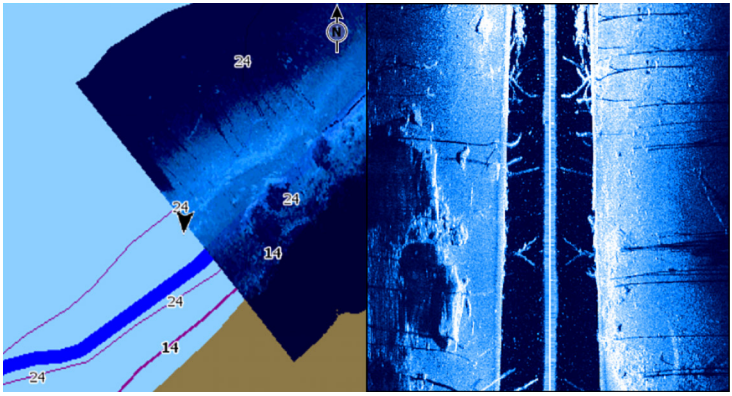
About StructureMap

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.

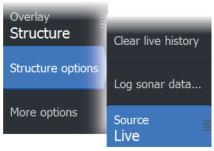
The StructureMap image

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

The example below shows a chart panel with Structure overlay, combined with a traditional SideScan panel.



StructureMap sources



Two sources can be used to overlay Structure logs on the charts, but only one can be viewed at a time:

- Live data - Used when SideScan data is available
- Saved files - recorded SideScan data that are converted to StructureMap (*.smf) format

Live data

When live data is selected, the SideScan imaging history is displayed as a trail behind the vessel icon. The length of this trail varies depending on available memory in the unit and range settings. As the memory fills up, the oldest data is automatically deleted as new data is added. When increasing the search range, the ping speed of the SideScan transducer is reduced, but the width and the length of the image history is increased.

→ ***Note:*** Live mode does not save any data. If the unit is turned off, all recent data is lost.

Saved files

Saved mode is used to review and examine StructureMap files, and to position the vessel on specific points of interest on a previous scanned area. Saved files can be used as source if no SideScan sources are available.

With this mode selected, the StructureMap file is overlaid on the map based on position information in the file.

If the chart scale is large, the StructureMap area is indicated with a boundary box until the scale is large enough to show Structure details.

→ ***Note:*** When saved files are used as the source, all StructureMap files found on the storage device and in the system's internal memory are displayed. If there is more than one StructureMap of the same area, the images overlap and clutter the chart. If several logs of the same area are required, the maps should be put on separate storage devices.

StructureMap tips

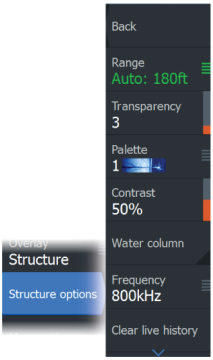
- To get a picture of taller structures (a wreck, etc.) — do not drive over it, instead, steer the boat so the structure is on the left or right side of your vessel.
- Do not overlap history trails when conducting a side-by-side scan of an area.

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.

Range

Sets the search range.

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.

Frequency
Sets the transducer frequency used by the unit. 800 kHz offers the best resolution, while 455 kHz has greater depth and range coverage.

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

Log sonar data
Displays the log sonar dialog.

Source
Selects StructureMap source.

12 Info panels

Info panels

These panels consist of multiple gauges - analog, digital, and bar - arranged on dashboards.

Dashboards

You can define up to ten dashboards. A set of dashboard styles are predefined.

You switch between the dashboards by selecting the left and right arrow buttons on the panel. You can also select the dashboard from the menu.

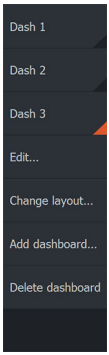
Vessel dashboard

Navigation dashboard

Angler dashboard

→ ***Note:*** Additional dashboards can be activated from the menu if other systems are present on the network.

Customizing the panel



You can customize the panel by:

- Changing the data for each of the gauges in the dashboard
- Changing the dashboard layout
- Adding and deleting new dashboards

You can also set limits for analog gauges.

All edit options are available from the panel menu.

Available editing options depend on which data sources are connected to your system.

13 Trolling motor autopilot

Safe operation with the autopilot

⚠ Warning: An autopilot is a useful navigational aid, but DOES NOT replace a human navigator.

⚠ Warning: Ensure the autopilot has been installed correctly, commissioned and calibrated before use.

→ ***Note:*** For safety reasons a physical standby key should be available.

Do not use automatic steering when:

- In heavy traffic areas or in narrow waters
- In poor visibility or extreme sea conditions
- When in areas where use of an autopilot is prohibited by law

When using an autopilot:

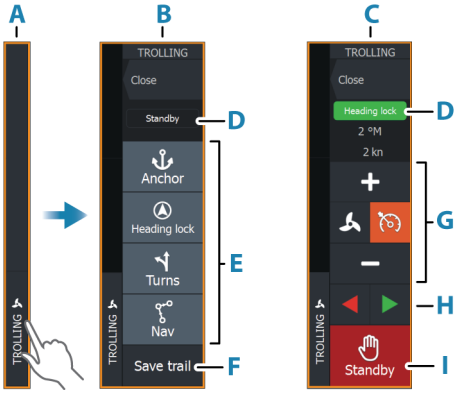
- Do not leave the helm unattended
- Do not place any magnetic material or equipment near the heading sensor used by the autopilot system
- Verify at regular intervals the course and position of the vessel
- Always switch the autopilot to standby and reduce speed in due time to avoid hazardous situations

Autopilot alarms

For safety reasons it is recommended to turn on all autopilot alarms when operating the autopilot.

For more information, refer to *"Alarms"* on page 107.

The autopilot controller for trolling motor



A Control bar

B Autopilot controller, disengaged

C Autopilot controller, engaged

D Mode indication

E List of available modes

F Record/Save button

G Mode dependent information

H Mode dependent buttons

I Engage/Standby button

When the autopilot controller is the active panel, it is outlined with a border.

→ ***Note:*** The autopilot controller can also be activated from the system controls dialog.

Engaging and disengaging the autopilot

To engage the autopilot:

- Select the preferred mode button

The autopilot will engage in the selected mode, and the autopilot controller will change to show active mode options.

To disengage the autopilot:

- Select the standby button

When the autopilot is in standby, the boat must be steered manually.

Autopilot indication

The autopilot information bar shows autopilot information. The bar is present on all pages if the autopilot is in an active mode. In the autopilot settings dialog you can select that the bar is off when the autopilot is in standby mode.

Autopilot modes

The autopilot has several steering modes.

Anchor modes

In these modes the trolling motor maintains the vessel position at a selected location.

→ ***Note:*** When in anchor mode, the vessel heading can be affected by wind or current.

The following anchor options are available:

Cursor

Navigates to cursor position, and then maintains the vessel at that position.

Waypoint

Navigates to the selected waypoint, and then maintains the vessel at that position.

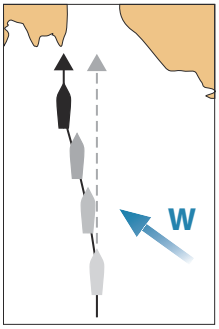
Here

Maintains the vessel at the current position.

Change the position in anchor mode

Use the arrow buttons to reposition the vessel when in anchor mode. Each press on a button will move the anchor position 1.5 m (5 ft) in the selected direction.

Heading lock mode



In this mode the autopilot steers the vessel on the set heading.

When the mode is activated, the autopilot selects the current compass heading as the set heading.

→ ***Note:*** In this mode the autopilot does not compensate for any drifting caused by current and/or wind (**W**).

To change the set heading

- Select a port or starboard button

An immediate heading change takes place. The heading is maintained until a new heading is set.

NAV mode

> ⚠ Warning: NAV mode should only be used in open waters.

Prior to entering NAV mode you must be navigating a route or towards a waypoint.

In NAV mode the autopilot automatically steers the vessel to a specific waypoint location, or along a pre-defined route. Position information is used to change the course to steer to keep the vessel on the track line and to the destination waypoint.

When arriving at the destination, the autopilot switches to the selected arrival mode. It is important to select an arrival mode that

fits your navigation needs before NAV mode is activated. Refer to *"Arrival mode"* on page 95.

NAV mode options

While in NAV mode the following buttons are available in the autopilot controller:

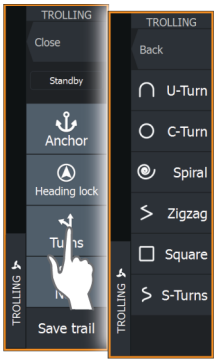
Restart

Restarts the navigation from the vessel's current position.

Skip

Skips the active waypoint and steers towards the next waypoint. This option is only available when navigating a route with more than one waypoint between the vessel position and the end of the route.

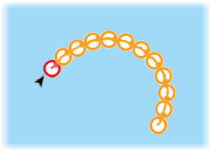
Turn pattern steering



The system includes a number of automatic turn steering features.

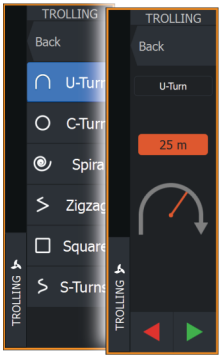
When a turn pattern is activated, the system creates temporary waypoints on the turn.

The last waypoint on the turn is the final waypoint. When the vessel reaches the final waypoint, the vessel goes into arrival mode. Refer to *"Arrival mode"* on page 95.



Starting a turn

- Select the port or starboard button



Turn variables

All turn patters have settings that you can adjust before you start a turn, or at any time when the boat is in a turn.

U-turn

Changes the current set heading by 180°.

Turn variable:

- Turn radius

C-turn

Steers the vessel in a circle.

Turn variable:

- Turn radius
- Degrees to turn

Spiral

Makes the vessel turn in a spiral with a decreasing or increasing radius.

Turn variables:

- Initial radius
- Radius change per loop
- Number of loops

Zigzag-turn

Steers the vessel in a zigzag pattern.

Turn variables:

- Course change per leg
- Leg distance
- Number of legs

Square

Steers the vessel in a square pattern, doing 90° course changes.

Turn variable:

- Leg distance
- Number of legs

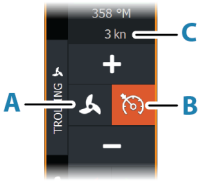
S-turn

Makes the vessel yaw around the main heading.

Turn variables:

- Turn radius
- Course change
- Number of legs

Trolling motor speed control



In Heading lock mode, Nav. mode and in Turn pattern steering the autopilot system can control the trolling motor speed.

The set target speed is displayed in the autopilot controller.

There are two ways to control the target speed of the trolling motor:

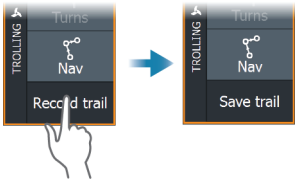
- Propeller rate, set as a percentage of power (**A**)
- Cruise control speed (**B**)

Switch between the speed options by selecting the speed icon.

The speed is increased/decreased in preset steps by selecting the plus and minus buttons. The speed can also be set manually by selecting the speed field (**C**).

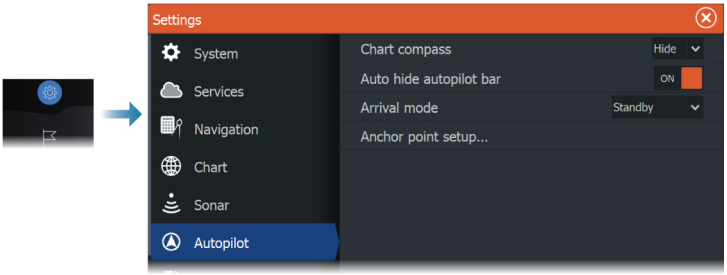
Recording and saving a trail

A trail can be saved as a route from the autopilot controller. If trail recording is disabled, the function can be enabled from the autopilot controller.



For more information, refer to *"Waypoints, routes, and trails"* on page 47.

Autopilot settings



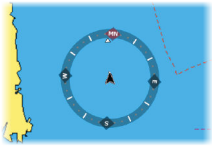


Chart compass

Select to display a compass symbol around your boat on the chart panel. The compass symbol is off when the cursor is active on the panel.

Auto hide autopilot bar

Controls whether the autopilot information bar is shown when the autopilot is in standby.

Arrival mode

The autopilot switches from navigation mode to the selected arrival mode when the vessel reaches the destination point.

Standby

Disengages the autopilot. The trolling motor is controlled by hand-held remote or by foot pedal.

Heading lock

Locks and maintains the last vessel heading.

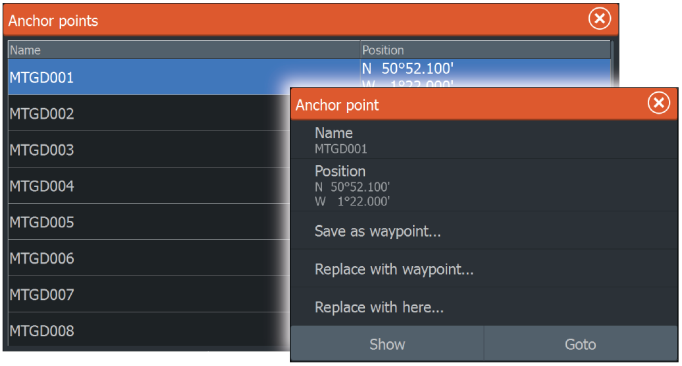
Anchor

Anchors the vessel at the destination point.

Anchor point setup

The trolling motor can store a number of anchor points, labelled with MTG prefix. Anchor points in the trolling motor are displayed in the Anchor point dialog.

These MTG anchor points can be saved as a waypoint in the MFD system. The position of an MTG anchor point can be redefined to be identical to an existing waypoint, or to the current vessel position.



14 Audio

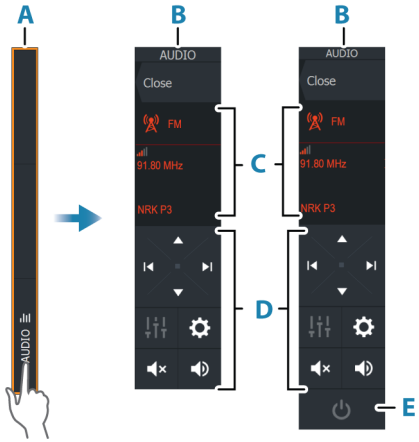
About the audio function

If a compatible NMEA 2000 audio system is connected to the network, you can use the unit to control and customize the audio system on your vessel.

Before you can start using your audio equipment, it must be installed according to the unit's Installation manual and to the documentation included with the audio device.

The audio controller

The control buttons, tools and options vary from one audio source to another.



A Control bar

B Audio controller, small and large displays

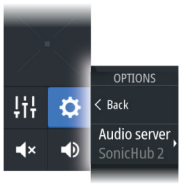
C Source and source information

D Control buttons

E ON/OFF button

→ ***Note:*** The OFF button is located in the source list on small displays.

Setting up the audio system

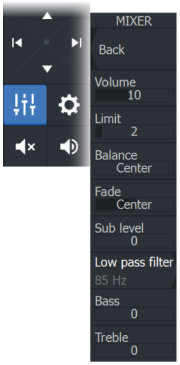


Audio server

If multiple audio sources are connected to the same network, one of the devices must be selected as the audio server. If only one device is present, it is the selected audio server by default.

Setting up the speakers

→ ***Note:*** The number of mixer options depends on active audio server.



Speaker zones

This device can be set up to control different audio zones. The number of zones depends on the audio server connected to your system.

You can adjust balance, volume and volume limit settings individually for each zone. Adjustments to the bass and tremble settings will alter all zones.

Master volume control

By default, the volume for all speaker zones are adjusted when you adjust the volume.

You can adjust each speaker zone individually. You can also define which zones that shall be altered when you adjust the volume.

Selecting audio source

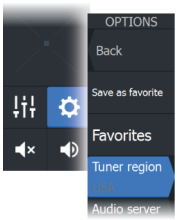
Use the source button to display the list of audio source. The number of sources depends on the active audio server.

Bluetooth devices

If your audio server support Bluetooth, Bluetooth will be listed as a source.

Use the Bluetooth devices icon in the audio controller to pair the audio server with a Bluetooth enabled devices such as a smart phone or tablet.

Using an AM/FM radio



Selecting the tuner region

Before using FM, AM or a VHF radio, you must select the appropriate region for your location.

Radio channels

To tune in to an AM/FM radio channel:

- press and hold the left or right audio control button

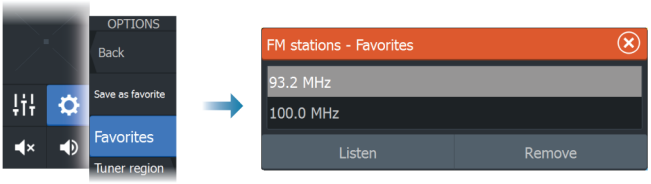
To save a channel as a favorite:

- select the favorite menu option

To page through favorite channels:

- select the up or down audio control button

List of favorite channels



The favorite list can be used for selecting a channel, and for deleting the saved channels from the list.

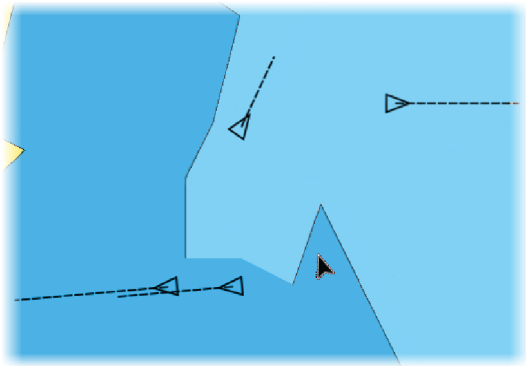
15 AIS

About AIS

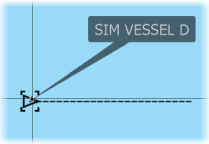
If a compatible AIS (Automatic Identification System) is connected to the MFD system, then any targets detected by these devices can be displayed and tracked. You can also see messages and position for DSC transmitting devices within range.

AIS targets can be displayed as overlay on the chart.

The AIS is an important tool for safe travelling and collision avoidance. You can set alarms to notify you if an AIS target gets too close or if the target is lost.



Selecting an AIS target



When you select an AIS icon, the symbol changes to selected target symbol. Only one target can be selected at a time.

→ ***Note:*** Pop-up information must be enabled to see the vessel's name. Refer to *"Chart settings"* on page 44.

Searching for AIS vessels

You can search for AIS targets by using the find option in the menu. If the cursor is active, the system searches for vessels around the cursor position. Without an active cursor, the system searches for vessels around your vessel's position.

Displaying target information

The vessels dialog

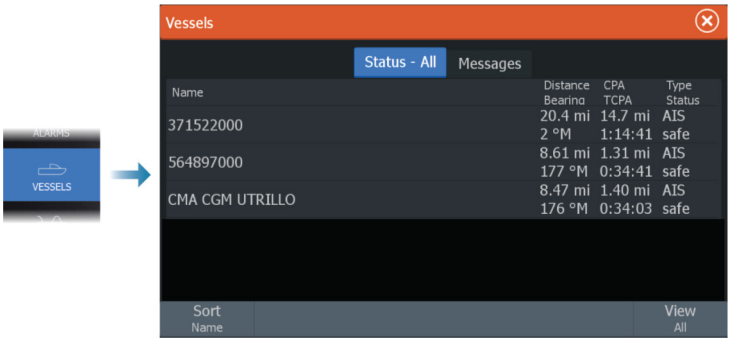
The vessels dialog displays a list of all AIS targets.

By default, the dialog lists targets, arranged by distance to own vessel. You can select to change the sort order, and to display only a selected target type.

The vessels dialog also lists received AIS messages.

To display the vessels dialog:

- select the data option in the menu

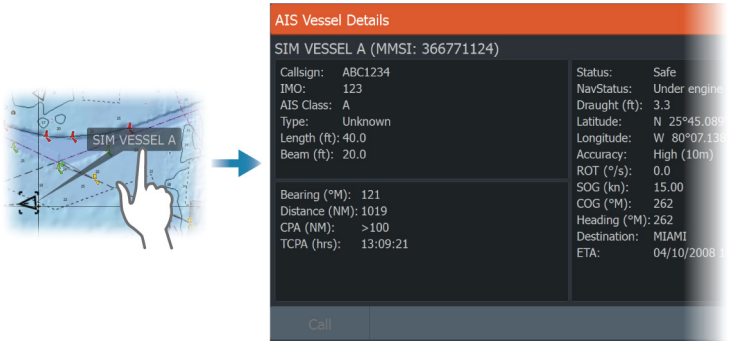


AIS vessel details

Detailed information about an AIS target is available from the AIS vessels details dialog.

To display the dialog:

- select the AIS pop-up
- select the info option in the menu



Calling an AIS vessel

If the system includes a VHF radio supporting DSC (Digital Select Calling) calls over NMEA 2000 or NMEA 0183, a DSC call can be initiated to other vessels from the unit.

The call option is available in the AIS vessel details dialog, and in the vessel status dialog. Refer to *"Displaying target information"* on page 100.

AIS SART

When an AIS SART (Search and Rescue beacon) is activated, it starts transmitting its position and identification data. This data is received by your AIS device.

If your AIS receiver is not compliant with AIS SART, it interprets the received AIS SART data as a signal from a standard AIS transmitter. An icon is positioned on the chart, but this icon is an AIS vessel icon.

If your AIS receiver is compliant with AIS SART, the following takes place when AIS SART data is received:

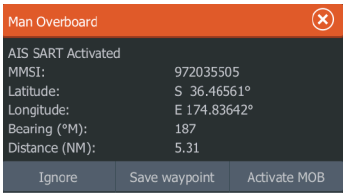
- An AIS SART icon is located on the chart in the position received from the AIS SART
- An alarm message is displayed

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

→ ***Note:*** The icon is green if the received AIS SART data is a test and not an active message.

AIS SART alarm message

When data is received from an AIS SART, an alarm message is displayed. This message includes the AIS SART's unique MMSI number, and its position, distance, and bearing from your vessel.



You have the following options:

- Ignore the alarm
  - The alarm is muted and the message closed. The alarm does not reappear

➔ ***Note:*** If you ignore the alarm, the AIS SART icon remains visible on your chart, and the AIS SART remains in the vessels list.

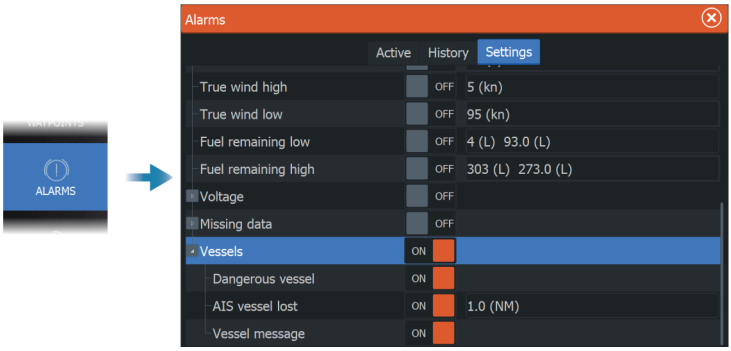
- Save the waypoint
  - The waypoint is saved to your waypoint list. This waypoint name is prefixed with MOB AIS SART - followed by the unique MMSI number of the SART. For example, MOB AIS SART - 12345678.
- Activate the MOB function
  - The display switches to a zoomed chart panel, centered on the AIS SART position
  - The system creates an active route to the AIS SART position

➔ ***Note:*** If the MOB function is already active, this will be terminated and replaced by the new route towards the AIS SART position.

➔ ***Note:*** If the AIS stops receiving the AIS SART message, the AIS SART remains in the vessels list for 10 minutes after it receives the last signal.

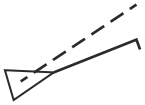
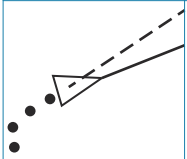
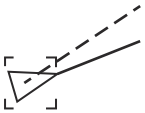
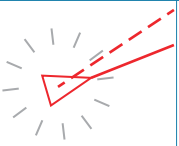
Vessel alarms

You can define several alarms to alert you if a target shows up within predefined range limits, or if a previously identified target is lost.

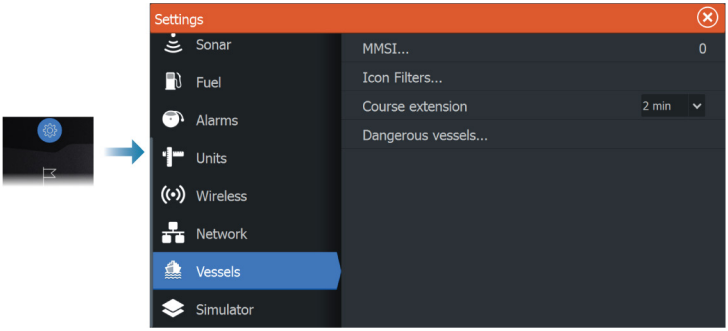


AIS target symbols

The following icons are used for AIS targets in the system:

Symbol	Description
	**Sleeping AIS target**, aligned with received heading information or with COG information if heading is not available
	**AIS target** with heading line and SOG/COG (dashed line), and with indicated turn direction
	**AIS target** with past track
	**Selected AIS target**, indicated with a square (dashed line) around the target symbol
	**Dangerous AIS target** indicated with bold line and with red color. The symbol flashes until the target alarm is acknowledged by the operator
	**Lost AIS target**, indicated with a line on the target symbol. The symbol is located at the last received position from the target
	**AIS SART** (AIS Search And Rescue Transmitter)
	**AtoN** (Aids To Navigation)

Vessel settings



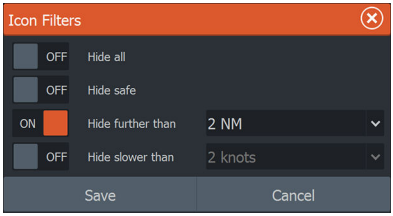
MMSI

Used for entering your own MMSI (Maritime Mobile Service Identity) number into the system. You need to have this number entered to receive addressed messages from AIS and DSC vessels. You also need to have your MMSI number entered to avoid seeing your own vessel as an AIS target.

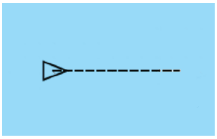
Icon filters

By default, all targets are shown on the panel if an AIS device is connected to the system.

You can select not to show any targets, or to filter the icons based on security settings, distance, and vessel speed.



Course extension

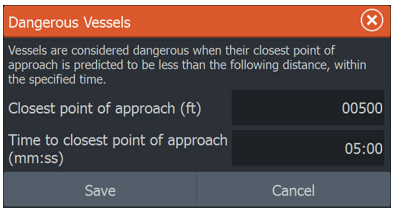


You can set the length of the Course Over Ground (COG) extension line for AIS vessels. The length of the extension line is either set as a fixed distance, or to indicate the distance the vessel will move in a selected time period.

For information about extension lines for your own vessel, refer to *"Extension lines"* on page 45.

Defining dangerous vessels

You can use the CPA (Closest point of approach) and TCPA (Time to closest point of approach) values to define when a target should be considered as dangerous. When a target comes within the distance for CPA or within the time limit for TCPA, the symbol changes to the dangerous target symbol.



16 Alarms

About the alarm system

The system continuously checks for dangerous situations and system faults while the system is running.

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 indication

An alarm situation is indicated with:

- an alarm pop up message
- a flashing alarm icon

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

A single alarm is displayed with the name of the alarm as the title, and details for the alarm.

If more than one alarm is activated simultaneously, the alarm pop-up can display 3 alarms. The alarms are listed in the order they occur

with the last activated alarm at the top. The remaining alarms are available in the alarms dialog.

Acknowledging a message

The alarm dialog have one or two option for acknowledging a message:

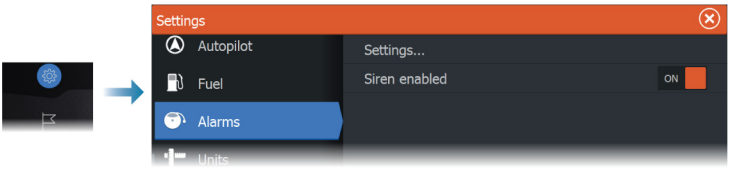
- Close
  Sets the alarm state to acknowledged, meaning that you are aware of the alarm condition. The siren/buzzer stops and the alarm dialog is removed.
  However, the alarm remains active in the alarm listing until the reason for the alarm has been removed.
- Disable
  Disables the current alarm setting. The alarm does not show again unless you turn it back on in the alarm settings dialog.

There is no time-out on the alarm message or siren. They remain active until you acknowledge the alarm or until the reason for the alarm is removed.

Alarm settings

You enable or disable the alarm siren from the alarm settings dialog.

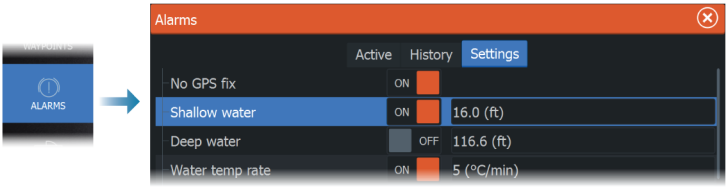
This dialog also give access to the settings dialog from where you enable or disable all system alarms.



Alarm dialogs

The alarm dialogs are activated from the settings dialog or from the toolbar.

- Settings: list of all available alarm options in the system. From this dialog you can set the alarm limit and enable or disable an alarm
- Active: lists all active alarms with details
- History: lists the alarm history with time stamp. The alarms remain in the list until they are manually cleared


ALARMS
Alarms
Active
History
Settings
No GPS fix
ON
Shallow water
ON
16.0 (ft)
Deep water
OFF
116.6 (ft)
Water temp rate
ON
5 (°C/min)

17 Remote control of the MFD

Remote control options

The following options are available for remotely controlling your MFD:

- a smartphone or a tablet, connected to the same WiFi hotspot as the MFD(s)
- a smartphone or a tablet, connected to an MFD acting as a WiFi access point

→ ***Note:*** For safety reasons, some functions cannot be controlled from a remote unit.

Smartphones and tablets

Link app

Connects a phone or tablet to the unit.

When connected, the Link app on the phone or tablet can be used to:

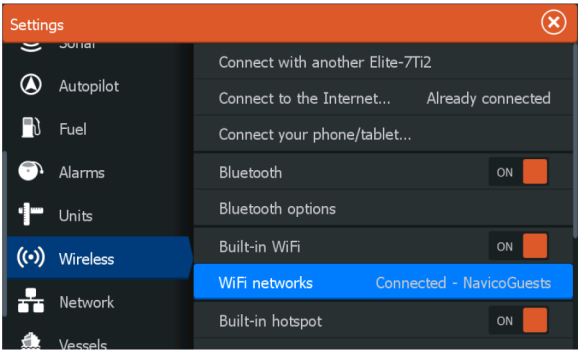
- Remotely view and control the system
- Back-up and restore settings
- Back-up and restore waypoints, routes and trails

The Link app can be downloaded from the relevant phone/tablet application store.

→ ***Note:*** For safety reasons, trolling motor autopilot functions cannot be controlled from the phone or tablet.

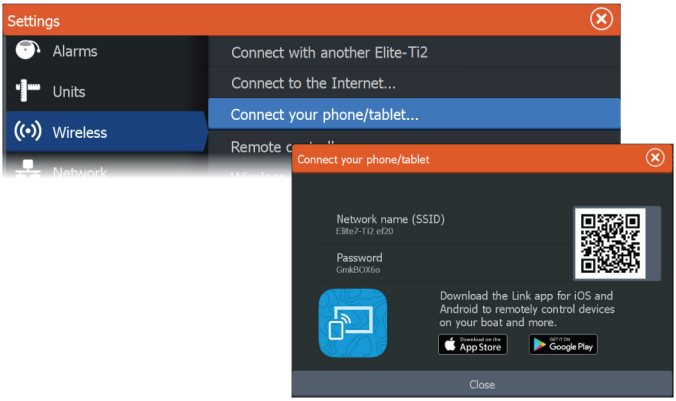
Connecting via a hotspot

If you connect a phone/tablet and the MFD(s) to the same hotspot, you can use your phone/tablet to control all MFDs on the same network.



Connecting to an MFD acting as an access point

If you do not have access to a WiFi network, you can connect your phone/tablet directly to the MFD.

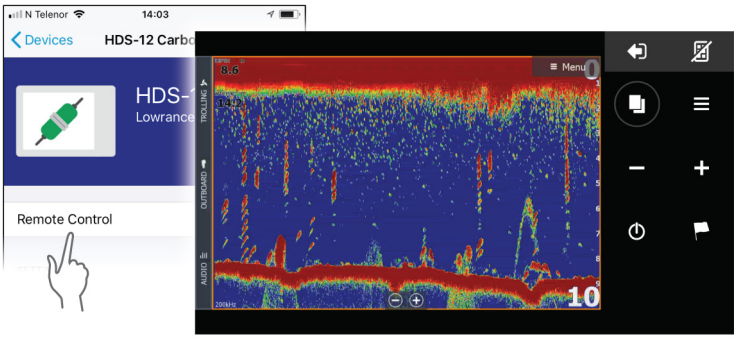


The MFD network name (SSID) will be displayed as an available network in the phone/tablet.

Using the Link app

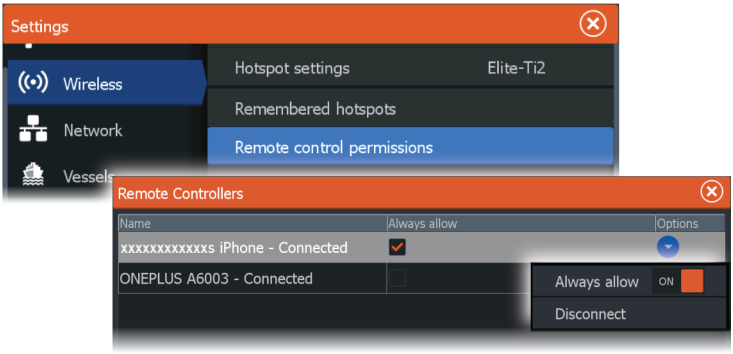
Start the Link app to display MFD(s) available for remote control. The list includes both connected and not connected MFDs.

Select the MFD you want to control. If the MFD is not connected, follow the instructions on the MFD and on the table/phone to connect.



Managing WiFi connected remotes

You can change the access level and remove the WiFi connected remote controllers.



18 Using your phone with the MFD

About phone integration

The following functions are available when connecting a phone to the ELITE Ti^2:

- read and send text messages
- view caller ID for incoming calls

→ ***Note:*** It is possible to use a smartphone to remotely control the MFD. See *"Remote control of the MFD"* on page 110.

iPhone limitations:

- only incoming calls and messages received while the phone is connected to the MFD are available
- messages cannot be sent from the MFD. iPhone does not support sending messages from connected Bluetooth devices.

Connecting and pairing a phone

→ ***Note:*** Bluetooth must be enabled on your phone before you can connect to the MFD.

→ ***Note:*** If you want to pair a phone while another phone is connected to the MFD, see *"Managing Bluetooth devices"* on page 117.

→ ***Note:*** You must always connect to a phone from the MFD, not the other way around.

Use the phone icon to connect your phone to the MFD. When the icon is selected the following happens:

- Bluetooth is turned ON in the MFD
- the Bluetooth devices dialog opens, listing all Bluetooth enabled devices within range

To pair a phone listed as **other devices** in the device dialog:

- select the phone you want to pair, and follow the instructions on the phone and on the MFD

When paired, the phone is moved to the **paired device** section in the dialog.

To connect a paired phone:

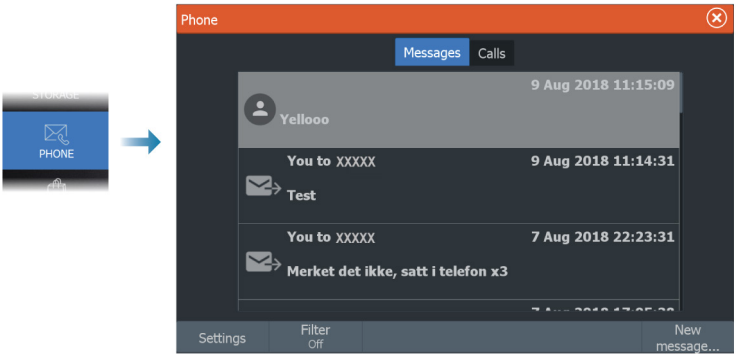
- select the phone you want to connect

When the phone and the unit are connected, a phone icon is shown on the home page.

Incoming messages and phone notifications will now pop-up on the MFD.

Phone notifications

After the phone and unit are paired and connected, use the phone icon to display the list of messages and the call history.



By default, the message list shows all messages. The list can be filtered to show only sent or received messages.

Creating a text message

→ ***Note:*** This option is not available for iPhones.

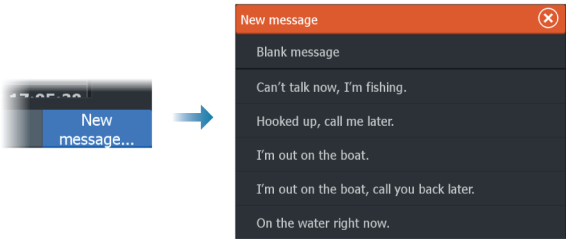
To create a new text message:

- select the new message option in the message dialog

To respond to a text message or to a phone call:

- select the message or call you want to respond to

All options displays the new message dialog.



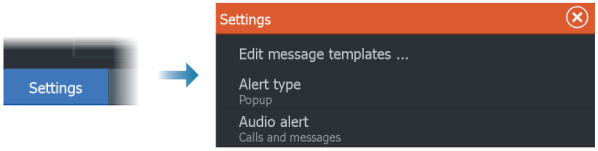
Responding to an incoming call

A call must be answered or rejected from the phone.

You can respond to an incoming call by a text message (not available for iPhones).

Message settings

You can define message templates and set how you want the alert to appear in the settings dialog.



Phone troubleshooting

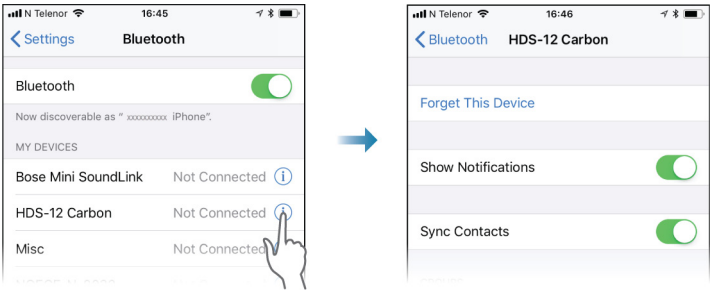
Not possible to connect an iPhone

The first time an MFD attempts to connect to an iPhone, the following errors might appear:

- connection failing, giving a message saying that the phone is not available for connection
- the phone does not list the correct name for the MFD

If this happens, try the following:

- reboot the MFD and restart the phone
- check that the phone is not connected to any other Bluetooth devices
- manually set the iPhone to allow notifications from the MFD:

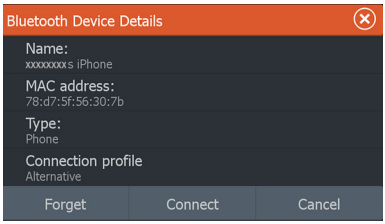


Missing notifications

By default, the connection profile for the phone is set to **auto**.

The connection profile should be changed to **alternative** if one of the following issues occurs:

- the phone is connected and the alert type is set to pop-up or notification, but there is either no alert or the alert is very delayed
- the phone is connected and there is no sound on the phone when talking



See details for how to display the device details in *"Managing Bluetooth devices"* on page 117.

To change the alert setting for the phone notifications, see *"Message settings"* on page 115.

Text messages appearing on the iPhone, but not on the MFD

Check that the text app is not open and active on the iPhone.

Managing Bluetooth devices

Bluetooth enabled devices within range are shown in the Bluetooth devices dialog. Refer to *"Bluetooth devices"* on page 122.

19 Tools and settings

This chapter includes description for tools and for settings that are not specific to any application panel.

For application settings, refer to the relevant chapter for the application.

Tools and settings are available from the Home page.

The toolbar

Waypoints

Includes waypoints, routes, and trails dialogs used for managing these user defined items.

Alarms

Dialogs for active and historical alarms. Also including the alarm settings dialog, listing options for all available system alarms.

Vessels

The status list displays status and available information for the following vessel types:

- AIS
- DSC

See details in *"AIS"* on page 100.

Info

Includes tide information for available tide stations, a trip calculator displaying voyage and engine information, and a dialog including sun and moon information for selected date and position.

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.

Phone

Used for connecting a phone to the MFD. See *"Using your phone with the MFD"* on page 113.

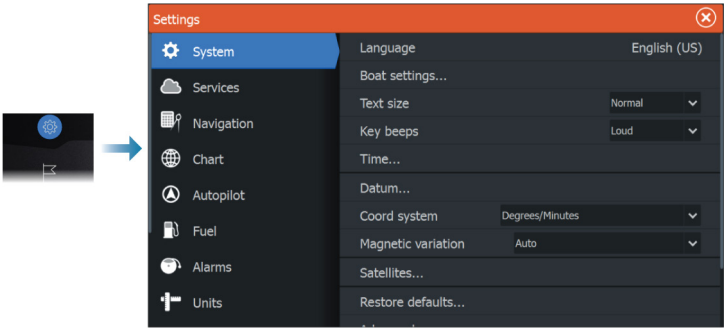
Store

Connects to the Navico internet store. At the store you can browse, purchase, acquire feature unlock keys, download compatible charts/maps for your system and much more.

→ ***Note:*** The unit must be connected to internet to use this feature.

Settings

System settings



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.

Default setting: Normal

Key beeps

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

Time

Configure time settings to suit vessel location, along with time and date formats.

Datum

Most paper charts are made in the WGS84 format, which also is used by the ELITE Ti^2.

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.

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.

WAAS (and EGNOS) differential position correction can be configured to ON or OFF.

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

Used for configuration of advanced settings and how your system displays various user interface information.

Registration
Guidance for online registration of the device.

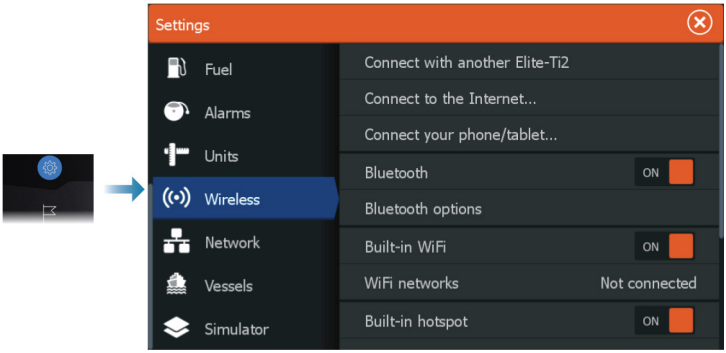
About
Displays copyright information, software version, and technical information for this unit.

The Support option accesses the built-in service assistant, refer to *"Service report"* on page 127.

Services
Used for accessing web sites that provide feature services.

Navigation
Used for defining navigation settings. Refer to *"Navigating"* on page 55.

Wireless settings
Provides configuration and setup options for the wireless functionality.



Connect with another Elite Ti²
Select to connect to another Elite Ti² unit. Prompts will guide you through the pairing.

When paired the units can share:

- sonar (not SideScan or DownScan)
- chart cards
- waypoints and routes

Connect to the Internet

Used for connecting to a hotspot.

When connected, the text changes to include Already connected.

Connect your phone/tablet

Used for connecting a phone or tablet to the MFD. Refer to *"Remote control of the MFD"* on page 110.

Bluetooth

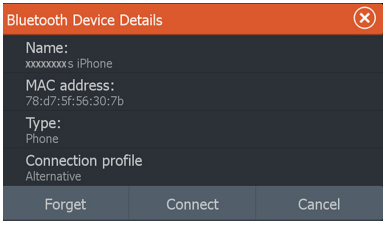
Enables the built-in Bluetooth functionality.

Bluetooth devices

Displays the Bluetooth device dialog. Use this dialog to pair or remove pairing to Bluetooth enabled devices.

Select a device to:

- display device details
- connect, disconnect or remove the device from the device list



Built-in WiFi

Select this option to enable or disable the internal WiFi.

Disabling the internal WiFi reduces the unit's power consumption.

WiFi networks

Shows the WiFi network connection status. If the MFD is connected to the internet (WiFi hotspot), the hotspot name (SSID) is shown.

Built-in hotspot

The system turns this on when connecting with another unit.

Hotspot settings
Select to display the MFD's hotspot network name (SSID) and key. Only available when the MFD built-in hotspot is turned on.

Remembered hotspots
Displays hotspots the unit has been connected to in the past.

Remote control permissions
Lists remote controller connection information. Select to give (one time or always) or remove a remote controller permission to control the unit.

Advanced
Tools are available within the software to assist in fault-finding and setting up the wireless network.

DHCP Probe
The wireless module contains a DHCP server that allocates IP addresses for all the MFDs, and Sonar in a network. If integrating with other devices, such as a 3G modem or satellite phone, other devices in the network may also be acting as DHCP servers. To make it easy to find all DHCP servers on a network, dhcp_probe may be run from the ELITE Ti^2. Only one DHCP device may be operational on the same network at a time. If a second device is found, turn off its DHCP feature if possible. Refer to the device's own instructions for further assistance.

→ ***Note:*** Iperf and DHCP Probe are tools provided for diagnostic purposes by users familiar with network terminology and configuration. Navico is not the original developer of these tools, and cannot provide support related to their use.

Iperf
Iperf is a commonly used network performance tool. It is provided for testing wireless network performance around the vessel so weak spots or problem areas can be identified. The application must be installed on and run from a tablet device.

The unit must be running Iperf server before initiating the test from the tablet. On exiting the page, Iperf automatically stops running.

20 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.

If a sun cover is available, it is recommended that you always fit it when the unit is not in use.

Checking the connectors

The connectors should be checked by visual inspection only.

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.

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.

Touchscreen calibration

→ ***Note:*** Ensure the screen is clean and dry before doing the calibration. Do not touch the screen unless prompted to do so.

In some cases it may be required to re-calibrate the touch screen. To re-calibrate your touchscreen, do the following:

1. Turn the unit off
2. Press and hold the waypoint key, and turn the unit on
3. Continue pressing the waypoint key during power on until the calibration utility screen comes up
4. Follow the instructions on the screen to perform the calibration.

When completed, the unit returns to the application screen.

NMEA Data logging

All serial output sentences sent over the NMEA TCP connection are logged to an internal file. You can export and review this file for service and fault finding purposes.

The maximum file size is predefined. If you have added several other files to the system (file recordings, music, pictures, PDF files), this may reduce the allowed file size for the log file.

The system logs as much data as possible within the file size limitation, and then it starts overwriting the oldest data.

Exporting NMEA log files

The NMEA log file can be exported from the storage dialog.

When you select the log database you are prompted to select a destination folder and filename. Once accepted, the log file is written to the chosen location.

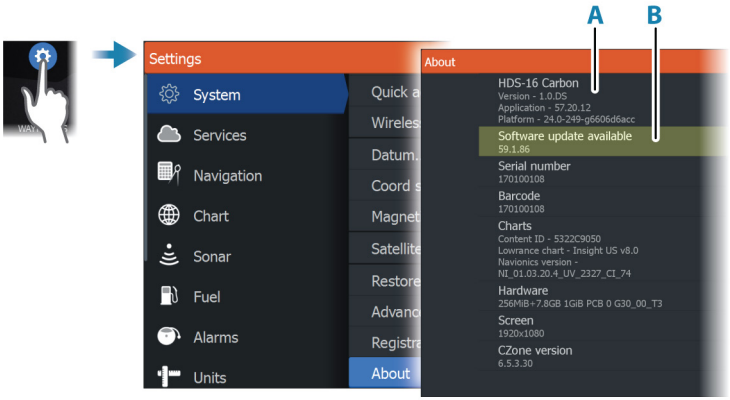
Software updates

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 128.

Installed software and sw updates

The about dialog shows the software version currently installed on this unit (**A**).

If the unit is connected to internet, the dialog also shows available software updates (**B**).



Update the software with a unit connected to internet

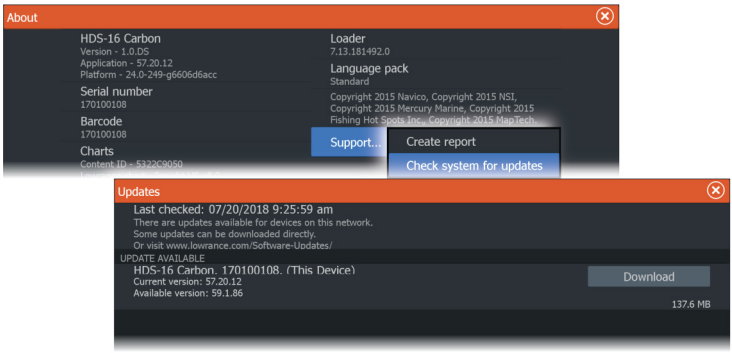
If the unit is connected to internet, the system will automatically check for software updates. You will be notified if new software updates are available.

→ ***Note:*** Some software update files might increase the available space in the unit. If so, you will be prompted to insert a memory card in the unit.

→ ***Note:*** Do not add software update files to a chart card.

→ ***Note:*** Do not turn off the unit or remote device until the update is completed, or until you are prompted to restart the unit.

You start the update from the updates dialog.



Update the software from a storage device

You can download the software update from www.lowrance.com.

Transfer the update file(s) to a compatible storage device, and then insert the storage device in the unit.

→ ***Note:*** Do not add software update files to a chart card.

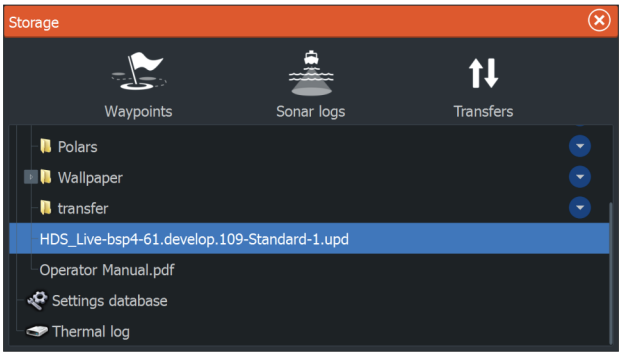
To update this unit only:

- restart the unit to make the unit boot from the storage device

To update this unit or a device on the NMEA 2000 network:

- Select the update file in the storage device dialog

→ ***Note:*** Do not turn off the unit or remote device until the update is completed, or until you are prompted to restart the unit.



Service report

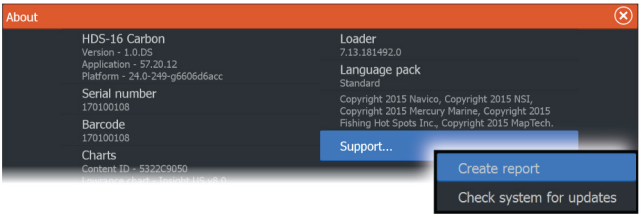
The system has a built-in service assistant that creates a report of the devices connected to the network(s). This includes information as the software version, serial number, and information from the settings file. The service report is used to assist in technical support enquiries.

You can add screenshots and log files that will be attached to the report.

→ ***Note:*** There is a 20MB limit for the report attachments.

You can save the report to a storage device and email it to support, or upload it directly if you have an internet connection. If you call

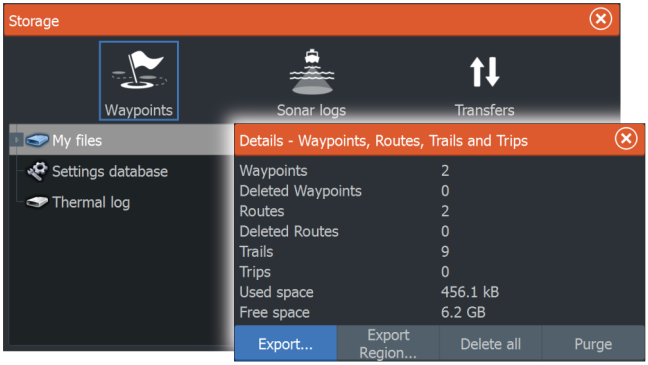
technical support before creating the report, you can enter an incident number to assist with tracking.



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.

Waypoints



The waypoints option in the storage dialog allows for managing waypoint storage.

Export all waypoints

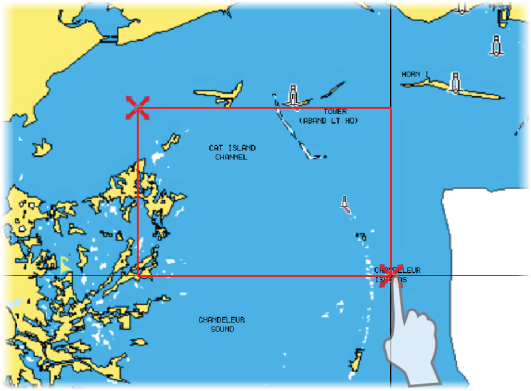
The export option is used for exporting all waypoints, routes, trails and trips.

Export region

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

1. Select the export region option

2. Drag the boundary box to define the desired region



3. Select the export option from the menu
4. Select the appropriate file format

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.

Waypoint export format

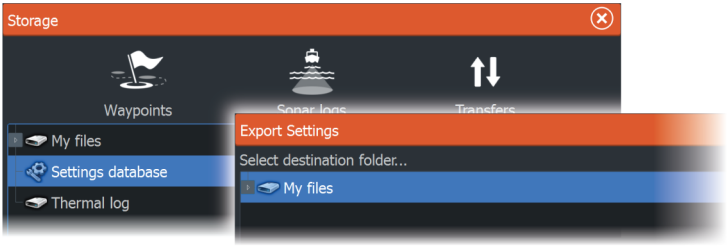
The following formats are available for waypoint export:

- **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 (Lowrance LMS, LCX)

- **User data file version 2 (no depth)**
  Can be used when transferring user data from one system to a legacy product (Lowrance LMS, LCX)
- **GPX (GPS Exchange, no depth)**
  This is the format most used on the web that shares among most GPS systems in the world. Use this format if you are taking data to a competitor's unit.

Exporting the settings database

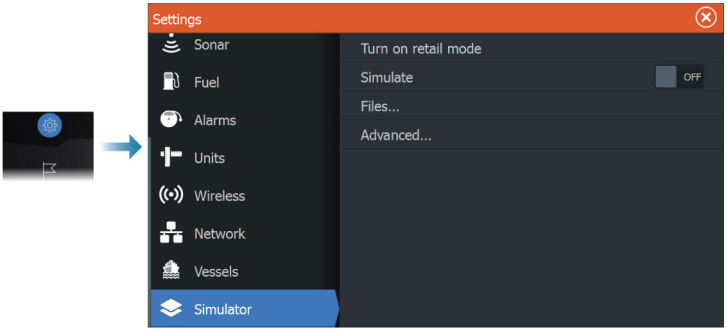
Use the settings database option in the storage dialog to export your user settings.



21 Simulator

About

The simulation feature lets you see how the unit works without being connected to sensors or other devices.



Retail mode

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

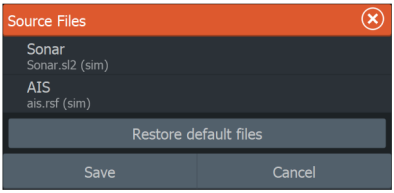
If the touchscreen is tapped or a key pressed when retail mode is running, the demonstration pauses.

After a time-out period, retail mode resumes.

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

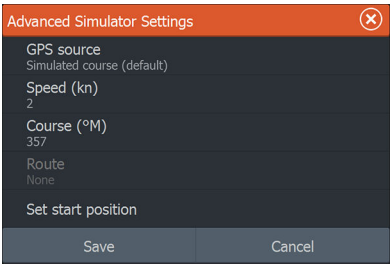
Simulator source files

You can select which data files that are used by the simulator. It can be either pre-recorded data files included in your device, your own recorded log files, or log files on a mass storage device connected to the unit.



Advanced simulator settings

The advanced simulator settings allows for manually controlling the simulator.



GPS source

Selects where the GPS data is generated from.

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.

22 Integration of 3rd party devices

Several 3rd party devices can be connected to the ELITE Ti². The applications are displayed on separate panels or integrated with other panels.

A device connected to the NMEA 2000 network should automatically be identified by the system. If not, enable the feature from the advanced option in the System settings dialog.

The 3rd party device is operated by using menus and dialogs as on other panels.

This manual does not include specific operation instructions for any 3rd party device. For features and functionality, refer to the documentation included with the 3rd party device.

SmartCraft VesselView integration

When a compatible Mercury Marine VesselView product or VesselView Link is present on the NMEA 2000 network, the engines can be monitored and controlled from the unit.

When the feature is also enabled in the advanced settings features dialog:

- A Mercury icon is added to the home page - select it to display the engine instrument panel.
  You can customize which data is displayed on the info panel.
  Refer to *"Info panels"* on page 87.
- A Mercury settings dialog is added - use this dialog to change engine settings.
- Mercury and Vessel Control buttons are added to the control bar:
  - Selecting the Mercury button displays engine and vessel data.
  - Selecting the Vessel button opens the engine controller.

When the features are enabled, the display may prompt the user for some basic configuration information.

For more information, refer to the VesselView manual or engine supplier.

Suzuki engine integration

If a Suzuki C-10 gauge is available on the NMEA 2000 network, the engines can be monitored from the unit.

When the feature is also enabled in the advanced settings features dialog:

- A Suzuki icon is added to the home page - select it to display the engine instrument panel.
  You can customize which data is displayed on the info panel.
  Refer to *"Info panels"* on page 87.

For more information, refer to the engine manual or engine supplier.

Yamaha engine integration

If a compatible Yamaha gateway is connected to the NMEA 2000 network, the engines can be monitored from the unit.

When the feature is also enabled in the advanced settings features dialog:

- A Yamaha icon is added to the home page - select it to display the engine instrument panel.
  You can customize which data is displayed on the info panel.
  Refer to *"Info panels"* on page 87.
- If the Yamaha system supports Troll Control, a Troll button is added to the control bar. Select this button to enable/disable troll control and control the trolling speed.

For more information refer to the engine manual or the engine supplier.

Evinrude engine integration

If an Evinrude engine control head is available on the NMEA 2000 network, the Evinrude engines can be monitored and controlled from the unit.

When the feature is also enabled in the advanced settings features dialog:

- An Evinrude icon is added to the home page - select it to display the engine instrument panel.
  You can customize which data is displayed on the info panel.
  Refer to *"Info panels"* on page 87.
- An Evinrude settings dialog is added - use this dialog to change engine settings.

- An Evinrude button is added to the control bar - selecting this button opens the engine controller. Use the engine controller to control the engines.

A maximum of two control heads and four engines is supported.

For more information, refer to the engine manual or engine supplier.

Power-Pole anchors

Power-Pole anchors, which can be controlled by the C-Monster Control System installed on your boat, can be controlled from the unit. To control the Power-Poles, you pair the Power-Poles with the unit using Bluetooth wireless technology available in both products.

Power-Pole controls

When Bluetooth is enabled, the Power-Pole button becomes available in the control bar. Select it to display the Power-Pole controller.

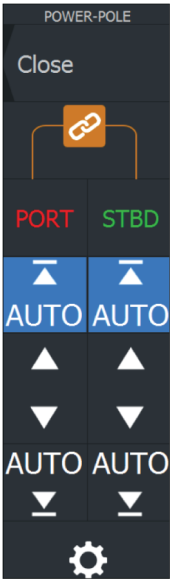
For pairing Bluetooth devices, refer to *"Bluetooth devices"* on page 122. If you are pairing dual Power-Poles, also review *"Pairing with dual Power-Poles"* on page 137.

When the Power-Pole controller is opened, the system connects to paired Power-Poles. When the connection is confirmed the control buttons are enabled.

The Power-Pole controller displays control buttons for each Power-Pole that is paired to the unit.

Single press the AUTO buttons to raise and lower the Power-Poles automatically all the way up and down. The manual up and down buttons raise and lower the poles as high or low as you want.

Single Power-Pole controller



Dual Power-Poles controller

On a dual controller you can raise and lower the Power-Poles separately, or press the sync (links) button to allow for control of both with a single press of the auto buttons or the manual up and down buttons.

Stay connected

Select the Settings button on the Power-Pole controller to open the Power-Pole Settings dialog where you can select to stay connected to all paired Power-Pole anchors.

→ ***Note:*** Selecting to Stay connected speeds up access to the controls, but the anchors cannot be controlled from another unit when it is selected. Turn off this option to allow connection from other units.

The Power-Pole Settings dialog also provides the option to add or remove Power-Poles. This option opens the same Bluetooth Devices dialog you open from the Wireless settings dialog. Refer to *"Bluetooth devices"* on page 122.

Pairing with dual Power-Poles

If dual Power-Poles are installed on your boat, the one that is paired first automatically becomes Port and the second is set to Starboard in the Power-Pole controls.

To swap them around, unpair the connected Power-Poles. And then, toggle off and on Bluetooth in the Wireless settings dialog to reset the Bluetooth memory. Once Bluetooth has been toggled back on, proceed in pairing the Power-Poles in the correct order.

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