# Table of Contents

## Getting Started ................................................................. 1
  Device Overview ......................................................... 1
  Keys ........................................................................ 1
  Battery Information ...................................................... 1
    Installing AA Batteries ................................................ 1
  Turning On the Device ................................................... 1

## Profiles ............................................................................. 1
  Selecting a Profile ......................................................... 1
  Creating a Custom Profile .............................................. 1
  Changing a Profile Name ................................................ 1
  Deleting a Profile .......................................................... 1

## Waypoints, Routes, and Tracks ............................................ 2
  Waypoints ................................................................. 2
    Creating a Waypoint .................................................. 2
    Projecting a Waypoint ............................................... 2
    Navigating to a Waypoint .......................................... 2
    Editing a Waypoint ................................................... 2
    Deleting a Waypoint .................................................. 2
    Waypoint Averaging .................................................... 2
  Routes ................................................................. 2
    Creating a Route ..................................................... 2
    Editing the Name of a Route .................................... 2
    Editing a Route ....................................................... 2
    Viewing a Route on the Map ..................................... 2
    Deleting a Route ...................................................... 2
    Navigating a Saved Route ....................................... 2
    Stopping Navigation ............................................... 2
    Reversing a Route .................................................... 2
  Tracks ................................................................. 3
    Tracks Settings ........................................................ 3
    Viewing the Current Track ....................................... 3
    Saving the Current Track ......................................... 3
    Clearing the Current Track ...................................... 3
    Deleting a Track ....................................................... 3
    Navigating a Saved Track ....................................... 3

## Using the Main Pages .......................................................... 3
  Map ................................................................. 3
    Navigating with the Map ......................................... 3
    Changing the Map Orientation .................................. 3
    Measuring Distance on the Map ................................ 3
    Map Settings .......................................................... 3
  Compass .............................................................. 3
    Navigating with the Compass .................................... 3
    Course Pointer ........................................................ 3
    Data Fields ............................................................ 3
  Highway Mode .......................................................... 4
  Sail Racing .............................................................. 4
    Setting the Starting Line ......................................... 4
  Instruments ............................................................. 4
    Instrument Setup Options ........................................ 4
    Changing the Data Fields ........................................ 4
    Data Fields ............................................................ 4
  Restoring Default Page Settings ................................ 5
  Tack Assist ............................................................. 5
    Configuring Tack Assist Settings ............................. 5
  Speed History ........................................................... 5
    Configuring the Speed History ................................ 5

## Main Menu Features and Settings ....................................... 5
  Satellite Page ............................................................. 5
  Satellite Settings ........................................................ 5
  Additional Main Menu Tools ......................................... 5
    Calculating the Size of an Area ................................ 6
    Geocaches ........................................................... 6

## Customizing Your Device ................................................... 6
  Customizing the Data Fields ........................................ 6
  System Settings ........................................................ 6
    Serial Interface Settings ......................................... 6
  Display Settings ........................................................ 6
  Setting the Device Tones .......................................... 6
  Setting Up Marine Alarms ......................................... 6
  Marine Settings ........................................................ 6
  Resetting Data .......................................................... 6
  Changing the Page Sequence ....................................... 6
    Adding a Page ........................................................ 6
    Removing a Page from the Page Sequence .................. 6
  Changing the Units of Measure .................................... 7
  Time Settings .......................................................... 7
  Position Format Settings .......................................... 7
  Routing Settings ........................................................ 7

## Device Information .......................................................... 7
  Specifications ............................................................ 7

## Appendix .......................................................................... 7
  Registering Your Device .............................................. 7
  Support and Updates .................................................. 7
    Setting Up Garmin Express ...................................... 7
    Viewing Device Information ..................................... 7
    Contacting Garmin Product Support .......................... 7
    Sharing Data with HomePort™ .................................. 7
    Adjusting the Backlight and Contrast ........................ 7
    Maximizing Battery Life ............................................ 7
    Long-Term Storage ................................................... 7
    Turning off GLONASS .............................................. 7
    Adjusting the Backlight and Contrast ........................ 8
    Adjusting the Backlight Timeout ............................... 8

## Data Management ............................................................ 8
  File Types ............................................................... 8
  Connecting the Device to Your Computer ..................... 8
  Transferring Files to Your Device ................................ 8
  Deleting Files ............................................................ 8
  Disconnecting the USB Cable ...................................... 8
  Attaching the Wrist Strap ............................................ 8
  Device Care ............................................................. 8
    Cleaning the Device ................................................ 8
  Troubleshooting .......................................................... 8
    Resetting the Device ............................................... 8
    Restoring All Default Settings ................................... 8

## Index ................................................................................ 9
Getting Started

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

Device Overview

Keys

1. Keys
2. Mini-USB port (under weather cap)
3. Power/NMEA® 0183 connector (under weather cap)
4. Battery compartment

Keys

- Cancels or returns to the home page. Scrolls through the main pages.
- Turns the device on and off. Adjusts the backlight and contrast.
- Marks your current location as a waypoint.
- Zooms in on the map.
- Zooms out from the map.
- Scrolls through the main pages.
- Opens the options menu for each page.
- Selects options and acknowledges messages.
- Selects menu options. Moves the map cursor.

Battery Information

WARNING
Do not use a sharp object to remove batteries. The temperature rating for the device may exceed the usable range of some batteries. Alkaline batteries can rupture at high temperatures.

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

CAUTION
Contact your local waste disposal department to properly recycle the batteries.

NOTICE
Alkaline batteries lose a significant amount of their capacity as the temperature decreases. Use lithium batteries when operating the device in below freezing conditions.

Installing AA Batteries

The handheld device operates using two AA batteries (not included). For best results, you should use NiMH or lithium batteries.

1. Slide the battery cover down and remove the cover from the back of the device.
2. Insert two AA batteries, observing polarity.
3. Replace the battery cover.
4. Hold 
5. Select Setup > System > Battery Type.
6. Select an option.

Turning On the Device

Select .

Profiles

A profile is a collection of settings that optimize your device based on how you are using it. For example, the settings and views are different when you are using the device when sailing than when powerboating or fishing. The default data fields and default pages change with each profile.

When you are using a profile and you change settings such as data fields or units of measurement, the changes are saved automatically as part of the profile.

NOTE: Only the profiles you create save new settings. Preset device profiles return to default settings when you change profiles.

Selecting a Profile

Select Setup > Profiles.

Creating a Custom Profile

1. Select Setup > Profiles.
2. Select MENU > Create Profile.
3. Enter a name, and select Done.
   The new profile is saved and becomes the active profile.

Changing a Profile Name

1. Select Setup > Profiles.
2. Select a profile.
   NOTE: You cannot change the default profile.
3. Select MENU > Change Name.
4. Enter the name.

Deleting a Profile

1. Select Setup > Profiles.
Waypoints, Routes, and Tracks

Waypoints
Waypoints are locations you record and store in the device. Waypoints can mark where you are, where you are going, or where you have been. You can add details about the location, such as name, elevation, and depth.

Creating a Waypoint
You can save your current location as a waypoint.
1. Select MARK.
2. If necessary, select a field to make changes to the waypoint.
3. Select Done.

Projecting a Waypoint
You can create a new location by projecting the distance and bearing from a marked location to a new location.
1. From the main menu, select Waypoint Manager.
2. Select a waypoint.
3. Select MENU > Project Waypoint.
4. Enter the bearing, and select Done.
5. Select a unit of measure.
6. Enter the distance, and select Done.
7. Select Save.

Navigating to a Waypoint
1. From the main menu, select Where To? > Waypoints.
2. Select a waypoint.
3. Select Go.

Editing a Waypoint
Before you can edit a waypoint, you must create a waypoint.
1. Select Waypoint Manager.
2. Select a waypoint.
3. Select an item to edit, such as the name.
4. Enter the new information, and select Go.

Deleting a Waypoint
1. Select Waypoint Manager.
2. Select a waypoint.
3. Select MENU > Delete.

Waypoint Averaging
You can refine a waypoint location for more accuracy. When averaging, the device takes several readings at the same location and uses the average value to provide more accuracy.
1. Select Waypoint Manager.
2. Select a waypoint.
3. Select MENU > Average Location.
4. Move to the waypoint location.
5. Select Start.
6. Follow the on-screen instructions.
7. When the confidence status bar reaches 100%, select Save.
For best results, collect four to eight samples for the waypoint, waiting at least 90 minutes between samples.

Routes
A route is a sequence of waypoints or locations that leads you to your final destination.

Creating a Route
1. Select Routes Planner > Create Route > Select First Point.
2. Select a category.
3. Select the first point in the route.
4. Select Use.
5. Select Select Next Point to add additional points to the route.
6. Select Save to save the route.

Editing the Name of a Route
1. Select Routes Planner.
2. Select a route.
3. Select Change Name.
4. Enter the new name.

Editing a Route
1. Select Routes Planner.
2. Select a route.
3. Select Edit Route.
4. Select a point.
5. Select an option:
   • To view the point on the map, select Review.
   • To change the order of the points on the route, select Move Up or Move Down.
   • To insert an additional point on the route, select Insert. The additional point is inserted before the point you are editing.
   • To remove the point from the route, select Remove.
6. Select Save to save the route.

Viewing a Route on the Map
1. Select Routes Planner.
2. Select a route.
3. Select View Map.

Deleting a Route
1. Select Routes Planner.
2. Select a route.
3. Select Delete Route.

Navigating a Saved Route
Before you can navigate using a saved route, you must create a route.
2. Select a route.
3. Select Go.

Stopping Navigation
1. Hold PAGE.
2. Select Stop Navigation.

Reversing a Route
You can switch the start and end points of your route to navigate the route in reverse.
1. Select Routes Planner.
2. Select a route.
3. Select Reverse Route.

Tracks
A track is a recording of your path. The track log contains information about points along the recorded path, including time, location, and elevation for each point.
Navigating with the Map

1. Use the arrow keys to move the pointer.
2. From the map, select SELECT > Go.
   - A triangle represents your location on the map. As you travel, the triangle moves and leaves a track log (trail).
3. Select and to zoom in and out of the map.

Changing the Map Orientation

1. From the map page, select MENU > Setup > Orientation.
2. Select an option:
   - To show north at the top of the page, select North Up.
   - To show your current direction of travel at the top of the page, select Track Up.

Measuring Distance on the Map

1. From the map, select a location.
2. Select MENU > Measure Distance.
3. Move the pin to another location on the map.

Map Settings

From the map, select MENU > Setup Map.

Orientation: Adjusts how the map is shown on the page. The North Up option shows north at the top of the page. The Track Up option shows a top-down view with your current direction of travel toward the top of the page.

Data Fields: Customizes the data fields and dashboards of the map, compass, and stopwatch.

Advanced Map Settings

From the map, select MENU > Setup Map > Advanced Map Setup.

Auto Zoom: Enables the device to automatically select the zoom level for optimal use of your map. When the Off option is selected, you must zoom in or out manually.

Select User Waypoint Zoom Level: Sets the zoom level at which waypoints appear on the map. Waypoints do not appear when the map zoom level is higher than the selected level.

Select User Waypoint Text Size: Sets the text size for waypoints on the map.

Compass

The compass uses GPS course over ground (COG) to guide you to your destination, and does not account for other factors that can affect your destination, such as currents and tides. You can use a bearing pointer or a course pointer to navigate to your destination.

Navigating with the Compass

When navigating to a destination, points to your destination, regardless of the direction you are moving.
1. Begin navigating to a destination.
2. Select Compass.
3. Turn until points toward the top of the compass, and continue moving in that direction to the destination.

Course Pointer

The course pointer is most useful when you are navigating on water or where there are no major obstacles in your path. It can also help you avoid hazards near the course, such as shoals or submerged rocks.

To enable the course pointer, from the compass, select MENU > Setup Heading > Go To Line > Course.

The course pointer indicates your relationship to the course line leading to the destination. The dots tell you how far off course you are.

Data Fields

From the compass, select > SELECT.

ETE to Dest: Displays the estimated time to your destination.
ETA to Dest: Displays the estimated time of your arrival at your destination.
To Course: Displays the recommended direction to steer in order to stay on course.
Off Course: Displays the distance you are off course.
Vel Made Good: Displays the speed at which you are moving toward your destination.
Turn: Displays the recommended degree of your next turn to stay on course.

Highway Mode
You can use the device to navigate on land in highway mode.

Select Highway.

Sail Racing
You can use the device to increase the likelihood that your boat will cross the start line of a race exactly when the race begins. When you synchronize the race timer with the official race countdown timer, you are alerted at one-minute intervals as the race start approaches. The device uses this data to indicate whether your boat will cross the start line before, after, or at the correct time to start the race.

Setting the Starting Line
The sail racing start line guidance window is added to the sail racing profile by default.

1. From the sail racing screen, select MENU.

2. Select an option:
   - To mark the port and starboard starting line marks as you sail past them, select Ping Port and Ping Starboard.
   - To mark the port and starboard starting line marks by entering their coordinates, select Enter Port and Enter Starboard.
   - To switch the position of the port and starboard marks after you have set them, select Swap Port & Starbd.
   - To compensate for the difference in the physical location of the GPS and the bow of your boat, select Bow Offset and enter the distance.

Instruments
The instruments page displays data such as wind speed, temperature, and wind direction, provided by sensors connected to the device using a NMEA 0183 network. The data displayed depends on the sensors you have connected to the network. You can select customized dashboards for the instruments page, and you can customize the data fields displayed in each dashboard.

Instrument Setup Options
From the instrument page, select MENU.

Reset: Resets all the selected instrument values to zero. For accurate information, you should reset the trip information before beginning a trip.

Big Numbers: Changes the size of the numbers displayed on the trip computer page.

Change Dashboard: Changes the theme and information displayed on the dashboard.

NOTE: Your customized settings are lost when you change profiles (Profiles, page 1). To save your settings, you must create a custom profile.

Restore Defaults: Replaces your custom settings with factory default settings.

Changing the Data Fields
You can customize the data displayed on pages, including the compass, map, trip computer, and highway pages.

From the compass, select MENU > Change Data Fields.

Data Fields
Some data fields require you to be navigating to display data.

Accuracy of GPS: The margin of error for your exact location. For example, your GPS location is accurate to within +/- 3.65 m (12 ft.).

Apparent Wind Angle: The wind angle measured relative to the bow of the vessel. Your device must be connected to a NMEA 0183 device capable of acquiring the wind angle.

Apparent Wind Speed: The measured speed of the wind.

Battery Level: The remaining battery power.

Bearing: The direction from your current location to a destination. You must be navigating for this data to appear.

Course: The direction from your starting location to a destination. Course can be viewed as a planned or set route. You must be navigating for this data to appear.

Depth: The depth of the water. Your device must be connected to a NMEA 0183 device capable of acquiring the water depth.

Distance to Dest.: The remaining distance to the final destination. You must be navigating for this data to appear.

Distance to Next: The remaining distance to the next waypoint on the route. You must be navigating for this data to appear.

Dist to Line: The remaining distance to the race starting line. You must be navigating for this data to appear.

Elevation: The altitude of your current location above or below sea level.

ETA at Destination: The estimated time of day when you will reach the final destination (adjusted to the local time of the destination). You must be navigating for this data to appear.

ETA at Next: The estimated time of day when you will reach the next waypoint on the route (adjusted to the local time of the waypoint). You must be navigating for this data to appear.

Glide Ratio: The ratio of horizontal distance traveled to the change in vertical distance.

Glide Ratio to Dest.: The glide ratio required to descend from your current position to the destination elevation. You must be navigating for this data to appear.

GPS Signal Strength: The strength of the GPS satellite signal.

Heading: The direction you are moving.

Lift: The degree to which your vessel is being headed or lifted.

Location (lat/lon): The current position in latitude and longitude regardless of the selected position format setting.

Location (selected): The current position using the selected position format setting.

Odometer: A running tally of the distance traveled for all trips. This total does not clear when resetting the trip data.

Off Course: The distance to the left or right by which you have strayed from the original path of travel. You must be navigating for this data to appear.

Pointer: An arrow points in the direction of the next waypoint or turn. You must be navigating for this data to appear.

Speed: The current rate of travel.

Speed - Maximum: The highest speed reached since the last reset.

Speed - Moving Avg.: The average speed while moving since the last reset.

Speed - Overall Avg.: The average speed while moving and stopped since the last reset.

Speed Trend: The filtered acceleration or deceleration speed trend for the current activity.

Sunrise: The time of sunrise based on your GPS position.

Sunset: The time of sunset based on your GPS position.

Temperature: The temperature of the water. Your device must be connected to a NMEA 0183 device capable of acquiring the water temperature.
**Time of Day**: The time of day based on your current location and time settings (format, time zone, daylight saving time).

**Timer**: The current time of the countdown timer. You must be in the Sail Racing profile for this data to appear.

**Time to Burn**: The estimated time remaining before the start of the race.

**Time to Destination**: The estimated time remaining before you reach the destination. You must be navigating for this data to appear.

**Time to Next**: The estimated time remaining before you reach the next waypoint in the route. You must be navigating for this data to appear.

**Time to S.Line**: The estimated time remaining before you reach the starting line of the race.

**To Course**: The direction in which you must move to get back on the route. You must be navigating for this data to appear.

**Trip Odometer**: A running tally of the distance traveled since the last reset.

**Trip Time - Moving**: A running tally of the time spent moving since the last reset.

**Trip Time - Stopped**: A running tally of the time spent not moving since the last reset.

**Trip Time - Total**: A running tally of the total time spent moving and not moving since the last reset.

**True Wind Angle**: The angle of the wind relative to the water, referenced from the bow of the boat with a port or starboard angle up to 180 degrees. Your device must be connected to a NMEA 0183 device capable of acquiring the wind angle.

**True Wind Speed**: The true speed of the wind relative to the vessel. Your device must be connected to a NMEA 0183 device capable of acquiring the wind speed.

**Turn**: The angle of difference (in degrees) between the bearing to your destination and your current course. L means turn left. R means turn right. You must be navigating for this data to appear.

**Velocity Made Good**: The speed at which you are closing on a destination along a route. You must be navigating for this data to appear.

**Waypoint at Dest.**: The last point on the route to the destination. You must be navigating for this data to appear.

**Waypoint at Next**: The next point on the route. You must be navigating for this data to appear.

**Wind Direction**: The true direction of the wind relative to north. Your device must be connected to a NMEA 0183 device capable of acquiring the wind direction.

---

**Restoring Default Page Settings**

1. Open a page for which you will restore the settings.
2. Select **MENU > Restore Defaults**.

---

**Tack Assist**

While cruising or racing into the wind, the tack assist feature can help you determine if your boat is being lifted or headed. When you calibrate tack assist, the device stores your boat's port and starboard courses over ground (COG), the mean true wind direction, and the vessel's tack angle.

---

**Configuring Tack Assist Settings**

1. Select **Tack Assist**.
2. Select an option.
   - To calibrate the port and starboard tack assist, select **Port or Starboard**, and select **SELECT**.
   - To manually enter the tack angle, select **MENU > Tack Angle**, and enter the angle in degrees.
   - To enter the true wind direction, select **MENU > True Wind Direction**, and enter the true wind direction in degrees.

---

**Speed History**

Your device keeps a history of your speed trends over a specified duration of time. You can set up filters to view acceleration and deceleration trends for your activity.

**Configuring the Speed History**

1. Select **Speed History**.
2. Select an option.
   - To set the interval of speed data collection, select **MENU > Time Duration**.
   - To set how the speed range is calculated, select **MENU > Speed Range** and select the **Automatic** or **Manual** option.
   - To set an existing speed filter or to create a custom speed filter, select **MENU > Speed Filter** and select the **Automatic** or **Manual** option.

---

**Main Menu Features and Settings**

**Satellite Page**

The satellite page shows your current location, GPS accuracy, satellite locations, and signal strength.

**Satellite Settings**

From the satellite page, select **MENU**.

- **Track Up**: Shows your current direction of travel toward the top of the screen.
- **North Up**: Shows north toward the top of the screen.
- **Use Demo Mode**: Allows you to turn the GPS off.

**Additional Main Menu Tools**

Select **More Functions**.

- **Active Route**: Displays data such as high point, low point, and end point distance for the route you are currently navigating.
- **Alarm Clock**: Sets an audible alarm.
- **Area Calculation**: Calculates an area by perimeter.
Calculator: Displays a calculator.
Calendar: Displays a calendar.
Geocaches: Displays data about saved geocaches.
Highway: Displays highway speed, heading, distance to next
waypoint, and direction to course.
Hunt and Fish: Displays the predicted best dates and times for
hunting and fishing at your current location.
Man Overboard: Sets and allows you to navigate to a man
overboard waypoint.
Proximity Wpts: Sets and displays data about particular
locations within a specified range.
Satellite: Sets the satellite view to of the screen to north up or
current track up.
Stopwatch: Allows you to use a timer, mark a lap, and time
laps.
Sun and Moon: Displays sunrise and sunset times, along with
the moon phase, based on your GPS position.
Waypoint Avg.: Allows you to refine a waypoint location for
more accuracy.

Calculating the Size of an Area
1 Select Area Calculation > Start.
2 Walk around the perimeter of the area you want to calculate.
3 Select Calculate when finished.

Geocaches
A geocache is like a hidden treasure. Geocaching is when you
hunt for hidden treasures using GPS coordinates posted online
by those hiding the geocache.

Downloading Geocaches
1 Connect the device to your computer using a USB cable.
2 Go to www.garmin.com/geocache.
3 If necessary, create an account.
4 Sign in.
5 Follow the on-screen instructions to find and download
g fecaches to your device.

Navigating to a Geocache
1 Select More Functions > Geocaches.
2 Select a geocache.
3 Select Go.

Customizing Your Device

Customizing the Data Fields
You can customize the data fields displayed on each main page.
1 Open the page for which you will change the data fields.
2 Select MENU.
3 Select Change Data Fields.
4 Select the new data field.
5 Follow the on-screen instructions.

System Settings
Select Setup > System > GPS Setting.
Speed Filter: Allows you to select the preferred source for GPS
data.
Satellite System: Turns on or off use of GLONASS Russian
satellite system data. When the system is used in situations
with poor sky visibility, GLONASS data can be used with
GPS data to provide more accurate position information.
WAAS/EGNOS: Turns on or off use of WAAS (in North America)
or EGNOS (in Europe) satellite system data, which can
provide more-accurate GPS position information. When using
WAAS or EGNOS, the device may take longer to acquire
satellites.

Serial Interface Settings
Select Setup > System > Interface.
Garmin Serial: Enables the device to use a Garmin® proprietary
format to exchange waypoint, route, and track data with a
computer.
NMEA In/Out: Enables the device to use standard NMEA 0183
output and input.

Display Settings
Select Setup > Display.
Backlight Timeout: Adjusts the length of time before the
backlight turns off.
Adjust Contrast: Adjusts the contrast level.
Main, Setup, Find Style: Sets the appearance of the main
menu.

Setting the Device Tones
You can customize tones for messages, keys, turn warnings,
and alarms.
1 Select Setup > Tones.
2 Select a tone for each audible type.

Setting Up Marine Alarms
1 Select Setup > Marine Alarm.
2 Select an alarm type.
3 Enter the setting.
4 Select Done.

Marine Settings
Select Setup > Marine Alarm.
Anchor Drag: Sets an alarm to sound when you exceed a
specified drift distance while anchored.
Off Course Alarm: Sets an alarm to sound when you are off
course by a specified distance.
Deep Water: Sets an alarm to sound when the depth is greater
than the specified value.
Shallow Water: Sets an alarm to sound when the depth is less
than the specified value.

Resetting Data
You can reset trip data, delete all waypoints, clear the current
track, or restore default values.
1 Select Setup > Reset.
2 Select an item to reset.

Changing the Page Sequence
1 Select Setup > Page Sequence.
2 Select a page.
3 Select Move.
4 Move the page up or down in the list.
5 Select SELECT.

Adding a Page
1 From the main menu, select Setup > Page Sequence.
2 Select Add Page.
3 Select a page to add.

Removing a Page from the Page Sequence
1 Select Setup > Page Sequence.
Changing the Units of Measure
You can customize the units of measure for distance and speed, elevation, depth, temperature.
1 Select Setup > Units.
2 Select a measurement type.
3 Select a unit of measure.

Time Settings
Select Setup > Time Settings.
- **Time Format**: Sets the device to show time in a 12-hour or 24-hour format.
- **Time Zone**: Sets the time zone for the device. Automatic sets the time zone automatically based on your GPS position.

Position Format Settings
**NOTE**: You should not change the position format or the map datum coordinate system unless you are using a map or chart that specifies a different position format.
Select Setup > Position Format.
- **Position Format**: Sets the position format in which a location reading appears.
- **Map Datum**: Sets the coordinate system on which the map is structured.
- **Map Spheroid**: Shows the coordinate system the device is using. The default coordinate system is WGS 84.

Routing Settings
The device calculates routes optimized for the type of activity you are doing. You can set routing to automatically route you to the next point on the route.
Select Setup > Routing.
- **Auto**: Enables the device to automatically route you from one point on the route to the next.
- **Distance**: Enables the device to route you to the next point on the route when you are within a specified distance of your current point.
- **Manual**: Enables the device to stop routing when you reach a point on the route.

Device Information

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery type</td>
<td>2 AA batteries (alkaline, NiMH, or lithium)</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>From -20º to 70ºC (from -4º to 158ºF)</td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>From -30º to 80ºC (from -22º to 176ºF)</td>
</tr>
<tr>
<td>Water rating</td>
<td>IEC 60529 IPX7*</td>
</tr>
<tr>
<td>Material</td>
<td>Floatable, high-impact, plastic alloy</td>
</tr>
<tr>
<td>Compass-safe distance</td>
<td>10 cm (4 in.)</td>
</tr>
</tbody>
</table>

*The device withstands incidental exposure to water of up to 1 m for up to 30 min. For more information, go to [www.garmin.com/waterrating](http://www.garmin.com/waterrating).

Adjusting the Backlight and Contrast
You can quickly adjust the backlight and contrast from any page.
1 Select ☀.
2 Use the arrow keys to adjust the backlight and contrast.

Maximizing Battery Life

Long-Term Storage
When you do not plan to use the device for several months, remove the batteries. Stored data is not lost when batteries are removed.

Turning off GLONASS
When you navigate for extended periods of time with an unobstructed view of satellites, you can turn off GLONASS to save battery life.
Select Setup > System > GPS Setting > Satellite System > GPS.

Adjusting the Backlight and Contrast
You can quickly adjust the backlight and contrast from any page.
1. Select ⬇.
2. Use the arrow keys to adjust the backlight and contrast.

Adjusting the Backlight Timeout
You can decrease the backlight timeout to maximize the battery life.
1. Select Setup > Display > Backlight Timeout.
2. Select an option.

Data Management

NOTE: The device is not compatible with Windows 95, 98, Me, Windows NT®, and Mac OS 10.3 and earlier.

File Types
The device supports these file types.
• Files from HomePort. Go to www.garmin.com/trip_planning.
• GPX track files.

Connecting the Device to Your Computer

NOTICE
To prevent corrosion, thoroughly dry the USB port, the weather cap, and the surrounding area before charging or connecting to a computer.

Before you can operate your device while connected to your computer, you must install batteries. The computer USB port may not provide enough power to operate the device.
1. Pull up the weather cap from the mini-USB port.
2. Plug the small end of the USB cable into the mini-USB port.
3. Plug the large end of the USB cable into a computer USB port.
   On Windows computers, the device appears as a removable drive or a portable device, and the memory card may appear as a second removable drive. On Mac computers, the device and memory card appear as mounted volumes.

Transferring Files to Your Device
1. Connect the device to your computer.
   On Windows computers, the device appears as a removable drive or a portable device, and the memory card may appear as a second removable drive. On Mac computers, the device and memory card appear as mounted volumes.
   NOTE: Some computers with multiple network drives may not display device drives properly. See your operating system documentation to learn how to map the drive.
2. On your computer, open the file browser.
4. Select Edit > Copy.
5. Open the portable device, drive, or volume for the device or memory card.
6. Browse to a folder.
7. Select Edit > Paste.
   The file appears in the list of files in the device memory or on the memory card.

Deleting Files

NOTICE
If you do not know the purpose of a file, do not delete it. Your device memory contains important system files that should not be deleted.
1. Open the Garmin drive or volume.
2. If necessary, open a folder or volume.
4. Press the Delete key on your keyboard.

Disconnecting the USB Cable
If your device is connected to your computer as a removable drive or volume, you must safely disconnect your device from your computer to avoid data loss. If your device is connected to your Windows computer as a portable device, it is not necessary to safely disconnect.
1. Complete an action:
   • For Windows computers, select the Safely Remove Hardware icon in the system tray, and select your device.
   • For Mac computers, drag the volume icon to the trash.
2. Disconnect the cable from your computer.

Attaching the Wrist Strap
1. Insert the loop of the wrist strap through the slot in the device.
2. Thread the other end of the strap through the loop, and pull it tight.

Device Care

NOTICE
Avoid chemical cleaners, solvents, and insect repellents that can damage plastic components and finishes.

Do not store the device where prolonged exposure to extreme temperatures can occur, because it can cause permanent damage.

The device is water resistant to IEC Standard 60529 IPX7. It can withstand accidental immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the device. After submersion, be certain to wipe dry and air dry the device before using or charging.

Cleaning the Device

NOTICE
Even small amounts of sweat or moisture can cause corrosion of the electrical contacts when connected to a charger. Corrosion can prevent charging and data transfer.
1. Wipe the device using a cloth dampened with a mild detergent solution.
2. Wipe it dry.
   After cleaning, allow the device to dry completely.

Troubleshooting

Resetting the Device
If the device stops responding, you may need to reset it. This does not erase any of your data or settings.
1. Remove the batteries.
2. Reinstall the batteries.

Restoring All Default Settings
You can reset all settings back to the factory default settings.
   Select Setup > Reset > Reset All Settings > Yes.
Index

A
alarms
   anchor drag 6
   arrival 6
   clock 5
   deep water 6
   off course 6
   shallow water 6
area calculation 6

B
backlight 6-8
battery 1, 7, 8
   installing 1
   life 7
   maximizing 8
   storage 7

C
cleaning the device 8
compass 3, 4
computer, connecting 7, 8
contrast 6, 7
courses 3
customizing the device 6

D
dashboards 4
data, transferring 8
data fields 4, 6
deleting, all user data 8
device
   registration 7
   resetting 8
display settings 6
downloading, geocaches 6

E
EGNOS 6

F
files
   supported types 8
   transferring 6, 8

G
Garmin Express 7
registering the device 7
   updating software 7
gauges, trip 3
geocaches 6
downloading 6
glaciers 6
GLONASS 6, 7
GPS 5
   EGNOS 6
   settings 5
   WAAS 6

H
home screen, customizing 6
HomePort 7

I
instruments 4

K
keys 1
   power 1

L
locations
   editing 2
   saving 2

M
main menu 5
map 3

maps 3
   measuring distances 3
   navigating 3
   updating 7
   measuring distances 3

N
navigating 3
navigation chart 2
NMEA 0183 6

P
pages 4
   position format 7
   power key 1
product registration 7
profiles 1
   renaming 1
   selecting 1

R
registering the device 7
resetting the device 6, 8
restoring, settings 8
routes 2
   creating 2
   deleting 2
   editing 2
   navigating 2
   viewing on the map 2

S
sailing 4
   tack assist 5
   sailing starting line 4
   sailing tack assist 5
   satellite signals 5
   settings 3, 5-8
   software, updating 7
   specifications 7
   speed data 5
   storing data 8
   tones 6
tracks 2, 3
   navigating 3
   transferring, files 6, 8
   trip gauges 3
   trip planner. See routes
   troubleshooting 6, 8

U
unit ID 7
units of measure 7

W
WAAS 6
water rating 7
waypoints 2
   deleting 2
   editing 2
   navigating 2
   projecting 2
   saving 2
wrist strap 8
<table>
<thead>
<tr>
<th>Country</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>+43 (0) 820 220230</td>
</tr>
<tr>
<td>Belgium</td>
<td>+32 2 672 52 54</td>
</tr>
<tr>
<td>Brazil</td>
<td>0800 770 4960</td>
</tr>
<tr>
<td>Canada</td>
<td>1-866-429-9296</td>
</tr>
<tr>
<td>Croatia</td>
<td>+385 1 550 8272</td>
</tr>
<tr>
<td>Denmark</td>
<td>+420 221 985466</td>
</tr>
<tr>
<td>Denmark</td>
<td>+420 221 985465</td>
</tr>
<tr>
<td>Denmark</td>
<td>+45 4819 5050</td>
</tr>
<tr>
<td>Denmark</td>
<td>+358 9 6937 9758</td>
</tr>
<tr>
<td>Denmark</td>
<td>+331 55 69 33 99</td>
</tr>
<tr>
<td>Denmark</td>
<td>+39 02 36 699699</td>
</tr>
<tr>
<td>Germany</td>
<td>+49 (0) 89 8583 488 80</td>
</tr>
<tr>
<td>Germany</td>
<td>0800 0233 937</td>
</tr>
<tr>
<td>Germany</td>
<td>0808 236 0000</td>
</tr>
<tr>
<td>Germany</td>
<td>+49 (0) 89 8583 4880</td>
</tr>
<tr>
<td>Germany</td>
<td>913-397-9200</td>
</tr>
<tr>
<td>Germany</td>
<td>1-800-800-1020</td>
</tr>
<tr>
<td>Germany</td>
<td>0861 GARMIN (427 646)</td>
</tr>
<tr>
<td>Germany</td>
<td>+27 (0) 11 251 9999</td>
</tr>
<tr>
<td>Germany</td>
<td>+47 815 69 555</td>
</tr>
<tr>
<td>Germany</td>
<td>00800 4412 454</td>
</tr>
<tr>
<td>Germany</td>
<td>+44 2380 662 915</td>
</tr>
<tr>
<td>Germany</td>
<td>+49 (0) 89 8583 488 80</td>
</tr>
<tr>
<td>Germany</td>
<td>0800 0233 937</td>
</tr>
<tr>
<td>Germany</td>
<td>0808 236 0000</td>
</tr>
<tr>
<td>Germany</td>
<td>+49 (0) 89 8583 4880</td>
</tr>
<tr>
<td>Germany</td>
<td>913-397-9200</td>
</tr>
<tr>
<td>Germany</td>
<td>1-800-800-1020</td>
</tr>
</tbody>
</table>