

LOWRANCE®



Mark-4, Elite-4, Elite-5, Elite-7 & Elite-9 Operation manual

Copyright © 2014 Navico

All rights reserved.

Lowrance® and Navico® are registered trademarks of Navico.

Fishing Hot Spots® is a registered trademark of Fishing Hot Spots Inc.

Navionics® is a registered trademark of Navionics, Inc.

Navico may find it necessary to change or end our policies, regulations and special offers at any time. We reserve the right to do so without notice. All features and specifications subject to change without notice.

Compliance Statements

Lowrance Mark-4, Elite-4, Elite-5, Elite-7 and Elite-9

- meets the technical standards in accordance with Part 15.103 of the FCC rules
- complies with CE under RTTE directive 1999/5/EC
- complies with the requirements of level 2 devices of the Radiocommunications (Electromagnetic Compatibility) standard 2008

For more information please refer to our website: www.lowrance.com.

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. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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
- Consult the dealer or an experienced technician for help



WARNING: When a GPS unit is used in a vehicle, the vehicle operator is solely responsible for operating the vehicle in a safe manner. Vehicle operators must maintain full surveillance of all pertinent driving or boating conditions at all times. An accident or collision resulting in damage to property, personal injury or death could occur if the operator of a GPS-equipped vehicle fails to pay full attention to travel conditions and vehicle operation while the vehicle is in motion.










NOTE: This manual covers Mark-4, Elite-4, Elite-5, Elite-7 and Elite-9 units. As a result, screenshots of menus and dialogs may not match the look of your unit.

Table of contents

Introduction.....	3
Unit Controls.....	3
Inserting microSD cards	4
Basic Operation	5
Setup wizard.....	5
Pages	5
Selecting pages.....	5
Page menus	5
Working with menus	7
Dialogs.....	7
Entering text	8
Fishing modes	8
Cursor.....	9
Goto cursor.....	9

Advanced mode	10
Standby mode	10
Restore defaults	10
Pages.....	11
Steer page.....	11
Sonar page.....	11
Downscan page	12
Chart page.....	12
Combo pages	13
Overlay data	14
Sonar Operation	16
Trackback.....	16
CHIRP	16
Sensitivity	18

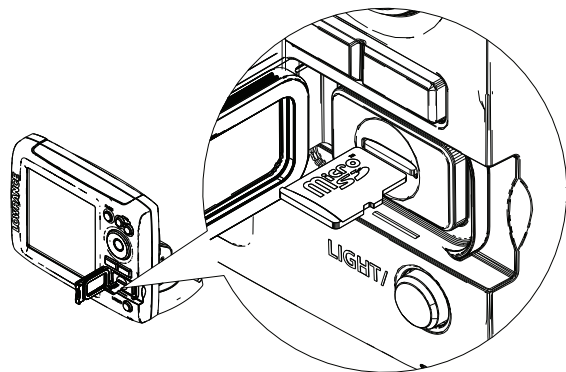
Colorline	18	Trails screen	37
Range	19	Orientation	39
Frequency	19	Chart settings	40
Ping Speed	20	Navigation settings	41
Downscan options	22	AIS.....	43
Sonar settings.....	23	AIS Setup	43
Installation	25	Target symbols	44
DownScan Operation	26	Viewing AIS target information	45
Trackback	26	Settings	46
DSI menu.....	26	Settings menu.....	46
Ping Speed	28	System.....	46
Downscan options	28	Alarms	48
Chart Operation	31	Saving screenshots	48
Waypoints, Routes, Trails	32	Specifications	51
Routes screen	33	Index	55

Unit Controls	
	LIGHT/POWER: controls backlight level and turns unit on/off
	KEYPAD: controls cursor & selects items on menus
	PAGES: allows you to select a page to view
	MENU: opens settings, context and page menus
	ENTER: finalizes menu selections; save waypoint at cursor position
	MOB: press and hold both Zoom keys to create a Man Overboard waypoint
	ZOOM Keys: used to zoom in/zoom out
microSD slot: insert a blank microSD card to save screen captures; or insert a microSD mapping card to use mapping data	

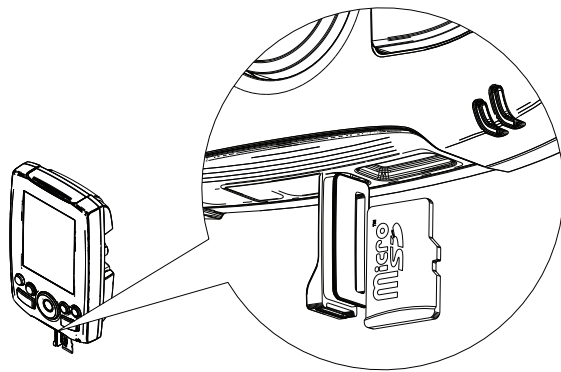
Getting Started	
Turn unit on/off	To turn on/off the unit, press and hold the LIGHT/POWER key for three seconds.
Man Overboard waypoint	Press the ZOOM IN and ZOOM OUT keys at the same time to set a Man Overboard waypoint. Your system will automatically create an active route back to the MOB waypoint. You must cancel navigation to terminate the function.
Adjusting the backlight	This unit has 10 backlight levels. Press the LIGHT/POWER key to switch backlight levels.
Muting Audio	Select Mute Audio from the System menu and press ENTER .
Selecting a GPS Source	Select GPS from the System settings menu. Highlight GPS source and press ENTER . Select the desired source.

Inserting microSD cards

Carefully slide the microSD card into the slot until it clicks into place. To remove, carefully push in the card until it clicks out of place.



Elite-5, Elite-7 and Elite-9

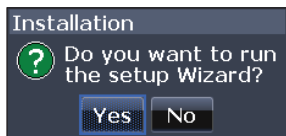


Mark-4 and Elite-4

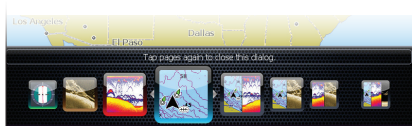
Basic Operation

Setup wizard

The Setup wizard will appear when the unit is turned on for the first time. To choose your own settings, do not run the setup wizard. To restart the Setup wizard, restore defaults.



Pages



Pages dialog



NOTE: Available pages vary depending on the unit and the connected transducer.

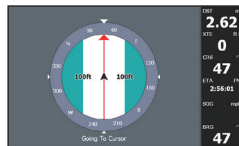


Selecting Pages

To select a page, press the keypad in the direction of the desired page and press **ENTER**.

Page menus

The Steer, Downscan, Sonar and Chart pages have menus that can only be accessed when those pages are displayed.



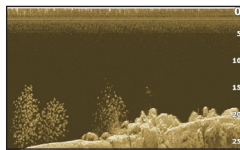
Steer page

MENU



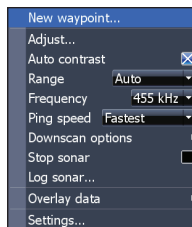
New waypoint...
Find...
Waypoints, Routes, Trails...
Settings...

Steer menu

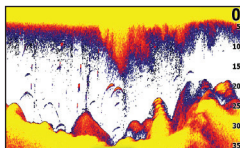


Downscan page

MENU

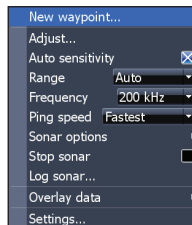


Downscan menu



Sonar page

MENU



Sonar menu

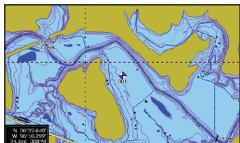


Chart page

MENU

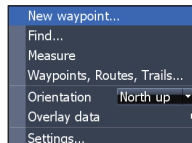
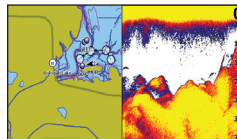
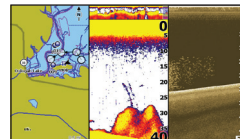


Chart menu

Combo pages



Two-panel page



Three-panel page

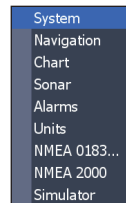
Press the **PAGES** key twice to switch active panels. The page menu for active page will be displayed when the **MENU** key is pressed. The active panel is denoted by an orange border.

Accessing the Settings menu

MENU



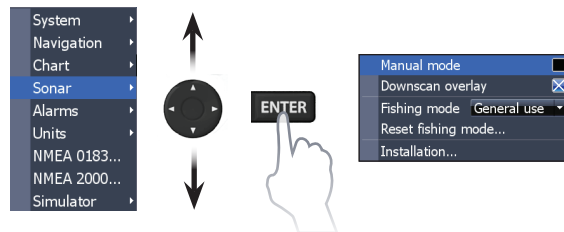
MENU



NOTE: Only Elite-7 and Elite-9 units support NMEA 2000.

Accessing menu items

The keypad and **ENTER** key are used to select menu items and open submenus. Use the keypad to highlight the desired item and press **ENTER**.

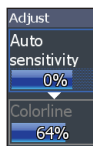


Working with menus

There are several menu types used to make adjustments to options and settings, including scrollbars, on/off features and dropdown menus.

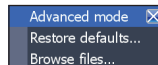
Scrollbars

Select the scrollbar and press the keypad left (decrease) or right (increase).



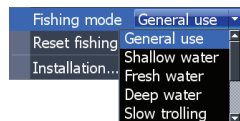
On/Off features

Select an on/off menu item and press **ENTER** to turn it on/off.



Dropdown menus

Access the dropdown menu and press the keypad up/down to select the desired item and press **ENTER**.



NOTE: Press the **MENU** key to Exit menus.

Dialogs

Dialogs are used for user input or for presenting information to the user. Depending on the type of entry, different methods are used to confirm, cancel or close the dialog.



Entering text

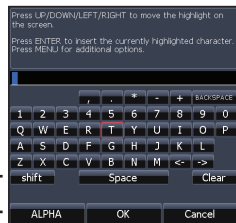
Some functions, like naming a waypoint, route or trail, will require you to input text.

To input text:

1. Use the keypad to select the desired character and press **ENTER**.
2. Repeat Step 1 for each character.
3. When entry is completed, highlight **OK** and press **ENTER**.

Switches letters to uppercase/ lowercase

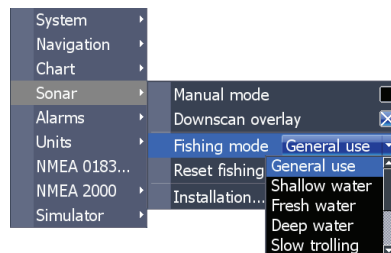
Switches keyboard between Alpha and QWERTY layout



Fishing Modes

(Conventional sonar only)

Fishing modes enhance the performance of your unit by providing preset packages of sonar settings geared to specific fishing conditions.



Fishing Mode Options		
General Use	1000ft or less	Coastal
Shallow Water	60ft or less	Shallow weedy bottoms
Fresh Water	400ft or less	Inland/Near coastal
Deep Water	1000ft or more	Offshore
Slow Trolling	400ft or less	Inland/Coastal
Fast Trolling	400ft or less	Inland/Coastal
Clear Water	400ft or less	Inland/Coastal
Brackish Water	400ft or less	Fresh-Saltwater mix
Ice	400ft or less	Ice fishing



NOTE: Use *Fresh Water* mode when fishing in less than 100 feet of water; otherwise your unit may not track bottom properly.

Cursor

The keypad moves the cursor around the display, allowing you to scroll the map, select map items and review sonar history.

Press **MENU** and select *Return to vessel* or *Exit cursor mode* to clear the cursor.

Goto cursor

Used to navigate to the cursor.

1. Move the cursor to a desired location and press **MENU**.
2. Select *Goto cursor* and press **ENTER**.

Advanced Mode

Enables advanced features and settings.

The following features are enabled when Advanced mode is turned on:

- Navigation (Enables arrival radius, off-course distance and Bearings setting)
- Alarms (Enables arrival, off course and anchor alarm options)
- NMEA 0183 Output
- NMEA 2000 (Elite-7 and Elite-9 only)
- Units (Enables distance, speed, depth, temperature, and bearings options)

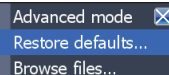
Press the **PWR/LIGHT** key to access the Backlight dialog.



NOTE: *Leaving your unit in Standby mode when your boat is not in use will run down your battery.*

Restore defaults

Resets unit options and settings to defaults.

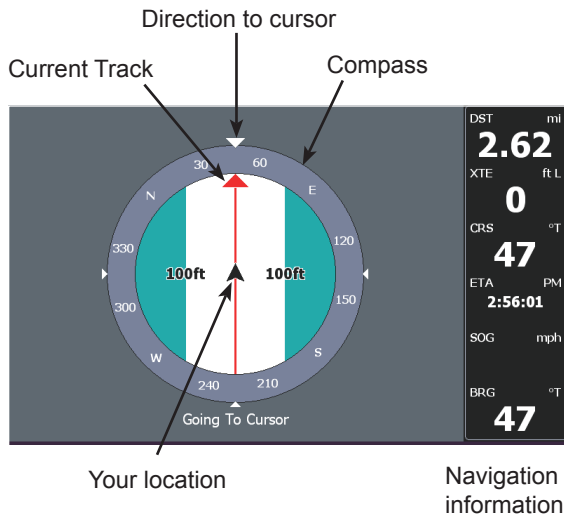


Standby mode

Lowers power consumption by turning off sonar and the display.

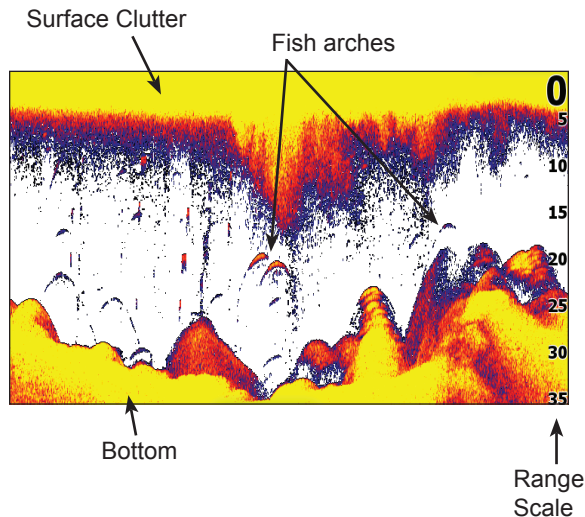


Pages



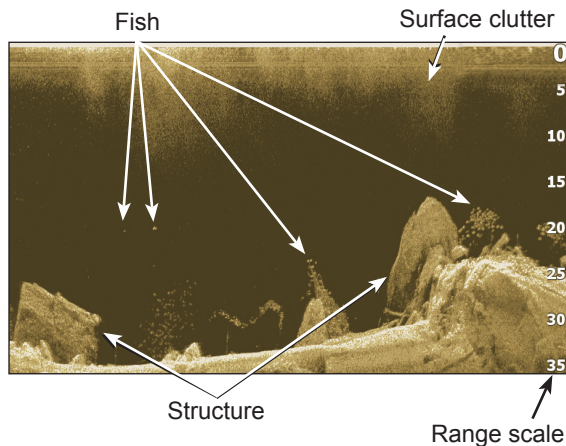
Steer Page

The Steer page has a compass that shows your current track, the direction to your destination, and a digital data navigation panel.



Sonar Page

Displays the water column moving from right to left on your unit's screen.



Downscan page

The Downscan page shows the water column moving from right to left. You can overlay downscan sonar on the conventional sonar page by selecting **Downscan Overlay** on the Sonar settings menu.

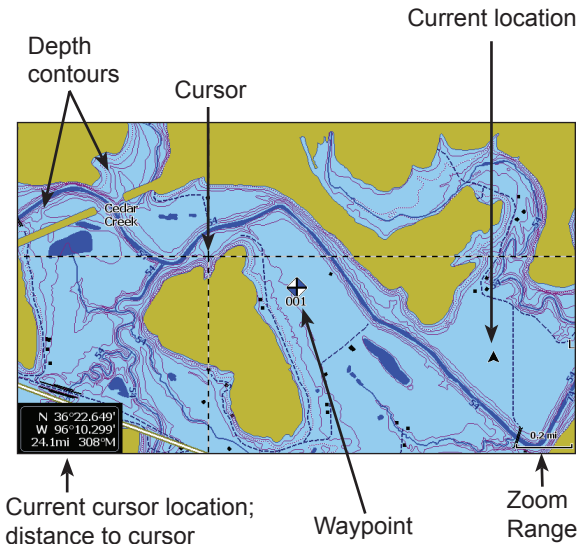
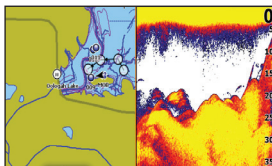


Chart Page

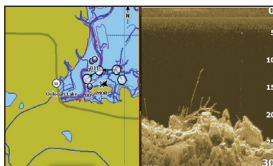
Consists of map that moves in real-time as you move. By default, the map is shown from a birds-eye view with North at the top of the screen.

Combo pages

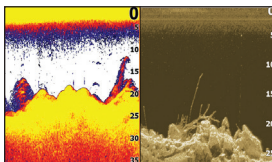
This unit has four pre-configured combo pages.



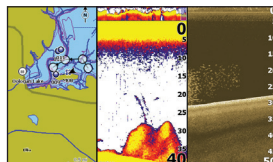
Chart/Sonar



Chart/Downscan



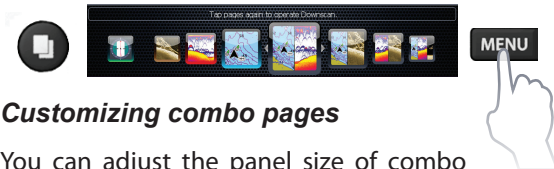
Sonar/Downscan



Chart/Sonar/Downscan



NOTE: Press the **PAGES** key twice to switch active panels.



Customizing combo pages

You can adjust the panel size of combo pages and control how the pages will be arranged on the screen: vertically (side) or horizontally (over).

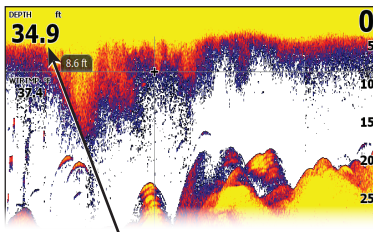
To make adjustments to combo page panels, select a combo page from the Pages carousel and press **MENU**.



NOTE: To adjust panel size, access the customize menu after selecting a combo page for display and select **Panel size**.

Overlay Data

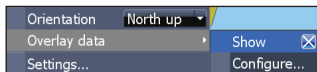
Used to select data shown on the Sonar, Structure and Chart pages.



Overlay data

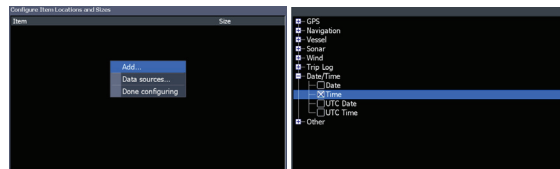
Show

Enables/disables the display of overlay data, allowing you to remove overlay data from the screen without deleting the current overlay data configuration.



Configure

Allows you to select/customize overlay data.



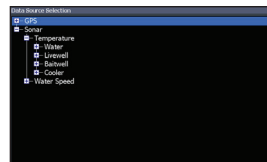
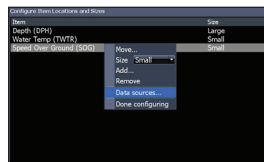
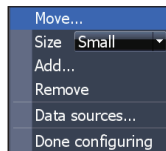
To add overlay data:

1. From the Sonar, Chart or DownScan page, press **MENU**.
2. Select *Overlay data* and press **ENTER**.
3. Select *Configure* and press **ENTER**.
4. Press *Menu* and select *Add*. Press **ENTER**.
5. Select a data category and press **ENTER**.
6. Select the desired data and press **ENTER**.
7. Press **MENU** and select *Return to Overlays*. Press **ENTER**.
8. Press **MENU**, select *Done Configuring* and press **ENTER**.

Customizing Overlay Data

You can select a data source, add/remove data and adjust the size and position of overlay data on the screen.

Select the desired overlay data from the Configure Item Locations and Sizes dialog and press **MENU**. The configuration menu will appear.



To select a data source:

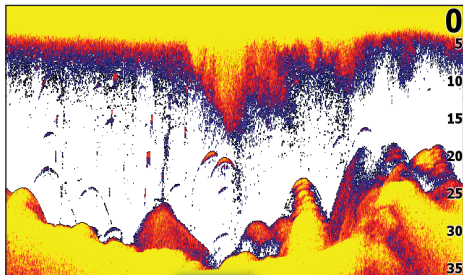
1. Select *Data sources* and press **ENTER**.
2. Select the data type and press the right arrow on the keypad.
3. Highlight the desired data source and press **ENTER**.

Data sources

Used to select the network device that will supply source data for a selected data type.

Sonar Operation

This unit supports two types of sonar: Conventional and Downscan.



The features described in this section are for conventional sonar. Refer to the Downscan section for information on Downscan features.

CHIRP

A CHIRP (Compressed High Intensity Radar Pulse) transducer transmits a modulated pulse of multiple frequencies within the bandwidth of the

selected transducer type. This results in better image quality, better target separation and greater depth penetration.

This unit supports High CHIRP, Medium CHIRP and Low CHIRP, depending on the transducer.

CHIRP can be used with Lowrance conventional sonar transducers.

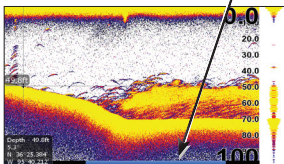
- 50/200 kHz (Low/High CHIRP)
- 83/200 kHz (Medium/High CHIRP)

To use CHIRP, select the desired CHIRP frequency from the Frequency menu.

Trackback

You can review your recent sonar history by moving the cursor to the left until the screen starts to move in reverse.

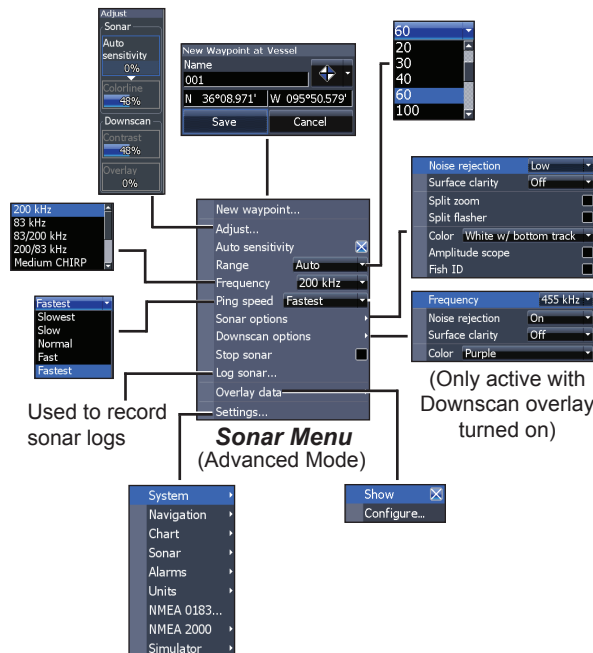
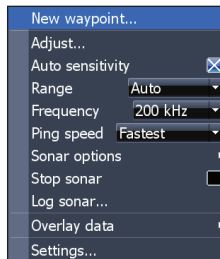
Blue sonar history bar



Move the sonar history bar all the way to the right to resume normal sonar scrolling, or press **MENU** and select *Exit cursor mode*.

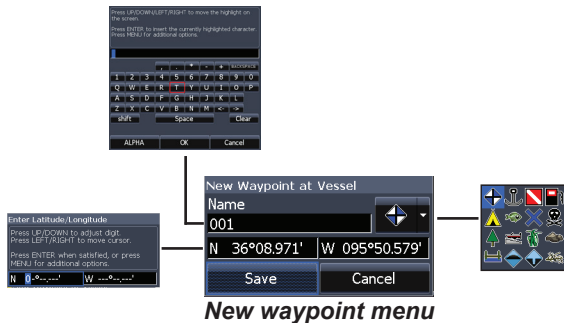
Sonar Menu

Press **MENU** from any sonar page to access the Sonar menu.



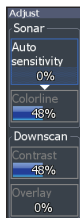
New Waypoint

Places a waypoint at your current position or at the cursor position. From the new waypoint dialog, you can input a waypoint name, select an icon and input a desired latitude/longitude.



Adjust

Used to make adjustments to Sensitivity and Colorline.



Sensitivity

Controls the level of detail shown on the display. Too much detail will clutter the screen. If Sensitivity is set too low, desired echoes may not be displayed.

Colorline

Helps distinguish fish or structure from the bottom by showing hard returns as light colors and soft returns as darker colors. A lower colorline setting will display only the hardest returns, shown in light colors.

Auto Sensitivity

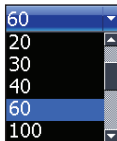
Keeps sensitivity at a level that works well under most conditions, reducing the needs for adjustments. Auto Sensitivity is turned on by default.



NOTE: You can make minor (+/-40%) changes to sensitivity with Auto Sensitivity turned on. You will have to turn it off to make significant adjustments.

Range

Selects the deepest range shown on the display. Range settings display the section of the water column from the water surface to the selected depth range.



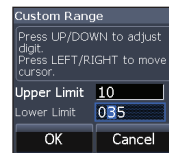
If you select too shallow a depth range, the unit will not be able to lock onto the bottom.

Custom Range — Upper and Lower Limits

Used to select the upper limit and lower limit of a section of the water column. That allows you to view a section of the water column that does not include the water surface or the bottom. Upper and lower limits must be at least 6.5 ft (2 m) apart.



ENTER



Custom range menu



NOTE: When using a custom range, you may not receive any digital depth readings, or you may receive incorrect depth information.

Frequency

Controls the transducer frequency used by the unit. This unit supports conventional, CHIRP and DownScan sonar frequencies.

Only frequencies supported by your transducer will appear on the Frequency menu.



Sonar Frequencies	
50 kHz	Best depth penetration with lower resolution
83 kHz	Wider cone angle provides more bottom coverage and easy lure tracking
200 kHz	Highest sensitivity and best target separation in shallow water
Low CHIRP	Provides the best depth penetration with lower resolution images
Medium CHIRP	Better depth penetration than High CHIRP with minimal loss of target separation
High CHIRP	Better resolution in shallow water than Medium CHIRP

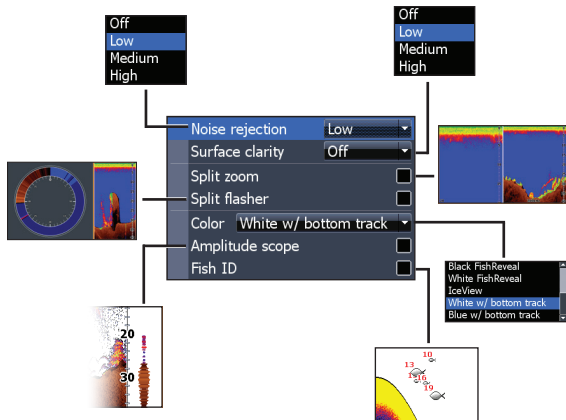
Custom high	Selects a custom single frequency from within High or Low frequency ranges to help reduce/eliminate interference from other CHIRP transducers
Custom medium	

Ping Speed

Controls the rate the transducer uses to send sonar waves into the water.

Ping speed adjustments can help reduce interference from other transducers. When using fishing modes, ping speed settings are optimized for the selected fishing conditions, so in most cases, adjustments are not necessary.

Sonar Options

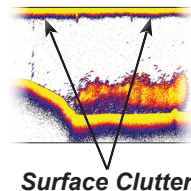


Noise Rejection

Uses advanced signal processing to monitor the effects noise (boat pumps, water conditions, engine ignition systems, etc.) has on your display, and then filters out undesired signals.

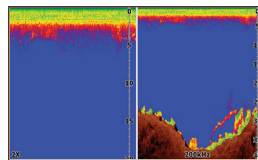
Surface Clarity

Surface Clarity reduces surface clutter by decreasing the sensitivity of the receiver near the surface.

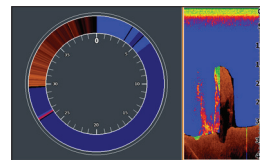


Split Zoom and Split Flasher

Switches the sonar display from full screen sonar to a split screen view.



Split Zoom



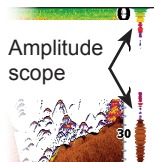
Split Flasher

Color

Allows you to change the look of the display using palettes with varying degrees of color/brightness.

Amplitude Scope

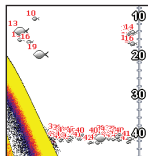
Displays the amplitude of the most recent echo.



Fish ID

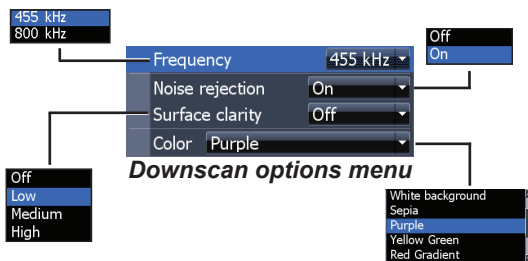
Displays fish echoes as fish symbols instead of fish arches.

Fish ID is not the most accurate method of fish detection since structure and suspended debris may be shown as a fish symbol on the display.



Downscan options

You can make adjustments to Downscan overlay settings from the sonar page. Downscan options are covered in more detail in the DSI section.



NOTE: The Downscan options menu will only be available when Downscan overlay is enabled.

Stop Sonar

Prevents the transducer from transmitting to reduce/eliminate interference between two sonar units running on the boat at the same time.

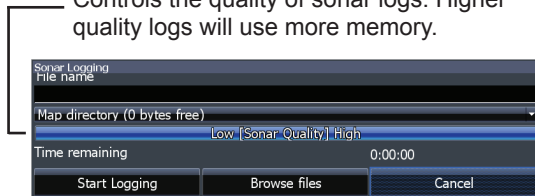


NOTE: Sonar history will not be recorded when sonar is stopped.

Logging Sonar

You can record sonar data and save the file on a microSD card inserted into the unit's card reader.

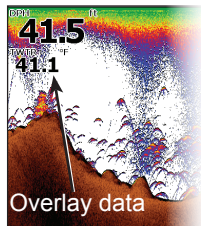
Controls the quality of sonar logs. Higher quality logs will use more memory.



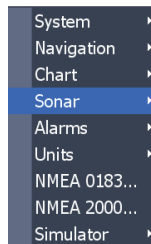
View previously saved sonar logs

Overlay Data

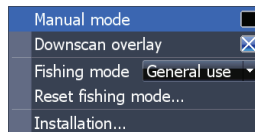
Allows you to select data to be displayed on top of the Sonar page. Overlay data setup is covered in the Pages section.



Sonar Settings



ENTER

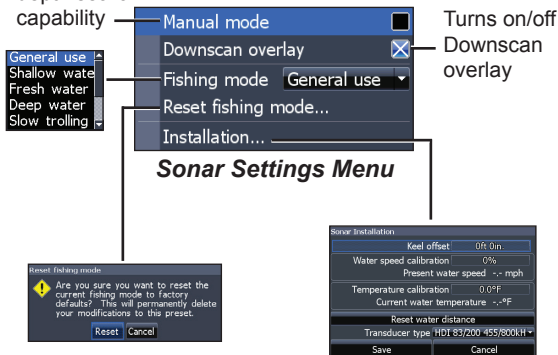


Conventional settings/Downscan Settings

You can adjust settings for both Conventional sonar and Downscan sonar modes from the Sonar Settings menu.

Only adjustments made to conventional sonar settings will be visible on the sonar page.

Restricts unit's digital depth search capability



Sonar Settings Menu

Manual Mode

Restricts digital depth capability, so the unit will only send sonar signals to the selected depth range. That allows the display to continue smooth scrolling if the bottom depth is out of transducer range.

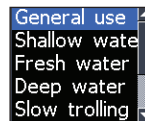


WARNING: Manual mode should only be used by advanced sonar users.

When the unit is in manual mode, you may not receive any depth readings, or you may receive incorrect depth information.

Fishing Mode

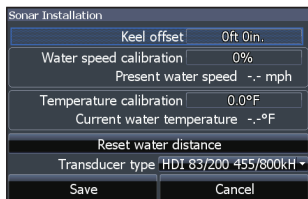
Enhances the performance of your unit by providing preset packages of sonar settings geared to specific fishing conditions. For more information about fishing modes, refer to the Basic Operation section.



Reset Fishing Mode

Resets selected fishing mode to default settings. That is useful when you want to clear settings adjustments made while using a fishing mode.

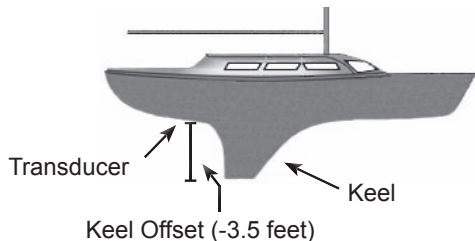
Installation



Installation menu

Keel Offset

All transducers measure water depth from the transducer to the bottom. As a result, water depth readings do not account for the distance from the transducer to the keel or from the transducer to the water surface. Before setting keel offset, measure



the distance from the transducer to the lowest part of the keel. If, for example, the keel is 3.5 feet below the transducer, it will be input as -3.5 feet.

Water speed calibration

Calibrates a paddlewheel speed sensor with speed data from a GPS source.

Temperature calibration

Calibrates data from the transducer temperature sensor with data from a known temperature source to ensure the accuracy of temperature information.

Reset water distance

Reset Water Distance to zero.

Transducer Type

Selects the type of transducer model attached to your unit.

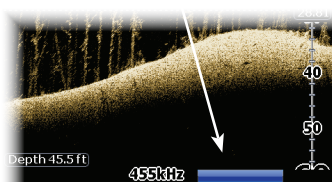
DownScan Operation

Features described in this section are for DownScan sonar. Refer to the Sonar operation section for information on conventional and CHIRP sonar.

Trackback

You can review your sonar history by pressing the keypad to the left until the screen starts to move in reverse and the sonar history bar appears at the bottom of the screen.

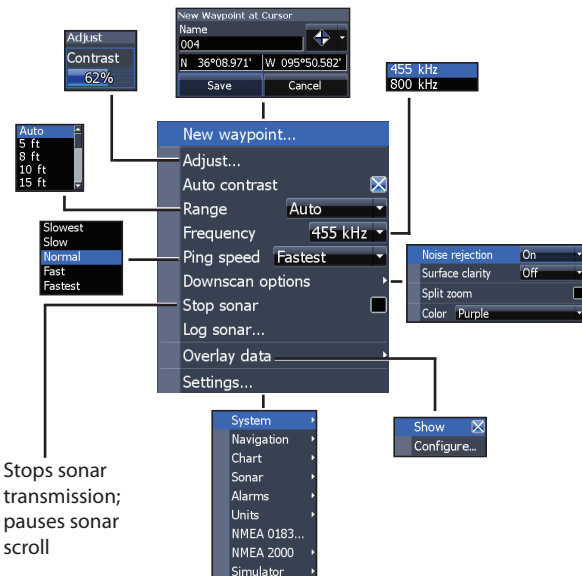
DownScan history bar



Move the sonar history bar all the way to the right to resume normal sonar scrolling, or press **MENU** and select *Exit cursor mode*.

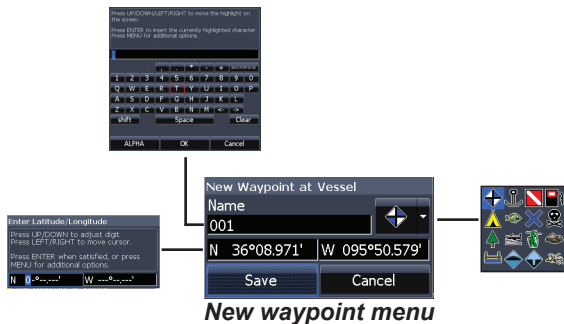
DownScan menu

Press **MENU** from the DownScan page to view the DownScan menu.



New Waypoint

Places a waypoint at your current position or at the cursor position. From the new waypoint menu, you can input a waypoint name, select an icon and input a desired latitude/longitude.



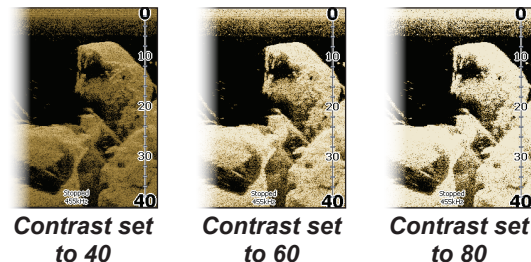
Adjust

Accesses the Contrast adjustment scrollbar, allowing you to adjust contrast settings.



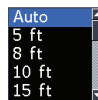
Contrast

Adjusts the brightness ratio between light and dark areas on the screen, making it easier to distinguish suspended objects from the background.



Range

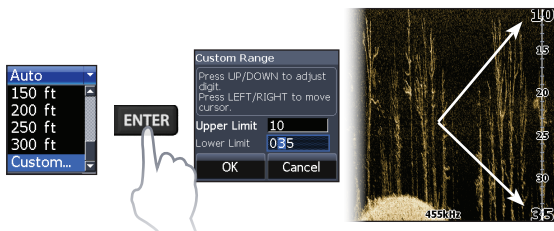
Range settings display the section of the water column from the water surface to the selected depth range.



NOTE: Auto range is the preferred setting for most fishing conditions.

Custom Range — Upper and Lower Limits

Used to select the upper limit and lower limit of a section of the water column. That allows you to view a section of the water column that does not include the water surface.



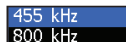
Upper and lower limits must be at least 6.5 ft (2m) apart.



NOTE: When using a custom range, you may not receive any digital depth readings, or you may receive incorrect depth information.

Frequency

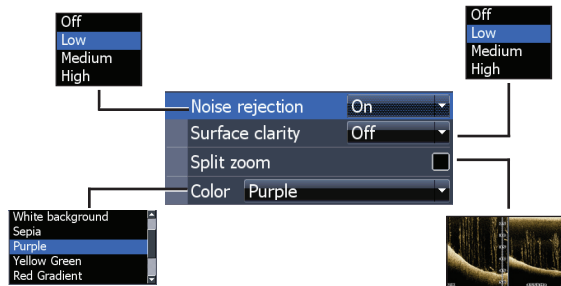
Controls the transducer frequency used by the unit. 800 kHz offers the best resolution, while 455 kHz has greater depth penetration.



Ping Speed

Controls the rate the transducer uses to send sonar waves into the water. Ping speed adjustments can help reduce interference from other transducers.

Downscan options

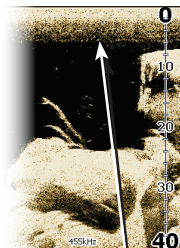


Noise Rejection

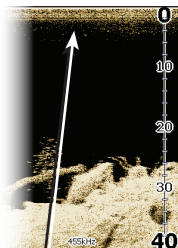
Uses advanced signal processing to monitor the effects noise (boat pumps, water conditions, engine ignition systems, etc.) has on your display, and then filters out undesired signals.

Surface Clarity

Surface Clarity reduces surface clutter by decreasing the sensitivity of the receiver near the surface.



**Surface Clarity
set to Low.**



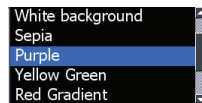
**Surface Clarity
set to High.**

Split Zoom

Changes the display to a split zoom view.

Color

Allows you to select a color palette best suited to your fishing conditions.



The white background palette works well for suspended targets. Purple is useful for viewing structure detail and determining bottom hardness. Sepia is best for looking at bottom detail.

Stop Sonar

Prevents the transducer from transmitting to reduce/eliminate interference between two sonar units running on the boat at the same time.

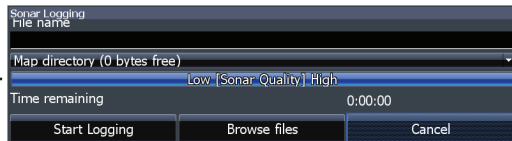


NOTE: *Sonar history (Trackback) will not be recorded when sonar is stopped.*

Logging Sonar

You can record sonar data and save the file on a microSD card inserted into the unit's card reader.

Controls the quality of sonar logs. Higher quality logs will use more memory.

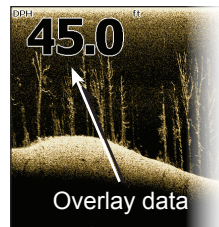


View previously
saved sonar logs

Overlay Data

Allows you to select data to be displayed on top of the DownScan page.

Overlay data setup is covered in the Pages section.



Settings

Accesses the Settings menu. Refer to "Sonar Settings" on page 23.

Chart Operation

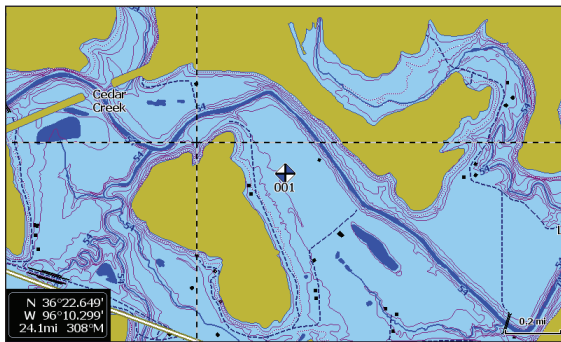
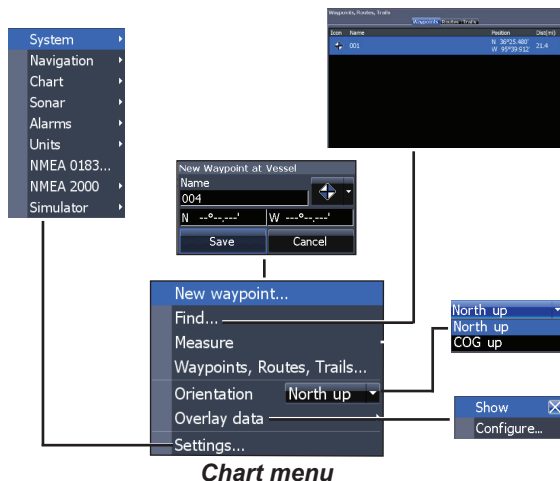


Chart Menu

Press **MENU** from any Chart pages to open the Chart menu.



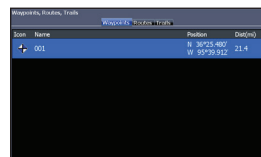
New Waypoint

Creates a waypoint at your current location or at the cursor position. When the cursor is on the screen, waypoints will be saved at the cursor position; conversely, if the cursor is not displayed onscreen, waypoints will be saved at your current position.

Waypoints, Routes, Trails

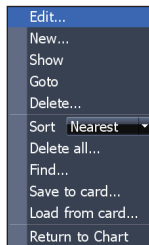
Used to create, edit, navigate and delete waypoints, routes and trails.

Press the keypad left/right to toggle between waypoint, routes and trails tabs.

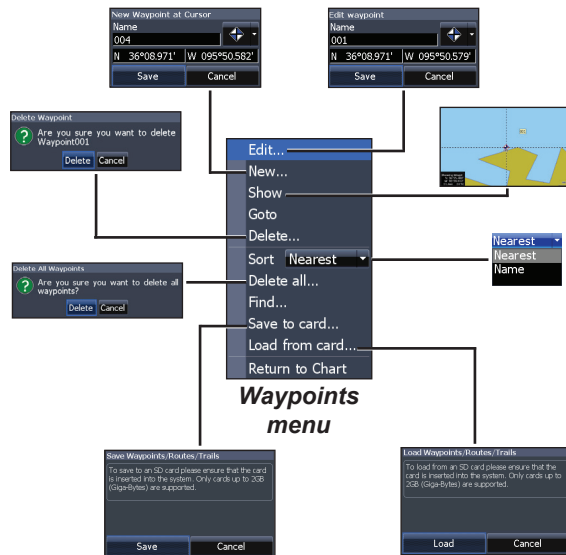


Waypoints Screen

MENU

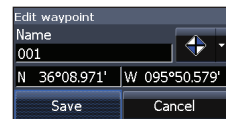


Waypoints menu



Edit

Allows you to edit the name, icon and latitude/longitude of a selected waypoint.



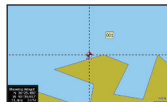
New

Creates a new waypoint at the cursor or vessel position. You can also select waypoint name, icon and latitude/longitude from the new waypoint menu.



Show

Displays the selected waypoint on the map.

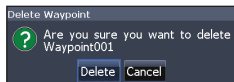


Goto

Allows you to navigate to a waypoint.

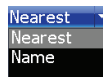
Delete and Delete All

Delete is used to delete a selected waypoint. Delete All deletes all waypoints.



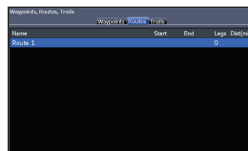
Sort

Controls how the waypoints list will be sorted — by name or by nearest.

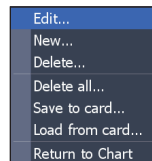


Routes Screen

Used to create, edit, navigate and delete routes. Use the keypad to highlight the Routes tab to access the Routes screen.



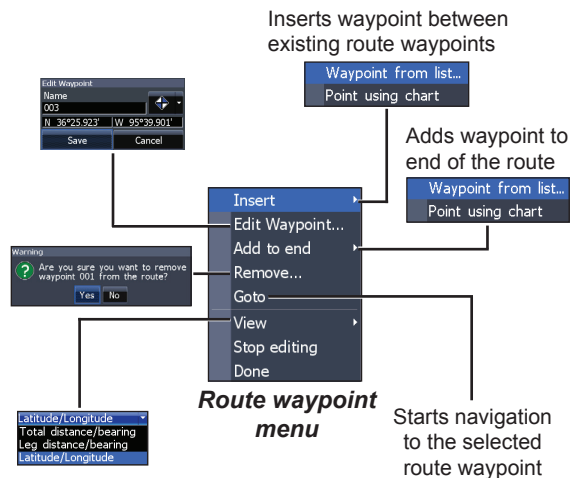
Routes screen



Routes menu

Creating a route

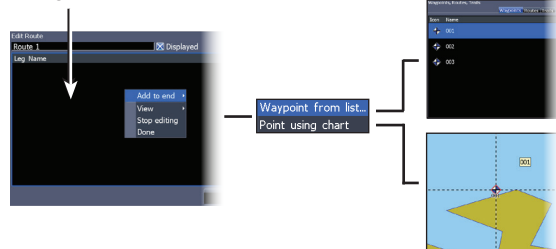
Routes can be created by inserting waypoints from the waypoints list or by using the cursor to position new points on the chart. You also can add waypoints to a route by selecting them from the chart screen.



To create a route from waypoint list:

1. Press **MENU** from the Routes screen.
2. Select *New...* and press **ENTER**.
3. Press the keypad down to select the Leg Name field and press **ENTER**.
4. Press **MENU**, select *Add to End* and press **ENTER**.

Leg Name field



5. Highlight *Waypoint* from list and press **ENTER**.
6. Select the desired waypoint and press **ENTER**.
7. Press **MENU** and select *Add to end* to add another waypoint to the route.
8. When the route is complete, press **MENU**, select *Stop Editing* and press **ENTER**.
9. Select *Save* and press **ENTER**.

Creating a route using points from chart:

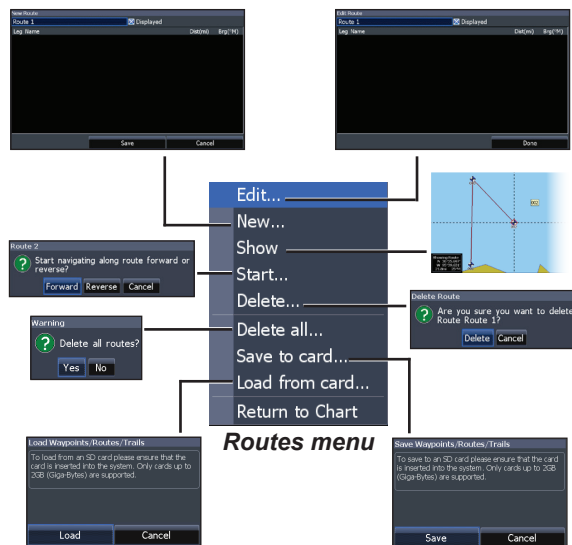
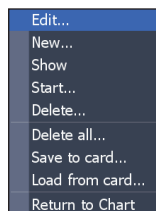
1. Repeat Steps 1-4 from the instructions for Creating a route from waypoint list.
2. Select *Points from chart* and press **ENTER**. The chart page will appear.
3. Move the cursor to the desired location. Press **ENTER** to set a waypoint.
4. Repeat Step 3 to add more route waypoints.
5. Press **MENU** and select *Stop adding*. Press **ENTER**.
6. Highlight the *Save* button and press **ENTER**.

2. Select *Start* and press **ENTER**.
3. Select *Forward* or *Reverse* and press **ENTER**.
4. Press **MENU** and select *Return to Chart*. Press **ENTER**.

Navigating a route

Routes can be navigated in forward or reverse.

1. Select the desired route on the Route screen and press **MENU**.



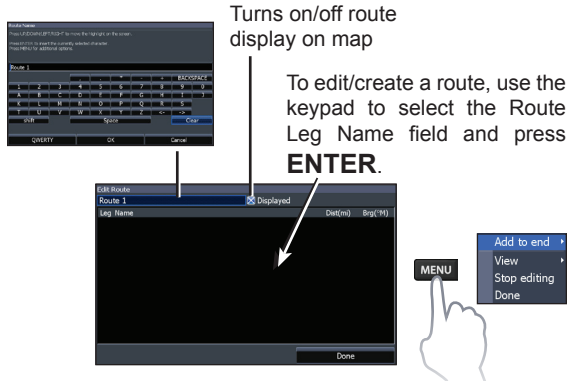
Routes menu

To cancel navigation:

1. Press **Menu** from the chart screen.
2. Select **Navigation** and press **ENTER**.
3. Highlight **Cancel** and press **ENTER**.
4. Select **Yes** and press **ENTER**.

Edit and New Route menus

Used to edit/create routes, route names and to turn on/off the route display.



To access the Edit or New Route menu, select **Edit** or **New** on the Routes menu and press **ENTER**.

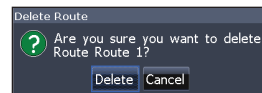
To finalize changes on the Edit or New Route menus, highlight the **Accept** button and press **ENTER**.

Displayed

Used to show/hide a route on the display, which prevents the screen from being cluttered by too many routes

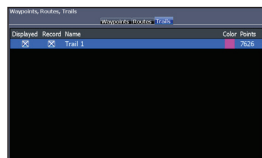
Delete and Delete All

Delete is used to delete individual routes. Delete All, removes all routes.

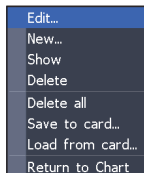


Trails Screen

Used to create, edit, navigate and delete trails. Use the keypad to highlight the Trails tab to access the Trails screen.



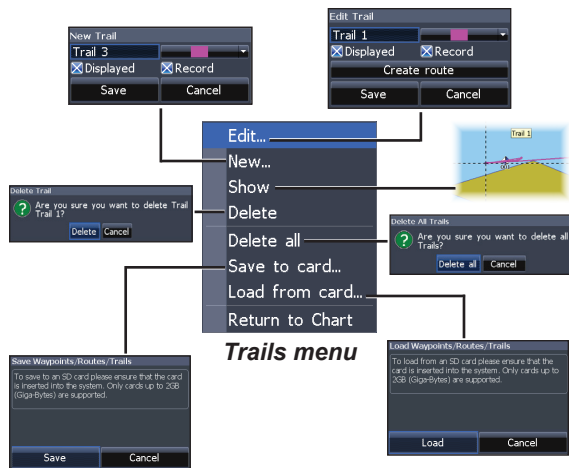
Trails screen



Trails menu

Creating trails

When creating a trail you can customize the trail name and color from the New Trail.

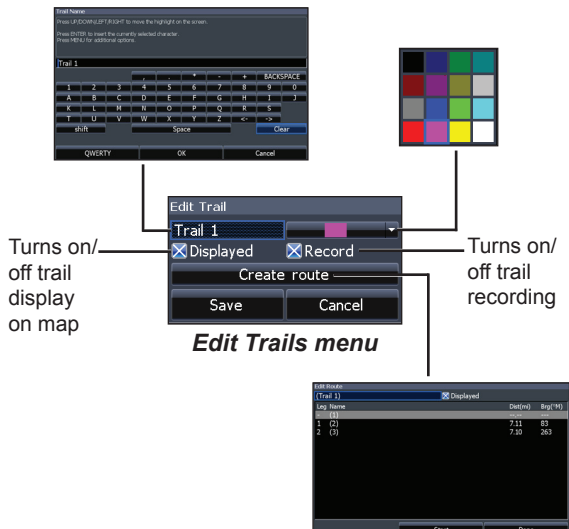


To create a trail:

1. Select **New** and press **ENTER**. The New Trail dialog will appear.
2. Select **Save** and press **ENTER**.

Edit and New Trail menus

Allows you to edit/create trails, select trails names, trail color, trail display and the trail being recorded. You can also convert a trail into a route from the Edit Trail menu.



Navigating a trail

A trail must be saved as a route before it can be navigated.

To save a trail as a route:

1. Highlight the desired trail on the Trails screen and press **ENTER**. The Edit Trail menu will appear.
2. Highlight *Create Route* and press **ENTER**. The Edit Route menu will appear.
3. Highlight *Done* and press **ENTER**.
4. For navigation instructions refer to the Navigating a route segment.

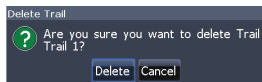
Displayed and Record

Displayed allows you to show/hide trails on the map display, preventing the screen from being cluttered with trails.

The Record command allows you to record, stop recording or resume recording a desired trail.

Delete and Delete All

Delete is used to remove individual trails. Delete All removes all trails.

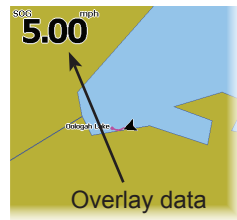


Orientation

Allows you to select North Up or Course Over Ground (COG) as the map orientation.

Overlay Data

Allows you to select data (course over ground, etc) to be displayed on top of the Chart page.



Overlay data setup is covered in the Pages section.

Settings

Accesses the Chart settings menu.

Chart Settings

Controls map data used on the chart screen as well as display settings like grid lines, waypoints, routes and trails.

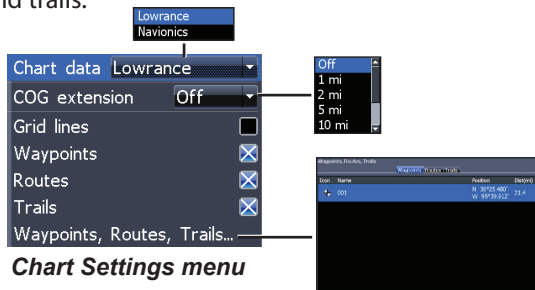


Chart Data

Selects map data that will be used on the Chart display (Lowrance or Navionics regional map). Go to Navionics.com to see a full selection of available charts.

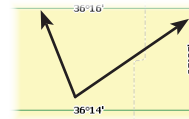
COG Extension

A line extending from the front of the current position icon that estimates the time and distance to areas in front of you.



Grid Lines

Displays base values for latitude and longitude, making it easier to get a general idea of your location on the latitude/longitude scale.



Waypoints, Routes and Trail displays

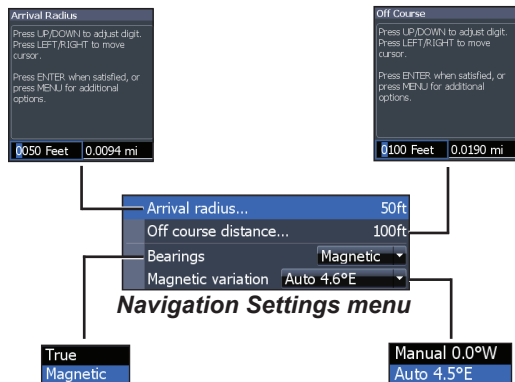
From the Chart Settings menu, you can turn on/off waypoint, route and trail display properties. Turning off display properties allows you to get a better view of the map, if the screen becomes cluttered with waypoints, routes and/or trails.

Waypoints, Routes, Trails

Accesses the Waypoints, Routes & Trails screen. Waypoints, Routes and Trails are covered in the Chart section.

Navigation Settings (Advanced mode only)

Controls Arrival Radius and Off Course distance settings and is used to turn on/off WAAS/MSAS/EGNOS.



Arrival Radius

Sets the arrival radius threshold for the Arrival alarm. The arrival alarm will sound when your vessel comes within a selected distance (arrival radius) of the destination waypoint.

Off Course Distance

Sets Off Course Distance threshold for the Off Course alarm. When the selected off course distance is exceeded, the Off Course alarm will sound when the alarm is enabled.

Bearings

Controls whether bearing will be calculated using True North or Magnetic North. Magnetic North should be used when navigating with a compass course or heading; otherwise use the default setting, True North.

Magnetic Variation

Controls whether magnetic variation will be calculated using Automatic or Manual settings. Magnetic variation is the angle between magnetic north and true north. The automatic setting reconciles the variation for you.

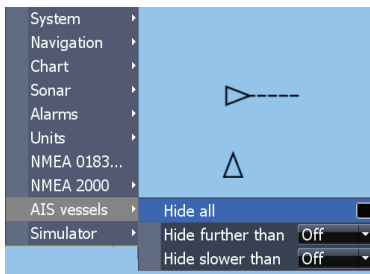


WARNING: *You should only use the Manual magnetic variation setting if you have variation information from a verified source.*

AIS

The marine Automatic Identification System (AIS) is a location and vessel information reporting system. It allows vessels equipped with AIS to automatically receive position, speed, course and vessel identity information from other AIS-equipped vessels.

If an AIS device is connected, all targets detected by the device can be displayed.



AIS Setup

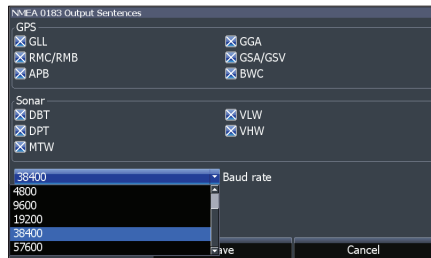
Before using AIS, your unit must be set to the same Baud rate as your AIS device.



NOTE: Your unit must be set to Advanced mode to access NMEA 0183 settings.




To select a Baud rate:

1. Access the settings menu.
2. Select **NMEA 0183**.
3. Access the Baud rate dropdown menu on the NMEA 0183 settings dialog.
4. Select the same Baud rate used by your AIS device.
5. Select **Save**.



Target symbols

The unit uses the AIS target symbols shown below:

Symbol	Description	
	Stationary AIS target	
	Moving AIS target with (COG) course extension line The extension line always represents the target's course over ground and is set to 10 minutes by default.	
	Lost AIS target	When no signals have been received within a time limit, a target will be defined as lost. The target symbol represents the last valid position of the target before the reception of data was lost.



NOTE: *If you receive heading data from an AIS vessel, the orientation of the vessel icon represents its heading. If heading data is not received, the orientation of the vessel icon represents its course over ground (COG).*

Filtering the targets

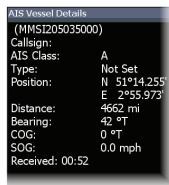
All targets, by default, are shown on the display if an AIS device is connected to your unit.

You can hide all targets, or filter the target icons based on distance and vessel speed.

Viewing AIS target information

When you place the cursor on an AIS icon, the MMSI number or vessel name (if available) will be displayed.

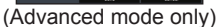
You can view detailed information about a target by selecting the target and pressing **ENTER**. The AIS Vessel detail dialog will appear.



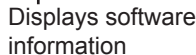
Settings menu

The screenshot shows the 'Chart data' menu with the following options:

- Lowrance (selected)
- COG extension Off
- Grid lines
- Waypoints
- Routes
- Trails
- Waypoints, Routes, Trails...



Adjusts unit settings like language, mute audio and advanced mode.



Set Language

Selects the language used on menus and dialogs.

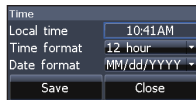


Audio

Adjusts volume and turns on/off unit audio, like key beeps, alarm sounds, etc.

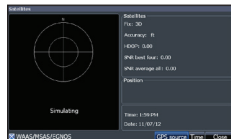
Time

Used to set local time, and time and date formats for your unit.



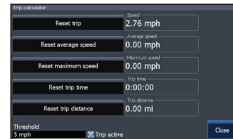
GPS

Monitors the location of satellites in view and the quality of the unit's satellite lock-on.



Trip Calculator

Tracks trip time, speed and distance when you are moving faster than the selected threshold.

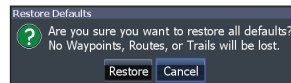


Advanced Mode

Enables features and settings only available with unit in Advanced Mode.

Restore Defaults

Switches the unit back to default settings.



Browse Files

Allows you to view a list of the files saved to the microSD card.

Saving Screenshots

You can save screenshots to a microSD card by inserting a microSD card into the card slot and pressing Power and then Zoom (+).

You must view files on a computer or other microSD compatible device.



NOTE: You cannot save screenshots to internal memory, Navionics cards, or other mapping cards.

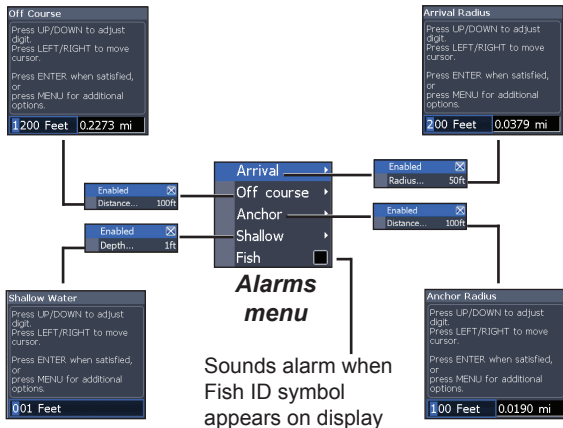
About

Displays software information about this unit. Before attempting a software update, you can check the version of software your unit is using by accessing the About screen.

Lowrance periodically updates unit software to add features and improve functionality. To see the latest available software version go to www.lowrance.com.

Alarms

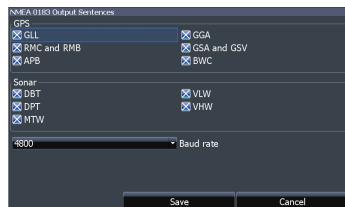
Enables alarms and selects alarm thresholds. Arrival, Off Course and Anchor alarms are only available in Advanced mode.



Alarms	
Arrival	sounds alarm when you are within a selected distance of your destination (Advanced Mode only)
Off Course	sounds alarm when course exceeds a selected off-course threshold (Advanced Mode only)
Anchor	sounds alarm when vessel moves a selected distance (Advanced Mode only)
Shallow	sounds alarm when vessel enters water shallower than the selected shallow threshold
Fish	sounds alarm when a fish symbol (Fish ID) appears on the sonar screen

NMEA 0183 Output

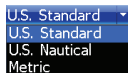
You can select the NMEA 0183 sentences the unit will use when connected to a VHF radio or other NMEA 0183 device.



You can also adjust the Baud rate, but the default setting works best under most conditions.

Units

Allows you to select the unit of measure used by the unit. Unit options vary depending on whether the unit is in basic or advanced mode.



Basic Mode

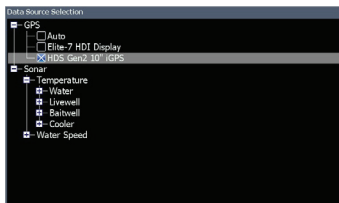


Advanced Mode

NMEA 2000 (Elite-7 and Elite-9 only)

With the unit connected to a NMEA 2000 network, you can select a GPS antenna on the network as your GPS source, and share newly created waypoints with other display units on the network.

You will not be able to share existing waypoints. Only waypoints created while the unit is connected to a NMEA 2000 network can be shared, and only with units on the network that are powered on.



Selecting a GPS source

Data sources

Allows you to select the source this unit will use for GPS data.

Device list

Used to view data for devices connected to your NMEA 2000 network.

Simulator

Simulates GPS and/or sonar activity. Simulations can be customized on the Simulator options menu.

Mark 4, Elite -4 & Elite-5	
General	
Case Size	6.6" H (168 mm) x 3.8" W (96 mm); 7.5" H (189 mm) with bracket
Display	Mark 4: (4.3" diagonal) (4.3" diagonal) Monochrome TFT LCD Elite-4: (4.3" diagonal) (4.3" diagonal) 16-bit color TFT LCD
Waterproof standard	IPX7
Backlight	LED (11 levels)
Communications	NMEA 0183 Input/Output
Declaration of Conformity	Part 15.103 FCC rules & CE RTTE directive 1999/5/EC
Power	
Transmit Power	250W RMS
Power Requirement	12V
Voltage Input	10 to 17V
Current drain	Typical: 1.1A
Fuse type	3-amp Automotive

Sonar	
Max depth	300ft (91 m) 455/800Khz 1000ft (305 m) 83/200kHz 2500ft (762 m) 50/200kHz
Transducer Frequency	455/800 kHz, 83/200 kHz, Medium/High CHIRP
Max speed	70mph
Transducer	HDI 50/200kHz (Low/High CHIRP) HDI 83/200kHz (Medium/High CHIRP) 83/200kHz (Medium/High CHIRP)
Transducer cable	20ft (6m)
GPS	
Mapping card slot	microSD and microSDHC
GPS Antenna	16 parallel channel (internal); optional external GPS antenna sold separately
Mapping compatibility	Lake Insight® and Nautic Insight® PRO/HD, Navionics® +, C-MAP MAX-N, Fishing Hot Spots® PRO, & Insight Genesis. For the latest mapping compatibility information visit www.lowrance.com
Waypoints, Routes & Trails	Up to 3000 waypoints, 100 routes/100 waypoints per route, 100 retraceable plot trails/up to 10,000 points per trail

Elite -5	
General	
Case Size	5.4" H (136 mm) x 6.9" W (174 mm); 5.9" H (151 mm) with bracket
Display	(5" diagonal) 16-bit color Full color VGA Solar MAX™ Plus TFT
Waterproof standard	IPX7
Backlight	LED (11 levels)
Communications	NMEA 0183 Input/Output
Declaration of Conformity	Part 15.103 FCC rules & CE RTTE directive 1999/5/EC
Power	
Transmit Power	250W RMS
Power Requirement	12V
Voltage Input	10 to 17V
Current drain	Typical: 1.1A
Fuse type	3-amp Automotive

Sonar	
Max depth	300ft (91 m) 455/800Khz 1000ft (305 m) 83/200kHz 2500ft (762 m) 50/200kHz
Transducer Frequency	455/800 kHz, 83/200 kHz Medium/High CHIRP
Max speed	70mph
Transducer	HDI 50/200kHz (Low/High CHIRP) HDI 83/200kHz (Medium/High CHIRP) 83/200kHz (Medium/High CHIRP)
Transducer cable	20ft (6m)
GPS	
Mapping card slot	microSD and microSDHC
GPS Antenna	16 parallel channel (internal); optional external GPS antenna sold separately
Mapping compatibility	Lake Insight® and Nautic Insight® PRO/HD, Navionics® +, C-MAP MAX-N, Fishing Hot Spots® PRO, & Insight Genesis. For the latest mapping compatibility information visit www. lowrance.com
Waypoints, Routes & Trails	Up to 3000 waypoints, 100 routes/100 waypoints per route, 100 retraceable plot trails/up to 10,000 points per trail

Elite-7	
General	
Case Size	5.3" H (234mm) x 9.2" W (136mm); 5.9" H (151mm) with bracket
Display	(7" diagonal) 16-bit color Full VGA Solar MAX™ 800x480 color TFT
Waterproof standard	IPX7
Backlight	LED (11 levels)
Communications	NMEA 2000, NMEA 0183 Input/Output
Declaration of Conformity	Part 15.103 FCC rules & CE RTTE directive 1999/5/EC
Power	
Transmit Power	250W RMS
Power Requirement	12V
Voltage Input	10 to 17V
Current drain	Typical: 1.1A
Fuse type	3-amp Automotive

Sonar	
Max depth	300ft (91 m) 455/800Khz 1000ft (305 m) 83/200kHz 2500ft (762 m) 50/200kHz
Transducer Frequency	455/800 kHz, 83/200 kHz, Medium/High CHIRP
Max speed	70mph
Transducer	HDI 50/200kHz (Low/High CHIRP) HDI 83/200kHz (Medium/High CHIRP) 83/200kHz (Medium/High CHIRP)
Transducer cable	20ft (6m)
GPS	
Mapping card slot	microSD and microSDHC
GPS Antenna	16 parallel channel (internal); optional external GPS antenna sold separately
Mapping compatibility	Lake Insight® and Nautic Insight® PRO/HD, Navionics® +, C-MAP MAX-N, Fishing Hot Spots® PRO, & Insight Genesis. For the latest mapping compatibility information visit www.lowrance.com
Waypoints, Routes & Trails	Up to 3000 waypoints, 100 routes/100 waypoints per route, 100 retraceable plot trails/up to 10,000 points per trail

Elite-9	
General	
Case Size	6.16" H (157 mm) x 11.06" W (281 mm); 6.2" H (156.5 mm) with bracket
Display	(9" diagonal) 16-bit color Full color VGA Solar MAX™ Plus TFT
Waterproof standard	IPX7
Backlight	LED (11 levels)
Communications	NMEA 2000, NMEA 0183 Input/Output
Declaration of Conformity	Part 15.103 FCC rules & CE RTTE directive 1999/5/EC
Power	
Transmit Power	500W RMS
Power Requirement	12V
Voltage Input	10 to 17V
Current drain	Typical: 1.1A
Fuse type	3-amp Automotive

Sonar	
Max depth	300ft (91 m) 455/800Khz 1000ft (305 m) 83/200kHz 3000ft (914 m) 50/200kHz
Transducer Frequency	455/800 kHz, 83/200 kHz Medium/High CHIRP
Max speed	70mph
Transducer	HDI 50/200kHz (Low/High CHIRP) HDI 83/200kHz (Medium/High CHIRP) 83/200kHz (Medium/High CHIRP)
Transducer cable	20ft (6m)
GPS	
Mapping card slot	microSD and microSDHC
GPS Antenna	16 parallel channel (internal); optional external GPS antenna sold separately
Mapping compatibility	Lake Insight® and Nautic Insight® PRO/HD, Navionics® +, C-MAP MAX-N, Fishing Hot Spots® PRO, & Insight Genesis. For the latest mapping compatibility information visit www. lowrance.com
Waypoints, Routes & Trails	Up to 3000 waypoints, 100 routes/100 waypoints per route, 100 retraceable plot trails/up to 10,000 points per trail

Index

A

- About 48
- Adjust menu 18
- Advanced Mode 10
- AIS 43
 - Filtering targets 44
 - Target symbols 44
 - Vessel detail dialog 45
- Alarms 48
- Amplitude Scope 22
- Anchor alarm 49
- Arrival alarm 49
- Arrival Radius 42
- Auto Sensitivity 18

B

- Bearings 42
- Browse Files 47

C

- Cancel navigation 36
- Chart 40
- Chart Data 40
- Chart menu 40
- Chart Page 12
- CHIRP 16
- COG Extension 40
- Color 21, 29
- Colorline 18
- Contrast 27
- Creating a route 33
- Creating trails 37
- Cursor 9
- Custom Range 19, 28

D

- Data Port 47
- Depth Range 27

- Dialogs 7
- Dropdown menus 7
- DSI menu 26

E

- Editing waypoints 32

F

- Fish alarm 49
- Fish ID 22
- Fishing Mode 8
- Fishing Modes
 - Reset 24
- Frequency 19, 28

G

- Goto cursor 9
- Goto waypoint 33
- GPS Source 47

- GPS Status 47
- Grid Lines 40

H

- High CHIRP 20

I

- Ice Mode 22
- Installation menu 25

K

- Keel Offset 25

L

- Language 47
- Low CHIRP 20

M

Magnetic Variation 42
Man
Overboard
waypoint 3
Manual Mode 24
Medium CHIRP 20
microSD cards 4
Mute Audio 47

N

Navigating a route 35
Navigating a trail 38
Navigation 41
Navigation menu 41
New Waypoint 31
NMEA 0183 49, 50
NMEA 2000 50
 Data sources 50
Noise Rejection 21, 29

O

Off Course alarm 49
Off Course Distance 42
On/Off features 7
Orientation 39
Overlay Data 14, 30, 39
 Configure 14
 Customizing 15
 Show 14

P

Page menus 5
Page selection 5
Ping Speed 20

R

Range 27
Reset Fishing Mode 24
Reset water distance 25
Route display 41
Routes Screen 33

S

Saving Screenshots 48
Scrollbars 7
Sensitivity 18
Setup wizard 5
Shallow alarm 49
Software Updates 48
Sonar Installation 25
Sonar Menu 16
Sonar Options menu 21
Sonar Page 11
Sonar settings 23
Sort waypoints 33
Split Flasher 21
Split Zoom 21
Standby mode 10
Steer Page 11
Stop Sonar 22, 30
Surface Clarity 21
System settings 46

T

Temp calibration 25
Text entry 8
Time 47
Trackback 26
Trail display 41
Trails Screen 37
Turn unit on/off 3

U

Unit Controls 3
Units 49
Upper and Lower Limits 19, 28

W

Waypoint display 41
Waypoints, Routes, Trails 32
Working with menus 7

Navico Databases License Agreement

THIS IS A LEGAL AGREEMENT BETWEEN THE END-USER WHO FIRST PURCHASES THIS PRODUCT AS A CONSUMER ITEM FOR PERSONAL, FAMILY, OR HOUSEHOLD USE (“YOU”) AND NAVICO, THE MANUFACTURER OF THIS PRODUCT (“WE”, “OUR”, OR “US”).

USING THE PRODUCT ACCOMPANIED BY THIS LICENSE AGREEMENT CONSTITUTES ACCEPTANCE OF THESE TERMS AND CONDITIONS.

IF YOU DO NOT ACCEPT ALL TERMS AND CONDITIONS, PROMPTLY RETURN THE PRODUCT WITHIN 30 DAYS OF PURCHASE. PLEASE RETURN USING THE ENCLOSED UPS SHIPPING LABEL AND INCLUDE: PROOF OF PURCHASE, NAME, ADDRESS, AND PHONE NUMBER. YOUR PURCHASE PRICE AND ANY APPLICABLE TAXES WILL BE REFUNDED. PLEASE ALLOW 4-6 WEEKS TO PROCESS YOUR REFUND.

1. This License Agreement applies to the one or more databases that your product may contain. We refer to these singly as a “Database” and together as the “Databases.” Your product may thus include the “WBS Database” which contains worldwide background surface mapping data, the “Indigo Database” which contains inland mapping data, or other Databases.
2. The Databases that your product may contain are licensed, not sold. We grant to you the nonexclusive, nonassignable right to use these Databases for supplemental navigation reference purposes, but only as long as you comply with the terms and conditions of this License Agreement. We reserve the right to terminate this license if you violate any aspect of this License Agreement. You are responsible for using official government charts and prudent navigation for safe travel.
3. The Databases housed in your product are protected by the copyright notices appearing on the product or its screen(s). You may NOT modify, adapt, translate, reverse engineer, decompile, disassemble, rent, lease, or resell any Database, and you may NOT create derivative works based upon any Database or its contents. Any unauthorized reproduction, use, or transfer of a Database may be a crime and may subject you to damages and attorney fees.
4. This License Agreement will terminate immediately without prior notice from us if you fail to comply with or violate any of the provisions of this Agreement. Upon termination, you will promptly return all products containing one or more Databases to us.
5. Prices and programs are subject to change without notice.
6. This License Agreement shall be governed by the laws of the State of Oklahoma and comprises the complete and exclusive understanding between you and us concerning the above subject matter.

Databases Limited Warranty

“We”, “our”, or “us” refers to Navico, the manufacturer of this product. “You” or “your” refers to the first person who purchases the product as a consumer item for personal, family, or household use. The Databases Limited Warranty applies to the one or more databases that your product may contain. We refer to each of these as a “Database” or together as the “Databases.” Your product may thus include the “WBS Database” which contains worldwide background surface mapping data, the “Indigo Database” which contains inland mapping data, or other Databases.

We warrant to you that we have accurately compiled, processed, and reproduced the portions of the source material on which the Databases are based. However, we are under no obligation to provide updates to the Databases, and the data contained in the Databases may be incomplete when compared to the source material. WE MAKE NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND ABOUT THE ACCURACY OF THE SOURCE MATERIAL ITSELF, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

If there is a defect in any Database, your exclusive remedy shall be, at our option, either a refund of the price you paid for the product containing the defective Database or a replacement of such product. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us; (2) when the product has been connected, installed, combined, altered, adjusted, or handled in a manner other than according to the instructions furnished with the product; (3) when any serial number has been effaced, altered, or removed; or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner’s manual for the product.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Your remedies under this warranty will be available so long as you can show in a reasonable manner that the defect occurred within one (1) year from the date of your original purchase, and we must receive your warranty claim no later than 30 days after such 1-year period expires. Your claim must be substantiated by a dated sales receipt or sales slip.

Contact information

Customer Service:

1-800-628-4487

(8 a.m. to 5 p.m. Central Standard Time, M-F)

(Canada)

1-855-361-1564

canada@navico.com

(8 a.m. to 5 p.m. Eastern Standard Time, M-F)

Ordering Accessories

<http://store.navico.com/>

Visit our website

www.lowrance.com

Visit our website:

www.lowrance.com



CE0980 