

Montana[®] 610/680



Owner's Manual

© 2015 Garmin Ltd. or its subsidiaries

All rights reserved. Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of Garmin. Garmin reserves the right to change or improve its products and to make changes in the content of this manual without obligation to notify any person or organization of such changes or improvements. Go to www.garmin.com for current updates and supplemental information concerning the use of this product.

Garmin®, the Garmin logo, Auto Lap®, BlueChart®, City Navigator®, Montana®, and TracBack® are trademarks of Garmin Ltd. or its subsidiaries, registered in the USA and other countries. ANT+®, BaseCamp™, chirp™, Garmin Connect™, HomePort™, and tempe™ are trademarks of Garmin Ltd. or its subsidiaries. These trademarks may not be used without the express permission of Garmin.

Mac® is a registered trademark of Apple Inc., registered in the U.S. and other countries. Windows® is a registered trademark of Microsoft Corporation in the United States and other countries. microSD™ and the microSDHC logo are trademarks of SD-3C, LLC. Other trademarks and trade names are those of their respective owners.

This product is ANT+® certified. Visit www.thisisant.com/directory for a list of compatible products and apps.

Table of Contents

Introduction	
Device Overview	
Battery Information	
Getting Started	
Charging the Battery Pack	. I 1
Installing AA Batteries	
Turning On the Device	
Main Menu	
Using the Touchscreen	
Locking the Touchscreen	. 2
Registering Your Device	
Adjusting the Backlight Brightness	
Acquiring Satellites Signals and Recording a Track	
Waypoints	
Creating a Waypoint	
Marking a Waypoint Using the Map	
Finding a Waypoint	
Editing a Waypoint	
Deleting a WaypointIncreasing the Accuracy of a Waypoint Location	
Projecting a Waypoint	
Tracks	
Recording a Track Log	
Changing the Current Track Color	
Saving the Current Track	
Selecting an Output Format for Saved Tracks	
Navigating Using TracBack®	
Clearing the Current Track	
Viewing Track Information	
Showing Saved Tracks on the Map	
Archived Tracks	
Archiving Tracks Automatically	
Archiving Tracks Manually	
Deleting a Track	
Navigation	
Where To? Menu	
Navigating to a Destination	
Finding a Location by Name	. 4
Finding an Address	
Marking and Starting Navigation to a Man Overboard	
Location	
Stopping Navigation	
Navigating with Sight 'N GoNavigating with the Map	
Navigating a Driving Route	
Optional Maps	
BirdsEye Imagery	. 5
3D Map View	
Navigating with the Compass	
Calibrating the Compass Course Pointer	
Elevation Plot	
Navigating to a Point on the Plot	
Changing the Plot Type	5
Resetting the Elevation Plot	. 5
Calibrating the Barometric Altimeter	
Trip Computer Resetting the Trip Computer	
Routes	

Creating a Route	
Editing the Name of a Route	
Editing a Route	
Viewing a Route on the Map	
Deleting a RouteViewing the Active Route	
Reversing a Route	
Garmin Adventures	
Creating an Adventure	0 6
Starting an Adventure	
Camera and Photos	
Taking a Photo	
Adjusting the Camera Lighting Mode	
Viewing Photos	
Viewing a Slideshow	
Sorting Photos	
Viewing the Location of a Photo	
Navigating to a Photo	
Setting a Photo as Wallpaper	7
Deleting a Photo	7
Geocaches	7
Downloading Geocaches	
Filtering the Geocache List	
Creating and Saving a Geocache Filter	
Editing a Custom Geocache Filter	
Navigating to a Geocache	7
Logging the Attempt	7
chirp™	
Enabling chirp Searching	7
Finding a Geocache with a chirp	7
Applications	8
• •	
Sending and Receiving Data Wirelessly	8
Sending and Receiving Data Wirelessly Setting a Proximity Alarm	
	8
Setting a Proximity Alarm	8 8 8
Setting a Proximity Alarm	8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm	8 8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm Starting the Countdown Timer	8 8 8 8
Setting a Proximity Alarm	8 8 8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm Starting the Countdown Timer Opening the Stopwatch Satellite Page	8 8 8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm Starting the Countdown Timer Opening the Stopwatch Satellite Page Changing the Satellite View	8 8 8 8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm Starting the Countdown Timer Opening the Stopwatch Satellite Page Changing the Satellite View Turning Off GPS	8 8 8 8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page. Changing the Satellite View. Turning Off GPS. Simulating a Location.	8 8 8 8 8 8 8
Setting a Proximity Alarm	8 8 8 8 8 8 8 8 8 8 8 8 8 8
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors.	8 8 8 8 8 8 8 8 8 8 8 8 8 8
Setting a Proximity Alarm	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Setting a Proximity Alarm	8 8 8 8 8 8 8 8 8 8 8 8 8 8
Setting a Proximity Alarm	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm Starting the Countdown Timer. Opening the Stopwatch. Satellite Page. Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors Tips for Pairing ANT+ Accessories with Your Garmin Device tempe Displaying tempe Data	8 8 8 8 8 8 8 8 8 8 8 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm Starting the Countdown Timer. Opening the Stopwatch. Satellite Page. Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device tempe. Displaying tempe Data Displaying Heart Rate Data.	8 8 8 8 8 8 8 8 8 8 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page. Changing the Satellite View Turning Off GPS. Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device tempe Displaying tempe Data Displaying Heart Rate Data. Customizing the Device	8 8 8 8 8 8 8 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page. Changing the Satellite View Turning Off GPS. Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device. tempe. Displaying tempe Data. Displaying Heart Rate Data. Customizing the Device. Activity Profiles.	8 8 8 8 8 8 8 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device. tempe Displaying tempe Data Displaying the Device. Activity Profiles Selecting a Profile.	8 8 8 8 8 8 8 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator. Viewing the Calendar and Almanacs. Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device. tempe Displaying tempe Data Displaying the Device. Activity Profiles Selecting a Profile Creating a Custom Profile	8 8 8 8 8 8 8 9 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device. tempe. Displaying tempe Data. Displaying theart Rate Data. Customizing the Device. Activity Profiles Selecting a Profile Creating a Custom Profile Editing a Profile Name	8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device. tempe. Displaying tempe Data. Displaying the Device. Activity Profiles. Selecting a Profile. Creating a Custom Profile. Editing a Profile Name Deleting a Profile.	8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device tempe. Displaying tempe Data Displaying Heart Rate Data. Customizing the Device. Activity Profiles. Selecting a Profile. Creating a Custom Profile. Editing a Profile. Customizing the Main Menu	8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device. tempe. Displaying tempe Data. Displaying the Device. Activity Profiles. Selecting a Profile. Creating a Custom Profile. Editing a Profile Name Deleting a Profile. Customizing the Main Menu. Creating a Shortcut.	8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm. Starting the Countdown Timer. Opening the Stopwatch. Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location. ANT+ Sensors. Pairing Your ANT+ Sensors. Tips for Pairing ANT+ Accessories with Your Garmin Device tempe. Displaying tempe Data Displaying Heart Rate Data. Customizing the Device. Activity Profiles. Selecting a Profile. Creating a Custom Profile. Editing a Profile. Customizing the Main Menu	8 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm Starting the Countdown Timer Opening the Stopwatch Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location ANT+ Sensors Pairing Your ANT+ Sensors Tips for Pairing ANT+ Accessories with Your Garmin Device tempe Displaying tempe Data Displaying Heart Rate Data Customizing the Device Activity Profiles Selecting a Profile. Creating a Custom Profile Editing a Profile Name Deleting a Profile. Customizing the Main Menu. Creating a Shortcut Adding a Shortcut to the Main Menu.	8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9
Setting a Proximity Alarm Calculating the Size of an Area Using the Calculator Viewing the Calendar and Almanacs Setting an Alarm Starting the Countdown Timer Opening the Stopwatch Satellite Page Changing the Satellite View Turning Off GPS Simulating a Location ANT+ Sensors Pairing Your ANT+ Sensors Tips for Pairing ANT+ Accessories with Your Garmin Device tempe Displaying tempe Data Displaying Heart Rate Data Customizing the Device Activity Profiles Selecting a Profile Creating a Custom Profile Editing a Profile Customizing the Main Menu Creating a Shortcut Adding a Shortcut to the Main Menu Custom Data Fields and Dashboards Enabling the Map Data Fields Customizing the Data Fields Customizing the Data Fields Customizing the Data Fields	8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9
Setting a Proximity Alarm	

Locking the Screen Orientation	
Adjusting the Backlight Timeout	10
Turning On Battery Save Mode	
Adjusting the Volume	
GPS and GLONASS	10
Serial Interface Settings	
Customizing the Power Key	.10
Display Settings	
Appearance Settings	
Map Settings	
Advanced Map Settings	
Tracks Settings	
Time Settings	
Position Format Settings	.11
Heading Settings	11
Altimeter Settings	
Geocaching Settings	
Routing Settings	
Fitness Settings	
About Lifetime Athletes	
About Heart Rate Zones	
Fitness Goals	
Setting Your Heart Rate Zones	
Running or Cycling with Your Device	.12
Marine Settings	.12
Setting Up Marine Alarms	
Setting the Device Tones	
Resetting Data	
Restoring Default Values for Specific Settings	
RESIDUIDO DEIADII VAIDES IOI SDECING FADE SEUDIOS	
Restoring All Default Settings	13
Restoring All Default Settings Device Maintenance	13 13
Pevice Maintenance Support and Updates	13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software	13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device	13 13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen	13 13 13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion	13 13 13 13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management	13 13 13 13 13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types	13 13 13 13 13 13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card	13 13 13 13 13 13 13 13 13
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer	13 13 13 13 13 13 13 13 13 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device	13 13 13 13 13 13 13 13 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp	13 13 13 13 13 13 13 13 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device	13 13 13 13 13 13 13 13 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device	13 13 13 13 13 13 13 14 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable	13 13 13 13 13 13 13 14 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device	13 13 13 13 13 13 13 13 14 14 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack	13 13 13 13 13 13 13 13 14 14 14 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries	13 13 13 13 13 13 13 13 14 14 14 14 14 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information	13 13 13 13 13 13 13 13 14 14 14 14 14 14 14 14 14 14 14 14
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 14 14 14 15
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode?	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode? I need to reset all settings back to factory default values	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15 15 15
Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode? I need to reset all settings back to factory default values I need replacement parts or accessories	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15
Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode? I need to reset all settings back to factory default values I need replacement parts or accessories I need to buy an external GPS antenna	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode? I need to reset all settings back to factory default values I need replacement parts or accessories I need to buy an external GPS antenna My battery does not stay charged for very long	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15
Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode? I need to reset all settings back to factory default values I need replacement parts or accessories I need to buy an external GPS antenna My battery does not stay charged for very long My device does not appear as either a portable device or a	13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15 15 15 15 15
Restoring All Default Settings Device Maintenance Support and Updates Updating the Software Device Care Cleaning the Device Cleaning the Touchscreen Water Immersion Data Management File Types Installing a Memory Card Connecting the Device to Your Computer Transferring Files to Your Device Sending Files to BaseCamp Deleting Files Disconnecting the USB Cable Resetting the Device Removing the Battery Pack Device Information Specifications About the Batteries Viewing Device Information Getting More Information Troubleshooting How do I know my device is in USB mass storage mode? I need to reset all settings back to factory default values I need replacement parts or accessories I need to buy an external GPS antenna My battery does not stay charged for very long	13 13 13 13 13 13 13 13 13 13 14 14 14 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15

Index	18
Data Fields	
Optional Accessories	15
Appendix	15
My screen does not respond	
My device does not go into mass storage mode automatically	15
My device does not go into mass storage mode	
My device does not charge	15

Table of Contents

Introduction

↑ WARNING

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

Device Overview



- (1) Camera lens (680 and 680t only)
- 2 Power key
- (3) microSD card slot (under battery door)
- (4) Power connector for optional accessory mounts
- (5) Stereo headphone jack (under weather cap)
- (6) Battery cover D-ring
- (7) Mini-USB port (under weather cap)
- (8) MCX port for external GPS antenna (under weather cap)

Battery Information

⚠ WARNING

This product contains a lithium-ion battery. To prevent the possibility of personal injury or product damage caused by battery exposure to extreme heat, store the device out of direct sunlight.

The temperature rating for the device may exceed the usable range of some batteries. Alkaline batteries can rupture at high temperatures.

NOTICE

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

The device operates on the included lithium-ion battery pack or three AA batteries.

Getting Started

When using your device the first time, you should complete these tasks to set up the device and get to know the basic features.

- 1 Install the batteries (Installing the Battery Pack, page 1).
- 2 Charge the batteries (Charging the Battery Pack, page 1).
- **3** Turn on the device (*Turning On the Device*, page 2).
- 4 Register the device garmin.com/express.
- **5** Adjust the backlight brightness (*Adjusting the Backlight Brightness*, page 2).

- **6** Acquire satellites (*Acquiring Satellites Signals and Recording a Track*, page 2).
- 7 Customize your device (Customizing the Device, page 9).
- 8 Mark a waypoint (Creating a Waypoint, page 2).
- **9** Navigate to a destination (*Navigating to a Destination*, page 4).

Installing the Battery Pack

- 1 Turn the D-ring counter-clockwise, and pull up to remove the cover.
- 2 Locate the metal contacts on the end of the lithium-ion battery.
- 3 Insert the battery into the compartment, contacts first.



- 4 Press the battery into place.
- **5** Replace the battery cover, and turn the D-ring clockwise.

Charging the Battery Pack

NOTICE

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

Do not attempt to use the device to charge a battery that was not provided by Garmin®. Attempting to charge a battery that was not provided by Garmin can damage the device and void the warranty.

Before you can connect the straight connector of the USB cable to your device, you may need to remove optional mount accessories.

NOTE: The battery does not charge when outside the temperature range of 32° to 113°F (0° to 45°C).

You can charge the battery using a standard wall outlet or a USB port on your computer.

1 Pull up the weather cap ① from the mini-USB port ②.



- 2 Plug the small end of the USB cable into the mini-USB port.
- 3 Plug the USB end of the cable into the AC adapter or a computer USB port.
- 4 Plug the AC adapter into a standard wall outlet. When you connect the device to a power source, the device turns on.
- 5 Charge the battery completely.

Installing AA Batteries

Instead of the battery pack (*Installing the Battery Pack*, page 1), you can use alkaline, NiMH, or lithium AA batteries. This is

Introduction 1

useful when you are on the trail and cannot charge the battery pack. Use NiMH or lithium batteries for best results.

NOTE: Standard alkaline batteries are not recommended when using the camera feature.

- 1 Turn the D-ring counter-clockwise, and pull up to remove the cover.
- 2 Insert three AA batteries, observing polarity.



3 Replace the battery cover, and turn the D-ring clockwise.

Turning On the Device

Hold (b.

Main Menu



1	Status bar
2	Current time and date
3	Application icons
4	Application drawer

Using the Touchscreen

- · Tap the screen to select an item.
- Make each touchscreen selection a separate action.
- Select to open the application drawer for applications and setup tools.
- From the application drawer, select ↑ or ↓ to scroll through applications.
- Select **5** to return to the previous page.
- Hold sto return to the main menu.
- Select
 to view specific menu items for the page you are viewing.

Locking the Touchscreen

You can lock the screen to prevent inadvertent screen touches. Select ($^{\prime}$) > \triangle .

Unlocking the Touchscreen

Select (b) > 1.

Registering Your Device

Help us better support you by completing our online registration today.

- · Go to garmin.com/express.
- Keep the original sales receipt, or a photocopy, in a safe place.

Adjusting the Backlight Brightness

Extensive use of screen backlighting can significantly reduce battery life. You can adjust the backlight brightness to maximize the battery life.

NOTE: The backlight brightness may be limited when the battery is low.

- 1 Select (b.
- 2 Use the slider to adjust the backlight level.

The device may feel warm when the backlight setting is high.

Acquiring Satellites Signals and Recording a Track

Before you can use the GPS navigation features, such as recording a track, you must acquire satellite signals. The device may need a clear view of the sky to acquire satellite signals.

For more information about GPS, go to www.garmin.com /aboutGPS.

- 1 Hold ().
- 2 Wait while the device locates satellites.

When **INT** turns green, your device has acquired satellite signals. The time and date are set automatically based on the GPS position.

- **3** Walk around to record a track (*Tracks*, page 3).
- 4 Select an option:
 - · Select Map to view your track on the map.
 - Select Compass to view the compass and customizable data fields.
 - Select Trip Computer to view your current speed, distance, and other helpful statistics.

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 Waypoint.
- 2 If necessary, select Edit to change the name or other waypoint data.
- 3 Select Save.

Marking a Waypoint Using the Map

- 1 Select Map.
- 2 Select a location on the map.
- 3 Select the information bar at the top of the screen.
- 4 Select ► > OK.

Finding a Waypoint

- 1 Select Waypoint Manager.
- 2 Select a waypoint from the list.

2 Waypoints

- 4 Select an option:
 - Select Spell Search to search using the name of the waypoint.
 - Select Select Symbol to search using the symbol of the waypoint.
 - Select Search Near to search near a recently found location, another waypoint, your current location, or a point on the map.
 - Select Sort to view the list of waypoints based on nearest distance or alphabetical order.

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 ✓.

Deleting a Waypoint

- 1 Select > Waypoint Manager.
- 2 Select a waypoint.
- 3 Select => Delete > Yes.

Increasing the Accuracy of a Waypoint Location

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 **=** > 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 4 to 8 samples for the waypoint, waiting at least 90 minutes between samples.

Projecting a Waypoint

You can create a new location by projecting the distance and bearing from a marked location to a new location.

- 1 Select Waypoint Manager.
- 2 Select a waypoint.
- 3 Select ≡ > Project Waypoint.
- 4 Enter the bearing, and select ✓.
- 5 Select a unit of measure.
- 6 Enter the distance, and select ✓.
- 7 Select Save.

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.

Recording a Track Log

By default, the device records a track log automatically while it is on and receiving a GPS signal. You can pause and start track recording manually.

1 Walk around to record a track.

- 2 Select Current Track > ▶.
- 3 Select an option:
 - To pause track recording, select ...
 - To start track recording, select ▶.

Changing the Current Track Color

- 1 Select Current Track > 1 > Color.
- 2 Select a color.

Saving the Current Track

- 1 Select Current Track > ▶.
- 2 Select an option:
 - Select 🖺 to save the entire track.
 - Select => Save Portion, and select a section of the track.

The current track is saved using the default output format or your previously configured output format (*Selecting an Output Format for Saved Tracks*, page 3).

Selecting an Output Format for Saved Tracks

- 1 Select Current Track > I▶ > ≡ > Setup Tracks > Output Format.
- 2 Select an option:
 - To save fitness information with the track, select Tracks (FIT).
 - To save track information only in a more widely compatible format, select Tracks (GPX).
 - To save to both output formats, select Both (GPX/FIT).

Navigating Using TracBack®

While navigating, you can navigate back to the beginning of your track. This can be helpful when finding your way back to camp or the trail head.

- - The map displays your route with a magenta line, start point, and end point.
- 2 Navigate using the map or the compass.

Clearing the Current Track

Select ► > Current Track > \(\overline{\text{T}} > \text{Clear}. \)

Viewing Track Information

- 1 Select Track Manager.
- 2 Select a track.
- 3 Select an option:
 - To view the elevation plot (*Elevation Plot*, page 5) of the track, select .
 - To view data fields and options for the track, select
 • TIP: You can select ★ to archive the track.
 - To view the track on the map, select .
 TIP: You can select the information bar at the top of the map screen to view more details about the track.

Saving a Location on a Track

- 1 Select Track Manager.
- 2 Select a track.
- 3 Select
- 4 Select a location on the track.
- **5** Select the information bar at the top of the screen. Information about the location appears.

Tracks 3

6 Select ► > OK.

Showing Saved Tracks on the Map

You can show one or more saved tracks on the map.

- 1 Select Track Manager.
- 2 Select a track.
- 3 Select 1.
- 4 Select Color, and select a color for the track line on the map.
- 5 Select Show On Map.
 On appears on the Show On Map option.
- 6 Select 5.
- 7 Select another track, and repeat steps 3 6 (optional).
- 8 Select X, and close the application drawer.
- 9 From the main menu, select Map.
 The selected tracks appear on the map.

Archived Tracks

Your device allows you to save 200 tracks and 10,000 track points within a track. If you exceed these limits, there may not be enough memory for your current track recording. Archiving frees up memory for current track recording and stores archived tracks in a different location on your drive. The number of archived tracks you can store is limited only by the size of your drive. You can transfer archived tracks from your device to your computer for saving and viewing using Garmin BaseCamp[™].

You can archive saved tracks manually. In addition, you can create archived tracks from the current track log on an automated schedule or when the track log is full.

Archiving Tracks Automatically

You can archive tracks on an automated schedule to save memory space.

- 1 Select Setup > Tracks > Advanced Setup > Auto Archive.
- 2 Select When Full, Daily, or Weekly.

Archiving Tracks Manually

You can archive saved tracks manually.

- 1 Select Track Manager.
- 2 Select a saved track.
- 3 Select **6** > ★.

The track moves from the saved tracks list to the archived tracks list.

Deleting a Track

- 1 Select Track Manager.
- 2 Select a track.
- 3 Select **=** > **Delete**.

Navigation

Where To? Menu

You can use the Where To? menu to find a destination to navigate to. Not all Where To? categories are available in all areas and maps.

Navigating to a Destination

- 1 Select Where To?.
- 2 Select a category.
- 3 Select a destination.
- 4 Select Go.

Your route appears as a magenta line on the map.

5 Navigate using the map (Navigating with the Map, page 4) or compass (Navigating with the Compass, page 5).

Finding a Location by Name

- 1 Select Where To? > Waypoints > = > Spell Search.
- **2** Enter the name or part of the name.
- 3 Select ✓.

Finding a Location Near Another Location

- 1 Select Where To? > = > Search Near.
- 2 Select an option.
- 3 Select a location.

Finding an Address

You can use optional City Navigator® maps to search for addresses.

- 1 Select Where To? > Addresses.
- 2 Select the country or state, if necessary.
- 3 Enter the city or postal code.

NOTE: Not all map data provides postal code searching.

- 4 Select the city.
- 5 Enter the house number.
- 6 Enter the street.

Marking and Starting Navigation to a Man Overboard Location

You can save a man overboard (MOB) location, and automatically start navigation back to it.

1 Select Man Overboard > Start.

The map opens showing the route to the MOB location. The default appearance of the route is a magenta line.

2 Navigate using the map (Navigating with the Map, page 4) or compass (Navigating with the Compass, page 5).

Stopping Navigation

From the map or compass, select => Stop Navigation.

Navigating with Sight 'N Go

You can point the device at an object in the distance, lock in the direction, and navigate to the object.

- 1 Select Sight 'N Go.
- 2 Point the device at an object.
- 3 Select Lock Direction > Set Course.
- 4 Navigate using the compass.

Navigating with the Map

- 1 Begin navigating to a destination (*Navigating to a Destination*, page 4).
- 2 Select Map.

A blue triangle represents your location on the map. As you travel, the blue triangle moves and leaves a track log (trail).

- 3 Complete one or more actions:
 - · Drag the map to view different areas.
 - Select + and to zoom in and out of the map.
 - Select a location on the map (represented by a pin), and select the information bar at the top of the screen to view information about the selected location.

Navigating a Driving Route

Before you can navigate street routes, you must purchase and load City Navigator maps.

- 1 Select Profile Change > Automotive.
- 2 Select a destination.
- 3 Navigate using the map.

 Turns appear in the information har alo

Turns appear in the information bar along the top of the map. Audible tones signal turns in the route.

Optional Maps

You can use additional maps with the device, such as BirdsEye satellite imagery, BlueChart® g2, and City Navigator detailed maps. Detailed maps may contain additional points of interest, such as restaurants or marine services. For more information, go to http://buy.garmin.com or contact your Garmin dealer.

BirdsEye Imagery

You can download and view detailed satellite imagery on your device using Garmin BaseCamp software and a BirdsEye imagery subscription. Go to garmin.com/birdseye and garmin.com/basecamp for more information.

Your device may include a one-year BirdsEye imagery subscription. This subscription is not available in all areas or for all device models.

3D Map View

Before you can use this feature, you must purchase maps that contain 3D information.

Select 3D View.



_	Select to increase the elevation of the viewing angle.
+	Select to decrease the elevation of the viewing angle.
1	Select to pan the 3D map forward.
•	Select to pan the 3D map backward.
	Select to rotate the view to the left.
7	Select to rotate the view to the right.

Navigating with the Compass

When navigating to a destination, \blacktriangle points to your destination, regardless of the direction you are moving.

- 1 Begin navigating to a destination (Navigating to a Destination, page 4).
- 2 Select Compass.
- 3 Turn until ▲ points toward the top of the compass, and continue moving in that direction to the destination.

Calibrating the Compass

NOTICE

Calibrate the electronic compass outdoors. To improve heading accuracy, do not stand near objects that influence magnetic fields, such as vehicles, buildings, and overhead power lines.

Your device was already calibrated at the factory, and the device uses automatic calibration by default. If you experience irregular compass behavior, for example, after moving long

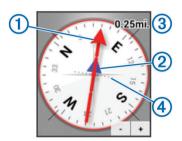
distances or after extreme temperature changes, you can manually calibrate the compass.

- 1 Select Compass > ≡ > Calibrate Compass > Start.
- 2 Follow the on-screen instructions.

Course Pointer

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

To enable the course pointer, from the compass, select **Setup > Heading > Go To Line/Pointer > Course (CDI)**.



The course pointer ① indicates your relationship to the course line leading to the destination. The course deviation indicator (CDI) ② provides the indication of drift (right or left) from the course. The scale ③ refers to the distance between dots ④ on the course deviation indicator, which tell you how far off course you are.

Elevation Plot

By default, the elevation plot displays the elevation over the distance traveled. To customize the elevation settings, see *Altimeter Settings*, page 11. You can touch any point on the plot to view details about that point.

Navigating to a Point on the Plot

- 1 Select Elevation Plot.
- **2** Select an individual point on the plot. Details about the point appear.
- 3 Select ≡ > View Map.
- 4 Select the information bar at the top of the screen.
- 5 Select Go.

The map opens with your route marked with a magenta line.

6 Navigate using the map (*Navigating with the Map*, page 4) or compass (*Navigating with the Compass*, page 5).

Changing the Plot Type

You can change the elevation plot to display pressure and elevation over time or distance.

- 1 Select Elevation Plot > Change Plot Type.
- 2 Select an option.

Resetting the Elevation Plot

Select Elevation Plot > == > Reset > Clear Current Track > Clear.

Calibrating the Barometric Altimeter

Your device was already calibrated at the factory, and the device uses automatic calibration by default. You can manually calibrate the barometric altimeter if you know the correct elevation or the correct barometric pressure.

- 1 Go to a location where the elevation or barometric pressure is known.
- 2 Select Elevation Plot > = > Calibrate Altimeter.
- 3 Follow the on-screen instructions.

Navigation 5

Trip Computer

The trip computer displays your current speed, average speed, maximum speed, trip odometer, and other helpful statistics. You can customize the trip computer layout, dashboard, and data fields.

From the main menu, select Trip Computer.

Resetting the Trip Computer

For accurate information, reset the trip information before beginning a trip.

Select Trip Computer > = > Reset > Reset Trip Data > Reset.

Routes

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

Creating a Route

- 1 Select Route Planner > Create Route > Select First Point.
- 2 Select a category.
- **3** Select the first point in the route.
- 4 Select Use > Select Next Point.
- **5** Repeat steps 2–4 to add all the points in the route.
- 6 Select 5 to save the route.

Editing the Name of a Route

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

Editing a Route

- 1 Select Route 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 5 to save the route.

Viewing a Route on the Map

- 1 Select Route Planner.
- Select a route.
- 3 Select View Map.

Deleting a Route

- 1 Select Route Planner.
- Select a route.
- 3 Select Delete Route.

Viewing the Active Route

- 1 While navigating a route, select **Active Route**.
- 2 Select a point in the route to view additional details.

Reversing a Route

You can switch the start and end points of your route to navigate the route in reverse.

1 Select Route Planner.

- 2 Select a route.
- 3 Select Reverse Route.

Garmin Adventures

You can create adventures to share your journeys with family, friends, and the Garmin community. You can group related items together as an adventure. For example, you can create an adventure for your latest hiking trip. The adventure could contain the track log of the trip, photos of the trip, and geocaches you hunted. You can use BaseCamp to create and manage your adventures. For more information, go to adventures.garmin.com.

NOTE: BaseCamp is not available for all device models.

Creating an Adventure

Before you can create an adventure and send it to your device, you must download BaseCamp to your computer and transfer a track from your device to your computer (*Sending Files to BaseCamp*, page 14).

- 1 Open BaseCamp.
- 2 Select File > New > Garmin Adventure.
- 3 Select a track, and select Next.
- 4 If necessary, add items from BaseCamp.
- 5 Complete the required fields to name and describe the adventure.
- 6 If you want to change the cover photo for the adventure, select **Change**, and select a different photo.
- 7 Select Finish.

Starting an Adventure

Before you can start an adventure, you must send an adventure from BaseCamp to your device (*Sending Files to BaseCamp*, page 14).

- 1 Select Adventures.
- 2 Select an adventure.
- 3 Select Start.

Camera and Photos

NOTE: This feature is available only for models that include a camera.

When you take a photo, the geographic location is saved with the photo information. You can navigate to the location.

Taking a Photo

- 1 Select Camera.
- 2 Turn the device horizontally or vertically to change the orientation of the photo.
- 3 If necessary, select + or to zoom in or out.
- 4 Hold to focus and hold the device still.

A white frame appears on the screen. The device focuses on the object inside of the frame. When the photo is in focus, the frame turns green.

5 Release to take a photo.

Adjusting the Camera Lighting Mode

You can change the camera mode to take clearer photos in different lighting situations.

- 1 Select Camera > =
- 2 Select an option:
 - To take photos in low light environments, select Low Light Mode.
 - To take photos in brightly lit environments, select Standard Mode.

6 Camera and Photos

Viewing Photos

You can view photos you took with the camera and photos you transferred to the device.

- 1 Select Photo Viewer.
- 2 Select a photo.
- 3 If necessary, select + or to zoom in or out.

Viewing a Slideshow

- 1 Select Photo Viewer.
- 2 Select a photo.
- 3 Select => View Slideshow.

Sorting Photos

- 1 Select Photo Viewer > = > Sort Photos.
- 2 Select an option:
 - · Select Most Recently.
 - Select Near A Location, and select a location.
 - · Select On A Specific Date, and enter a date.

Viewing the Location of a Photo

- 1 Select Photo Viewer.
- 2 Select a photo.
- 3 Select ≡ > View Map.

Navigating to a Photo

- 1 Select Photo Viewer.
- 2 Select a photo.
- 3 Select = > View Information > Go.

Setting a Photo as Wallpaper

You can select a photo for the home screen background.

- 1 Select Photo Viewer.
- 2 Select a photo.
- 3 Select => Set As Wallpaper.

Deleting a Photo

- 1 Select Photo Viewer.
- 2 Select a photo.
- 3 Select = > Delete Photo > Delete.

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.geocaching.com/play.
- 3 If necessary, create an account.
- 4 Sign in.
- 5 Follow the on-screen instructions to find and download geocaches to your device.

Filtering the Geocache List

You can filter your geocache list based on certain factors, such as the level of difficulty.

- 1 Select Geocaching > Quick Filter.
- 2 Select items to filter.
- 3 Customize the settings, and select 5.
- **4** Select an option:
 - · To apply the filter to the geocache list, select Search.

To save the filter, select **5**.

Creating and Saving a Geocache Filter

You can create and save custom filters for geocaches based on specific factors. After you set up the filter, you can apply it in the geocaches list.

- 1 Select Setup > Geocaching > Filter Setup > Create Filter.
- 2 Select items to filter.
- 3 Select an option:
 - To apply the filter to the geocache list, select Search.
 - To save the filter, select . After it is saved, the filter is automatically named. You can access the custom filter from the geocaches list.

Editing a Custom Geocache Filter

- 1 Select Setup > Geocaching > Filter Setup.
- 2 Select a filter.
- 3 Select an item to edit.

Navigating to a Geocache

- 1 Select Geocaching > Find a Geocache.
- 2 Select a geocache.
- 3 Select Go.
- **4** Navigate using the map (*Navigating with the Map*, page 4) or compass (*Navigating with the Compass*, page 5).

Logging the Attempt

Before you can log an attempt to find a geocache, you must start navigating to the geocache (*Navigating to a Geocache*, page 7).

After attempting to find a geocache, you can log your results.

- 1 Select Geocaching > Log Attempt.
- 2 Select Found, Did Not Find, or Needs Repair.
- 3 Select an option:
 - To begin navigation to the next geocache nearest you, select Find Next Closest.
 - To stop logging, select **Done**.
 - To enter a comment about looking for the cache or about the cache itself, select Edit Comment, enter a comment, and select ✓.

chirp™

A chirp is a small Garmin accessory that is programmed and left in a geocache. You can use your device to find a chirp in a geocache. For more information about the chirp, see the *chirp Owner's Manual* at www.garmin.com.

Enabling chirp Searching

- 1 Select Setup > Geocaching.
- 2 Select chirp Searching > On.

Finding a Geocache with a chirp

- 1 Select Geocaching > Find a Geocache.
- 2 Select a geocache.
- 3 Select Go.
- **4** Navigate using the map (*Navigating with the Map*, page 4) or compass (*Navigating with the Compass*, page 5).
 - When you are within approximately 32.9 ft (10 m) of the geocache that contains a chirp, details about the chirp appear.
- 5 If necessary, select Geocaching > Show chirp Details.
- **6** If available, select **Go** to navigate to the next stage of the geocache.

Geocaches 7

Applications

Sending and Receiving Data Wirelessly

Before you can share data wirelessly, you must be within 3 m (10 ft.) of a compatible Garmin device.

Your device can send and receive data wirelessly when connected with a compatible Garmin device using ANT+° technology. You can share waypoints, geocaches, routes, tracks, and more.

- 1 Select Share Wirelessly.
- 2 Select an option:
 - · Select Send, and select a type of data.
 - Select Receive to receive data from another device. The other compatible device must be attempting to send data.
- 3 Follow the on-screen instructions.

Setting a Proximity Alarm

Proximity alarms alert you when you are within a specified range of a particular location.

- 1 Select Proximity Alarms > Create Alarm.
- 2 Select a category.
- 3 Select a location.
- 4 Select Use.
- 5 Enter a radius, and select ✓.

When you enter an area with a proximity alarm, the device sounds a tone.

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.

Using the Calculator

The device has a standard calculator and a scientific calculator. Select **Calculator**.

Viewing the Calendar and Almanacs

You can view device activity, such as when a waypoint was saved, and almanac information for the sun and moon, and hunting and fishing.

- 1 Select an option:
 - · To view device activity for specific days, select Calendar.
 - To view the sunrise, sunset, moonrise, and moonset information, select Sun and Moon.
 - To view the predicted best times for hunting and fishing, select Hunt and Fish.
- 3 Select a day.

Setting an Alarm

If you are not currently using the device, you can set the device to turn on at a specific time.

- 1 Select Alarm Clock.
- 2 Select + and to set the time.
- 3 Select Turn Alarm On.
- 4 Select an option.

The alarm sounds at the selected time. If the device is off at the alarm time, the device turns on and sounds the alarm.

Starting the Countdown Timer

- 1 Select Alarm Clock > = > Timer.
- 2 Select + and to set the time.
- 3 Select Start Timer.

Opening the Stopwatch

Select Stopwatch.

Satellite Page

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

Changing the Satellite View

- 1 Select Satellite > =
- 2 If necessary, select **Track Up** to orient the satellite view with your current track toward the top of the screen.
- 3 If necessary, select Multicolor to assign a specific color to the satellite and to the signal strength bar of that satellite.

Turning Off GPS

Select Satellite > = > Use With GPS Off.

Simulating a Location

- 1 Select Satellite > = > Use With GPS Off.
- 2 Select => Set Location On Map.
- 3 Select a location.
- 4 Select Use.

ANT+ Sensors

Pairing Your ANT+ Sensors

Before you can pair, you must put on the heart rate monitor or install the sensor.

The device is compatible with the heart rate monitor, GSC™ 10 speed and cadence sensor, and tempe™ wireless temperature sensor. You can customize a data field to display sensor data.

- **1** Bring the device within range (3 m) of the sensor.
 - **NOTE:** Stay 10 m away from other ANT+ sensors while pairing.
- 2 Select Setup > ANT Sensor.
- 3 Select your sensor.
- 4 Select Search for new.

When the sensor is paired with your device, the sensor status changes from Searching to Connected.

Tips for Pairing ANT+ Accessories with Your Garmin Device

- Verify that the ANT+ accessory is compatible with your Garmin device.
- Before you pair the ANT+ accessory with your Garmin device, move 10 m (32.9 ft.) away from other ANT+ accessories.
- Bring the Garmin device within range 3 m (10 ft.) of the ANT+ accessory.
- After you pair the first time, your Garmin device automatically recognizes the ANT+ accessory each time it is activated. This process occurs automatically when you turn on the Garmin device and only takes a few seconds when the accessories are activated and functioning correctly.
- When paired, your Garmin device receives data from only your accessory, and you can go near other accessories.

tempe

The tempe is an ANT+ wireless temperature sensor. You can attach the sensor to a secure strap or loop where it is exposed to ambient air, and therefore, provides a consistent source of accurate temperature data. You must pair the tempe with your device to display temperature data from the tempe.

Displaying tempe Data

When displaying tempe data for the first time, you should complete these tasks to customize the device and data fields.

- 1 Pair your tempe sensor (Pairing Your ANT+ Sensors, page 8).
- 2 Customize data fields to display the temperature data (*Customizing the Data Fields*, page 9).

You can select the current temperature from the Current Status category. You can select the minimum and maximum temperatures for a 24-hour period from the Other category.

Displaying Heart Rate Data

When displaying heart rate data for the first time, you should complete these tasks to customize the device and data fields.

- **1** Pair your heart rate monitor (*Pairing Your ANT+ Sensors*, page 8).
- 2 Customize a data field to display the heart rate (*Customizing* the Data Fields, page 9).

You can select the heart rate data field from the Current Status category.

Customizing the Device

Activity Profiles

Activity profiles are a collection of settings that optimize your device based on how you are using it. For example, the settings and data screens are different when you are using the device for running than for riding your bike.

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

Selecting a Profile

When you change activities, you can change the setup of the device by changing the profile.

- 1 Select Profile Change.
- 2 Select a profile.

Creating a Custom Profile

You can customize your settings and data fields for a particular activity or trip.

- 1 Select Setup > Profiles > Create New Profile > OK.
- 2 Customize your settings and data fields.

Editing a Profile Name

- 1 Select Setup > Profiles.
- 2 Select a profile.
- 3 Select Edit Name.
- 4 Enter the new name.

Deleting a Profile

NOTE: Before you can delete the active profile, you must activate a different profile. You cannot delete a profile while it is active.

- 1 Select Setup > Profiles.
- 2 Select a profile.
- 3 Select Delete.

Customizing the Main Menu

- Hold any icon on the main menu or application drawer, and drag it to a new location.
- Open the application drawer, and drag an icon up to the main menu.
- Select Setup > Main Menu, and follow the on-screen instructions.

Creating a Shortcut

- 1 Select Setup > Shortcuts > Create Shortcut.
- 2 Select Name, and enter a name.
- 3 Select Icon, and select an icon.
- 4 Select **Profile**, and assign the shortcut to a specific profile.
- 5 Select an option:
 - Select Setup to add a shortcut to a specific device setting.
 - Select Where To? to add a shortcut that begins navigation to a specific waypoint.
 - Select Application to add a shortcut to a specific application.
- 6 Select the item.

Adding a Shortcut to the Main Menu

You can add shortcuts to the main menu, application drawer, or favorites. If the shortcut does not appear in the list, you can create it (Adjusting the Backlight Brightness, page 2).

- 1 Select Setup > Shortcuts.
- 2 Select the shortcut.
- 3 Select Add To Menu.
- 4 Select Main Menu, Drawer, or Favorites.

Custom Data Fields and Dashboards

Data fields display information about your location or other specified data. Dashboards are a custom grouping of data that can be helpful to a specific or general task, such as geocaching.

You can customize the data fields and dashboards of the map, compass, trip computer, elevation plot, and the status page.

Enabling the Map Data Fields

You can enable multiple small data fields or one large data field.

- 1 Select Map > = > Setup Map > Dashboard
- 2 Select Small Data Fields or Large Data Field. Empty data fields appear on the map.

Customizing the Data Fields

Before you can change the map data fields, you must enable them (*Enabling the Map Data Fields*, page 9).

You can customize the data fields and dashboards of the map, compass, trip computer, elevation plot, and status pages.

- 1 From a page that displays data fields, select a data field.
- 2 Select a data field category and a data field.
 For example, select Trip Data > Speed Moving Avg..

Customizing Dashboards

- 1 Open a page that contains a dashboard you can customize.
- 2 Select an option:
 - From the map, select = > Setup Map > Dashboard.
 - From the compass, trip computer, or status page, select
 Change Dashboard.
- 3 Select a dashboard.

Customizing the Device 9

Changing the Units of Measure

You can customize units of measure for distance and speed, elevation, depth, temperature, pressure, and vertical speed.

- 1 Select Setup > Units.
- 2 Select a measurement type.
- 3 Select a unit of measure.

Locking the Screen Orientation

The default setting allows the screen to change orientation automatically based on the device orientation. You can lock the screen orientation in portrait or landscape mode.

- 1 Select Setup > Display > Orientation Lock.
- 2 Select an option.

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.

Turning On Battery Save Mode

You can use battery save mode to prolong the battery life.

Select Setup > Display > Battery Save > On.

In battery save mode, the screen shuts off when the backlight times out. You can select \circlearrowleft to turn on the screen, and you can double tap \circlearrowleft to view the status page.

Adjusting the Volume

Before you can adjust the volume, you must attach headphones or use the auto mount.

- 1 Select (b.
- 2 Use the slider bar to adjust the volume.

System Settings

Select Setup > System.

Satellite: Sets the satellite system to GPS, GPS + GLONASS (GPS and GLONASS, page 10), or Demo Mode (GPS off).

WAAS/EGNOS: Sets the system to Wide Area Augmentation System/European Geostationary Navigation Overlay Service (WAAS/EGNOS). For more information about WAAS, go to garmin.com/aboutGPS/waas.html.

Text Language: Sets the text language on the device.

NOTE: Changing the text language does not change the language of user-entered data or map data.

Voice Language: Allows you to change the voice language.

Interface: Sets the format of the serial interface.

Configure Power Key: Allows you to assign shortcuts to the power key (*Customizing the Power Key*, page 10).

GPS and GLONASS

The default satellite system setting is GPS + GLONASS, which offers increased performance in challenging environments and faster position acquisition. Using GPS and GLONASS can reduce battery life more quickly than using GPS only.

Serial Interface Settings

Select Setup > System > Interface.

Garmin Spanner: Allows you to use the device USB port with most NMEA 0183-compliant mapping programs by creating a virtual serial port.

Garmin Serial: Sets the device to use a Garmin proprietary format to exchange waypoint, route, and track data with a computer.

NMEA In/Out: Sets the device to use standard NMEA 0183 output and input.

Text Out: Provides simple ASCII text output of location and velocity information.

RTCM: Allows the device to accept Differential Global Positioning System (DGPS) information from a device supplying Radio Technical Commission for Maritime Services (RTCM) data in an SC-104 format.

Customizing the Power Key

You can configure the power key as a shortcut to a menu, setting, application, or status page. You can configure the shortcut to trigger with a single or double tap of the power key.

- 1 Select Setup > System > Configure Power Key.
- 2 Select Single Tap or Double Tap.
- 3 Select an item to display when you tap the power key:
 - To display the status page, select Status Page.
 - To display a specific application, shortcut, or setting, select Menu Item, browse for the item, and select the item
 - To turn off the shortcut, select None.

Display Settings

Select Setup > Display.

Backlight Timeout: Sets the length of time before the backlight turns off.

Orientation Lock: Locks the screen orientation in portrait or landscape mode, or allows the screen to change orientation automatically based on the device orientation.

Screen Capture: Allows you to save the image on the device screen.

Battery Save: Saves the battery power and prolongs the battery life by turning off the screen when the backlight times out (*Turning On Battery Save Mode*, page 10).

Calibrate Screen: Calibrates the screen if the screen does not properly respond to touches.

Appearance Settings

Select Setup > Appearance.

Mode: Sets a light background, a dark background, or automatically switches between the two based on the sunrise and sunset time for your current location.

Background: Sets the background image.

Day Highlight Color: Sets the color for the selections made when in day mode.

Night Highlight Color: Sets the color for the selections made when in night mode.

Landscape Controls: Places the controls on the left or right side of the screen when in landscape mode.

Map Settings

Select **Setup > Map**.

Map Information: Enables or disables the maps currently loaded on the device.

Orientation: Adjusts how the map is shown on the page. North Up shows North at the top of the page. Track Up shows your current direction of travel toward the top of the page. Automotive Mode shows an automotive perspective with the direction of travel at the top.

Dashboard: Sets a dashboard to display on the map. Each dashboard shows different information about your route or your location.

Guidance Text: Sets when the guidance text is shown on the map.

Map Speed: Adjusts the speed at which the map is drawn. A faster map drawing speed decreases the battery life.

Advanced Map Settings

Select Setup > Map > Advanced Setup.

Auto Zoom: Turns auto zoom on or off.

Detail: Sets the amount of detail shown on the map. Showing more detail may cause the map to redraw more slowly.

Shaded Relief: Shows detail relief on the map (if available) or turns off shading.

Vehicle: Sets the position icon, which represents your position the map. The default icon is a small blue triangle.

Zoom Levels: Adjusts the zoom level at which map items will appear. The map items do not appear when the map zoom level is higher than the selected level.

Text Size: Sets the text size for map items.

Camera Settings

Select Setup > Camera.

Photo Resolution: Sets the resolution of the photos.

Save Photos To: Sets the photo storage location.

Camera Instructions: Displays brief instructions about taking photos.

Tracks Settings

Select Setup > Tracks.

Record Method: Sets a track recording method. Auto records the tracks at a variable rate to create an optimum representation of your tracks.

Interval: Sets a track log recording rate. Recording points more frequently creates a more-detailed track, but fills the track log faster.

Auto Pause: Pauses tracking automatically when you stop moving.

Auto Start: Starts recording a track automatically when the device has acquired satellites.

Output Format: Allows you to choose the format for recording a track log. GPX format is a traditional track that can be viewed on the device map and used for navigation. Tracks are reviewed using Track Manager. FIT format is a fitness activity that records additional information (for example, laps). Activities can be reviewed on the device, but are tailored for Garmin Connect™. You can select Both to record your data in both formats simultaneously. This option uses more storage space.

Advanced Setup: Allows you to set up automatic archiving, set up when to record trip data, and reset trip data.

Time Settings

Select Setup > Time.

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.

Heading Settings

You can customize the compass settings.

Select Setup > Heading.

Display: Sets the type of directional heading shown on the compass.

North Reference: Sets the north reference used on the compass.

Go To Line/Pointer: Allows you to use the bearing pointer that points in the direction of your destination, or use the course pointer that shows your relationship to the course line leading to the destination.

Compass: Automatically switches from an electronic compass to a GPS compass when you are traveling at a higher rate of speed for a period of time.

Calibrate Compass: Allows you to calibrate the compass if you experience irregular compass behavior, for example, after moving long distances or after extreme temperature changes. See *Calibrating the Compass*, page 5.

Altimeter Settings

Select Setup > Altimeter.

Auto Calibration: Automatically calibrates the altimeter each time the device is turned on. The device continues to automatically calibrate the altimeter as long as the device has GPS signals acquired.

Barometer Mode: Variable Elevation allows the barometer to measure changes in elevation while you are moving. Fixed Elevation assumes the device is stationary at a fixed elevation, so the barometric pressure should only change due to weather.

Pressure Trending: Sets how the device records pressure data. Save Always can be useful when you are watching for pressure fronts.

Plot Type: Records elevation changes over a period of time or distance, records barometric pressure over a period of time, or records ambient pressure changes over a period of time.

Calibrate Altimeter: Allows you to calibrate the barometric altimeter if you know the correct elevation or the correct barometric pressure. See *Calibrating the Barometric Altimeter*, page 5.

Geocaching Settings

Select **Setup > Geocaching**.

Geocache List: Allows you to display the geocache list by names or codes.

Geocache Style: Sets the display style for geocache data.

chirp Searching: Allows the device to search for a geocache containing a chirp accessory (*Enabling chirp Searching*, page 7).

Program chirp: Programs the chirp accessory. See the *chirp* owner's manual at www.garmin.com.

Filter Setup: Allows you to create and save custom filters for geocaches based on specific factors (*Creating and Saving a Geocache Filter*, page 7).

Found Geocaches: Allows you to edit the number of geocaches found. This number automatically increases as you log a find (*Logging the Attempt*, page 7).

Routing Settings

The device calculates routes optimized for the type of activity you are doing. The available routing settings vary based on the activity selected.

Customizing the Device 11

Select Setup > Routing.

Navigation Voice: Sets the voice and language for navigation prompts.

Activity: Sets an activity for routing. The device calculates routes optimized for the type of activity you are doing.

Route Transitions: Sets how the device routes from one point on the route to the next. This setting is available only for some activities. Distance routes you to the next point on the route when you are within a specified distance of your current point.

Lock On Road: Locks the blue triangle, which represents your position on the map, onto the nearest road.

Fitness Settings

Select Setup > Fitness

Auto Lap: Sets the device to automatically mark the lap at a specific distance.

User: Sets the user profile information (*Setting Your Fitness User Profile*, page 12).

HR Zones: Sets the five heart rate zones for fitness activities.

FIT Activity: Sets the fitness activity to running, cycling, or other. This allows your running activity to appear as a running activity when you transfer it to Garmin Connect.

Setting Your Fitness User Profile

The device uses information that you enter about yourself to calculate accurate data. You can modify the following user profile information: gender, age, weight, height, and lifetime athlete (*About Lifetime Athletes*, page 12).

- 1 Select Setup > Fitness > User.
- 2 Modify the settings.

About Lifetime Athletes

A lifetime athlete is an individual who has trained intensely for many years (with the exception of minor injuries) and has a resting heart rate of 60 beats per minute (bpm) or less.

About Heart Rate Zones

Many athletes use heart rate zones to measure and increase their cardiovascular strength and improve their level of fitness. A heart rate zone is a set range of heartbeats per minute. The five commonly accepted heart rate zones are numbered from 1 to 5 according to increasing intensity. Generally, heart rate zones are calculated based on percentages of your maximum heart rate.

Fitness Goals

Knowing your heart rate zones can help you measure and improve your fitness by understanding and applying these principles.

- · Your heart rate is a good measure of exercise intensity.
- Training in certain heart rate zones can help you improve cardiovascular capacity and strength.
- Knowing your heart rate zones can prevent you from overtraining and can decrease your risk of injury.

If you know your maximum heart rate, you can use the table (*Heart Rate Zone Calculations*, page 12) to determine the best heart rate zone for your fitness objectives.

If you do not know your maximum heart rate, use one of the calculators available on the Internet. Some gyms and health centers can provide a test that measures maximum heart rate. The default maximum heart rate is 220 minus your age.

Setting Your Heart Rate Zones

Before the device can determine your heart rate zones, you must set up your fitness user profile (Setting Your Fitness User Profile, page 12).

You can manually adjust the heart rate zones according to your fitness goals (*Fitness Goals*, page 12).

- 1 Select Setup > Fitness > HR Zones.
- 2 Enter the maximum and minimum heart rate for zone 5.

 The maximum heart rate for each zone is based on the minimum heart rate of the previous zone. For example, if you enter 167 as a minimum heart rate for zone 5, the device uses 166 as the maximum rate for zone 4.
- 3 Enter your minimum heart rate for zones 4-1.

Heart Rate Zone Calculations

Zone	% of Maximum Heart Rate	Perceived Exertion	Benefits
1	50–60%	Relaxed, easy pace, rhythmic breathing	Beginning-level aerobic training, reduces stress
2	60–70%	Comfortable pace, slightly deeper breathing, conversation possible	Basic cardiovascular training, good recovery pace
3	70–80%	Moderate pace, more difficult to hold conversation	Improved aerobic capacity, optimal cardiovascular training
4	80–90%	Fast pace and a bit uncomfortable, breathing forceful	Improved anaerobic capacity and threshold, improved speed
5	90–100%	Sprinting pace, unsustainable for long period of time, labored breathing	Anaerobic and muscular endurance, increased power

Running or Cycling with Your Device

Before you go for a run or ride using the device, you must change the profile to fitness (*Selecting a Profile*, page 9).

You can customize your dashboards and data fields for your fitness activities (Custom Data Fields and Dashboards, page 9).

1 If your device is currently recording a track, select Current Track > ■.

You can save or delete the current track.

- 2 Select Setup > Tracks > Output Format.
- 3 Select an option:
 - Select GPX to record your activity as a traditional track that can be viewed on the map and used for navigation.
 - Select FIT to record your activity with fitness information (for example, laps) that is tailored for Garmin Connect.
 - Select **Both** to record your data in both formats simultaneously. This setting uses more memory space.
- 4 From the main menu, select Stopwatch > Start.
- 5 Go for a run or ride.
- 6 When finished, select Stop.
- 7 Select Reset > Save.

Marine Settings

Select Setup > Marine.

Marine Chart Mode: Sets the type of chart the device uses when displaying marine data. Nautical displays various map features in different colors so the marine POIs are more readable and so the map reflects the drawing scheme of paper charts. Fishing (requires marine maps) displays a detailed view of bottom contours and depth soundings and simplifies map presentation for optimal use while fishing.

Appearance: Sets the appearance of marine navigation aids on the map.

Marine Alarm Setup: Sets alarms for when you exceed a specified drift distance while anchored, when you are off course by a specified distance, and when you enter water of a specific depth.

Setting Up Marine Alarms

- 1 Select Setup > Marine > Marine Alarm Setup.
- 2 Select an alarm type.
- 3 Select On.
- 4 Enter a distance, and select ✓.

Setting the Device Tones

You can customize tones for messages, keys, turn warnings, and alarms.

- 1 Select Setup > Tones > Tones > On.
- 2 Select a tone for each audible type.

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.

Restoring Default Values for Specific Settings

- 1 Select Setup.
- 2 Select an item to reset.
- 3 Select **=** > Restore Defaults.

Restoring Default Values for Specific Page Settings

You can restore the default values for settings for the map, compass, trip computer, and elevation plot.

- 1 Open the page for which you will restore the settings.
- 2 Select = > Restore Defaults.

Restoring All Default Settings

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

Device Maintenance

Support and Updates

Garmin Express™ (garmin.com/express) provides easy access to these services for Garmin devices.

- · Product registration
- Product manuals
- · Software updates
- · Data uploads to Garmin Connect

Updating the Software

NOTE: Updating the software does not erase any of your data or settings.

- 1 Connect your device to a computer using the USB cable.
- **2** Go to garmin.com/express.
- 3 Follow the on-screen instructions.

Device Care

NOTICE

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

Never use a hard or sharp object to operate the touch screen, or damage may result.

Avoid chemical cleaners and solvents that can damage plastic components.

Secure the weather cap tightly to prevent damage to the mini-USB port.

Cleaning the Device

- 1 Wipe the device using a cloth dampened with a mild detergent solution.
- 2 Wipe it dry.

Cleaning the Touchscreen

- 1 Use a soft, clean, lint-free cloth.
- 2 If necessary, lightly dampen the cloth with water.
- **3** If using a dampened cloth, turn off the device and disconnect the device from power.
- 4 Gently wipe the screen with the cloth.

Water Immersion

NOTICE

The device is waterproof to IEC Standard 60529 IPX7. It can withstand 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.

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 handheld device supports these file types:

- Files from BaseCamp or HomePort™. Go to www.garmin.com /trip_planning.
- GPX track files.
- GPX geocache files (*Downloading Geocaches*, page 7).
- JPEG photo files.
- GPI custom POI files from the Garmin POI Loader. Go to www.garmin.com/products/poiloader.
- · FIT files for exporting to Garmin Connect.

Installing a Memory Card

You can install a microSD™ memory card for additional storage or pre-loaded maps.

- Turn the D-ring counter-clockwise, and pull up to remove the cover.
- 2 Remove the batteries.
- 3 In the battery compartment, slide the card holder ① to the left and lift up.



- **4** Place the memory card ② with the gold contacts facing down.
- 5 Close the card holder.

Device Maintenance 13

- 6 Slide the card holder to the right to lock it.
- 7 Replace the batteries.
- 8 Replace the battery cover, and turn the D-ring clockwise.

Connecting the Device to Your Computer

NOTICE

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

Before you can connect the straight connector of the USB cable to your device, you may have to remove optional mount accessories.

- 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.

Your device and memory card (optional) appear as removable drives in My Computer on Windows computers and as mounted volumes on Mac computers.

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.
- 3 Select a file.
- 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.

Sending Files to BaseCamp

- 1 Open BaseCamp.
- 2 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.

- 3 Open the **Garmin** or memory card drive or volume.
- 4 Select an option:
 - Select an item from a connected device and drag it to My Collection or to a list.
 - From BaseCamp, select Device > Receive from Device, and select the device.

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.
- 3 Select a file.
- 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.

Resetting the Device

If the device stops responding, you may need to reset it. This does not erase any of your data or settings.

- Remove the batteries.
- 2 Reinstall the batteries.

Removing the Battery Pack

△ WARNING

Do not use a sharp object to remove batteries.

- 1 Turn the D-ring counter-clockwise, and pull up to remove the cover.
- 2 Pull up on the side of the battery pack closest to the power button.

Device Information

Specifications

-	
Battery type	Lithium-ion battery pack or three AA batteries (alkaline, NiMH, or lithium)
Water resistance	IEC 60529 IPX7 ¹
Operating temperature range	From -20° to 70°C (from -4° to 158°F)
Charging temperature range	From 0° to 45°C (from 32° to 113°F)

About the Batteries

⚠ WARNING

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

The temperature rating for the device may exceed the usable range of some batteries. Alkaline batteries can rupture at high temperatures.

NOTICE

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

Viewing Device Information

You can view the unit ID, software version, and license agreement.

Select Setup > About.

 $^{^{1}\,{}^{\}star}\text{The}$ device withstands incidental exposure to water of up to 1 m for up to 30 min.

Getting More Information

You can find more information about this product on the Garmin website.

- Go to www.garmin.com/outdoor.
- Go to http://buy.garmin.com, or contact your Garmin dealer for information about optional accessories and replacement parts.

Troubleshooting

How do I know my device is in USB mass storage mode?

- · View your device screen.
 - An image of the device connected to a computer appears.
- · View your computer screen.

A new removable disk drive appears in My Computer on Windows computers, or a mounted volume appears on Mac computers.

I need to reset all settings back to factory default values

Select Setup > Reset > Reset All Settings.

I need replacement parts or accessories

- · Go to buy.garmin.com.
- · Contact your Garmin dealer.

I need to buy an external GPS antenna

- · Go to buy.garmin.com.
- · Contact your Garmin dealer.

My battery does not stay charged for very long

You can take various actions to increase your battery life.

- Exit the camera application when you are not taking photos.
- Decrease the backlight brightness (Adjusting the Backlight Brightness, page 2).
- Decrease the backlight timeout (Adjusting the Backlight Timeout, page 10).
- Enable battery save mode (Display Settings, page 10).
- Select the Normal option for the Map Speed (Map Settings, page 10).

My device does not appear as either a portable device or a removable drive or volume on my computer

- 1 Disconnect the USB cable from your computer.
- 2 Turn off the device.
- 3 Connect the USB cable to your device and to a USB port on your computer.

TIP: The USB cable must connect to a USB port on your computer, not to a USB hub.

The device turns on automatically and goes into MTP mode or USB mass storage mode. A picture of the device connected to a computer appears on the device screen.

NOTE: If you have several network drives mapped on your computer, Windows may have trouble assigning drive letters to your Garmin drives. For information about assigning drive letters, see the help file for your operating system.

My device is not acquiring satellite signals

- Take your device out of parking garages and away from tall buildings and trees.
- · Remain stationary for several minutes.

My device does not charge

- Verify the battery pack is properly installed (Installing the Battery Pack, page 1).
- Verify the temperature is between 0 and 45°C (from 32°F to 113°F).
- Turn down the backlight (Adjusting the Backlight Brightness, page 2).

My device does not go into mass storage mode automatically

If your device is connected to the computer but does not go into mass storage mode automatically, you might have loaded a corrupt file.

- 1 Disconnect the device from your computer.
- 2 Turn off the device.
- 3 Hold \circlearrowleft while you connect the device to your computer.
- 4 Continue holding \circlearrowleft for 30 seconds or until the device goes into mass storage mode.

My screen does not respond

If your touchscreen does not respond to your touches, you can reset your device.

- 1 Disconnect the device from external power.
- 2 Remove the batteries.
- **3** Reinstall the batteries (*Installing the Battery Pack*, page 1). This resets the device without erasing your data or settings.

Appendix

Optional Accessories

Optional accessories, such as mounts, maps, fitness accessories, and replacement parts, are available at http://buy.garmin.com or from your Garmin dealer.

Data Fields

Some data fields require you to be navigating or require ANT+ accessories to display data.

24hr Max Temperature: The maximum temperature recorded in the last 24 hours.

24hr Min Temperature: The minimum temperature recorded in the last 24 hours.

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

Alarm Timer: The current time of the countdown timer.

Ambient Pressure: The uncalibrated environmental pressure.

Ascent - Average: The average vertical distance of ascent since the last reset.

Ascent - Maximum: The maximum rate of ascent in feet per minute or meters per minute since the last reset.

Ascent - Total: The total elevation distance ascended since the last reset.

Automotive Turn: The direction of the next turn in the route. You must be navigating for this data to appear.

Average Cadence: The average cadence for the current activity.

Troubleshooting 15

Average Heart Rate: The average heart rate for the current activity.

Average Lap: The average lap time for the current activity.

Avg. Heart Rate Percent: The average percentage of maximum heart rate for the current activity.

Barometer: The calibrated current pressure.

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.

Cadence: The revolutions of the crank arm or strides per minute. Your device must be connected to a cadence accessory.

Calories: The amount of total calories burned.

Compass Heading: The direction the device is pointing based on the compass.

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.

Current Lap: The stopwatch time for the current lap.

Date: The current day, month, and year.

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

Descent - Average: The average vertical distance of descent since the last reset.

Descent - Maximum: The maximum rate of descent in feet per minute or meters per minute since the last reset.

Descent - Total: The total elevation distance descended since the last reset.

Distance To Destination: 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.

Elapsed (Total) Time: The total time recorded. For example, if you start the timer and run for 10 minutes, then stop the timer for 5 minutes, then start the timer and run for 20 minutes, your elapsed time is 35 minutes.

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

Elevation Above Ground: The altitude of your current location above ground level.

Elevation - Maximum: The highest elevation reached since the last reset.

Elevation - Minimum: The lowest elevation reached since the last reset.

ETA At Destination: The estimated time of day 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 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 Elevation: The altitude of your current location using GPS.

GPS Heading: The direction you are moving based on GPS.

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

Grade: The calculation of rise (elevation) over run (distance). For example, if for every 10 feet (3 m) you climb you travel 200 feet (60 m), the grade is 5%.

Heading: The direction you are moving.

Heart Rate: Your heart rate in beats per minute (bpm). Your device must be connected to a compatible heart rate monitor.

Heart Rate Percent Max: The percentage of maximum heart rate

Heart Rate Zone: The current range of heart rate (1 to 5). The default zones are based on your user profile, maximum heart rate, and resting heart rate.

Lap Ascent: The vertical distance of ascent for the current lap.

Lap Cadence: The average cadence for the current lap.

Lap Descent: The vertical distance of descent for the current lap.

Lap Distance: The distance traveled for the current lap.

Lap Heart Rate: The average heart rate for the current lap.

Lap Heart Rate Percent: The average percentage of maximum heart rate for the current lap.

Laps: The number of laps completed for the current activity.

Lap Speed: The average speed for the current lap.

Last Lap Ascent: The vertical distance of ascent for the last completed lap.

Last Lap Cadence: The average cadence for the last completed lap.

Last Lap Descent: The vertical distance of descent for the last completed lap.

Last Lap Distance: The distance traveled for the last completed lap.

Last Lap Heart Rate: The average heart rate for the last completed lap.

Last Lap Speed: The average speed for the last completed lap.

Last Lap Time: The stopwatch time for the last completed lap.

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.

Location of Destination: The position of your final destination. You must be navigating for this data to appear.

None: This is a blank data field.

Odometer: A running tally of 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 Limit: The reported speed limit for the road. Not available in all maps and in all areas. Always rely on posted road signs for actual speed limits.

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.

Stopwatch Timer: The stopwatch time 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 air. Your body temperature affects the temperature sensor.

Temperature - Water: The temperature of the water. Your device must be connected to a NMEA 0183 device capable of acquiring the water temperature.

Appendix

- **Time of Day**: The current time of day based on your current location and time settings (format, time zone, daylight saving time).
- **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.
- **To Course**: The direction in which you must move to get back on the route. You must be navigating for this data to appear.
- Total Lap: The stopwatch time for all the completed laps.
- Track Distance: The distance traveled for the current track.
- **Trip Odometer**: A running tally of the distance traveled since the last reset.
- **Trip Time**: A running tally of the total time spent moving and not moving 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.
- **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.
- **Vertical Dist to Dest**: The elevation distance between your current position and the final destination. You must be navigating for this data to appear.
- **Vertical Dist to Next**: The elevation distance between your current position and the next waypoint in the route. You must be navigating for this data to appear.
- Vertical Speed: The rate of ascent or descent over time.
- **Vertical Speed To Dest**: The rate of ascent or descent to a predetermined altitude. 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.

Appendix 17

Index	GLONASS 10	Sight N' Go 4
Symbols	GPS 8, 10 signal 2	software, updating 13 specifications 14
3D 5	H	stopwatch 8 storing data 14
map 5	heading setting 11	sunrise and sunset times 8
A	heart rate monitor 9	system settings 10
accessories 8, 15	zones 12	Т
addresses, finding 4 adventures 6	HomePort 13	tempe 9
alarms	hunting and fishing times 8	Tempe 9 temperature 9
clock 8	K Irana 4	time settings 11
marine 13 proximity 8	keys 1	time zones 11
almanac	L	timer, countdown 8 tones 13
hunting and fishing times 8	lifetime athlete 12 locations	touchscreen 2
sunrise and sunset times 8 altimeter 5, 11	editing 2	troubleshooting 15
ANT+ sensors, pairing 8	saving 2	TracBack 3 tracks 2-4, 6
area calculation 8	locking, screen 2, 10	archiving 4
В	M	color 3
backlight 2, 10	main menu 2, 9	saving 3 settings 11
barometer 5 BaseCamp 6, 13, 14	man overboard (MOB) 4 maps 2, 4	viewing 4
battery 1, 14	data fields 9	transferring
charging 1	navigating 3	files 7, 8, 13, 14 tracks 8
installing 1 maximizing 2, 10, 15	optional 5 settings 10, 11	trip computer 6
BirdsEye imagery 5	updating 13	trip information, viewing 6
C	marine	trip planner. See routes troubleshooting 13–15
calculator 8	alarms setup 13 settings 12	_
calendar 8	memory card 13	U unit ID 14
calibrating	microSD card 1, 13. See memory card	units of measure 10
altimeter 5 compass 5	N	updating software 13
camera 6	navigation 4, 5	USB 10, 15 connector 1
setting 6	compass 5 road 4	disconnecting 14
settings 11 charging 1, 15	stopping 4	mass storage mode 13, 15
chirp 7, 11	0	transferring files 13 user data, deleting 14
City Navigator 4	on-screen buttons 2	user profile 12
cleaning the device 13 cleaning the touchscreen 13	P	V
compass 4, 5	pairing, ANT+ sensors 8	volume, adjusting 10
navigating 5 settings 11	photos 6, 7	W
computer, connecting 14, 15	taking 6 viewing 7	water resistance 13
countdown timer 8	wallpaper 7	waypoints 2, 4
course, pointer 5 customizing the device 9	position format 11	deleting 3 editing 2, 3
cycling 12	power key 2 shortcuts 10	projecting 3
D	product registration 2, 13	saving 2
dashboards 9	profiles 9, 12	Where To? 4
data, transferring 14	proximity alarms 8	
data fields 9, 15 deleting, all user data 14	R	
device	registering the device 2, 13 replacement parts 15	
care 13	resetting the device 13–15	
registration 2 resetting 14	restoring, settings 13	
display settings 10	routes 6 creating 6	
downloading, geocaches 7	deleting 6	
E	editing 6	
elevation 5	settings 11 viewing on the map 6	
plot 5	running 12	
F	S	
files, transferring 7, 13, 14 fitness 12	satellite signals 2, 8	
	screen 2	
G Garmin Express	locking 2, 10 orientation 10	
registering the device 13	settings 10-13	
updating software 13	device 11	
geocaches 7, 13 downloading 7	sharing data 8 shortcuts 9	
settings 11	adding 9	

18 Index

support.garmin.com

