quatix™
Owner's Manual

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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 Charge the device (page 1).
2 Learn about profiles and sensor data (page 2).
3 Acquire satellites and record your track (page 2).
4 Mark and navigate to a waypoint (page 3).
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6 Stream data from your NMEA 2000® network (page 9).
7 Register the device (page 14).

Keys

①	◯	Select to turn the backlight on and off. Hold to turn the device on and off.
②	△	Select to scroll through the data pages, options, and settings.
③	▽	Select to scroll through the data pages, options, and settings.
④	⤺	Select to return to the previous screen. Hold to view the status page.
⑤	Blue key	Select to open the menu for the current screen. Select to choose an option and to acknowledge a message. Hold to mark a waypoint.

Charging the Device

NOTICE

To prevent corrosion, thoroughly dry the contacts and the surrounding area before charging or connecting to a computer.

The device is powered by a built-in lithium-ion battery that you can charge using a standard wall outlet or a USB port on your computer.

1 Plug the USB end of the cable into the AC adapter or a computer USB port.
2 Plug the AC adapter into a standard wall outlet.
3 Align the left side of the charging cradle ① with the groove on the left side of the device.

4 Align the hinged side of the charger ② with the contacts on the back of the device.

When you connect the device to a power source, the device turns on.
5 Charge the device completely.

Profiles

Profiles are a collection of settings that optimize your device based on how you are using it. For example, the settings and views are different when you are using the device when sailing than when powerboating.

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

Changing Profiles

When you change activities, you can quickly change the setup of the device to suit the activity by changing the profile.

1 Select the blue key.
2 Select **Profiles**.
3 Select a profile.

The profile you selected is now the active profile. Any changes you make are saved to the active profile.

Creating a Custom Profile

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

1 Select the blue key.
2 Select **Setup** > **Profiles**.
3 Select an option:
   • Select a profile.
   • Select **Create New**, and select the new profile.

   The profile you selected is now the active profile. The previous profile was saved.
4 If necessary, select **Edit**, and edit the name of the profile.
5 Customize your settings (page 10) and data fields for the active profile.

   Any changes you make are saved to the active profile.

Deleting a Profile

1 Select the blue key.
2 Select **Setup** > **Profiles**.
3 Select a profile.
4 Select **Delete** > **Yes**.

Sensors and GPS Data

Viewing the Data Pages
Customizable data pages allow you to quickly access real-time data for the compass, barometer, and temperature sensors. When you begin tracking or navigating, additional data pages appear.

Data pages can also show data streamed from your NMEA 2000 network through a Garmin® GNT™.

From the time of day page, select △ or ▽ to cycle through the data pages.

NOTE: Sensor data is not recorded to the device.

Data Page Flows
By default, the time, compass, barometer, and temperature pages appear in all data page flows. The organization and appearance of other data pages depends on these conditions.
- The active profile
- Whether you are tracking, navigating, or only viewing sensor data
- Whether you are streaming NMEA 2000 data through a Garmin GNT

The data fields on each page can be customized. Some data fields are available only when streaming NMEA 2000 data. See page 13 for more information.

Turning On a Sensor Mode
The default sensor mode is on demand mode, which offers you quick access to compass, altimeter, barometer, or temperature data. You can also put the device in always on mode to display continuous sensor data.
1. Select the blue key.
2. Select **Setup** > **Sensors** > **Mode** > **Always On**.

Compass
The device has a 3-axis compass with automatic calibration.
- Compass navigation (page 3)
- Compass settings (page 10)

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 the blue key.
2. Select **Setup** > **Sensors** > **Compass** > **Calibrate** > **Start**.
3. Follow the on-screen instructions.

Altimeter and Barometer
The device contains an internal altimeter and barometer.
- **On Demand** sensor data (page 2)
- **Always On** sensor data (page 2)
- Altimeter settings (page 10)

Changing the Plot Type
You can change the way the device plots barometer and elevation data.
1. Select the blue key.
2. Select **Setup** > **Sensors** > **Altimeter**.
3. Select **Baro. Plot** or **Elev. Plot**.

4. Select an option.

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. Select the blue key.
2. Select **Setup** > **Sensors** > **Altimeter** > **Calibrate**.
3. Follow the on-screen instructions.

Acquiring Satellites
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. The time and date are set automatically based on the GPS position. To adjust the time settings, see page 8.

For more information about GPS, go to www.garmin.com /aboutGPS.
1. Select the blue key.
2. Select **Start GPS**.
3. Wait while the device locates satellites.

Stopping GPS
1. Select the blue key.
2. Select **Stop GPS**.

Navigation

You can navigate to a route, track, waypoint, geocache, or any saved location in the device. You can use the map or the compass to navigate to your destination.

Navigating to a Destination
You can navigate to a destination using the compass or map (page 5).
1. Select the blue key.
2. Select **Start GPS**.
3. Wait while the device locates satellites.
4. Select the blue key.
5. Select an option:
   - Select **Waypoints**.
   - Select **Tracks**.
   - Select **Routes**.
   - Select **GPS Tools** > **Coordinates**.
   - Select **GPS Tools** > **POIs**.
6. Select a destination.
7. Select **Go**.

The device displays time to destination ①, distance to destination ②, and estimated time of arrival ③.

8. Select ▽ to view the compass page.

The two pointer marks ④ serve as a bearing pointer. The top orange mark ⑤ points in the direction you are facing.

9 Align the pointer marks with the top orange mark.

10 Continue to walk in that direction until you reach the destination.

Stopping Navigation

1 Select the blue key.

2 Select **Stop Nav.**.

Waypoints

Waypoints are locations you record and store in the device.

Creating a Waypoint

You can save your current location as a waypoint.

1 Hold the blue key.

2 Select an option:
- To save the waypoint without changes, select **Save**.
- To make changes to the waypoint, select **Edit**, make changes to the waypoint, and select **Save**.

Finding a Waypoint by Name

1 Select the blue key.

2 Select **Waypoints** > **Spell Search**.

3 Use the blue key, △, and ▽ to enter characters.

4 When finished, select _ > **Done**.

Navigating to a Waypoint

1 Select the blue key.

2 Select **Start GPS**.

3 Wait while the device locates satellites.

4 Select the blue key.

5 Select **Waypoints**, and select a waypoint from the list.

6 Select **Go**.

The device displays time to destination ①, distance to destination ②, and estimated time of arrival ③.

7 Select ▽ to view the compass page.

The two pointer marks ④ serve as a bearing pointer. The top blue mark ⑤ points in the direction you are facing.

8 Align the pointer marks with the top blue mark.

9 Continue to travel in that direction until you reach the destination.

Editing a Waypoint

Before you can edit a waypoint, you must create a waypoint.

1 Select the blue key.

2 Select **Waypoints**.

3 Select a waypoint.

4 Select **Edit**.

5 Select an item to edit, such as the name.

6 Use the blue key, △, and ▽ to enter characters.

7 When finished, select _ > **Done**.

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 the blue key.

2 Select **Waypoints**.

3 Select a waypoint.

4 Select **Average**.

5 Move to the waypoint location.

6 Select **Start**.

7 Follow the on-screen instructions.

8 When the confidence reaches 100%, select **Save**.

For best results, collect four to eight 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 the blue key.

2 Select **Waypoints**.

3 Select a waypoint.

4 Select **Project**.

5 Follow the on-screen instructions.

The projected waypoint is saved with a default name.

Deleting a Waypoint

1 Select the blue key.

2 Select **Waypoints**.

3 Select a waypoint.

4 Select **Delete** > **Yes**.

Deleting All Waypoints

1 Select the blue key.

2 Select **Setup** > **Reset** > **Waypoints** > **Yes**.

Routes

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

Creating a Route

1 Select the blue key.
2 Select **Routes** > **Create New**.
3 Select **First Point**.
4 Select a category.
5 Select the first point on the route.
6 Select **Next Point**.
7 Repeat steps 4–6 until the route is complete.
8 Select **Done** to save the route.

Editing the Name of a Route

1 Select the blue key.
2 Select **Routes**.
3 Select a route.
4 Select **Rename**.
5 Use the **Orange** key, △, and ▽ to enter characters.
6 When finished, select _ > **Done**.

Editing a Route

1 Select the blue key.
2 Select **Routes**.
3 Select a route.
4 Select **Edit**.
5 Select a point.
6 Select an option:
   • To view the point on the map, select **Map**.
   • To change the order of the point 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 add a point to the end of the route, select **Next Point**.
   • To remove the point from the route, select **Remove**.

Viewing a Route on the Map

1 Select the blue key.
2 Select **Routes**.
3 Select a route.
4 Select **View Map**.

Deleting a Route

1 Select the blue key.
2 Select **Routes**.
3 Select a route.
4 Select **Delete** > **Yes**.

Reversing a Route

1 Select the blue key.
2 Select **Routes**.
3 Select a route.
4 Select **Reverse**.

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.

Acquiring Satellite 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. The time and date are set automatically based on the GPS position.

1 Select the blue key.
2 Select **Start GPS**.
3 Wait while the device locates satellites.
4 Travel to record a track.
   Your distance and time appear.
5 Select ▽ to view the loop of data pages.
6 Hold ↰.
7 Select an option:
   • Select **Pause Track** to pause tracking.
   • Select **Save Track** to save your track.
   • Select **Clear Track** to erase the track without saving.
   • Select **Stop GPS** to turn off GPS without deleting your track.

Saving the Current Track

1 Select the blue key.
2 Select **Tracks** > **Current**.
3 Select an option:
   • To save the entire track, select **Save**.
   • To save part of the track, select **Save Part**, and select the part to save.

Viewing Details about the Track

1 Select the blue key.
2 Select **Tracks**.
3 Select a track.
4 Select **View Map**.
   The beginning and the end of the track are marked by flags.
5 Select ↰ > **Details**.
6 Use △ and ▽ to view information about the track.

Clearing the Current Track

1 Select the blue key.
2 Select **Tracks** > **Current** > **Clear**.

Deleting a Track

1 Select the blue key.
2 Select **Tracks**.
3 Select a track.
4 Select **Delete** > **Yes**.

Sending Data to HomePort™

Before you can send data to HomePort, you must purchase HomePort and install it on your computer (www.garmin.com/homeport).

You can view tracks and waypoints on your computer.

1 Connect your device to your computer using the USB cable.
   Your device appears as a removable drive in My Computer on Windows® computers and as a mounted volume on Mac® computers.
2 Start HomePort.
3 Follow the on-screen instructions.

Sending and Receiving Data Wirelessly

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

Your device can send or receive data when connected to another compatible device. You can share waypoints, geocaches, routes, and tracks wirelessly.

1 Select the blue key.
2 Select **Share Data** > **Unit to Unit**.
3 Select **Send** or **Receive**.
4 Follow the on-screen instructions.

Sending Data to BlueChart® Mobile

Before you can share data with the BlueChart Mobile application, you must install it on your mobile device (www.garmin.com/bluechartmobile).

You can view tracks and waypoints on your mobile device.

1 On your quatix, select the blue key.
2 Select **Share Data** > **BlueChart Mob.**.
3 Start BlueChart Mobile on your mobile device.
4 Follow the on-screen instructions.

See the BlueChart Mobile help for more information.

Map

▲ represents your location on the map. As you travel, the icon moves and leaves a track log (trail). Waypoint names and symbols appear on the map. When you are navigating to a destination, your route is marked with a line on the map.

- Map navigation (page 5)
- Map settings (page 11)

Browsing the Map

1 While navigating, select ▽ to view the map.
2 Select the blue key.
3 Select one or more options:
   - Select **Pan**, and select ⚲, △, ▽, and ↩ to view different areas.
   - Select **Zoom**, and select △ and ▽ to zoom in and out of the map.

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.

1 Select the blue key.
2 Select **Tracks** > **Current** > **TracBack**.

Your current location ①, track to follow ②, and end point ③ appear on the map.

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 Hold △, and select **OK**.

The navigation page opens.

2 Navigate using the compass or map.

Applications

Sail Racing

You can use the quatix to increase the likelihood that your boat will cross the start line of a race exactly when the race begins. When you synchronize the race timer with the official race countdown timer, the quatix alerts you at one-minute intervals as the race start approaches. When you combine the race timer with the virtual start line, the quatix measures your speed, bearing, and remaining time on the countdown timer. The quatix uses this data to indicate whether your boat will cross the start line before, after, or at the correct time to start the race.

Setting the Race Timer

1 Select the blue key.
2 Select **Sail Race** > **Setup** > **Race Timer**.
3 Use the blue key, △, and ▽ to set the time.

Sail Racing with the Race Timer

Before you can use the race timer to start a race, you must select the sailing profile and set the race timer.

1 Select the blue key.
2 Select **Sail Race** > **Race**.
3 Select △ and ▽ to synchronize the race timer with the official race countdown, and select the blue key to start the timer.

   TIP: If necessary, after you start the timer you can select △ and ▽ to add or subtract time from the race timer.

Setting the Race Start Line

You can define a race start line using two waypoints or the waypoint of one end of the start line and the bearing to the other end of the line.

1 Select the blue key.
2 Select **Sail Race** > **Setup** > **Start Line**.
3 Select an option:
   - To set your present location as the location of the first point of the start line, select **Mark Point** > **Mark**.
   - To use a previously saved waypoint as the location of the first point of the start line, select **Select**, and select a waypoint.
4 Select an option:
   - To set your present location as the location of the second point of the start line, select **Waypoints** > **Mark Point** > **Mark**.
   - To use a previously saved waypoint as the location of the second point of the start line, select **Waypoints** > **Select**, and select a point.
   - To set the bearing of the start line from the location of the first waypoint, select **Bearing**, and enter the bearing.

Sail Racing Using the Start Line

Before you can use the device to start a race, you must select the sailing profile and set the start line.

1 Select the blue key.
2 Select **Sail Race** > **Race**.
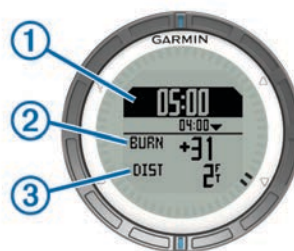
The race timer screen displays the race timer ①, time to burn ②, and distance to the start line ③.

3 Select △ and ▽ to synchronize the race timer with the official race countdown, and select the blue key to start the timer.

TIP: If the burn time is negative, you will arrive at the start line after the race starts, and should modify your course or speed accordingly. If the burn time is positive, you will arrive at the start line before the race starts, and should modify your course or speed accordingly.

TIP: If necessary, after you start the timer you can select △ and ▽ to add or subtract time from the race timer.

Tack Assist

While cruising or racing into the wind, the quatix tack assist feature can help you determine the ideal heading and when it is time to tack. When you calibrate tack assist, the quatix stores your boat's ideal port ① and starboard ② tack angles and the average true wind direction ③. It uses this data to determine whether your boat is being positively lifted or negatively lifted due to changes in the wind direction.
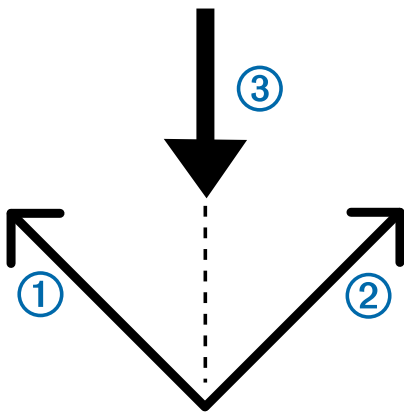
When your boat experiences positive lift, the wind direction ① has shifted so that your actual heading ② brings you closer to your destination ③ than your intended heading ④ would have. The quatix displays the degree to which your actual heading varies from your expected heading ⑤ and your speed over ground ⑥. The bezel marks ⑦ provide a quick reference that corresponds to your lift angle.
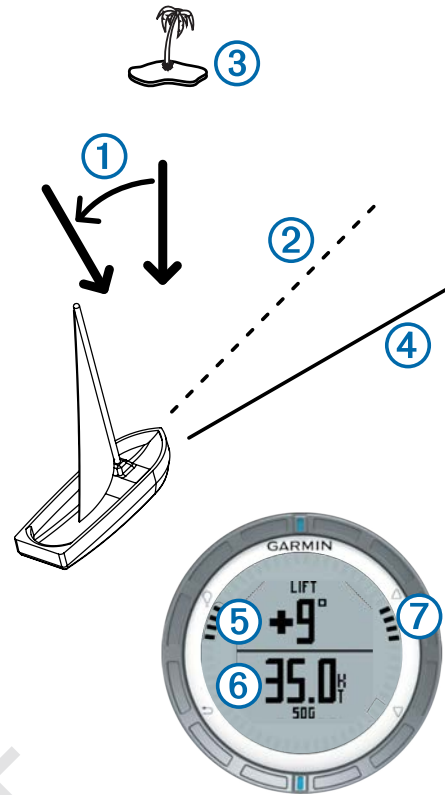
When your heading indicates a consistent positive lift trend, you should re-calibrate the true wind direction or the angle for the current tack. Re-calibration ensures the tack assist provides accurate information.

When your boat experiences negative lift, the wind direction ① has shifted so that your actual heading ② pushes you farther from your destination ③ than your intended heading ④ would have. The quatix displays the degree to which your actual heading varies from your expected heading ⑤ and your speed over ground ⑥. The bezel marks ⑦ provide a quick reference that corresponds to your lift angle.

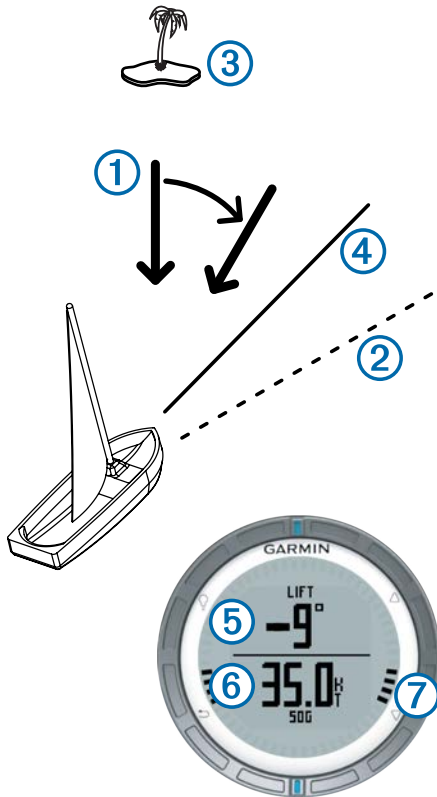When your heading indicates a consistent negative lift trend, you should change tack, then re-calibrate the true wind direction or the angle for the current tack. Re-calibration ensures the tack assist provides accurate information.

NOTE: The quatix uses GPS-based speed over ground to determine your heading, and does not account for other factors that can affect your boat's direction, such as currents and tides.

Calibrating the Tack Assist

Before you start a race, you must calibrate the optimal tack angle for your boat.

1 Select the blue key.
2 Select **Tack Assist** > **Full Cal.**.
3 Follow the on-screen instructions.

Calibrating the Tack Assist Manually

During a race, you may need to adjust tack assist settings individually to adapt to changing conditions.

1 Select the blue key.
2 Select **Tack Assist**.
3 Select an option:
   • To recalibrate the port or starboard tack, hold a steady course along the intended port or starboard tack, and select **Recal.**.

     NOTE: When you recalibrate the port or starboard tack, the opposite tack is reset to maintain a consistent tack angle.
   • To change the tack angle, select **Tack Angle**, and select an angle.

     NOTE: When you change the tack angle, the port and starboard tacks are equally increased or decreased.
   • To change the true wind direction, select **True Wind D**, and select the direction.

Viewing Tide Information

You can view information about a tide station, including the tide height and when the next high and low tides will occur.

1 Select the blue key.
2 Select **Tides** > **Search Near**.
3 Select an option:
   • To search near a previously saved waypoint, select **Waypoints**, and select or search for a waypoint.
   • To search near a specific city, select **Cities**, and select or search for a city.

   A list of the tide stations near the selected location appears.
4 Select a station.

   A 24-hour tide chart appears for the current date, showing the current tide height ① and when the next high ② and low tides ③ will occur.
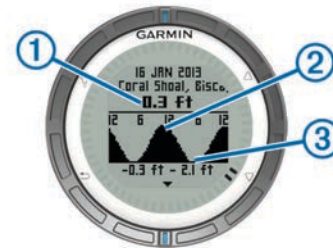
5 Select an option:
   • To view more detailed information about the next four tide peaks and troughs, select ▽.
   • To pan the tide chart, select the blue key, and select **Pan Chart**.
   • To view tide information for a different date, select the blue key, select **Change Date**, and select the date.

Pairing With an Autopilot

Refer to the GHC™ owner's manual for more information about using the GHC.

1 Select the blue key.
2 Select **Autopilot** > **Yes**.
3 Set the GHC to search for a remote.

   When the devices are paired, the autopilot screen appears on the quatix.

Using Autopilot

Before you can use the quatix to control an autopilot, you must install and configure a compatible Garmin GHP™ autopilot system and pair your quatix with the GHC device. For more information, see the owner's manual for your autopilot.

1 Select the blue key.
2 Select **Autopilot**.
3 Select an option:
   • To engage the autopilot heading hold, hold a steady course, select **Engage**, and release the helm.

- To change the heading in 1° increments, with the autopilot engaged, select △ for port and ▽ for starboard.
- To perform a step turn, with the autopilot engaged, hold △ for port and ▽ for starboard.
- To activate a preset action, select **Presets**, and select a button action. The map displays a plot of the action performed by the button.
- To take the helm, select **Standby**.

Clock

Setting the Alarm
1 Select the blue key.
2 Select **Clock** > **Alarm Clock** > **Add Alarm**.
3 Use the blue key, △, and ▽ to set the time.
4 Select **Tone**, **Vibration**, or **Tone & Vib.**.
5 Select **Once**, **Daily**, or **Weekdays**.

Starting the Countdown Timer
1 Select the blue key.
2 Select **Clock** > **Timer**.
3 Use the blue key, △, and ▽ to set the time.
4 If necessary, select **Notification**, and select an option.
5 Select **Start**.

Using the Stopwatch
1 Select the blue key.
2 Select **Clock** > **Stopwatch**.
3 Select **Start**.

Adding a Custom Time Zone
1 Select the blue key.
2 Select **Clock** > **Alt. Zones** > **Add Zone**.
3 Select a time zone.

The custom time zone page is added to the quick page loop (page 2).

Editing a Custom Time Zone
1 Select the blue key.
2 Select **Clock** > **Alt. Zones**.
3 Select a time zone.
4 Select an option:
   - To change the time zone, select **Edit Zone**.
   - To customize the name of the time zone, select **Edit Label**.
   - To delete the time zone from the quick page loop, select **Delete** > **Yes**.

Alerts
You can set the device to alert you in many different situations where your awareness of the surrounding conditions or other data is important. There are three types of alerts: event alerts, range alerts, and recurring alerts.

Event alert: An event alert notifies you once. The event is a specific value. For example, you can set the device to alert you when you reach a specified elevation.

Range alert: A range alert notifies you every time the device is above or below a specified range of values. For example, you can set the device to alert you when your speed is below 5 knots and over 15 knots.

Recurring alert: A recurring alert notifies you every time the device records a specified value or interval. For example, you can set the device to alert you every 30 minutes.

Alert Name	Alert Type	Description
Anchor Drag	Event	You can set a maximum distance for your vessel to drift after dropping anchor.
Proximity	Recurring	See page 8.
Distance	Event, recurring	You can set an interval or a custom distance from your final destination.
Time	Event, recurring	You can set an interval or a custom time from your estimated time of arrival.
Elevation	Event, range, recurring	You can set minimum and maximum elevation values. You can also set the device to alert you when you ascend or descend a specified amount.
Nav. Arrival	Event	You can set alerts for reaching waypoints and the final destination of a track or route.
Speed	Range	You can set minimum and maximum speed values.
Battery	Event	You can set a minimum battery power value.

Setting a Proximity Alarm
Proximity alarms alert you when you are within a specified range of a particular location.
1 Select the blue key.
2 Select **Alerts** > **Proximity** > **Edit** > **Create New**.
3 Select a location.
4 Enter a radius.
5 Select **Done**.

Navigating with Sight 'N Go
You can point the device at an object in the distance, such as a water tower, lock in the direction, and then navigate to the object.
1 Select the blue key.
2 Select **GPS Tools** > **Sight 'N Go**.
3 Point the blue marks on the bezel at an object.
4 Select the blue key.
5 Select an option:
   - Select **Set Course** to navigate to the distant object.
   - Select **Project** (page 3).
6 Navigate using the compass (page 2) or map (page 5).

Calculating the Size of an Area
Before you can calculate the size of an area, you must acquire satellites (page 2).
1 Select the blue key.
2 Select **GPS Tools** > **Area Calc.**.
3 Walk around the perimeter of the area you want to calculate.
4 When you are finished, select the blue key to calculate the area.
5 Select an option:
   - Select **Save Track**, enter a name, and select **Done**.
   - Select **Change Units** to convert the area to a different unit.
   - Select ⤺ to exit without saving.

Viewing the Almanacs
You can view almanac information for the sun and moon, and hunting and fishing.
1 Select the blue key.

2 Select an option:
- To view the sunrise, sunset, moonrise, and moonset information, select **GPS Tools** > **Sun & Moon**.
- To view the predicted best times for hunting and fishing, select **GPS Tools** > **Hunt & Fish**.

3 If necessary, select △ or ▽ to view a different day.

Viewing Satellite Information

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

1 Select the blue key.

2 Select **Start GPS**.

3 Select the blue key.

4 Select **GPS Tools** > **Satellite**.

5 Select ▽ to view additional information.

Simulating a Location

When you are planning routes or activities in a different area, you can turn off GPS and simulate a different location.

1 Select the blue key.

2 Select **Setup** > **System** > **GPS Mode** > **Demo Mode**.

3 Select a location.

4 Select **Go** > **Move to Location**.

ANT+™ Sensors

The device is compatible with these optional, wireless ANT+ accessories.
- tempe™ wireless temperature sensor (page 9)
- Heart rate monitor

For information about compatibility and purchasing additional sensors, go to http://buy.garmin.com.

Pairing ANT+ Sensors

Pairing is the connecting of ANT+ wireless devices, for example, connecting a tempe temperature sensor with your Garmin device.

1 Bring the device within range (3 m) of the sensor.

   NOTE: Stay 10 m away from other ANT+ sensors while pairing.

2 Select the blue key.

3 Select **Setup** > **ANT Sensor**.

4 Select your sensor.

5 Select **New Search**.

   When the sensor is paired with your device, the sensor status changes from **Searching** to **Connected**. Sensor data appears in the data page loop or a custom data field.

Streaming NMEA 2000 Data

While tracking or navigating, your device can stream data from a NMEA 2000 network equipped with a Garmin GNT.

1 Select the blue key.

2 Select **Setup** > **ANT Sensor** > **GNT** > **On**.

   The data pages display information from the sensors connected to the NMEA 2000 network. You can customize the data fields that appear on each data page.

3 Select ↰ twice.

4 Select **Stream N2K** to begin streaming NMEA 2000 data.

To stop streaming NMEA 2000 data, select the blue key, and select **Stop N2K**.

Using Automatic Man Overboard

If your device is connected to a Garmin GNT, you can set the device to automatically trigger the preset man overboard function if the device loses contact with a GNT for more than 10 seconds.

1 Select the blue key.

2 Select **Auto MOB** > **On**.

   When the device loses contact with a GNT for more than 10 seconds, the man overboard function is activated on the device and on all chartplotters connected to the NMEA 2000 network. A man overboard waypoint is created on the chartplotter and the device.

3 Select an option:
- To acknowledge the man overboard activation and save the MOB waypoint, select **Confirm**.
- To dismiss the man overboard activation in the case of accidental triggering, select **Clear**.
- To dismiss the man overboard activation and turn off the automatic man overboard function, select **Disable**.

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.
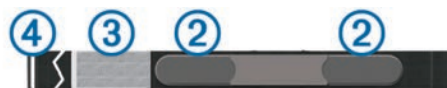
Putting On the Heart Rate Monitor

NOTE: If you do not have a heart rate monitor, you can skip this task.

You should wear the heart rate monitor directly on your skin, just below your breastplate. It should be snug enough to stay in place during your activity.

1 Snap the heart rate monitor module ① onto the strap.

2 Wet both electrodes ② on the back of the strap to create a strong connection between your chest and the transmitter.

3 If the heart rate monitor has a contact patch ③, wet the contact patch.

4 Wrap the strap around your chest, and connect the strap hook ④ to the loop.

   The Garmin logo should be right-side up.

5 Bring the device within range (3 m) of the heart rate monitor.

After you put on the heart rate monitor, it is on standby and ready to send data.

TIP: If the heart rate data is erratic or does not appear, you may have to tighten the strap on your chest or warm up for 5–10 minutes.

Customizing Your Device

Setup Overview

The Setup menu contains numerous ways to customize your device. Garmin recommends that you take the time to familiarize yourself with the settings for each feature. If you take the time to customize your settings before your activity, you will spend less time adjusting the watch during your activity.

Select the Blue key, and select **Setup**.

NOTE: Any changes you make are saved to the active profile (page 1).

System: Sets the GPS settings, arrow keys, and the device language (page 10).

Data Pages: Customizes data pages and data fields (page 10).

Sensors: Customizes the compass (page 10) and altimeter (page 10) settings.

ANT Sensor: Sets up wireless accessories such as the heart rate monitor or tempe (page 9).

Tones: Customizes the tones and vibrations (page 10).

Display: Adjusts the backlight and screen contrast (page 10).

Reset: Clears the trip data, sensor plots (page 14), waypoints, or track log, or resets all of your settings (page 14).

Map: Customizes the map orientation and how items appear on the map (page 11).

Tracks: Customizes the track recording settings (page 11).

Time: Customizes the appearance of the time page (page 11).

Units: Changes the units of measure for data such as distance, elevation, and temperature (page 11).

Pos. Format: Changes how your position data appears (page 11).

Profiles: Changes the active profile and allows you to edit your profiles (page 1).

Menu: Customizes the items that appear in the main menu (page 11).

About: Shows information about the device and software (page 11).

System Settings

Select **Setup** > **System**.

GPS Mode: Sets the GPS to **Normal**, or **Demo Mode** (GPS off).

WAAS: Sets the device to use Wide Area Augmentation System (WAAS) GPS signals. For information about WAAS, go to www.garmin.com/aboutGPS/waas.html.

Hot Keys: Allows you to customize the hold function of the arrow keys.

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.

USB Mode: Sets the device to use mass storage mode or Garmin mode when connected to a computer.

Customizing the Data Pages

You can customize the data pages for each profile.

1 Select the blue key.
2 Select **Setup** > **Data Pages**.
3 Select a category.
4 Select **Add Page**.

5 Follow the on-screen instructions to select the number of data fields and the type of data to appear.
6 If necessary, select an existing data page.
7 Select an option:
   - Select **Edit**, and change the data fields.
   - Select **Move Up** or **Move Down** to change the order of the data pages.
   - Select **Delete** to remove the data page from the page loop.

Compass Settings

Select **Setup** > **Sensors** > **Compass**.

Display: Sets the directional heading on the compass to degrees or milli-radians.

North Ref.: Sets the north reference of the compass (page 10).

Mode: Sets the compass to use either a combination of GPS and the electronic sensor data when moving (**Auto**) or GPS data only (**Off**).

Calibrate: Allows you to manually calibrate the compass sensor (page 2).

Setting the North Reference

You can set the directional reference used in calculating heading information.

1 Select the blue key.
2 Select **Setup** > **Sensors** > **Compass** > **North Ref.**.
3 Select an option:
   - To set geographic north as the heading reference, select **True**.
   - To set the magnetic declination for your location automatically, select **Magnetic**.
   - To set grid north (000º) as the heading reference, select **Grid**.
   - To set the magnetic variation value manually, select **User**, enter the magnetic variance, and select **Done**.

Altimeter Settings

Select **Setup** > **Sensors** > **Altimeter**.

Auto Cal.: Allows the altimeter to self-calibrate each time you turn on GPS tracking.

Baro. Plot: **Variable** records changes in elevation while you are moving. **Fixed** assumes the device is stationary at a fixed elevation, so the barometric pressure should only change due to weather. **Amb. Press.** records ambient pressure changes over a period of time.

Elev. Plot: Sets the device to record elevation changes over a period of time or distance.

Calibrate: Allows you to manually calibrate the altimeter sensor.

Setting the Device Tones

You can customize tones for messages and keys.

1 Select the blue key.
2 Select **Setup** > **Tones**.
3 Select **Messages** or **Keys**.
4 Select an option.

Display Settings

Select **Setup** > **Display**.

Backlight: Adjusts the backlight level and the length of time before the backlight turns off.

Contrast: Adjusts the screen contrast.

Map Settings

Select **Setup** > **Map**.

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.

Auto Zoom: Automatically selects the appropriate zoom level for optimal use on your map. When **Off** is selected, you must zoom in or out manually.

Points: Selects the zoom level for points on the map.

Track Log: Allows you to show or hide tracks on the map.

Go To Line: Allows you to select how the course appears on the map.

Map Colors: Allows you to select whether land or water is highlighted on the map.

Track Settings

Select **Setup** > **Tracks**.

Method: Selects a track recording method. **Auto** records the tracks at a variable rate to create an optimum representation of your tracks. If you select **Distance** or **Time**, you can set the interval rate manually.

Interval: Allows you to set the track log recording rate. Recording points more frequently creates a more-detailed track, but it fills the track log faster.

Auto Start: Sets the device to record your track automatically when you select **Start GPS**.

Auto Save: Sets the device to automatically save your track when you turn off GPS.

Auto Pause: Sets the device to stop recording your track when you are not moving.

Time Settings

Select **Setup** > **Time**.

Time Page: Allows you to customize the appearance of the time of day.

Format: Allows you to select a 12-hour or a 24-hour display time.

Time Zone: Allows you to select the time zone for the device. You can select **Auto** to set the time zone automatically based on your GPS position.

Changing the Units of Measure

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

1 Select the blue key.
2 Select **Setup** > **Units**.
3 Select a measurement type.
4 Select a unit of measure.

Position Format Settings

NOTE: Do 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** > **Pos. Format**.

Format: Sets the position format in which a given location reading appears.

Datum: Sets the coordinate system on which the map is structured.

Spheroid: Shows the coordinate system the device is using. The default coordinate system is WGS 84.

Customizing the Main Menu

You can add, delete, or move items in the main menu.

1 Select the blue key.
2 Select **Setup** > **Menu**.
3 Select a menu item.
4 Select an option:
   - Select **Move Up** or **Move Down** to change the location of the item in the list.
   - Select **Remove** to delete an item from the list.
   - Select **Insert** to add an item to the list.

Device Information

Viewing Device Information

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

1 Select the blue key.
2 Select **Setup** > **About**.

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 www.garmin.com/products/webupdater.
3 Follow the on-screen instructions.

Device Care

NOTICE
Do not use a sharp object to clean the device.
Avoid chemical cleaners and solvents that can damage plastic components.
Thoroughly rinse the device with fresh water after exposure to chlorine, salt water, sunscreen, pest repellant, cosmetics, alcohol, or other harsh chemicals. Prolonged exposure to these substances can damage the case.
Avoid pressing the keys under water.
Avoid extreme shock and harsh treatment, because it can degrade the life of the product.

Cleaning the Device

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

Specifications

Battery type	500 mAh Lithium-ion battery
Battery life	Up to 6 weeks
Water resistance	Water resistant to 164 ft. (50 m) **NOTE:** The watch is designed for surface swimming.
Operating temperature range	From -4ºF to 122ºF (from -20ºC to 50ºC)
Radio frequency/ protocol	2.4 GHz ANT+ wireless communications protocol Bluetooth® Smart device

Battery Information

The actual battery life depends on how much you use GPS, device sensors, optional wireless sensors, and the backlight.

Battery Life	Mode
16 hours	Normal GPS mode
25 hours	NMEA 2000 streaming, GPS off
Up to 2 weeks	**Always On** sensor mode
Up to 6 weeks	Watch mode

Data Management

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

File Types

The device supports these file types.

- Files from HomePort. Go to www.garmin.com/trip_planning.
- GPI custom POI files from the Garmin POI Loader. Go to www.garmin.com/products/poiloader.
- GPX track files.
- GPX geocache files. Go to www.opencaching.com.

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.

Data Fields

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

AMB PRESS (ambient pressure): The uncalibrated environmental pressure.

ASCENT (ascent total): The total elevation distance ascended since the last reset.

AVG ASCENT (average ascent): The average vertical distance of ascent since the last reset.

AVG DESCNT (average descent): The average vertical distance of descent since the last reset.

AVG SPEED (average speed overall): The average speed while moving and stopped since the last reset.

BAROMETER (barometer pressure): The calibrated current pressure.

BATTERY: The remaining battery power.

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

CMP HDNG (compass heading): The direction the device is pointing based on the compass.

COG: The actual direction of travel, regardless of the course steered and temporary variations in heading.

COMPASS: A visual representation of the direction in which the device is pointing.

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.

DATE: The current day, month, and year.

DESCENT (descent total): The total elevation distance descended since the last reset.

DISTANCE (trip odometer): A running tally of the distance traveled since the last reset.

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

FINAL DEST (waypoint at final destination): The last point on the route to the destination. You must be navigating for this data to appear.

FINAL DIST (distance to final destination): The remaining distance to the final destination. You must be navigating for this data to appear.

FINAL ETA (estimated time of arrival at final 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.

FINAL ETE (estimated elapsed time to final destination): The estimated time remaining before you reach the destination. You must be navigating for this data to appear.

FINAL VDST (vertical distance to final destination): The elevation distance between your current position and the final destination. You must be navigating for this data to appear.

FINAL VSPD (vertical speed to final destination): The rate of ascent or descent to a predetermined altitude. You must be navigating for this data to appear.

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

GPS (signal strength): The strength of the GPS satellite signal.

GPS ELEVTN (GPS elevation): The altitude of your current location using GPS.

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%.

GR DEST (glide ratio to destination): The glide ratio required to descend from your current position to the destination elevation. You must be navigating for this data to appear.

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.

LAT/LON (latitude/longitude): 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.

MAX ASCENT (maximum ascent): The maximum rate of ascent in feet per minute or meters per minute since the last reset.

MAX DESCNT (maximum descent): The maximum rate of descent in feet per minute or meters per minute since the last reset.

MAX ELEVTN (maximum elevation): The highest elevation reached since the last reset.

MAX SPEED (maximum speed): The highest speed reached since the last reset.

MAX TEMP: The maximum temperature for the current activity.

MIN ELEVTN (minimum elevation): The lowest elevation reached since the last reset.

MIN TEMP: The minimum temperature for the current activity.

MOV'N AVG (moving average): The average speed while moving since the last reset.

MOV'N TIME (moving time): A running tally of the time spent moving since the last reset.

NEXT DEST (next destination): The next point on the route. You must be navigating for this data to appear.

NEXT DIST (next distance): The remaining distance to the next waypoint on the route. You must be navigating for this data to appear.

NEXT ETA: 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.

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

NEXT VDST (next vertical distance): The elevation distance between your current position and the next waypoint in the route. You must be navigating for this data to appear.

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

SOG: The actual speed of travel, regardless of the course steered and temporary variations in heading.

STOP TIME: A running tally of the time spent not moving since the last reset.

STOPWATCH: 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.

TEMP (temperature): The temperature of the air. Your body temperature affects the temperature sensor.

TIME: A running tally of the total time spent moving and not moving since the last reset.

TIMER: The current time of the countdown timer.

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

TOD (time of day): The current time of day based on your current location and time settings (format, time zone, daylight saving time).

TRACK DIST (track distance): The distance traveled for the current track.

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.

VERT SPEED (vertical speed): The rate of ascent or descent over time.

VMG (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.

XTE (cross track error): 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.

NMEA 2000 Data Fields

AWA (average wind angle): The wind angle measured with respect to the current vessel heading.

A WIND CHL (apparent wind chill) : The temperature of the wind chill relative to the boat.

AWS (average wind speed): The average measured speed of the wind since last reset.

CARD WIND (cardinal wind direction): The true wind direction described in cardinal directions.

DEPTH: The depth of the water.

DRIFT: The speed of the current.

G WIND CHL (ground wind chill): The temperature of the wind chill relative to the land.

G WIND DIR (ground wind direction): The direction of the wind relative to the land, referenced from north.

G WIND SPD (ground wind speed): The speed of the wind relative to the ground. If there is no current and no leeway, ground wind speed is equivalent to the true wind speed.

H2O TEMP (water temperature): The temperature of the water.

OPP TACK (opposite tack heading): The opposite tack heading of the vessel based upon current tack heading.

SET: The direction of the current referenced from north.

STW (speed through water): The speed of the boat relative to the water.

TWD (true wind direction: The true direction of the wind relative to the vessel.

TWS (true wind speed): The true speed of the wind relative to the vessel.

WIND VMG (wind velocity made good): The speed at which you are making progress into the wind.

Data Pages

By default, these pages appear for the sailing profile.

Page	Default	Tracking	Navigating	Tracking with NMEA 2000 Data	Navigating with NMEA 2000 Data
1	Clock	Tack assist	Tack assist	Tack assist	Tack assist
2	Temperature	COG and SOG	DTN, ET, and bearing	COG, depth, and SOG	COG, depth, and SOG
3	Barometer	Distance and time	COG and SOG	Map	Bearing and distance to opposite tack
4	Compass	Compass	Distance and time	Wind VMG	Map
5		Barometer	Compass	TWS and TWD	Wind VMG and TWS
6		Temperature	Barometer	AWS and AWA	AWS and AWA
7		Map	Temperature	Clock	Clock
8		Clock	Map		
9			Clock		

By default, these pages appear for the powerboat profile.

Page	Default	Tracking	Navigating	Tracking with NMEA 2000 Data	Navigating with NMEA 2000 Data
1	Clock	COG and SOG	DTN, ET, and bearing	COG and SOG	ETE, distance, and ETA
2	Temperature	Distance and time	COG and SOG	Map	Map
3	Barometer	Compass	Distance and time	Water temperature and depth	Water temperature and depth
4	Compass	Barometer	Compass	Clock	Clock
5		Temperature	Barometer		COG and SOG
6		Map	Temperature		
7		Clock	Map		
8			Clock		

By default, these pages appear for the watersports profile.

Page	Default	Tracking	Navigating	Tracking with NMEA 2000 Data	Navigating with NMEA 2000 Data
1	Clock	COG and SOG	DTN, ET, and bearing	COG and SOG	COG and SOG
2	Temperature	Distance and time	COG and SOG	Map	DTN, ET, and bearing
3	Barometer	Compass	Distance and time	Water temperature and depth	Map
4	Compass	Barometer	Compass	Clock	Water temperature and depth
5		Temperature	Barometer		Clock
6		Map	Temperature		
7		Clock	Map		
8			Clock		

By default, these pages appear for the fitness profile.

Page	Default	Tracking	Navigating
1	Clock	COG and SOG	DTN, ET, and bearing
2	Temperature	Distance and time	COG and SOG
3	Barometer	Compass	Distance and time
4	Compass	Barometer	Compass
5		Temperature	Barometer
6		Map	Temperature
7		Clock	Map
8			Clock

Troubleshooting

Locking the Keys
You can lock the keys to prevent inadvertent key presses.
1 Select the data page you want to view while the keys are locked.
2 Hold ⮌ and △ to lock the keys.
3 Hold ⮌ and △ to unlock the keys.

Resetting Your Device
If the device stops responding, you may need to reset it.
1 Hold ♀ for at least 25 seconds.
2 Hold ♀ for one second to turn on the device.

Resetting the Device to Factory Settings
You can restore all of the device settings to the factory default values.
1 Select the blue key.
2 Select **Setup** > **Reset** > **All Settings** > **Yes**.

Clearing All Sensor Plot Data
1 Select the blue key.
2 Select **Setup** > **Reset** > **Clear Plots** > **Yes**.

Appendix

Registering Your Device
Help us better support you by completing our online registration today.
• Go to http://my.garmin.com.

• Keep the original sales receipt, or a photocopy, in a safe place.

Software License Agreement
BY USING THE DEVICE, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

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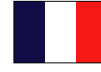
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