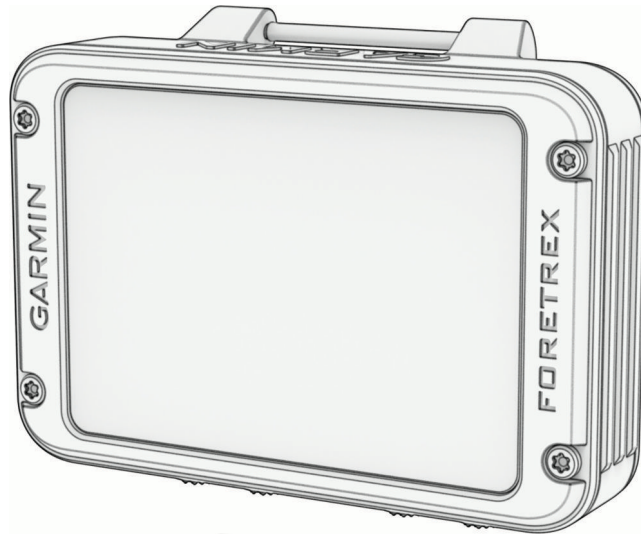


**GARMIN®**



# **FORETREX® 801/901 BALLISTIC EDITION**

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**Owner's Manual**

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M/N: A04535

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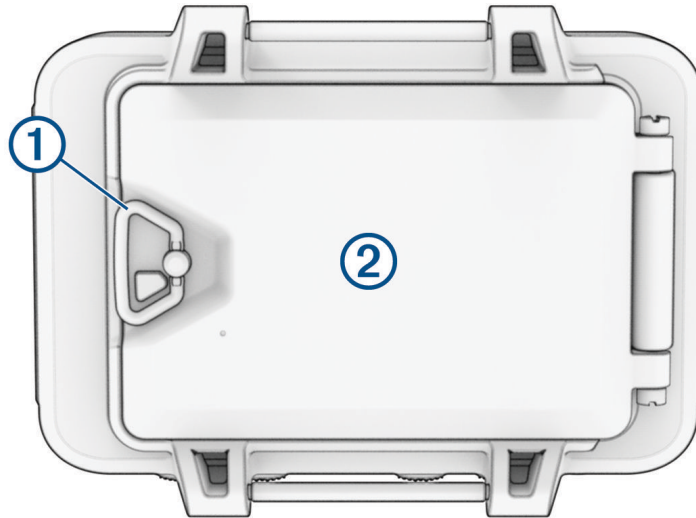
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# Introduction

## ⚠ WARNING

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

## Device Overview



①

Battery cover D-ring

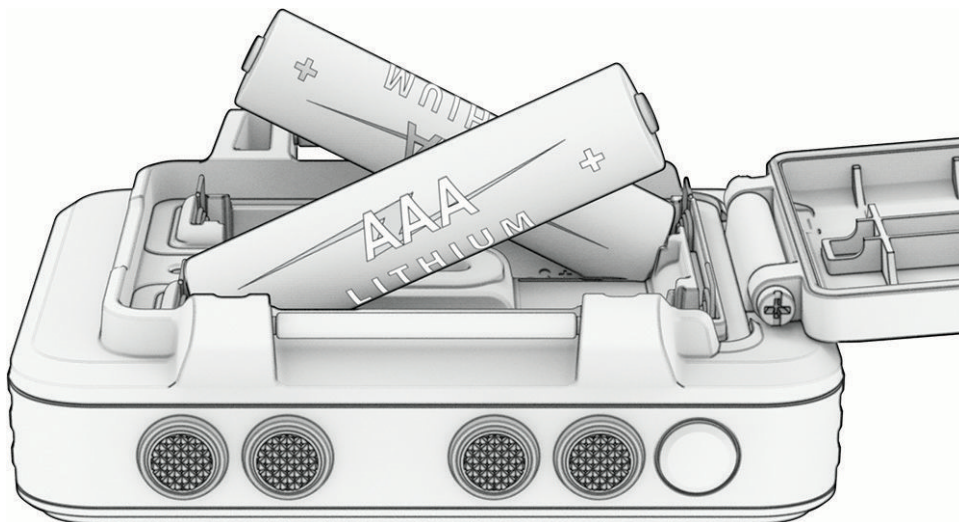
②

USB port (under battery cover)

## Installing the Batteries

You can use lithium, NiMH, or alkaline AAA batteries. Use lithium batteries for best results.

- 1 Loosen the fabric strap that covers the battery door.
- 2 Turn the D-ring counter-clockwise, and pull up to open the battery door.
- 3 Insert two AAA batteries, observing polarity.



**NOTE:** You should verify the gasket and battery compartment are free of debris.

- 4 Close the battery door, and turn the D-ring clockwise.

## Long-Term Storage

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

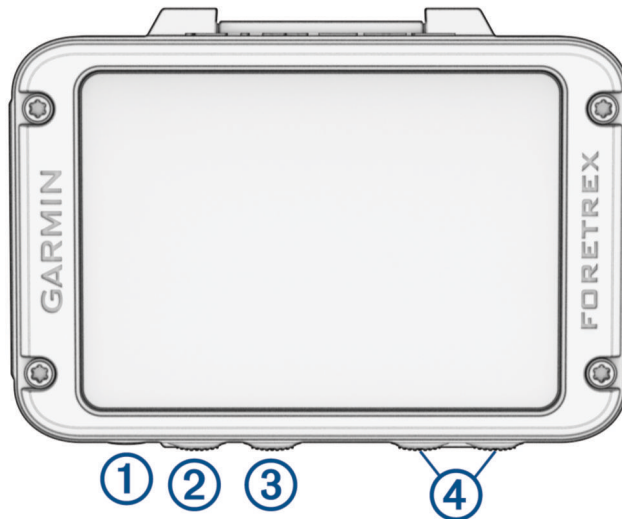
## Attaching the Wrist Strap

- 1 Insert the strap behind the pin ① at the top of the device.



- 2 Pull the strap length through to the end.
- 3 Insert the strap behind the pin ② at the bottom of the device.

## Buttons



<b>①</b> POWER	Hold to turn the navigator on and off, and switch device modes. Press to turn the backlight on and off. Press 5 times in less than 2 seconds to activate the kill switch.
<b>②</b> PAGE GO TO	Press to scroll through the main pages in sequence. Press to go back to the previous view from a menu or option. Hold to navigate to a waypoint.
<b>③</b> ENTER MARK	Press to open the menu for the page. Hold to mark a waypoint.
<b>④</b> UP DOWN	Press to scroll through menus and pages. Press to zoom in or out on the map page.

### Turning On the Navigator

Hold **POWER**.

The first time you turn on the navigator, you will select your preferred language.

### Power Menu

Hold **POWER** to open the power menu.

**ENABLE NVG MODE:** Select to reduce backlight intensity for compatibility with night vision goggles.

**ENTER WATCH MODE:** Select to enter a low-power mode that locks the buttons and maximizes battery life.

**ENTER EXPEDITION MODE:** Select to manually enter expedition mode and maximize battery life. In expedition mode, the navigator collects fewer GPS track points and turns off the Bluetooth® connection.

**ENTER STEALTH MODE:** Select to turn off wireless communications and prevent the storage and sharing of your GPS position.

**POWER OFF:** Select to turn off the navigator.

## Clearing User Data with the Kill Switch Feature

The KILL SWITCH feature quickly removes all saved user-entered data and resets all settings to the factory default values.

Press **POWER** 5 times in less than 2 seconds.


**TIP:** You can press any button to cancel the KILL SWITCH feature during a 10-second countdown.

After 10 seconds, the navigator deletes all user-entered data.

## Acquiring Satellite Signals

Before you can use GPS navigation features, you must acquire satellite signals. The first time you turn on your navigator, it may take several minutes to acquire satellite signals.

When you turn on your navigator, the GPS receiver must collect satellite data and establish the current location. The time required to acquire satellite signals varies based on several factors, including whether you have a clear view of the sky, how long it has been, and how far you are from the location where you last used your navigator.

- 1 Turn on the navigator.
- 2 Wait while the navigator locates satellites.  
It may take 30 to 60 seconds to acquire satellite signals.  indicates GPS is located.
- 3 If necessary, go to an open area, away from tall buildings and trees.

## Using the Backlight

- 1 Press **POWER**.  
The backlight turns on for 30 seconds.
- 2 Press **POWER** to turn off the backlight.

## Adjusting the Backlight Timeout

You can decrease the backlight timeout to maximize the battery life.

- 1 From the menu page, select **SETUP > DISPLAY > LIGHT TIMEOUT**.
- 2 Select **DOWN** or **UP** to adjust the length of time before the backlight turns off.

# Waypoints, Routes, and Tracks

## Waypoints

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

You can add a .gpx file that contains waypoints by transferring the file to the GPX folder ([Transferring Files to Your Device, page 23](#)).

## Creating a Waypoint

You can save your current location as a waypoint.

- 1 Hold **MARK**.
- 2 If necessary, press **DOWN** or **UP** to change the symbol, name, elevation, latitude, or longitude.
- 3 Select **OK?**.

## Navigating to a Waypoint

- 1 Hold **GO TO**.
- 2 Select a waypoint.

## Stopping Navigation

- 1 From the map or compass page, press **ENTER**.
- 2 Select **STOP NAVIGATION**.



## Measuring the Distance Between Two Waypoints

You can measure the distance between two locations.

- 1 From the map page, press **ENTER**.
- 2 Select **MEASURE DISTANCE**.
- 3 Select **FROM:**, and select a starting waypoint.
- 4 Select **TO:**, and select an ending waypoint.
- 5 Select **ESTIMATED SPEED:**.
- 6 Press **ENTER** to select a digit.
- 7 Press **DOWN** or **UP** to edit the speed.
- 8 Select **OK?**.

The total distance between the two waypoints and the estimated travel time appear.

## Editing a Waypoint

- 1 From the menu page, select **WAYPOINTS > LIST ALL**.
- 2 Select a waypoint.
- 3 Press **DOWN** or **UP** to scroll through the symbol, name, elevation, latitude, and longitude.
- 4 Select an option:
  - To change the waypoint symbol, select the current symbol, and choose the new symbol from the list.
  - To change the name, select the current name, and enter the new name.
  - To change the elevation, latitude, or longitude, select the data you want to change, press **ENTER** or **PAGE** to scroll through the digits, and press **DOWN** or **UP** to edit the digit.

## Projecting a Waypoint

You can create a new waypoint by projecting the distance and bearing from an existing waypoint to a new location.

- 1 From the menu page, select **WAYPOINTS > LIST ALL**.
- 2 Select a waypoint.
- 3 Select **OPTIONS > PROJECT**.
- 4 Enter the distance.
- 5 Enter the bearing.
- 6 Select **OK?**.

## Deleting a Waypoint

- 1 From the menu page, select **WAYPOINTS > LIST ALL**.
- 2 Select a waypoint.
- 3 Select **DELETE > YES**.

## Deleting All Waypoints

From the menu page, select **SETUP > RESET > DELETE ALL WAYPOINTS > YES**.

## Viewing Celestial Data and Almanacs

You can view daily almanac information for the sun and moon, and hunting and fishing.

- 1 From the menu page, select **WAYPOINTS > LIST ALL**.
- 2 Select a waypoint.
- 3 Select **OPTIONS**.
- 4 Select an option:
  - To view the predicted best dates and times for hunting and fishing at your current location, select **HUNT/FISH**.
  - To view the sunrise, sunset, moonrise, moonset, and moon phase for a specific date, select **SUN/MOON**.
- 5 If necessary, press **ENTER** to view a different date.

## Viewing the Nearest Waypoints

You can view a list of the waypoints that are closest to your current location.

From the menu page, select **WAYPOINTS > NEAREST**.

## 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

The navigator records a track log automatically while you are moving. You can save tracks and navigate to them at another time.

- 1 From the menu page, select **TRACKS > SAVE TRACK**.
- 2 Press **DOWN** or **UP** to set a beginning point.
- 3 Press **ENTER**.
- 4 Press **DOWN** or **UP** to set an ending point.
- 5 Press **ENTER**.
- 6 If necessary, press **ENTER** to edit the track name.

### Navigating a Saved Track

- 1 From the menu page, select **TRACKS > LIST SAVED**.
- 2 Select a track.
- 3 Select **NAVIGATE**.

### Using the Pan and TracBack<sup>®</sup> Feature

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

- 1 From the menu page, select **TRACKS > PAN & TRACBACK**.
- 2 To pan the track log, press **DOWN** or **UP**.
- 3 Press **ENTER** to view additional options.
- 4 Select an option:
  - To begin navigating the current track, select **GO**.
  - To mark a waypoint, select **MARK**.
  - To zoom in and out, select **ZOOM**, and press **DOWN** or **UP**.
  - To navigate back to the beginning of your activity, select **TRACBACK**.

## Viewing Track Details

- 1 From the menu page, select **TRACKS > LIST SAVED**.
- 2 Select a track.
- 3 Select an option:
  - To view the track on the map, select **SHOW MAP**.
  - To view an elevation plot of the track, select **ELEVATION**.

## Editing the Name of a Track

- 1 From the menu page, select **TRACKS > LIST SAVED**.
- 2 Select a track.
- 3 Select **RENAME**.

## Clearing the Active Track

From the menu page, select **TRACKS > CLEAR TRACK > YES**.

## Deleting a Track

- 1 From the menu page, select **TRACKS > LIST SAVED**.
- 2 Select a track.
- 3 Select **DELETE > YES**.

## Deleting All Tracks

From the menu page, select **TRACKS > DELETE ALL SAVED > YES**.

## Routes

A route is a sequence of waypoints or locations that leads you to your final destination. Routes are saved as GPX files on the device.

## Creating and Navigating a Route

- 1 From the menu page, select **ROUTES > CREATE NEW**.
- 2 Press **ENTER** to view the list of saved waypoints.
- 3 Select a waypoint to add to the route.
- 4 Repeat steps 2 and 3 until the route is complete.
- 5 Select **FOLLOW**.
- 6 Select a starting point for navigation.  
Navigation information appears.

## Viewing Saved Routes

- 1 From the menu page, select **ROUTES > LIST ALL**.
- 2 Select a route.

## Deleting All Routes

From the menu page, select **ROUTES > DELETE ALL > YES**.

# Main Pages

You can press **PAGE** to scroll through the main pages. You can press **ENTER** to open the settings menu for each page. You can press **DOWN** or **UP** to scroll through menus and pages and zoom in and out.

**Applied Ballistics® page:** This feature offers customized aiming solutions for long-range shooting ([Applied Ballistics, page 8](#)).

**NOTE:** This feature is available only on the Foretrex 901 navigator.

**Map page:** The map page shows your position and heading on the map ([Map Page, page 16](#)).

As you travel, the position icon moves and leaves a track log (trail). Waypoint names and symbols appear on the map. The navigator automatically rotates the map as you move so that waypoints always appear above your position.

**Compass page:** The compass page guides you to your destination by displaying a compass and bearing pointer.

When navigating, the compass page displays the name of the location, the distance to the final destination, the speed of travel, and a direction arrow in the compass ring. You can follow the arrow to navigate.

**Elevation page:** The elevation page shows your elevation.

**Trip computer:** The trip computer displays your current speed, average speed, maximum speed, trip odometer, and other helpful statistics.

**Menu page:** The menu contains settings for waypoints, tracks, and routes, as well as other setup options.

The menu page also displays the current time and date at the top of the screen.

## Customizing the Data Fields

You can customize the data fields displayed on the compass, trip computer, and Applied Ballistics pages.

**TIP:** You may need to change data fields to view connected sensor data, such as readings from a heart rate monitor or *tempe™* sensor.

- 1 Select a page with data fields.
- 2 Select **ENTER > CHANGE FIELDS**.
- 3 Select the data field to replace.
- 4 Select the new data field.

## Applied Ballistics

### WARNING

The Applied Ballistics feature is intended to provide accurate elevation and windage solutions based on gun and bullet profiles and measurements of current conditions only. Depending on your environment, conditions may change rapidly. Changes in environmental conditions, like wind gusts or downrange winds, may have an effect on the accuracy of your shot. Elevation and windage solutions are suggestions only based upon your input into the feature. Take readings often and carefully, and allow the readings to stabilize after significant changes in environmental conditions. Always allow a margin of safety for changing conditions and reading errors.

Always understand your target and what lies beyond your target before taking a shot. Failure to account for your shooting environment could cause property damage, injury, or death.

**NOTE:** This feature is available only on the Foretrex 901 navigator.

The Applied Ballistics feature offers customized aiming solutions for long-range shooting based on your rifle characteristics, bullet characteristics, and various environmental conditions. You can enter parameters including wind, temperature, humidity, range, and firing direction.

This feature provides the information you need to fire long-range projectiles, including elevation holdover, windage, and time of flight. It also includes custom drag models for your bullet type. Go to [appliedballisticsllc.com](http://appliedballisticsllc.com) for more details about this feature. See the [Applied Ballistics Glossary of Terms, page 13](#) for descriptions of the terms and data fields.

## AB Synapse - Garmin App

The AB Synapse - Garmin app allows you to manage ballistic profiles on your Foretrex 901 navigator. You can download the AB Synapse - Garmin app from the app store on your phone.

### Applied Ballistics Options

**NOTE:** This feature is available only on the Foretrex 901 navigator.

From the Applied Ballistics page, press **ENTER**.

**QUICK EDIT:** Allows you to quickly edit the range, direction of fire, and wind information ([Quickly Editing Shooting Conditions, page 9](#)).

**RANGE CARD:** Allows you to view data for various ranges based on user input parameters. You can change fields ([Customizing the Range Card Fields, page 9](#)), edit the range increment ([Editing the Range Increment, page 10](#)), and set the base range ([Setting the Base Range, page 10](#)).

**TARGET CARD:** Allows you to view range, elevation, and windage for ten targets based on user input parameters. You can edit the target name and values ([Editing the Target Card, page 10](#)).

**ENVIRONMENT:** Allows you to customize atmospheric conditions for your current environment. You can enter custom values, use the pressure and latitude values from the internal sensor in the device, or use the temperature value from a connected temperature sensor ([Environment, page 10](#)).

**TARGET:** Allows you to customize long-range shooting conditions for your current target. You can change the selected target and customize conditions for up to ten targets ([Changing the Target, page 10](#)).

**PROFILE:** Allows you to customize gun properties ([Editing Gun Properties, page 11](#)), bullet properties ([Editing Bullet Properties, page 11](#)), and output units of measure for your current profile. You can change the selected profile ([Selecting a Different Profile, page 11](#)) and add additional profiles ([Adding a Profile, page 11](#)).

**CHANGE FIELDS:** Allows you to customize the data fields on the profile data screen ([Customizing the Profile Data Screen, page 11](#)).

**SETUP:** Allows you to select the units of measure and enable the windage and elevation solution options.

### Quickly Editing Shooting Conditions

You can edit the range, direction of fire, and wind information.

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **QUICK EDIT**.  
**TIP:** You can press **DOWN** or **UP** to edit each value, and press **ENTER** to move to the next field.
- 3 Set the **RNG** value to the target distance.
- 4 Set the **DOF** value to your actual direction of fire (either manually or by using the compass).
- 5 Set the **W 1** value to the low wind speed.
- 6 Set the **W 2** value to the high wind speed.
- 7 Set the **DIR** value to the direction the wind is coming from.
- 8 Press **PAGE** to save your settings.

### Range Card

#### Customizing the Range Card Fields

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **RANGE CARD**.
- 3 Press **ENTER**.
- 4 Select **CHANGE FIELDS**.
- 5 Press **ENTER** to scroll to a field.
- 6 Press **DOWN** or **UP** to change the field.
- 7 Press **PAGE** to save your changes.

## Editing the Range Increment

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **RANGE CARD**.
- 3 Press **ENTER**.
- 4 Select **RANGE INCREMENT**.
- 5 Enter a value.

## Setting the Base Range

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **RANGE CARD**.
- 3 Press **ENTER**.
- 4 Select **BASE RANGE**.
- 5 Enter a value.

## Target Card

### Editing the Target Card

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **TARGET CARD**.
- 3 Press **ENTER**.
- 4 Select **QUICK EDIT**.
- 5 Press **DOWN** or **UP** to scroll through the targets.
- 6 Press **ENTER** to edit information about the target.

## Environment

### Editing the Environment

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **ENVIRONMENT**.
- 3 Select an option to edit.

### Enabling Auto Update

You can use the auto update feature to update the latitude and pressure values automatically. When connected to a temp sensor, the temperature value also updates. When connected to a weather meter, the wind speed, wind direction, and humidity values also update. The values update every five minutes.

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **ENVIRONMENT > AUTO UPDATE > ON**.

## Targets

### Changing the Target

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **TARGET > TARGET > CHANGE TARGET**.
- 3 Select a target.

The long-range shooting conditions for the selected target appear.

### Editing the Target

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **TARGET**.
- 3 Select a target.
- 4 Select an option to edit.

## Profile

### Selecting a Different Profile

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > PROFILE**.
- 3 Select a profile.
- 4 Select **CHANGE PROFILE**.

### Adding a Profile

You can add a .pro file that contains profile information by creating it using the AB Synapse - Garmin app and transferring the file to the AB folder on the device (*Transferring Files to Your Device, page 23*). You can also create a profile using your Garmin® device.

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > PROFILE > + PROFILE**.
- 3 Select an option:
  - To customize the bullet properties, select **BULLET PROPERTIES** (*Editing Bullet Properties, page 11*).
  - To customize the gun properties, select **GUN PROPERTIES** (*Editing Gun Properties, page 11*).
  - To change the units of measure for the output fields, select **OUTPUT UNITS**.

### Deleting a Profile

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > PROFILE**.
- 3 Select a profile.
- 4 Select **DELETE PROFILE**.

### Customizing the Profile Data Screen

- 1 During an Applied Ballistics activity, press **DOWN** to scroll to the profile data screen.
- 2 Press **ENTER**.
- 3 Select **CHANGE FIELDS**.
- 4 Press **DOWN** or **UP** to scroll to a field.
- 5 Press **ENTER** to change the field.
- 6 Press **PAGE** to save your changes.

### Editing Bullet Properties

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > BULLET PROPERTIES**.
- 3 Select an option:
  - To automatically enter bullet properties from the Applied Ballistics bullet database, select **BULLET DATABASE**, select your ballistic solver, and select the bullet caliber, manufacturer, bullet, and drag curve.  
**NOTE:** You can select the caliber of your bullet to search a list of bullets within that caliber. Not all cartridge names match the actual bullet caliber. For example, a 300 Win Mag is a .308 caliber bullet.
  - To manually enter bullet properties if your bullet is not in the bullet database, press **DOWN** to scroll through the options, and select the values to edit.  
**NOTE:** You can find this information on the bullet manufacturer's website.

### Editing Gun Properties

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > GUN PROPERTIES**.
- 3 Select an option to edit.

## Calibrating the Muzzle Velocity

Calibrating the muzzle velocity provides a more accurate solution in the supersonic range for your specific firearm.

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > GUN PROPERTIES > CALIBRATE MUZZLE VELOCITY**.
- 3 Select an option:
  - Select **RANGE** to edit the range.
  - Select **ENTER TRUE DROP** to edit the drop distance.
- 4 Select **USE**.

## Calibrating the Drop Scale Factor

Garmin recommends you calibrate the muzzle velocity prior to the drop scale factor.

Calibrating the drop scale factor provides a more accurate solution at or beyond the transonic range for your specific firearm.

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > GUN PROPERTIES > CALIBRATE DSF**.
- 3 Select an option:
  - Select **RANGE** to edit the range.
  - Select **ENTER TRUE DROP** to edit the drop distance.
- 4 Select **USE**.

## Viewing the Drop Scale Factor Table

The drop scale factor table is populated after you calibrate the drop scale factor. If necessary, you can reset the table values to zero.

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > GUN PROPERTIES > VIEW DSF TABLE**.
- 3 If necessary, press **ENTER**, and select **CLEAR DSF TABLE**.  
The table values reset to zero.

## Editing the Muzzle Velocity and Temperature Table

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > GUN PROPERTIES > MV-TEMP TABLE**.
- 3 Press **ENTER**.
- 4 Select **EDIT**.
- 5 Press **DOWN** or **UP** to scroll through the table.
- 6 Press **ENTER** to edit a value.
- 7 Press **PAGE** to save your changes.
- 8 Press **PAGE**.
- 9 Select **MUZZLE VELOCITY > ENABLE MV-TEMP** to set the muzzle velocity using the temperature table.

## Clearing the Muzzle Velocity and Temperature Table

- 1 From the Applied Ballistics page, press **ENTER**.
- 2 Select **PROFILE > GUN PROPERTIES > MV-TEMP TABLE**.
- 3 Press **ENTER**.
- 4 Select **CLEAR MV-TEMP**.



## Applied Ballistics Glossary of Terms

**NOTE:** The Applied Ballistics feature is available only on the Foretrex 901 device.

### **Shooting Solution Fields**

**DOF:** The direction of fire, with north at 0 degrees and east at 90 degrees. Input field.

**TIP:** You can use the compass to set this value by pointing the top of the device toward the direction of fire. The current compass value appears in the DOF field. You can press ENTER to use this value. You can manually enter a value by pressing DOWN or UP.

**NOTE:** The DOF is used only for calculating the Coriolis effect. If you are shooting at a target less than 1,000 yards away, this input field is optional.

**ELEVATION:** The vertical portion of the aiming solution, displayed in milliradians (mil) or minute of angle (MOA).

**RNG:** The distance to the target, displayed in yards or meters. Input field.

**W 1/2:** The wind speed 1, wind speed 2, and wind direction. For example, if the wind direction (DIR) is DIR 9:00, the wind is blowing left to right as viewed by the shooter. Input field.

**NOTE:** The wind speed 2 field is optional. Using both wind speed 1 and wind speed 2 is not an effective way to account for different wind speeds at different distances between you and the target. Using these fields is a way to bracket (isolate) the wind values and calculate minimum and maximum windage values for the solution.

**WINDAGE 1:** The horizontal portion of the aiming solution based on the wind speed 1 and wind direction, displayed in milliradians (mil) or minute of angle (MOA).

**WINDAGE 2:** The horizontal portion of the aiming solution based on the wind speed 2 and wind direction, displayed in milliradians (mil) or minute of angle (MOA).

### **Additional Output Fields**

**AERO JUMP:** The amount of the elevation solution attributed to aerodynamic jump. Aerodynamic jump is the vertical deflection of the bullet due to a crosswind. Aerodynamic jump is calculated based on the wind speed 1 value. If there is no crosswind component or wind value, this value is zero.

**COS INCL:** The cosine of the inclination angle to the target.

**DROP:** The total drop the bullet experiences along its flight path, displayed in inches.

**H COR EFFECT:** The horizontal Coriolis effect. The horizontal Coriolis effect is the amount of the windage solution attributed to the Coriolis effect. This is always calculated by the device, although the impact may be minimal if you are not shooting at extended range.

**LEAD:** The horizontal correction needed to hit a target moving left or right at a given speed.

**TIP:** When you enter the speed of your target, the device factors the necessary windage required into the total windage value.

**MAX ORD:** The maximum ordinance. The maximum ordinance is the maximum height above the axis of the barrel that a bullet will reach along its flight path.

**MAX ORD RNG:** The range at which the bullet will reach its maximum ordinance.

**REM ENERGY:** The remaining energy of the bullet at target impact, displayed in foot-pounds of force (ft. lbf) or joules (J).

**SPIN DRIFT:** The amount of the windage solution attributed to the spin drift (gyroscopic drift). For example, in the northern hemisphere, a bullet shot out of a right-hand twist barrel will always deflect slightly to the right as it travels.

**TOF:** The time of flight, which indicates the time required for a bullet to reach its target at a given range.

**V COR EFFECT:** The vertical Coriolis effect. The vertical Coriolis effect is the amount of the elevation solution attributed to the Coriolis effect. This is always calculated by the device, although the impact may be minimal if you are not shooting at extended range.

**VEL MACH:** The estimated velocity of the bullet when it impacts the target, displayed as a factor of mach speed.

**VELOCITY:** The estimated velocity of the bullet when it impacts the target.

### **Environment Fields**

**AMB/STN PRESSURE:** The ambient (station) pressure. Ambient pressure is not adjusted to represent sea level (barometric) pressure. Ambient pressure is required for the ballistics shooting solution. Input field.

**TIP:** You can manually enter this value, or you can select the USE CURRENT PRESSURE option to use the pressure value from the internal sensor in the device.

**HUMIDITY:** The percentage of moisture in the air. Input field.

**LATITUDE:** The horizontal location on the Earth's surface. Negative values are below the equator. Positive values are above the equator. This value is used to calculate the vertical and horizontal Coriolis drift. Input field.

**TIP:** You can select the USE CURRENT POSITION option to use the GPS coordinates from your device.

**NOTE:** The LATITUDE is used only for calculating the Coriolis effect. If you are shooting at a target less than 1,000 yards away, this input field is optional.

**TEMPERATURE:** The temperature at your current location. Input field.

**TIP:** You can manually enter the temperature reading from a connected temperature sensor or other temperature source. This field does not automatically update when connected to a temperature sensor.

**WIND DIRECTION:** The direction from which the wind is coming. For example, a DIR 9:00 wind blows from your left to your right. Input field.

**WIND SPEED 1:** The wind speed used in the shooting solution. Input field.

**WIND SPEED 2:** An optional, additional wind speed used in the shooting solution. Input field.

**TIP:** You can use two wind speeds to calculate a windage solution that contains a high and low value. The actual windage to apply for the shot should fall in this range.

### ***Target Fields***

**DIRECTION OF FIRE:** The direction of fire, with north at 0 degrees and east at 90 degrees. Input field.

**NOTE:** The DIRECTION OF FIRE is used only for calculating the Coriolis effect. If you are shooting at a target less than 1,000 yards away, this input field is optional.

**INCLINATION:** The angle of inclination of the shot. A negative value indicates a downhill shot. A positive value indicates an uphill shot. The shooting solution multiplies the vertical portion of the solution by the cosine of the inclination angle to calculate the adjusted solution for an uphill or downhill shot. Input field.

**RANGE:** The distance to the target, displayed in yards or meters. Input field.

**SPEED:** The speed of a moving target, displayed in miles per hour (mph) or kilometers per hour (km/h). A negative value indicates a target moving left. A positive value indicates a target moving right. Input field.

### ***Profile Fields, Bullet Properties***

**BALLISTIC COEFFICIENT:** The manufacturer's ballistic coefficient for your bullet. Input field.

**TIP:** When you use one of the Applied Ballistics custom drag curves, the ballistic coefficient will display a value of 1.000.

**BULLET DIAMETER:** The bullet diameter measured in inches. Input field.

**NOTE:** The diameter of the bullet may vary from the common name of the round. For example, a 300 Win Mag is actually .308 inches in diameter.

**BULLET LENGTH:** The length of the bullet measured in inches. Input field.

**BULLET WEIGHT:** The bullet weight measured in grains. Input field.

**DRAG CURVE:** The Applied Ballistics custom drag curve, or the G1 or G7 standard projectile models. Input field.

**NOTE:** Most long range rifle bullets are closer to the G7 standard.

### ***Profile Fields, Gun Properties***

**MUZZLE VELOCITY:** The speed of the bullet as it leaves the muzzle. Input field.

**NOTE:** This field is required for accurate calculations by the shooting solution. If you calibrate the muzzle velocity, this field may be updated automatically for a more accurate firing solution.

**OUTPUT UNITS:** The output units of measure. A milliradian (mil) is 3.438 inches at 100 yards. A minute of angle (MOA) is 1.047 inches at 100 yards.

**SIGHT HEIGHT:** The distance from the center axis of the rifle barrel to the center axis of the scope. Input field.

**TIP:** You can easily determine this value by measuring from the top of the bolt to the center of the windage turret, and adding half of the diameter of the bolt.

**SSF - ELEVATION:** A linear multiplier that accounts for vertical scaling. Not all rifle scopes track perfectly, so the ballistics solution requires a correction to scale according to a particular rifle scope. For example, if a turret is moved 10 mil but the impact is 9 mil, the sight scale is 0.9. Input field.

**SSF - WINDAGE:** A linear multiplier that accounts for horizontal scaling. Not all rifle scopes track perfectly, so the ballistics solution requires a correction to scale according to a particular rifle scope. For example, if a turret is moved 10 mil but the impact is 9 mil, the sight scale is 0.9. Input field.

**TWIST RATE:** The distance it takes for the rifling of your barrel to make one full rotation. Rifle twist is often provided by the gun or barrel manufacturer. Input field.

**ZERO HEIGHT:** An optional modification to impact elevation at zero range. This is often used when adding a suppressor or using a subsonic load. For example, if you add a suppressor and your bullet impacts the target 1 inch higher than expected, your ZERO HEIGHT is 1 inch. You must set this to zero when you remove the suppressor. Input field.

**ZERO OFFSET:** An optional modification to impact windage at zero range. This is often used when adding a suppressor or using a subsonic load. For example, if you add a suppressor and your bullet impacts the target 1 inch to the left of the expected impact, your ZERO OFFSET is -1 inch. You must set this to zero when you remove the suppressor. Input field.

**ZERO RANGE:** The range at which the rifle was zeroed. Input field.

***Profile Fields, Gun Properties, Calibrate Muzzle Velocity***

**ENTER RANGE:** The distance from the muzzle to the target. Input field.

**TIP:** You should enter a value as close as possible to the range suggested in the shooting solution. This is the range where the bullet slows to Mach 1.2 and begins to enter the transonic range.

**ENTER TRUE DROP:** The actual distance the bullet falls while in flight to the target, displayed in milliradians (mil) or minute of angle (MOA). Input field.

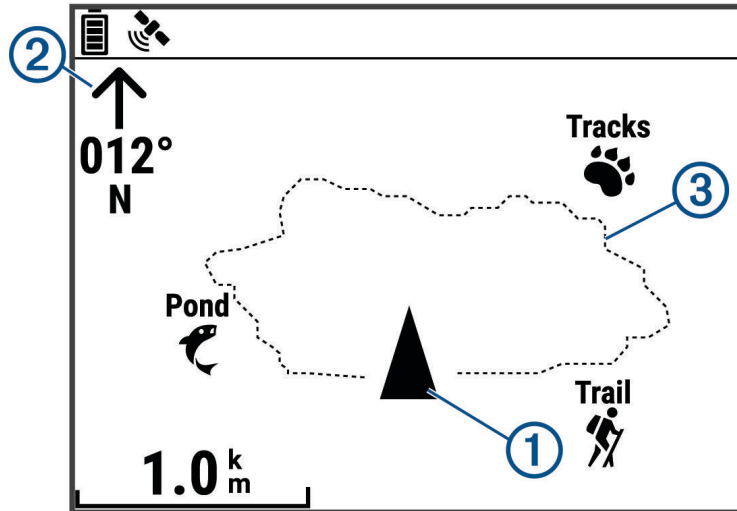
***Profile Fields, Gun Properties, Calibrate Drop Scale Factor***

**ENTER RANGE:** The range from which you are shooting. Input field.

**TIP:** This range should be within 90% of the recommended range suggested in the shooting solution. Values that are less than 80% of the recommended range will not provide a valid adjustment.

**ENTER TRUE DROP:** The actual distance the bullet falls when fired at a specific range, displayed in milliradians (mil) or minute of angle (MOA). Input field.

## Map Page



① Displays your position on the map.

② Displays the direction you are heading.

③ Displays your track log.

### Map Options

From the map page, press **ENTER**.

**PAN TRACK LOG:** Allows you to use DOWN or UP to pan the track log and view additional options (*Using the Pan and TracBack® Feature, page 6*).

**CLEAR TRACK LOG:** Deletes the recorded track log.

**MEASURE DISTANCE:** Allows you to measure the distance between two waypoints (*Measuring the Distance Between Two Waypoints, page 5*).

**MAP DETAIL:** Sets map preferences (*Map Detail Settings, page 16*).

**HIDE STATUS INFO:** Allows you to hide and show the status icons on the map page, such as battery level and GPS status.

### Map Detail Settings

From the map page, press **ENTER** and select **MAP DETAIL**.

**MAP ORIENTATION:** Adjusts how the map is shown on the page. The NORTH UP option shows north at the top of the page. The TRACK UP option shows your current direction of travel toward the top of the page.

**ACTIVE TRACK:** Shows or hides the active track on the map.

**WAYPOINTS:** Shows or hides waypoints on the map.

## Compass Page

### About the Compass

The electronic compass is similar to a magnetic compass when you are stationary or walking. If you maintain a higher speed, such as traveling in an automobile, the compass uses GPS signals to determine your direction.

**NOTE:** When navigating, you should hold the compass level to ensure maximum accuracy.

## Compass Options

From the compass page, press **ENTER**.

**CALIBRATE COMPASS:** Calibrates the electronic compass ([Calibrating the Compass, page 17](#)).

**CHANGE FIELDS:** Allows you to customize the data fields on the compass page ([Customizing the Data Fields, page 8](#)).

### Calibrating the Compass

The navigator has a 3-axis electronic compass. You should calibrate the compass after moving long distances, experiencing temperature changes, or changing the batteries.

- 1 From the compass page, press **ENTER**.
- 2 Select **CALIBRATE COMPASS > START**.
- 3 Follow the on-screen instructions.

## Elevation Page

### Elevation Options

From the elevation page, press **ENTER**.

**PLOT OVER TIME:** Allows you to view elevation changes over a period of time.

**PLOT OVER DIST:** Allows you to view elevation changes over a distance.

**ZOOM ELEVATION:** Sets the elevation scale.

**VIEW POINTS:** Enables data points on the elevation page.

### Calibrating the Barometric Altimeter

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 From the menu page, select **SETUP > ALTIMETER > CALIBRATE ALTIMETER**.
- 3 Follow the on-screen instructions.

## Trip Computer Page

### Trip Computer Options

From the trip computer page, press **ENTER**.

**CHANGE FIELDS:** Allows you to customize the data fields on the trip computer page ([Customizing the Data Fields, page 8](#)).

**RESET TRIP DATA:** Resets the trip and elevation data ([Resetting Data and Settings, page 24](#)).

## Timer Page

Before you can view the timer page, you must enable it ([Device Settings, page 18](#)).

### Using the Countdown Timer

You can set timer preferences in the device settings ([Timer Settings, page 19](#)).

- 1 From the timer page, press **ENTER** to start the countdown timer.  
**NOTE:** You can press **DOWN** or **UP** to change the time interval.
- 2 Press **ENTER** to stop the countdown timer.  
**NOTE:** When the time reaches 00:00, you can press **ENTER** to use the timer as a stopwatch and start counting up.
- 3 If necessary, press **UP** to reset the countdown timer to the original time interval.

## Menu Page Options

**WAYPOINTS:** Allows you to create a new waypoint, list all waypoints, or view the nearest waypoint to your location.

**TRACKS:** Allows you to manage your saved tracks.

**ROUTES:** Allows you to create a new route, list all routes, and delete all routes.

**SETUP:** Allows you to customize the device ([Device Settings, page 18](#)).

**NOTIFICATIONS:** Displays notifications from your paired phone.

**CONNECT:** Allows you to connect to compatible Garmin devices and ANT+® sensors, such as a heart rate monitor, temperature sensor, or Xero® device ([Pairing Your ANT+ Sensors, page 20](#), [Receiving Data Wirelessly, page 23](#)).

**PHONE:** Allows you to pair a phone with your device ([Pairing a Phone with Your Navigator, page 20](#)).

**INREACH REMOTE:** Allows you to control your connected inReach® satellite communicator using your navigator ([Wireless Sensors, page 20](#)).

**SUN/MOON:** Displays the sunrise, sunset, moonrise, moonset, and moon phase for a specific date.

**GPS:** Displays the satellite signal strength or the satellite sky view ([Viewing Satellites, page 22](#)).

**JUMPMASER:** Allows you to select the jump type ([Jumpmaster, page 21](#)).

## Device Settings

From the menu page, select **SETUP**.

**APPLIED BALLISTICS:** Allows you to customize the atmospheric conditions for your environment, shooting conditions for your target, gun and bullet properties for your profile, output units of measure for your profile, and input units of measure for the Applied Ballistics page ([Applied Ballistics Options, page 9](#)).

**NOTE:** This feature is available only on the Foretrex 901 navigator.

**TIME:** Sets the device to display time in a 12-hour, 24-hour, or military format, and sets the time zone for the device. The AUTOMATIC option allows the device to set the time zone automatically based on your GPS position.

**TIMER:** Enables the timer page and allows you to set timer preferences ([Timer Settings, page 19](#)).

**DISPLAY:** Adjusts the backlight timeout, display contrast, and night vision settings. The NVG MODE option reduces the backlight intensity for compatibility with night vision goggles.

**UNITS:** Sets the position format, map datum, and units of measure used on the device.

**HEADING:** Sets the compass display setting and north reference, and allows you to manually calibrate the compass ([Calibrating the Compass, page 17](#)). The AUTO option allows the device to automatically calibrate the compass. The OFF option turns off the compass.

**SYSTEM:** Sets system preferences ([System Settings, page 19](#)).

**TRACKS:** Sets track preferences ([Tracks Settings, page 19](#)).

**ROUTES:** Sets the transition from one point on the route to the next. The DISTANCE option routes you to the next point on the route when you are within a specified distance of your current point.

**MAP:** Sets map preferences ([Map Settings, page 19](#)).

**ALTIMETER:** Enables auto calibration, and allows you to manually calibrate the altimeter ([Calibrating the Barometric Altimeter, page 17](#)).

**EXPEDITION MODE:** Allows you to customize settings for expedition mode. The AUTO option automatically turns on expedition mode after two minutes of inactivity. The MANUAL option allows you to turn on expedition mode using the power menu ([Power Menu, page 3](#)). The INTERVAL option determines how often GPS track points are recorded.

**PAGE LOOP:** Enables or disables pages on the page loop.

**RESET:** Allows you to reset trip data, delete all waypoints, restore the device to factory default settings, and delete all saved user data ([Resetting Data and Settings, page 24](#)).

**ABOUT FORETREX:** Allows you to view device information, such as the unit ID, software version, regulatory information, and license agreement ([Viewing Device Information, page 22](#)).

## Timer Settings

From the menu page, select **SETUP > TIMER**.

**SHOW TIMER PAGE?:** Enables the timer page.

**COUNT DOWN FROM::** Sets the time increment for the countdown timer. You can use the COUNT UP option to use the timer as a stopwatch.

**WHEN EXPIRED::** Sets the timer to stop, count up, or repeat when the time expires.

**EXPIRED TONE::** Sets the audible alert that sounds when the time expires.

**INTERVAL TONE::** Sets the audible alert that sounds when the interval time expires.

## System Settings

From the menu page, select **SETUP > SYSTEM**.

**GPS MODE:** Sets the satellite system to GPS, MULTI-GNSS, ULTRATRAC, or DEMO (GPS off). The ULTRATRAC option records track points and sensor data less frequently.

**MULTIBAND:** Enables multiple satellite systems on multiple frequency bands. This allows for more consistent track logs, improved positioning, improved multi-path errors, and fewer atmospheric errors when using the navigator in challenging environments.

**BEEPER:** Sets the beeper to sound for key tones and messages or messages only.

**BATTERY:** Allows you to change the type of AAA battery you are using for more accurate battery capacity information.

**LANGUAGE:** Sets the text language on the device.

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

**OWNER INFO:** Allows you to enter owner information, such as your name, and set it to appear when the device turns on.

## Tracks Settings

From the menu page, select **SETUP > TRACKS**.

**RECORDING:** Enables track recording.

**RECORD INTERVAL:** Sets the track log recording method and rate. You can use the DISTANCE option to enter the distance between recorded track points. You can use the TIME option to enter the time between recorded track points. You can use the AUTO option to automatically record track points based on the selected resolution level.

**RESOLUTION:** Sets how often track points are recorded. A higher resolution records points more frequently and creates a more detailed track, but fills the track log faster.

**WRAP WHEN FULL:** Indicates whether track points are overwritten when the device memory is full.

## Map Settings

From the menu page, select **SETUP > MAP**.

**MAP ORIENTATION:** Adjusts how the map is displayed on the page. The NORTH UP option shows north at the top of the page. The TRACK UP option shows your current direction of travel toward the top of the page.

**AUTO ZOOM:** Automatically sets the zoom level for optimal use of your map. When this setting is turned off, you must zoom in or out manually.

**GO TO LINE:** Sets the behavior of the pointer that appears on the map. BEARING points in the direction of your destination. COURSE shows your relationship to the course line leading to the destination.

**TRACK LINE SIZE:** Sets the size of the track line displayed on the map.



## Connected Features

Connected features are available for your Foretrex navigator when you connect it to a compatible phone using Bluetooth technology and install the Garmin Explore™ app on the connected phone. Go to [www.garmin.com/apps](http://www.garmin.com/apps) for more information.

**Phone notifications:** Displays phone notifications and messages on your Foretrex navigator.

**Software Updates:** Allows you to update your navigator software.

## Pairing a Phone with Your Navigator

To use the connected features of the Foretrex navigator, it must be paired directly through the Garmin Explore app, instead of from the Bluetooth settings on your phone.

- 1 Bring your compatible phone within 10 m (33 ft.) of your navigator.
- 2 From the menu page on your navigator, select **PHONE > PAIR PHONE**.
- 3 From the app store on your phone, install and open the Garmin Explore app.
- 4 Follow the instructions in the app to complete the pairing process.

## Wireless Sensors

Your navigator can be paired and used with wireless sensors using ANT+ or Bluetooth technology (*Pairing Your ANT+ Sensors, page 20*). After the devices are paired, you can customize the optional data fields (*Customizing the Data Fields, page 8*).

For information about specific Garmin sensor compatibility, purchasing, or to view the owner's manual, go to [buy.garmin.com](http://buy.garmin.com) for that sensor.

Sensor Type	Description
APPLIED BALLISTICS	You can use Applied Ballistics devices, such as rangefinders or wind sensors, and view additional ballistics information on your navigator.
HEART RATE MONITOR	You can use an external sensor, such as the HRM-Pro™ or HRM-Dual™ heart rate monitor, to view heart rate data during your activities.
INREACH REMOTE	The inReach remote function allows you to control your inReach satellite communicator using your Foretrex navigator.
TEMPE SENSOR	You can attach the tempe temperature sensor to a secure strap or loop where it is exposed to ambient air, so it provides a consistent source of accurate temperature data.
VECTRONIX	You can use Vectronix® rangefinders, and view additional ballistics information on your navigator.
XERO	You can view and share laser location information from a Xero device.

## Pairing Your ANT+ Sensors

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

Pairing is the connecting of ANT+ wireless sensors, for example, connecting a heart rate monitor with your device.

- 1 Bring the device within 3 m (10 ft.) of the sensor.  
**NOTE:** Stay 10 m (30 ft.) away from other ANT+ sensors while pairing.
- 2 From the menu page, select **CONNECT**.
- 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 Wireless Sensors

- Verify that the sensor is compatible with your Garmin device.
- Before you pair the sensor with your Garmin device, move 10 m (33 ft.) away from other sensors with ANT+ technology.
- Bring the Garmin device within range 3 m (10 ft.) of the sensor.
- After you pair the first time, your Garmin device automatically recognizes the sensor each time it is activated. This process occurs automatically when you turn on the Garmin device and only takes a few seconds when the sensors are activated and functioning correctly.
- When paired, your Garmin device receives data from only your sensor, and you can go near other sensors.

## Jumpmaster

### WARNING

The jumpmaster feature is for use by experienced skydivers only. The jumpmaster feature should not be used as a primary skydiving altimeter. Failure to input the appropriate jump related information can lead to serious personal injury or death.

The jumpmaster feature follows military guidelines for calculating the high altitude release point (HARP). The device detects automatically when you have jumped to begin navigating toward the desired impact point (DIP) using the barometer and electronic compass.

### Jump Types

The jumpmaster feature allows you to set the jump type to one of three types: HAHO, HALO, or Static. The jump type selected determines what additional setup information is required. For all jump types, drop altitudes and opening altitudes are measured in feet above ground level (AGL).

**HAHO:** High Altitude High Opening. The jumpmaster jumps from a very high altitude and opens the parachute at a high altitude. You must set a DIP and a drop altitude of at least 1,000 feet. The drop altitude is assumed to be the same as the opening altitude. Common values for a drop altitude range from 12,000 to 24,000 feet AGL.

**HALO:** High Altitude Low Opening. The jumpmaster jumps from a very high altitude and opens the parachute at a low altitude. The required information is the same as the HAHO jump type, plus an opening altitude. The opening altitude must not be greater than the drop altitude. Common values for an opening altitude range from 2,000 to 6,000 feet AGL.

**STATIC:** The wind speed and direction are assumed to be constant for the duration of the jump. The drop altitude must be at least 1,000 feet.

## Device Information

### Specifications

Battery type	Two 1.5 V AAA batteries (alkaline, NiMH, or lithium)
Battery life	Normal use: Up to 100 hr. Expedition mode: Up to 1,000 hr.
Water rating	IEC 60529 IPX7 <sup>1</sup>
Operating temperature range	From -20° to 60°C (from -4° to 140°F)
Wireless frequency	2.4 GHz @ -17.07 dBm maximum

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

## Viewing Device Information

You can view the unit ID, software information, and regulatory information.

- 1 From the menu page, select **SETUP > ABOUT FORETREX**.
- 2 Select **DOWN**.

## Viewing Satellites

The satellite page shows your current location, satellite locations, and signal strength. For more information about GPS, go to [www.garmin.com/aboutGPS](http://www.garmin.com/aboutGPS).

- 1 From the menu page, select **GPS**.  
The bars represent the strength of each satellite signal received (the number of satellites appears below each bar). White bars indicate the device is collecting data. Solid bars indicate the device has acquired satellite signals.
- 2 Press **ENTER** to switch to sky view.  
The location of the satellites from which you are receiving signals appears.

## Device Care

### NOTICE

Before you attempt to replace the battery, carefully read the instructions in the owner's manual.

Avoid extreme shock and harsh treatment, because it can degrade the life of the product.

Thoroughly rinse the device with fresh water after exposure to chlorine, salt water, sunscreen, cosmetics, alcohol, or other harsh chemicals. Prolonged exposure to these substances can damage the case.

Do not use a sharp object to clean the device.

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

Always wipe the device dry after cleaning or use, and store it in a cool, dry place.

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

## Cleaning the Device

### ⚠ CAUTION

Some users may experience skin irritation after prolonged use of the wrist strap, especially if the user has sensitive skin or allergies. If you notice any skin irritation, remove the wrist strap and give your skin time to heal. To help prevent skin irritation, ensure the wrist strap is clean and dry, and do not overtighten the wrist strap on your wrist.

**TIP:** For more information, go to [garmin.com/fitandcare](http://garmin.com/fitandcare).

- 1 Rinse with water, or use a damp lint-free cloth.
- 2 Allow the navigator and wrist strap to dry completely.

## Data Management

### Connecting the Device to Your Computer

You can use the Foretrex navigator as a USB mass storage device by connecting it to your computer with a USB cable.

- 1 Turn the D-ring counter-clockwise, and pull up to open the rear cover.
- 2 Plug the small end of the USB cable into the USB port on the device.
- 3 Plug the large end of the USB cable into a computer USB port.

Your device appears as a removable drive in **My Computer** on Windows® computers and as a mounted volume 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. On Mac computers, the device appears as a mounted volume.

**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.
- 6 Browse to a folder.
- 7 Select **Edit > Paste**.

The file appears in the list of files in the device memory.

## Receiving Data Wirelessly

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

Your device can receive waypoints and routes when connected with a compatible Garmin device.

From the menu page, select **CONNECT > RECEIVE WIRELESSLY**.

When a compatible Garmin device is found, the status changes from **CONNECTING** to **RECEIVING DATA**.

When data is received, the status changes to **TRANSFER COMPLETE**.

## Sending a Route Wirelessly

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

- 1 From the menu page, select **ROUTES > LIST ALL**.
- 2 Select a route.
- 3 Select **SEND**.

## Sending a Waypoint Wirelessly

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

- 1 From the menu page, select **WAYPOINTS > LIST ALL**.
- 2 Select a waypoint.
- 3 Select **OPTIONS > SEND**.

# Troubleshooting

## Product Updates

On your computer, install Garmin Express™ ([www.garmin.com/express](http://www.garmin.com/express)). On your phone, install the Garmin Explore app.

This provides easy access to these services for Garmin devices:

- Software updates
- Data uploads to Garmin Explore
- Product registration

## Improving GPS Satellite Reception

- Frequently sync the device to your Garmin account:
  - Connect your device to a computer using the USB cable and the Garmin Express application.
  - Sync your device to the Garmin Explore app using your Bluetooth enabled phone.

While connected to your Garmin account, the device downloads several days of satellite data, allowing it to quickly locate satellite signals.

- Take your device outside to an open area away from tall buildings and trees.
- Remain stationary for a few minutes.

## Maximizing Battery Life

You can do several things to extend the life of the batteries.

- Use premium lithium batteries.
- Use expedition mode ([Power Menu, page 3](#)).
- Turn off additional satellite systems ([System Settings, page 19](#)).
- Reduce the backlight timeout ([Device Settings, page 18](#)).
- Turn off the beeper ([System Settings, page 19](#)).
- Turn off the compass when not in use ([Device Settings, page 18](#)).

## My device is in the wrong language

You can change the device language selection if you have accidentally selected the wrong language on the device.

- 1 From the menu page, press **DOWN** three times.
- 2 Press **ENTER**.
- 3 Select an option:
  - On the Foretrex 801 navigator, press **DOWN** five times.
  - On the Foretrex 901 navigator, press **DOWN** six times.
- 4 Press **ENTER**.
- 5 Press **DOWN** four times.
- 6 Press **ENTER**.
- 7 Select your language.

## Resetting Data and Settings

- 1 From the menu page, select **SETUP > RESET**.
- 2 Select an option:
  - To reset data specific to a trip, such as distance and averages, select **RESET TRIP DATA**.
  - To delete all saved waypoints, select **DELETE ALL WAYPOINTS**.
  - To restore all device settings to the factory default values, select **RESTORE DEFAULTS**.
  - To remove all saved user data and reset all settings on the device to the factory default values, select **DELETE ALL**.

**NOTE:** This option removes your personal data, history, and saved user data, including routes and waypoints.

## Resetting the Device

You can reset the device if it stops responding. This does not erase any of your data or settings.

Hold **POWER** for 12 seconds.

# Appendix

## Data Fields

**AMB PRESS:** The uncalibrated ambient pressure.

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

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

**BAROMETER:** The calibrated current pressure.

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

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

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

**FINAL DEST:** The last point on the route or course.

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

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

**FINAL ETE:** The estimated time remaining until you reach the final destination. You must be navigating for this data to appear.

**GLIDE RATIO:** The ratio of horizontal distance traveled to the change in vertical distance.

**GR DEST:** 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.

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

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

**MAX ELEVTN:** The highest elevation reached since the last reset.

**MAX SPEED:** The highest speed reached since the last reset.

**MAX TEMP:** The maximum temperature recorded in the last 24 hours from a compatible temperature sensor.

**MIN ELEVTN:** The lowest elevation reached since the last reset.

**MIN TEMP:** The minimum temperature recorded in the last 24 hours from a compatible temperature sensor.

**MOV'N AVG:** The average speed while moving for the current activity.

**MOV'N TIME:** The total time moving for the current activity.

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

**NEXT DIST:** 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 when you will reach the next waypoint on the route (adjusted to the local time of the waypoint). You must be navigating for this data to appear.

**NEXT ETE:** The estimated time remaining until you reach the next waypoint on your route. You must be navigating for this data to appear.

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

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

**OVER'L SPD:** The average speed for the current activity, including both moving and stopped speeds.

**SPEED:** The current rate of travel.

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

**SUNRISE:** The time of sunrise based on your GPS position.

**SUNSET:** The time of sunset based on your GPS position.

**TEMP:** The temperature of the air. Your body temperature affects the temperature sensor. Your device must be connected to a temperature sensor for this data to appear.

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

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

**TOT ASCENT:** The total elevation distance ascended during the activity or since the last reset.

**TOT DESCENT:** The total elevation distance descended during the activity or since the last reset.

**TRIP ODOM:** A running tally of the distance traveled 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.

**VERT SPEED:** The rate of ascent or descent over time.

**VMG:** The speed at which you are approaching a destination along a route. You must be navigating for this data to appear.

**VSPD DEST:** The rate of ascent or descent to a predetermined altitude. You must be navigating for this data to appear.



