

Endura™ GPS

Operation Manual for *Sierra, Safari and Out&Back*



LOWRANCE®

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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, boating or flying conditions at all times. An incident or collision resulting in damage to property, personal injury or death could occur if the operator of a GPS-equipped vehicle fails to pay attention to travel conditions and vehicle operation while the vehicle is in motion.

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Basic Operation

Turning on Endura

Hold down the **POWER** key for three seconds to turn on Endura. The first time Endura is turned on, the select Language screen will appear. Touch the desired language.



Turning off Endura

Hold down the Power key for three seconds and the Standby menu will appear. Continue to hold down the power key to turn off the unit, or touch Standby to switch the unit into Standby mode.

Standby preserves battery life without turning off Endura. That allows you to resume using the unit without going through the power-on sequence.

Backlight

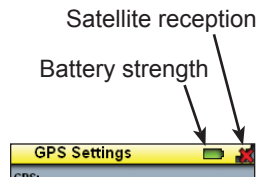
Press the Power key to toggle the backlight on/off.

Adjusting the backlight:

1. Tap the **POWER** key to view the backlight meter.
2. Drag your finger along the meter to make adjustments.

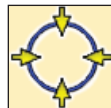
Titlebar

The titlebar is located at the top of the screen. It displays battery strength and satellite reception indicators.



Cursor

Selects objects on the Map page and pans the map when using arrow keys. The cursor will appear when you touch the screen or press the arrow keys.



Back tab

Touching the **Back** tab will take you back to the previous page.



Options/More Options

Touch the **Options** or **More Options** tab to open context and settings menus.



Done tab

Touch the **Done** tab to finalize changes and return to the previous page.



Restore Defaults

Resets all device settings to factory defaults.

To Restore defaults:

1. Touch Settings on the Main menu.
2. Select **Restore Defaults**. A confirmation message will appear.
3. Touch *Yes*.

Touchscreen vs. Arrow/Mark keys

You can use the unit's touchscreen to access menus and execute commands or do the same thing with the arrow keys. When using arrow keys, press the **MARK** key to finalize commands and selections.

Working with Menus

The method for adjusting Endura menus varies from menu to menu. Here are some tips on menu usage.

Accessing Menus	
Main Menu items	Press MENU key and touch desired item
Page Options	From a main page, touch the screen; if tabs appear, touch the Options tab

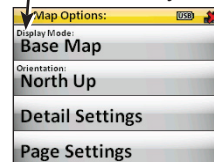
Adjusting Features/Settings	
Toggle	Setting changes each time you touch the menu option
	To adjust: Touch option field until desired setting is shown
Submenu	Submenu(s) appear when feature/setting field is touched
	To adjust: Touch desired option on the submenu(s) then touch <i>Back</i> or <i>Done</i> tab to return to previous page

Page Options

Each Page has a page options menu used to adjust its features and settings.

When a page is selected, touch the screen and/or options tab to access its page options.

Display mode can be toggled between Base Map, Imagery and Hybrid



Map options menu

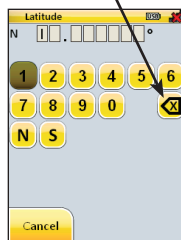
Basic Operation

*Touch to display
numeric keypad*



Alpha keypad

Backspace/delete



Numeric keypad

Entering text/numerical values

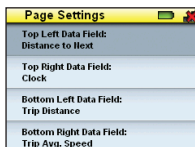
Entering text
& numbers

Touch desired characters.
Touch **Done** tab when entry is
completed.

Page Settings/Data Fields

You can choose the data types that will be displayed on the Map, Trip Computer, Elevation and Compass pages.

To make adjustments, touch the screen or options tab and select Page Settings.



Powering the Endura

Endura uses two AA batteries. It can also be powered with the mini-USB cable (not included with Out&Back).



Installing batteries

1. Turn the battery cover D-ring counter-clockwise, one-quarter turn.
2. Gently pull the D-ring to remove the battery cover.
3. Observe polarity marks when installing batteries.



Installing battery cover

1. Slide the cover at a slight angle to insert tabs into slots at the bottom of battery compartment.
2. Once the battery cover is in place, turn the D-ring clockwise one-quarter turn.

Mini-USB Cable and microSD card

A mini USB cable is used to transfer data between Endura and a computer. The Micro SD slot is located next to the mini-USB port, under the rubber weathercap, on the bottom of the unit.

When installing a microSD card make sure the card's label is facing the same direction as Endura's display screen.



mini-USB microSD

GPX user files (trails, routes and waypoints) are loaded onto Endura's internal memory using the mini-USB cable. Accessory map files are stored on microSD cards (sold separately).

Audio (MP3 or WMA), video (MPEG, AVI or WMV) and picture (JPEG or BMP) files can be stored internally or on microSD cards. (Audio and video files can not be used on Out&Back).

Loading files onto Endura

When Endura is connected to your computer the device will switch to PC mode and will show a PC connect screen. Endura will appear on your computer as "Endura" when using the mini-USB cable. When a micro SD card is used, it will be shown on your PC as "Endura SD Card."

Copy/paste or drag and drop the desired picture, audio or video file onto the Endura directory on your computer.

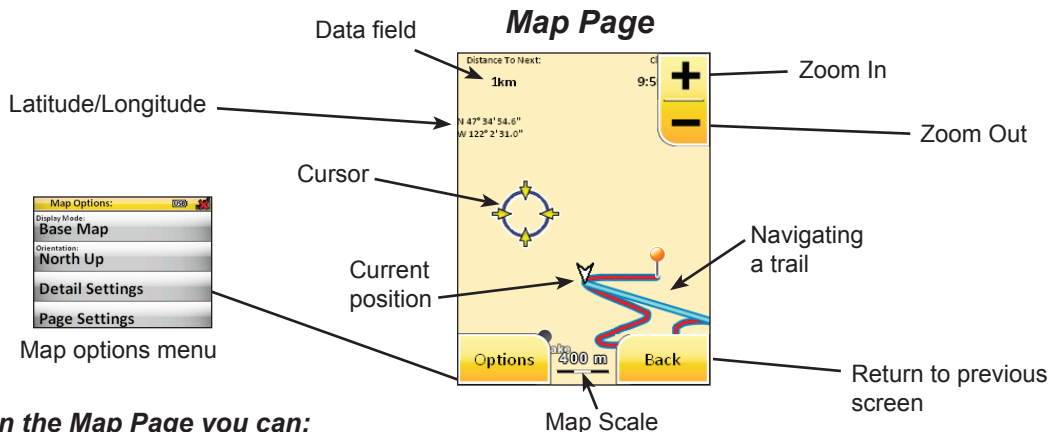
Headphone jack

Sierra and Safari have a 3.5mm headphone jack on the side of the unit, allowing you to listen to audio.





The Safari and Sierra display Map, Satellite, Trip Computer, Elevation, Navigation and Compass pages. Elevation and Compass pages are displayed optionally on the Out&Back. See Settings in the Main Menu section for information on adding/removing pages.



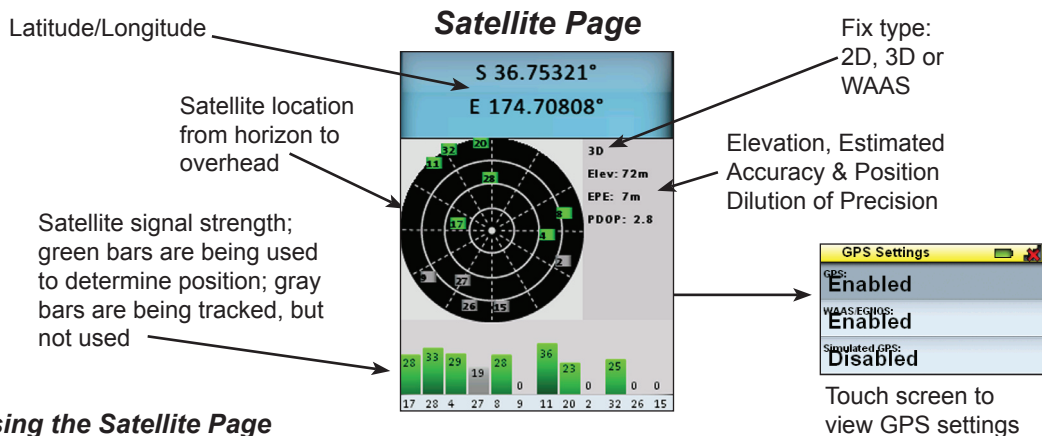
On the Map Page you can:

- Drag your finger across the screen to move the map.
- Select items by touching them on-screen. Touching the screen will display the cursor, Zoom, Options and Back tabs.
- Use arrow keys to fine tune cursor position over selected items. Touch the screen or press the Mark key to view on-screen info.
- Drop a waypoint at the cursor location with a quick press of the **MARK** key.

Map Options menu

Map display mode, orientation, detail and page display settings are adjusted from the Map Options menu. Touch the *Options* tab on the Map page to access the Map Options menu.

Display Mode	
Basemap	displays points, roads, water features, etc.
Imagery	displays satellite images, hillshade, etc.
Hybrid	displays both basemap and satellite imagery
Orientation	
North Up	keeps North at the top of the screen
Course Up	aligns map with your route or initial Go To course
Track Up	map rotates as your heading changes
Detail Settings	
Detail Level	toggles level of map detail between Low, Medium and High
Roads, Contour Lines, Trails, Waypoints, Points of Interest, Cursor Information	touching these map details toggles them on/off; they will only be visible on the map when turned on
Page Settings	
Top Left, Top Right, Bottom Left & Bottom Right Data Fields	selects data types to be displayed in four data fields in the corners of the Map page (See page 4 example)



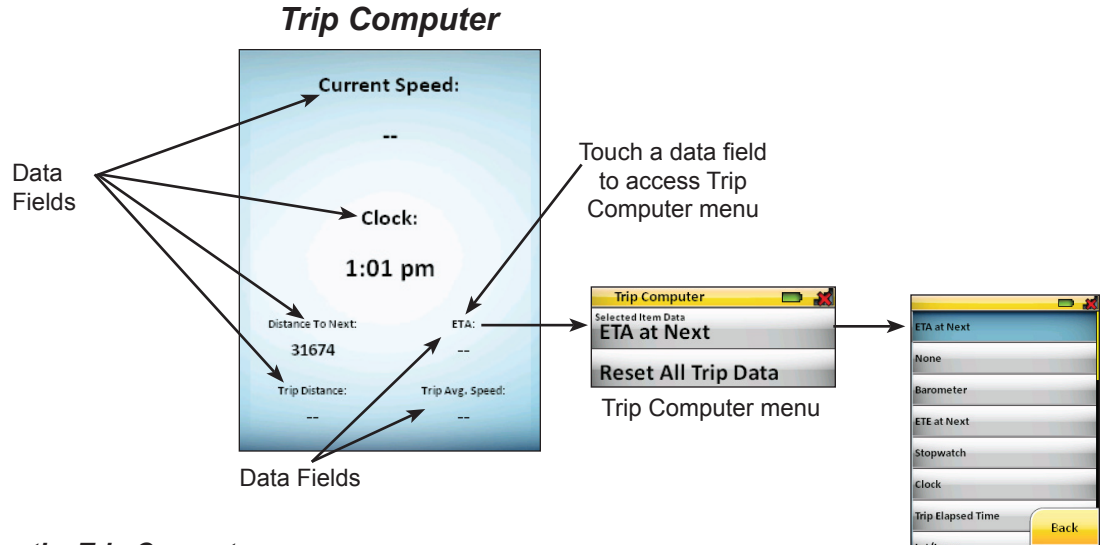
Using the Satellite Page

Access the GPS Settings menu, check satellite signal strength and position accuracy.

GPS Settings Menu	
GPS	Touch GPS, WAAS/EGNOS or Simulated GPS to Enable/Disable the feature
WAAS/EGNOS	
Simulated GPS	



WARNING: Simulated GPS simulates operation and allows you to travel a selected route. Do not attempt actual navigation while in Simulated GPS mode.

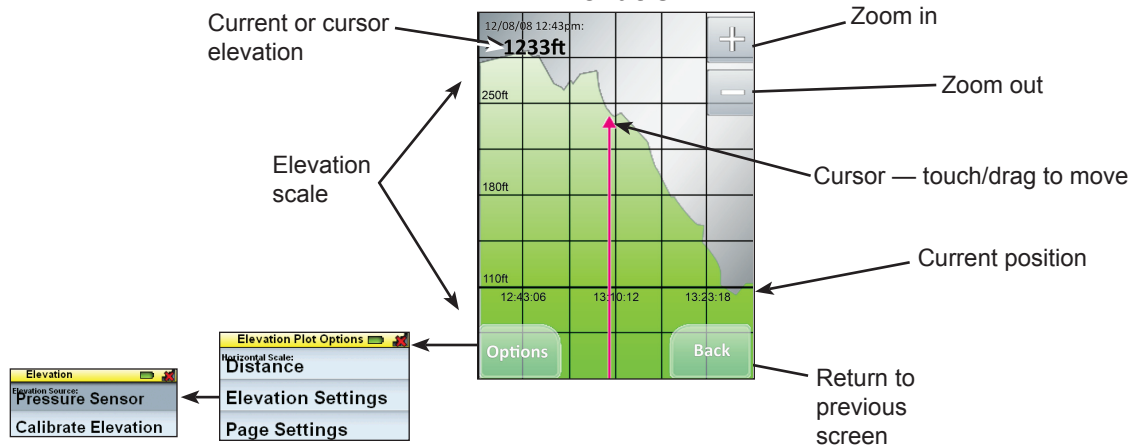


Using the Trip Computer page

Use the Trip Computer menu to display desired trip information and then monitor it all in one place.

Trip Computer Menu	
Select Item Data	Touch this option to select a data type for the selected data field
Reset All Trip Data	Touch this option to reset trip data values to zero

Elevation

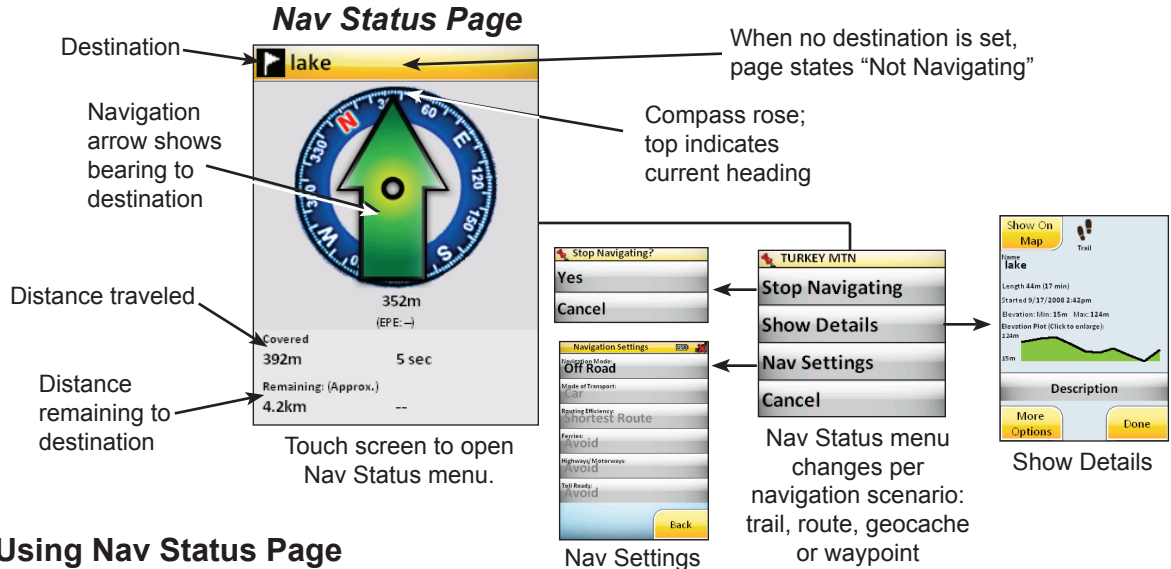


Using the Elevation Page

View elevation history based on time or distance.

From Elevation Page you can:

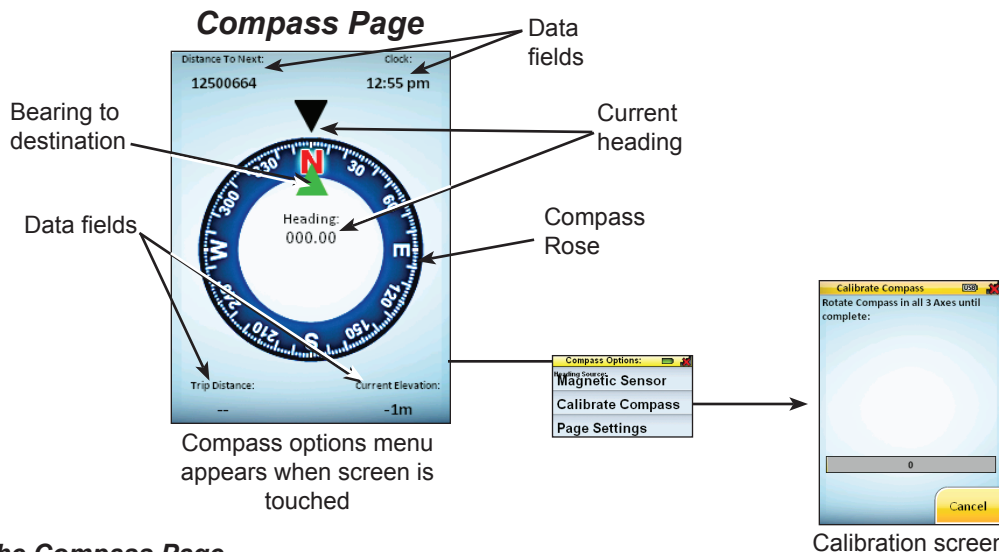
- Set Barometric pressure sensor (Sierra and Safari only) or GPS as elevation source
- Calibrate elevation using GPS data or by manually entering benchmark data
- Select Page Settings display data



Using Nav Status Page

Let the green arrow guide you to your destination or the next point in your trail or route.

Nav Status Page Menu	
Show Details	Displays details for the navigation target — trail, route or waypoint
Nav Settings	Controls the methods/modes used while navigating to a destination



Using the Compass Page

Align the green arrow with the dark arrow to navigate to your destination or the next point in a trail or route.

Compass Page Options Menu	
Heading Source	Select Magnetic Sensor (Sierra and Safari only) or GPS as source
Calibrate Compass	Repeatedly rotate Endura in a Figure 8 pattern until calibration is complete
Page Settings	Select data to be shown in data fields in four corners of Compass Page

*Main menu*

Map

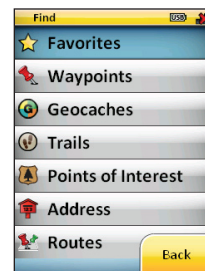
Press the **MENU** key to access the Main menu, touch *Map* to view the Map page.

Find

Used to search for items like waypoints, geocaches, points of interest, routes and trails and provides access to Goto/Navigation commands.

Favorites

A list of your commonly used waypoints, geocaches, trails, points of interest, addresses and routes.

*Find menu*

Adding items to Favorites

1. Select the desired item (waypoint, route, etc.) from the Find menu.
2. Touch the ***More Options*** tab and touch ***Add to Favorites***. (You may have to navigate through an internal menu before the More Options tab will be visible.)

Waypoints



Used to create, delete, edit/customize, categorize and navigate to waypoints. To save a waypoint, hold down the Mark key for three seconds or select New Waypoint from the waypoint list.

To access waypoint functions:

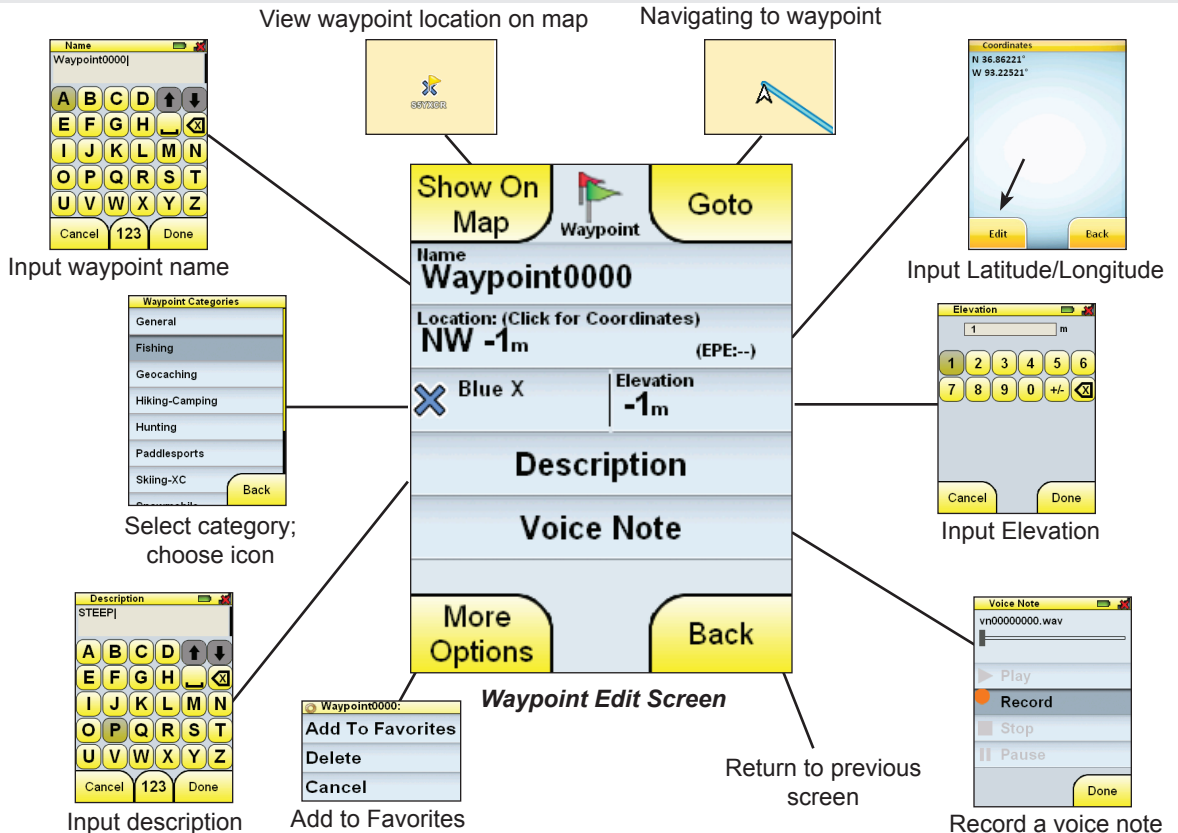
1. Touch ***Waypoints*** on the Find menu
2. Touch the desired waypoint. The Waypoint Edit screen will appear.

From Waypoint Edit screen you can:

- Show waypoint on map or navigate to (Goto) waypoint
- Touch More Options tab to access Add to Favorites or Delete waypoint
- Input Name and Description and select Icon
- Manually enter Latitude/Longitude and Elevation
- Record a Voice Note

Show On Map	 Waypoint	Goto
Name Waypoint0000		
Location: (Click for Coordinates) NW -1m (EPE:--)		
 Blue X	Elevation -1m	
Description		
Voice Note		
More Options		Back

Waypoint Edit Screen



Main Menu: Find

Geocaches

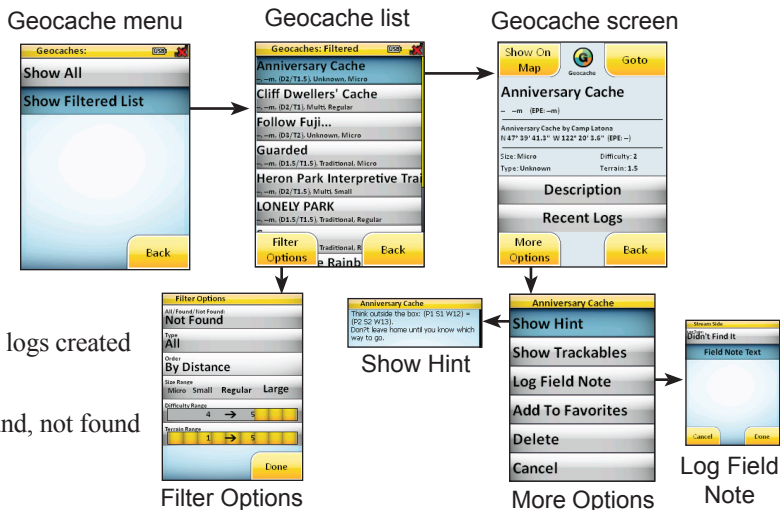
Used to view, customize and navigate to geocaches. Geocaches can be uploaded onto Endura from geocaching web sites.

To upload Geocaches:

1. Plug the mini USB cable into the Endura and your computer. It will be shown as a mass storage device on your computer.
2. Copy and paste the geocaching GPX file from its location to the GPX folder on Endura.

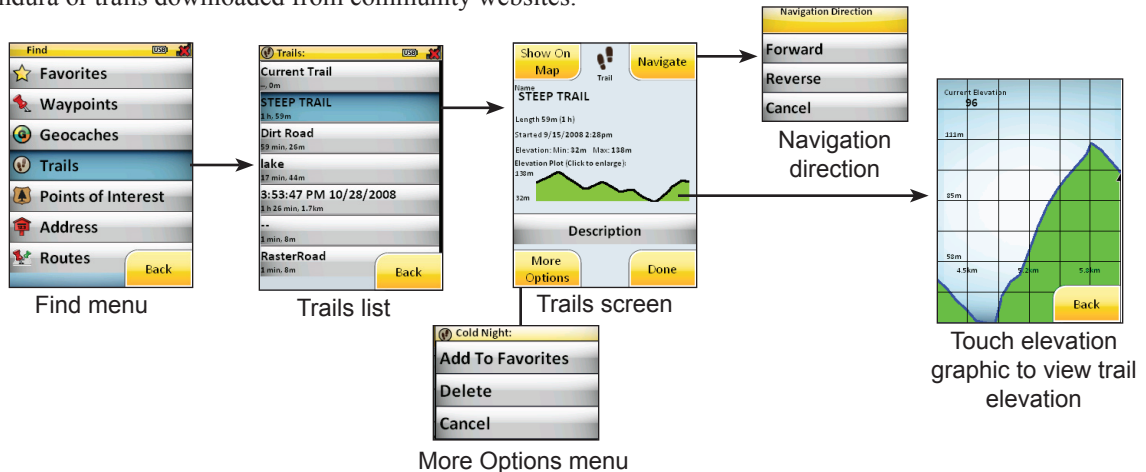
Geocaching functions:

- Filter geocache list by All/ Found/Not Found, Type, Size, Difficulty & Terrain
- View selected geocache on map
- View hints
- View description and recent logs created by other geocachers
- Input field notes such as found, not found or needs maintenance



Trails

Used to create, delete or navigate (forward or reverse) trails. GPX trails can be previously save trails from Endura or trails downloaded from community websites.



Trail Options include:

- Show trails on Map
- Navigate forward or reverse (backtrack)
- View enlarged trail elevation graphic
- View/edit trail description
- View date, trail length and min/max elevation

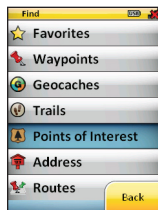
Main Menu: Find

Points of interest

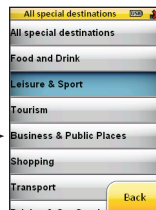
Gives you access to a places database for restaurants, lodging, tourist sites, etc.

Address

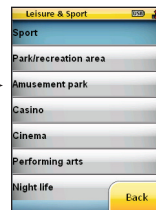
Used to search for addresses and street intersections.



Find menu



POI Categories



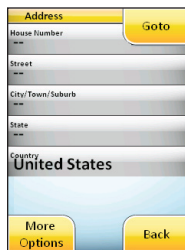
Subcategories for Food and Drink



NOTE: Address function is available on Sierra and optionally on Safari with accessory mapping cards.

From Address screen you can:

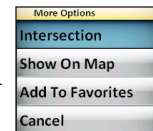
- Navigate to address or intersection (will only support turn-by-turn with an optional TBT accessory card)
- Input house number, street, city/town/suburb, state and country
- Add addresses to Favorites list from More Options menu



Searching for an Address

To find an address enter search info in the following order:

1. Country
2. State
3. City
4. Street
5. House Number

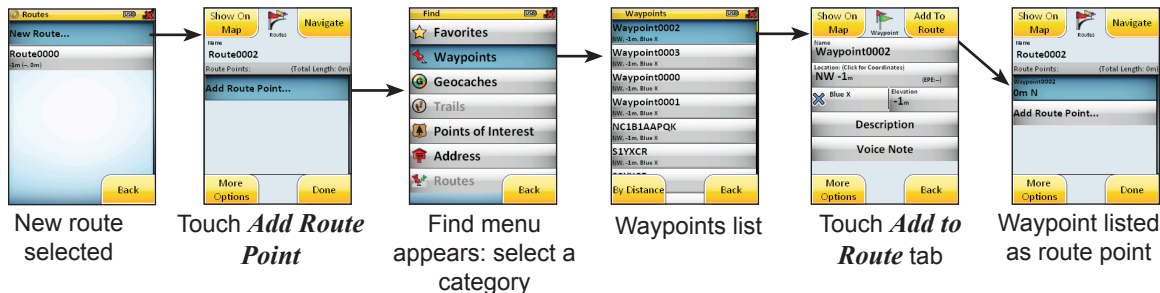


More Options

Routes

Allows you to create, delete, edit and navigate (forward or reverse) routes. Waypoints, Geocaches, Points of Interest and Addresses can be used in route creation. Additional route points can be added from the map.

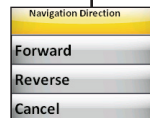
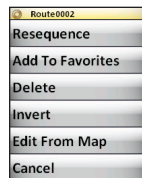
Creating a New Route



Route functions include:

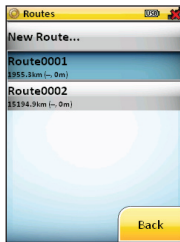
- Edit route from route screen or from Map
- Show route on map
- Resequence points in route or add route to Favorites
- Rename route by touching Name field then entering data using on-screen keypad

More Options menu



Navigation direction menu

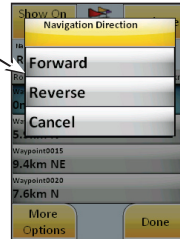
Navigating a Route



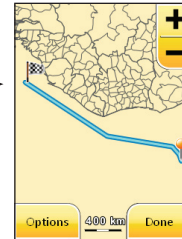
Select **Route**
from Routes List



Touch **Navigate**
tab



Touch **Forward**
or **Reverse**



Map appears with
route highlighted

Tools

Provides access to applications used to listen to music, view pictures and videos. The MP3 and video player are not available on Out&Back.



Video player

Tools Menu	
MP3 Player	Plays MP3 and WMA music files
Picture Viewer	Displays JPEG and BMP pictures
Video Player	Plays MPEG, AVI and WMV videos



Picture viewer

Uploading files to Endura		
GPX Files	Trails, routes and geocaches	Use mini-USB cable to copy/paste files onto “Endura” directory on your computer
Accessory mapping files	Outdoor, marine or turn-by-turn mapping	Contained on microSD cards (sold separately) or downloaded from mapselect.com
Music	MP3 and WMA	Music, video and picture files can be uploaded to Endura via the mini-USB cable (internal memory) or a microSD card
Video	MPEG, AVI and WMV	
Picture	JPEG and BMP	

To upload files:

1. Plug the USB cable into the Endura and your computer. Endura will be shown as “Endura” (mini-USB) or “Endura SD Card” (microSD card) on your computer.
2. Copy/paste or drag/drop the desired file(s) onto the Endura directory shown on your computer. The relevant application will find it automatically.

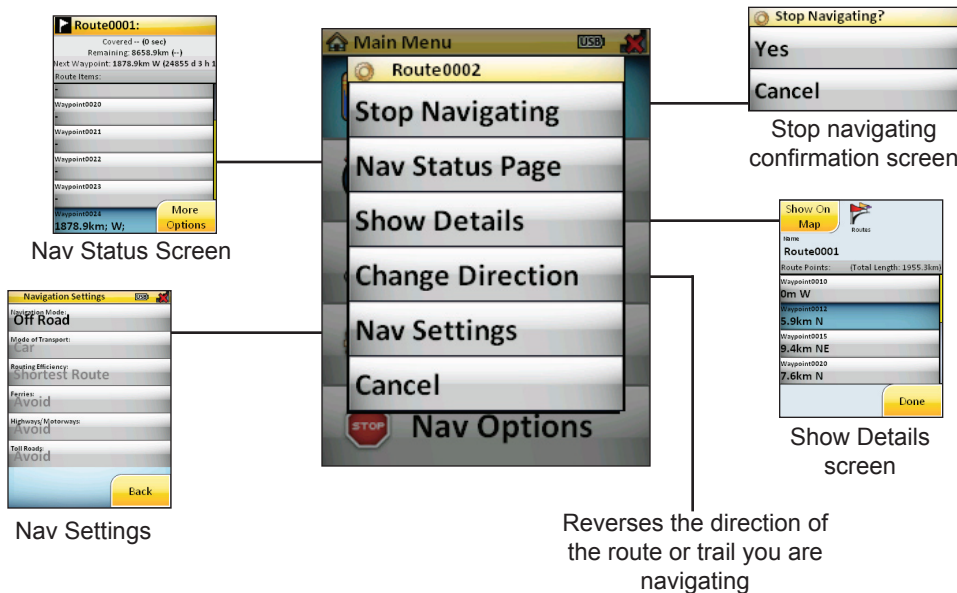


NOTE: If you have a microSD card installed, you will only be able to upload files to the microSD card. To upload files to Endura’s internal memory, you must remove the card from the card slot.

Settings menu			
Volume	Move slider bar to adjust volume level or touch mute tab	Trail Logging	Enable/disable trail logging, change trail logging mode (time or distance) and select logging interval
Navigation	Adjust Navigation Mode, Mode of Transport, Routing Efficiency, Ferries, Highways/Motorways/Toll Roads	Regional & Time	Select Time Zone, Daylight Savings, Time Display format, Language and Region
Power Saving	Controls Backlight Timeout, Power Saving Mode, Power Saving Timeout and Battery Type	Units of Measure	Select unit of measure used for Speed, Distance, Elevation, Heading, Pressure and Position Format
Pages	Used to add/remove pages from the main page sequence	GPS	Enable/Disable GPS, WAAS/EGNOS, Simulated GPS and NMEA 0183 Output
Elevation	Used to Calibrate Elevation and choose Elevation source (GPS or Barometric pressure)	Restore Defaults	Restore all device settings to original factory values
Compass	Used to select Heading Source (Magnetic or GPS) and Compass Calibration	NOTE: Barometric pressure and magnetic compass settings are not available on Out&Back.	

Nav Options

Allows you to access the Endura's navigation information from one location. Nav Options can only be accessed while you are navigating. The submenu is context sensitive, depending on navigation target.: trail, route, waypoint or geocache.



Specifications

Dimensions	
5.1" x 2.3" Wx 1.2" D (130mm x 60mm x 31mm)	
Weight	
5.8oz (165g) without batteries	
Display	
Color, 2.7" (6.8cm) touchscreen	
Batteries	
Uses two AA batteries (not included)	
Data Transfer	
Uses up to 32GB microSD cards	
Uses Mini USB data/power port	
Waterproof	
IPx7 with rubber armoring	
Waypoints, Routes & Trails	
Waypoints: 2000 (Max)	Waypoints per route: 250 (Max)
Routes: 60 (Max)	Trails: 30 (Max)

For more information, visit www.lowrance.com/endura

Feature	Sierra	Safari	Out&Back
Preloaded Maps	Premium	Advanced	Basic
Topo Contour Interval (feet)	100	500	—
Add on Maps		✓	✓
Accepts GPX trail / POI data	✓	✓	✓
Geocaching App	✓	✓	✓
3D Compass	✓	✓	—
Barometric Altimeter	✓	✓	—
Trip Recorder/Route Recording	✓	✓	✓
Power Standby Mode	✓	✓	✓
Picture Viewer	✓	✓	✓
MP3 Player	✓	✓	—
Video Player	✓	✓	—
Headset jack/speaker	✓	✓	—
Microphone	✓	✓	—
Road Turn-by-turn	Optional	Optional	—

A wide-angle photograph of a mountain range. The foreground shows steep, rocky slopes with patches of green and brown vegetation. In the background, several jagged mountain peaks are visible, some of which are covered in snow. The sky is filled with soft, white clouds.

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