

# **MotionX-GPS User Manual**

Revision 22.0









#### **IMPORTANT NOTE:**

This is not the user manual for MotionX-GPS Drive. Please visit <a href="http://Drive.MotionX.com">http://Drive.MotionX.com</a> for this manual.

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#### **Getting Started**

• Video: <a href="http://gps.motionx.com/video/">http://gps.motionx.com/video/</a>

 $\bullet Tutorials: \underline{http://gps.motionx.com/iphone/tutorials/} \\$ 

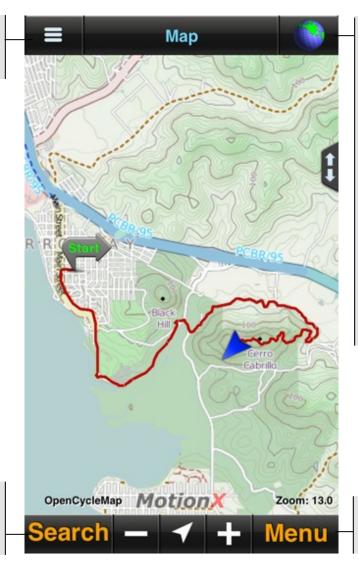
• Quick Start Guide: <a href="http://gps.motionx.com/quick-start/">http://gps.motionx.com/quick-start/</a>

### 1. Overview



The most accurate and reliable solution for the iPhone, MotionX-GPS embeds the functionality of an advanced handheld GPS unit into a simple and intuitive iPhone application. Use MotionX-GPS to track outdoor activities such as hiking, running, biking, sailing, skiing, or any other activity where you want to track your route. It is also ideal for geocaching and for sharing the coordinates of your favorite locations.

**Options:** View the options for the page currently being viewed



**GPS signal indicator**Touch to toggle between outdoor online and indoor

offline

**Blue globe:** Outdoor GPS mode; good signal

**Red globe:** Unreliable signal, trying to acquire satellites

Wifi/Triangulation:

Uses location information from nearby Wifi hotspots to approximate location

**Manual:** Offline; not searching for satellites

**Search:** Quick access to the MotionX Search Wheel

**Menu:** Access the menu from any page



GPS requires a direct "line-of-sight" to communicate with satellites. Your iPhone must have a clear view of the sky to locate at least three satellites in order to give accurate position information. If you are indoors, in a wooded area or surrounded by buildings, you may be unable to acquire an accurate signal.

### 2. Menu



The MotionX Menu provides access to the various capabilities of MotionX-GPS. Go to the track recorder, access the navigation/search wheel, view and share your current position, access maps, set up live updates, access your saved tracks & waypoints, view the compass, and access the Setup menu from this page.

Each menu button is explained here briefly. Additional details for each function are outlined in the subsequent sections of this manual.

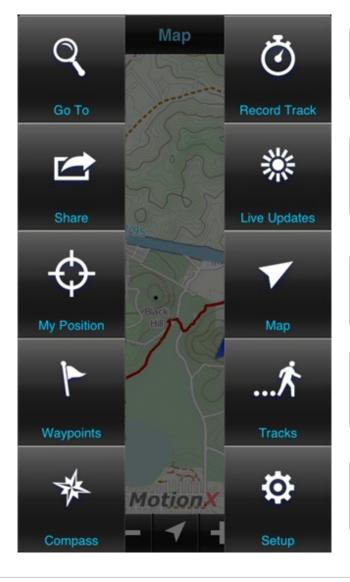
**Go To:** Access the Search Wheel to select a navigation point; function changes to **Stop Nav** while navigating<sup>1</sup>

**Share:** Share your current position, track or waypoint via email, Facebook, or Twitter

My Position: View/ share current position, create a waypoint, take a photo, view signal strength

**Waypoints:** View a list of your saved waypoints; view GPX file import instructions

**Compass:** Current heading, speed, VMG, ETA, waypoint distance & bearing to wypt



**Record Track:** Open the GPS stopwatch to record a track<sup>2</sup>

**Live Updates:** Setup/ controls for sharing your position with others in real-time<sup>3</sup>

**Map:** View maps, with tracks, waypoints, and optional gridlines overlaid

**Tracks:** View a list of your saved tracks; view GPX file import instructions

**Setup:** Access the various user-based settings and controls

 $<sup>{</sup>f 1}$  When navigating to a waypoint, the icon blinks between green and white.



<sup>&</sup>lt;sup>2</sup> While recording a track, the Record Track icon blinks between green and white.

<sup>&</sup>lt;sup>3</sup> With Live Updates active, the icon blinks between green and white.

### 3. Go To



Select one of the search methods from the wheel to find a destination for navigation, or a track to follow. Once a destination has been defined, the Compass screen displays ETA, speed, VMG, distance and bearing to waypoint, etc, and the Map screen displays the straight-line path between your current position and the waypoint.

#### **MotionX Search Wheel**

#### Address input:

- Location or landmark, e.g. "Mount Everest"
- Address, options:
  - full address
  - city name
  - state/province
  - zip/postal code
- Lat / Lon, for example "41.89 N, 87.61 W"
- Import from Address Book contacts
- Country name

**Wikipedia:** View POIs around you or in a specified location; read the associated articles

**Facebook:** View and navigate to your friends' Facebook check-ins

**Follow Track:** Follow one of your saved tracks



**Waypoint:** Select from your saved waypoints

**TapTap® Tool:** Create a new waypoint by picking a point on the map. A new waypoint will be created and saved

**Recents:** View your waypoints sorted by date to quickly find recently saved points

Range/Bearing: Enter a range (distance) and bearing (degrees) from your current position

**Lat/Lon:** Define waypoint coordinates<sup>1</sup>



<sup>1</sup> If UTM, MGRS, or OSGB is selected as the coordinate system, the input fields will reflect the appropriate system.

### 4. Record Track



Record a track of your hikes, runs, bike rides, trips, or other outdoor activities. Once saved, the track is added to the Tracks log. The track can be shared with others via email, Facebook, or Twitter for viewing in Google Earth, Google Maps or any GPX-capable application.

**Options:** see details on next page of this manual

Customize the data displayed on the track recorder by pressing and holding any of the lower data fields. Select a category (general, navigation, sensor, elevation), then use the picker wheel to define the field. Mix and match units of your data fields if desired. Enable or reset custom fields from Menu > Setup > Display > Custom Fields.



Vertically swipe the lower part of the display for additional track metrics



#### **Track Recorder Options:**

Jumbo View: Select two two data fields to display in extra large font

Display: Select a preference for units, speed format, and skin style

<u>Camera</u>: Add a photo to your track using the built-in iPhone camera<sup>1</sup>, or from your

camera roll

<u>Activity Mode</u>: Select the appropriate Activity Mode (e.g. Biking, Flying, Hiking, etc.) to optimize speed and distance accuracy<sup>2</sup>

#### Settings:

- Track Recorder Stats Autoswipe: when set to ON, the track statistics and graphs at the bottom of the Track Recorder page will automatically scroll between the four available views. Configure the idle time (time the screen is idle before Autoswipe begins) and the page view time.
- Track Recorder Auto Pause: when turned ON, will automatically pause the elapsed time when you stop moving. When you start moving again, the elapsed time will start again. This will keep your average speed and average pace accurate if you don't manually press Pause when stopped. If the Pause button is pressed, the Auto Pause feature will not override this action.

<u>Voice Coaching</u>: Use voice coaching options to enable/customize audio updates while recording a track



<sup>1</sup> Full resolution geotagged images are saved to the iPhone's camera roll instead of within MotionX-GPS. To prevent waypoints or tracks from losing their associated photos, leave the photos in your camera roll. Share the waypoint or track via email to create a backup.



<sup>2</sup> Accelerometrics, accuracy filtering and other parameters will be selected for optimal results based on your activity. The Activity Mode selector also provides quick access to various other track recorder preferences and settings.



#### Heart Rate:

Track your heart rate from MotionX using a ANT+ or Bluetooth Low Energy (BLE) chest strap heart rate sensor.

#### ANT+

To setup an ANT+ heart rate monitor, wear the chest strap and connect the ANT+ receiver (dongle or case) to your iPhone. Select Manage Sensor>Connect. Once connected, your heart rate will display on the setup page and in the track recorder.

#### **Bluetooth Low Energy (BLE)**

Newer Bluetooth Low Energy heart rate monitors are supported on the iPhone 4S and iPhone 5 only as BLE requires a specific Bluetooth chipset found only in these devices. No receiver dongle or case is required and there is no need to pair the BLE HR monitor with your iPhone first. To set up, be sure Bluetooth is turned on from iPhone Settings>General. Wear the chest strap, then from MotionX-GPS select Menu>Setup>Heart Rate Sensor>Manage Sensor>Connect.

Manufacturers of Compatible Heart Rate Chest Straps

Wahoo Fitness: ANT+ and BLE

Polar: ANT+ and BLEGarmin: ANT+Timex: ANT+Adidas: ANT+

Manufacturers of compatible ANT+ iPhone Receiver Dongles and Cases

• Wahoo Fitness: Cases and dongles

Screen Lock: Lock the screen and change the display brightness

Flashlight: Turn on the iPhone's camera flash LED

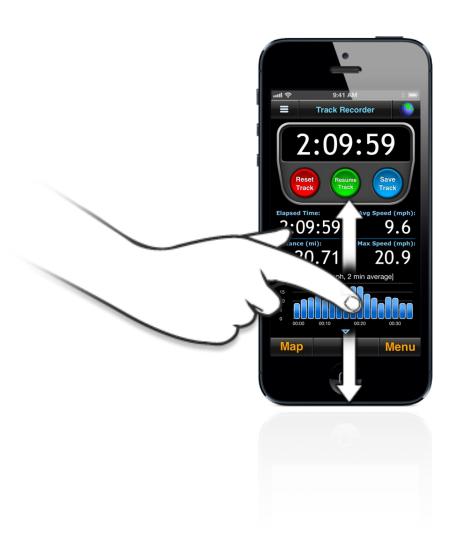


#### **Display Options**

Swipe the bottom half of the screen vertically to view additional information. Optionally set up Autoswipe via Options > Settings to automatically toggle between views. Swipe the graphs horizontally to slide the x-axis.

Customize the data displayed on the track recorder by pressing and holding any of the lower data fields. Select a category (general, navigation, sensor, elevation), then use the picker wheel to define the field. Mix and match units of your data fields if desired. Enable or reset custom fields from Menu > Setup > Display > Custom Fields.

Each bar or data point on the speed and altitude bar charts represents a 1-minute average.





#### **Tap and Hold**

Tap and hold the speed or elevation graph to see precise data point values. A small orange tracking ball appears -- slide your finger across the screen to see the instantaneous value displayed at the top of the graph.





#### **Full Screen Graphs**

Rotate your phone to landscape and select the graph button to view real-time speed and altitude graphs with optional overlay.





## 5. Share



Select the Share button from the main menu to share your tracks, waypoints, or current position via email, Facebook, or Twitter, and to access the Live Updates feature. Go to Menu>Setup to configure your sharing preferences.

#### **Share Options**

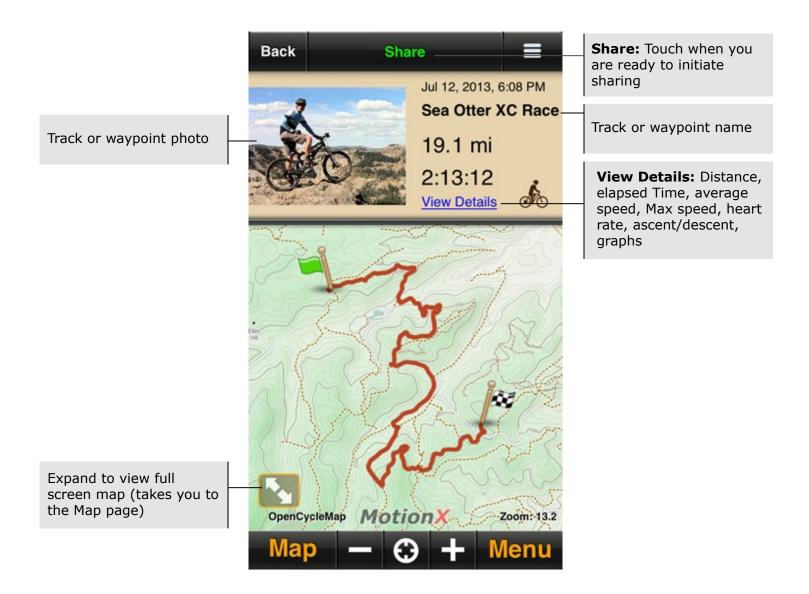


# 5. Share (continued)



#### **Share Summary**

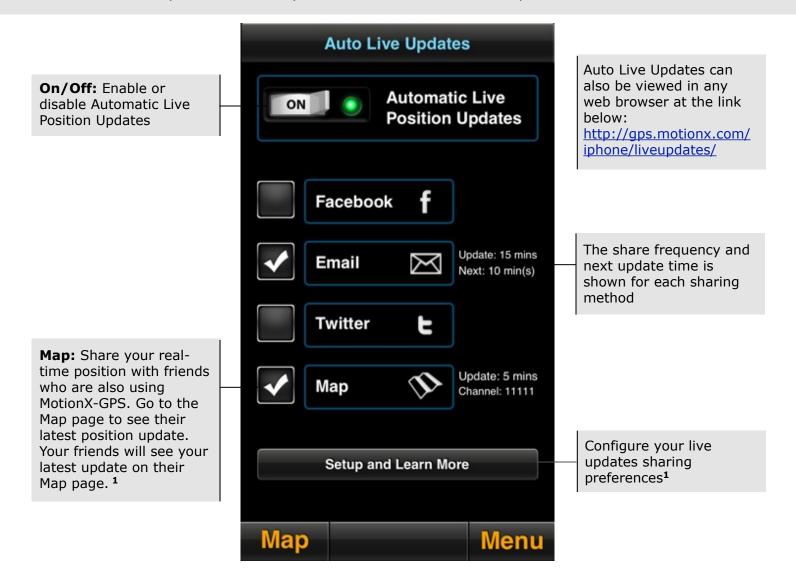
The share summary page is displayed after a track or waypoint is selected for sharing. This page is skipped if one-click sharing is enabled (from Setup>Share).



# 6. Live Updates



Share your real-time position automatically via Facebook, Twitter, email, or displayed on the maps of friends who are also using MotionX-GPS. Live Updates will run (GPS chipset remains active) when MotionX-GPS is backgrounded if Setup>Multitasking is set to either Optimized or Always On. A data connection is required for this feature.



#### <sup>1</sup> Live Map Updates Setup:

- Edit your display name so your friends can identify you (default is "MotionX User")
- Define a 5-digit channel. Share your channel with friends who want to see your location
- Define an interval for broadcasting your location (ranging from 30sec to 10min). Your friends' latest known locations are updated at the interval they have selected.
- Select a radius within which you would like to display your friends' locations
- Select a time interval to display your friends' last known position updates. Choosing 12 hours, for example, will allow you to see their last position for 12 hours after their last update.
- Share your channel selection with friends via email
- TapTap® a friend's location sign on the Map to view the time of their last location update

## 7. My Position



Quickly view your current position and altitude from the My Position page. The GPS signal strength and approximate accuracy is shown, as well as the time elapsed since the last valid location fix. You can also create a waypoint and access sharing options with one click.



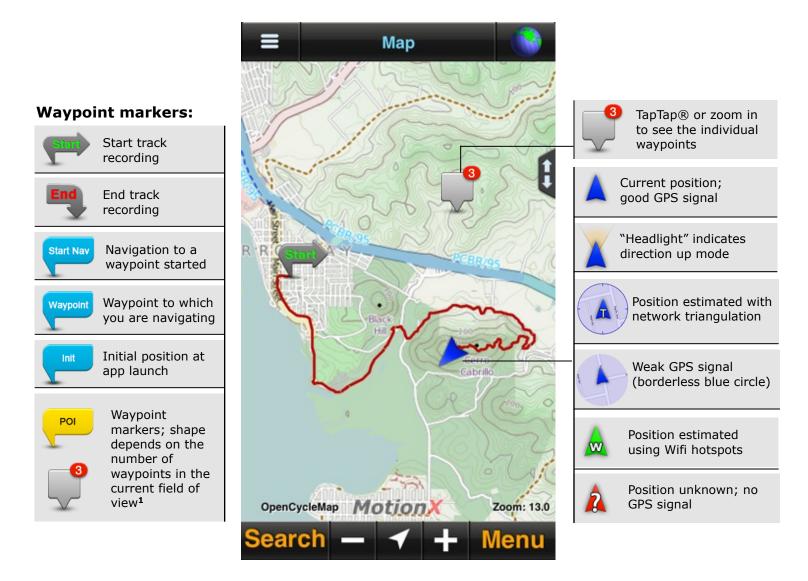


<sup>&</sup>lt;sup>1</sup> Full resolution geotagged images are saved to the iPhone's camera roll instead of within MotionX-GPS. To prevent waypoints or tracks from losing their associated photos, leave the photos in your camera roll. Share the waypoint or track via email to create a backup.

# 8. Map



The MotionX Map view shows a track of your movement in relation to a map. Choose from fourteen different map types, including road, aerial, hybrid, terrain, and marine. Optionally display your waypoints, speed/heading, track history, and a coordinate grid overlay.





<sup>1</sup> If there are multiple waypoints in the same area, a group sign indicating the number of waypoints will be shown if you select this option from Options>Signs. TapTap® the sign or zoom to see the individual waypoints.

Use the MotionX TapTap® tool to create a new waypoint on the map. Move the map or change zoom levels to position the marker. As the map is moved, the coordinates of the waypoint as well as the range and bearing from your current location are displayed.

# $8. \, Map \, {}_{\text{(continued)}}$



#### **Map Buttons**

**Options:** see details on next page of this manual





<sup>1</sup> **Course Up:** uses orderly changes in position from satellite data to rotate the map to maintain an upward heading. Speed of travel must be more than a few mph (or km/h). This feature is not available for Apple Maps.

**Direction Up:** rotates the underlying map to maintain an upward heading, using the magnetic compass. Not available for Apple Maps.

# 8. Map (continued)



#### **Map Options**

**Display:** Select your preference for units, coordinates, compass, speed format, and skin style

#### Map types:

MotionX: road, terrain (OpenStreetMap / OpenCycleMap data)

• Apple: road, aerial, hybrid

Google: road, aerial, hybrid, terrainBing: road, aerial, hybrid, terrain

• Marine: NOAA charts (US coastal areas)

Signs: View or hide waypoint and track signs, optionally group nearby signs

**Recorded Tracks:** View or hide tracks from specific track folders **Realtime Track:** Hide, save or clear the blue real-time track<sup>1</sup>

Layers: View or hide speed/heading; optionally view map overlays (gridlines, compass rose,

scale marker, Lat/Lon coordinates)

Map Downloads: Launches the map download interface (see the Download Maps section for

details)2

Measure Tool: Measure the point-to-point distance and bearing between any two locations

Screen Lock: Lock the screen and adjust the display brightness

Flashlight: Turn on the camera flash LED



<sup>&</sup>lt;sup>1</sup> Save the **Realtime Track** in the event that you forget to start the Track Recorder but you still want to save your track.



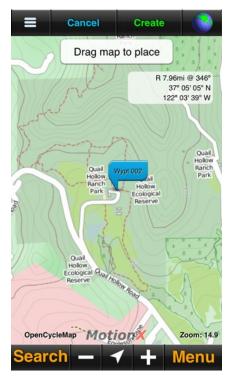
<sup>&</sup>lt;sup>2</sup> Due to Apple, Bing, and Google restrictions on maps, these map types can't be cached or stored onboard. By contrast, MotionX road and terrain maps and NOAA marine charts may be cached and/or downloaded.

# 8. Map (continued)



#### TapTap® Tool

- Use the MotionX TapTap® tool on the map to create, edit, share, and navigate to waypoints.
- Use a TapTap® gesture on waypoint markers to quickly edit, share, navigate to, or delete waypoints. The TapTap® gesture will also reveal all the waypoints marked by a group sign marking multiple waypoints.







Create waypoints

Edit waypoints

Open grouped waypoints

# 8. Map (continued)



#### **Track Types**

A solid red line represents your path while recording a track with the Track Recorder. Use the "Start Track", "Pause Track" and "Save Track" controls on the Record Track page to record and save your track. (In MotionX-GPS v18.0 and above you may change the color of your recorded track)

A dotted red line represents an interpolated path between two points when signal has been lost while the Track Recorder was running.

A solid blue line traces your path when a GPS signal is active and the Track Recorder is not in use. In the event that you forgot to start the Track Recorder, you can save these blue tracks to the Logbook. Select Realtime Track > Save in the Options menu on the Map page. All blue tracks will be combined into a single track and saved.

A dotted blue line represents an interpolated path between two points when signal has been lost and the Track Recorder was not running.

A dashed green line from the arrow indicates the path to the waypoint you have chosen as your destination using the Go To or Start Nav buttons.

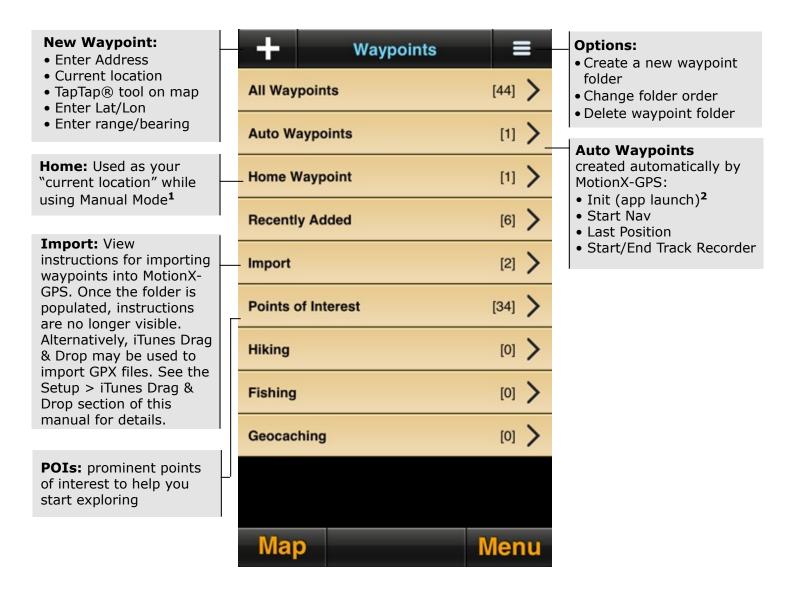
A dashed orange line represents a previously recorded track that is being followed. A green start flag indicates the start of the track and a checkered end flag indicates the end.

# 9. Waypoints



A waypoint is a set of coordinates that uniquely identifies a geographic location. From this page you can access your saved waypoints, sorted by name, date, or proximity, and view the Auto waypoints. You may store up to 2500 waypoints. Here you can also find instructions for importing waypoints into MotionX-GPS.

Waypoint folders allow grouping of waypoints from a specific activity or trip together. Create your own custom folders from Options>Add New Waypoint Folder.





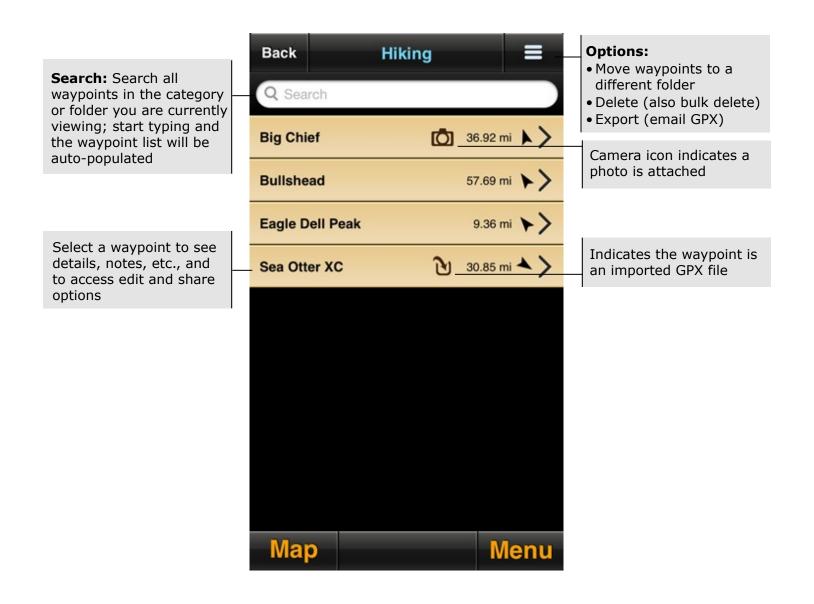
<sup>&</sup>lt;sup>1</sup> When navigating in Manual Mode (without GPS), the range and bearing start from the Home location you've defined. To change your Home position, select the Home Waypoint folder and edit the coordinates, or select "Set As Home Waypoint" from the Options menu for any saved waypoint.

<sup>&</sup>lt;sup>2</sup> Use the 'Init' automatic waypoint to find your way back to your starting point (where you launched the application) in case you get lost.



#### **Folder View**

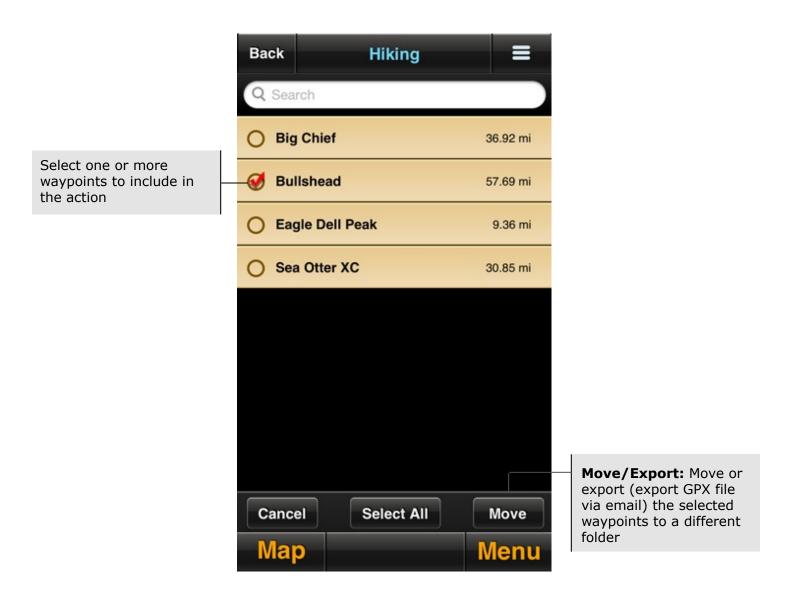
Use the folder view interface to quickly view, search, move, export, or delete waypoints. Select the Options button to view the waypoint management options.





#### **Waypoint Management**

Export waypoints, move waypoints to a different folder, or delete waypoints individually or in groups (access from Options>Move/Delete/Export Waypoints).

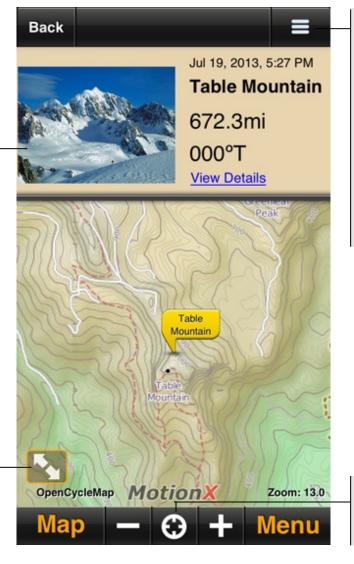




#### **Waypoint Overview**

Touch the photo field to select or change the photograph associated with the waypoint

View the waypoint on a full-screen map (takes you to the Map page)



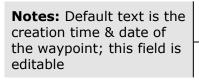
#### **Options:**

- Display
  - Units
  - Coordinate format
- Compass
- Skin style
- Map type
- Start navigation to this waypoint
- Share
- Set as Home waypoint
- Open in MotionX-GPS Drive
- Delete

**Crosshairs:** Auto-zoom and center the map around the waypoint



#### **Waypoint Details**



Bearing and distance to waypoint from your current position

**Lat/Lon:** Waypoint location; UTM, MGRS, and OSGB coordinate systems are also available



**Options:** Choose from the following waypoint options:

- Start Navigation
- Share
- Add/edit photo
- View on Map
- Set as Home waypoint
- Open in MotionX-GPS Drive (for driving route)
- Delete

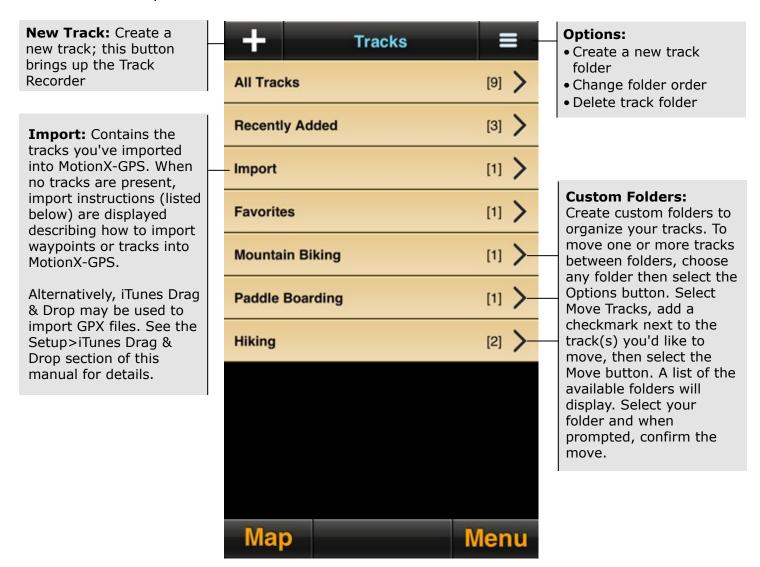
Icons indicate whether a photo is associated with the waypoint, and/or it was imported

### 10. Tracks

·..\*

A track is a compilation of samples or "breadcrumbs" taken over a period of time. To record and save your tracks, select Record Track from the main menu. You may store up to 300 tracks. Here you can also find instructions for importing tracks into MotionX-GPS.

New track recordings are added to the All Tracks directory. Track folders allow you to group tracks from a specific region, activity, or trip together. Create your own custom folders from Options>Add New Track Folder.



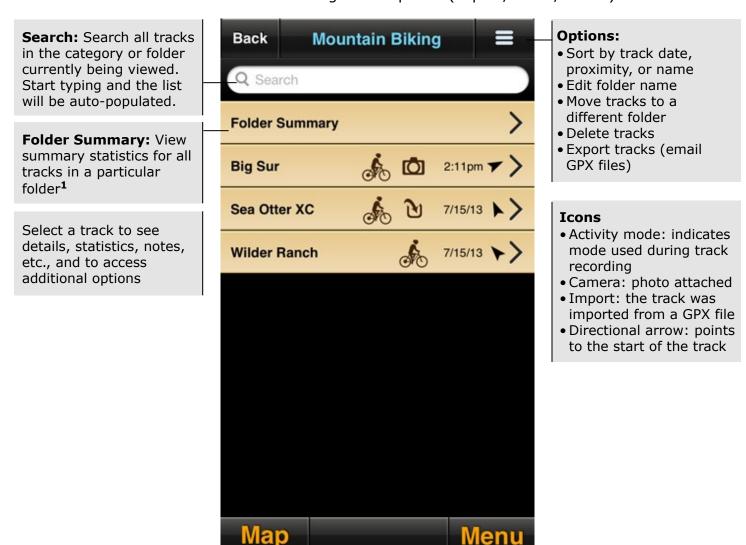
- 1. To import waypoints or tracks, send an email from your Mac or PC with one or more GPX files attached to <a href="mailto:gpsimport@motionx.com">gpsimport@motionx.com</a>.
- 2. You will receive an email, which should be viewed from your iPhone Mail app.
- 3. Select the link in the email. MotionX-GPS will launch and provide a summary of the number of items that will be imported.
- 4. Select "Import Now" and the waypoints or track will be imported.

Note: Forwarding an email with a GPX file from your iPhone to <a href="mailto:gpsimport@motionx.com">gpsimport@motionx.com</a> is supported. Import emails are limited to 12 waypoint GPX files or one track GPX file per email.



#### **Folder View**

Use the folder view interface to quickly search, move, export, or delete tracks. Select the Edit button to view the track management options (export, move, delete).



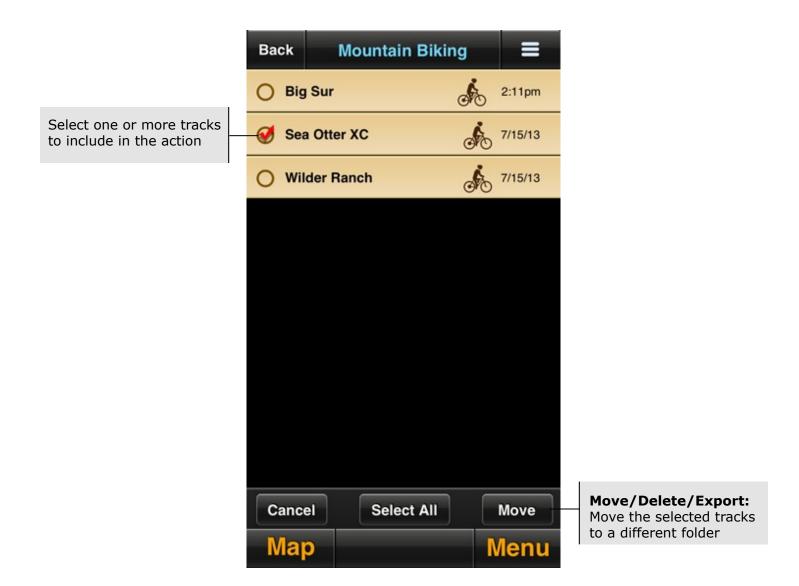


<sup>&</sup>lt;sup>1</sup> Viewing folder summary statistics (e.g. total distance, average speed, etc.) may be useful for grouping tracks based on activity type, or a period of time while training. For example, separate your biking tracks and your hiking tracks into different folders to see summaries for each. Or create a folder for a particular month to see a summary of all your activities for that month.



#### **Track Management**

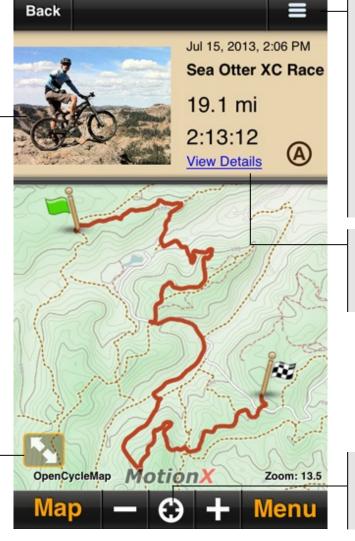
Move tracks to a different folder, delete tracks, or export tracks (GPX files) individually or in groups. This feature is accessed using the **Options** button (upper right corner).





#### **Track Overview**

Touch the photo field to select or change the photograph associated with the track



#### Options:

- Display
- units
- speed/pace format
- skin style
- Map type
- Activity mode
- Line color
- Follow track
- Share (via email, Facebook, or Twitter)
- Add/edit photo
- Delete

**View Details:** track metrics such as time, distance, speed, ascent/decent, graphs, etc.

View the track on a fullscreen map (takes you to the Map page)

**Crosshairs:** Auto-zoom and center the map around the completed track



#### Track Details

Name: Touch this field to edit the name of the track

Customize the track data displayed by pressing and holding any of the lower data fields. Select a category (general, navigation, sensor, elevation), then use the picker wheel to define the field. You may mix and match units of your data fields if desired. Enable custom fields from Menu>Setup>Display> Custom Fields.



- Follow this track
- Share (via email, facebook, or twitter)
- Select Activity
- Change line color

**Notes:** Default note is start time & date of the track; this field is editable

Swipe the bottom region vertically to view additional data:

- Elevation graph
- Total ascent / descent
- Maximum positive and negative gradient

# 11. Compass



The MotionX Compass shows such information as heading, SOG (speed over ground), VMG (velocity made good), distance, bearing, and time to waypoint, and ETA during active navigation.

**Wypt Dist:** Distance to selected waypoint; select unit preference (m, km, mi, ft, yds, or nm) from Menu>Setup>Display

**Blue arrow:** Indicates the bearing to your destination



**VMG:** Velocity made good (effective speed at which you are approaching your waypoint)

Customize the Compass display by pressing and holding any data field. Select a category (general, navigation, sensor, elevation), then use the picker wheel to define the field. You may mix and match units of your data fields if desired. Enable custom fields from Menu>Setup>Display> Custom Fields.

# 11. Compass (continued)



#### **Compass Button**



Speed(mph):

4.4

Compass Modes (touch to toggle):



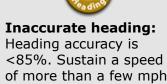
Auto Mode: Uses the magnetometer at speeds below 5 mph and GPS positional changes above 5 mph. The icon is a sextant.



Magnetic Mode: Uses the built-in digital compass. The icon is a compass rose (8-pointed star).



GPS Mode: Heading is determined using orderly changes in position



of more than a few mph (or km/h) for an accurate heading.



Weak GPS signal: Red compass button indicates weak or no GPS signal



**Wypt 007** 

VMG(mph):

Bearing to Wypt:

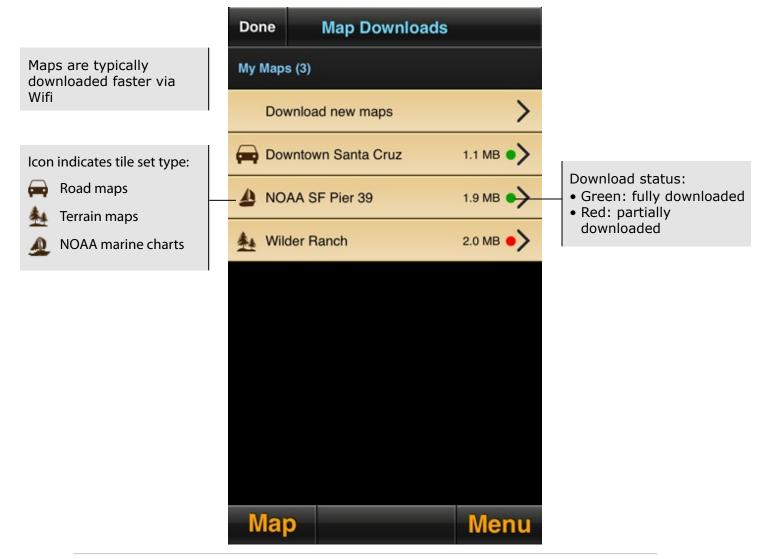


For the satellite-based compass (GPS mode) to provide an accurate heading, you should be outdoors with a clear view of the sky and moving at least a few mph or km/h. The magnetometer in the iPhone is susceptible to magnetic interference from electronics and ferrous metals. If an accurate direction cannot be achieved due to interference, you will be instructed to move away from the interference and re-calibrate the magnetometer by moving your iPhone in a figure 8 pattern (turn off this warning in Setup>General).

## 12. Map Downloads

Define an area of the map along with a range of zoom levels to pre-load onto your iPhone for offline access. Once downloaded, these tiles will be saved in MotionX-GPS permanently unless you choose to delete them. Map tile sets are not included in iTunes backups unless you configure to do so in Setup>Maps.

Go to Setup>Map Downloads to access the map download interface. Downloaded maps are defined by an area along with a range of zoom levels to download, for use when a network connection is unavailable. Once downloaded, map tile sets are saved in MotionX-GPS permanently unless you manually delete them. Map types available for download include MotionX Terrain (based on <a href="OpenCycleMap">OpenCycleMap</a>), MotionX Road (based on <a href="OpenStreetMap">OpenStreetMap</a>), and <a href="NOAA">NOAA</a> marine charts.



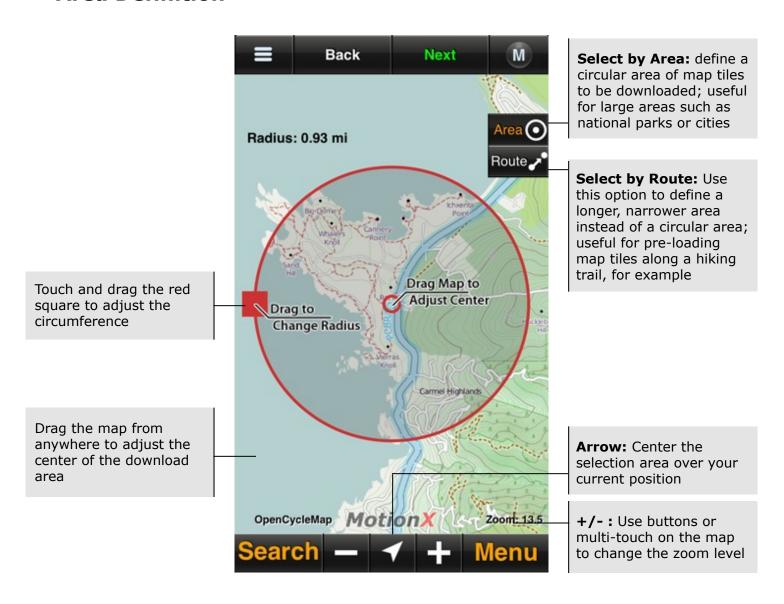


Map downloads and map caching are similar but distinct features. Both improve map performance and enable offline map viewing. **Map caching** automatically saves tiles viewed on the Maps page as you pan and zoom. The cache limit is 250 MB; beyond this limit the oldest cached tiles are overwritten as new tiles are cached. Cached maps are not stored with iTunes backups, and my be cleared via Setup>Maps.

# 12. Map Downloads (continued)



#### **Area Definition**





Due to Apple, Bing, and Google restrictions on map storage, these maps types can't be cached or downloaded. By contrast, MotionX road and terrain maps and NOAA marine charts may be cached and downloaded.

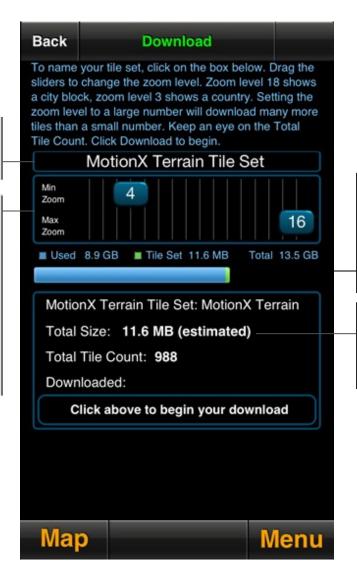
## 12. Map Downloads (continued)



#### **Downloading Options**

**Tile Set Name:** Choose a name for the tile set (touch the field to edit)

Min/Max Zoom: Adjust the min/max zoom levels for which you'd like map tiles downloaded. Higher numbers represent a more zoomed in view. Thus the number of tiles and total memory required will be larger at greater zoom level numbers.



#### Memory display:

- Amount of used disk space on your iPhone
- Estimated tile set size
- Total disk size of your iPhone

**Total Size:** Estimated size of the tile set you've selected; this will adjust as the tiles download

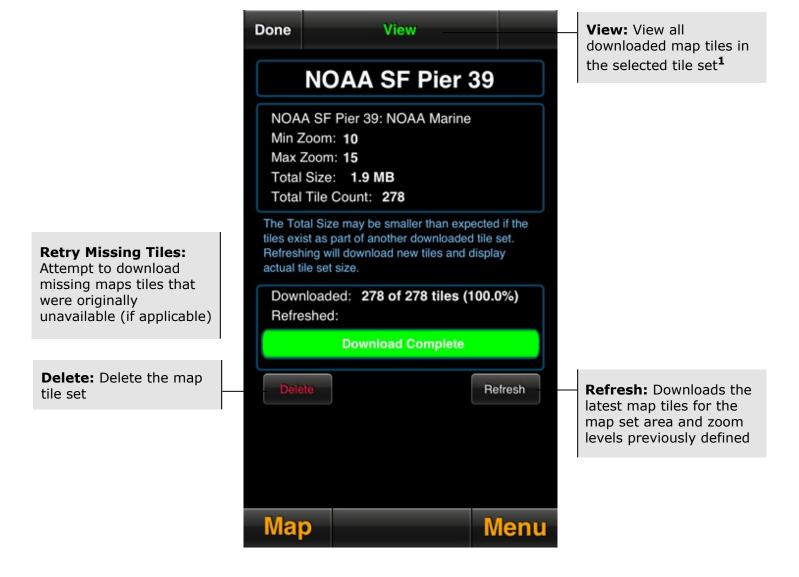


Terrain map tiles tend to be larger than road map tiles due to the contour data. Tiles in urban areas also require more memory due to the density of street and feature data.

## 12. Map Downloads (continued)



#### **Downloaded Map Details**





<sup>1</sup> These tiles will always be viewable on all map pages, with our without a network connection.



By default, cached and downloaded maps are not backed up when syncing with iTunes, to significantly decrease the iPhone-to-iTunes sync and backup times (optionally choose to back up maps to iTunes from Menu > Setup > Maps).

## 13. Setup







**Sounds:** Turn global application sound effects on or off.

**Accelerometrics Assisted GPS:** Toggle Accelerometrics ON for greater low-speed accuracy, or OFF for improved battery life.

**Accuracy Filter:** The Accuracy Filter is ON by default for the best GPS position accuracy. You may wish to switch the Accuracy Filter OFF if you are having trouble acquiring a signal or when traveling at very high speeds (over 150 mph or 240 km/h).

**Disable Compass Interference Warning:** Turn off the warning for inaccurate compass reading due to magnetic interference.

**Geocaching:** Increases the frequency of position updates.

**Navigation:** Choose between <u>Rhumb Line</u> or <u>Great Circle</u> navigation.



**Skin Styles:** Choose either the default color scheme (dark background with orange numbers) or a high-contrast scheme for improved visibility in day/sunlight.

**Orientation:** Choose between Portrait, Landscape, or Automatic.

**Speed Format:** Choose between displaying speed or pace on the Track Recorder page and in saved tracks details.

**Units:** Select either kilometers, meters, miles, feet, yards, or nautical mile units.

**Coordinate Format:** Select a coordinate display format: Degrees/Minutes/Seconds (DMS), Degrees / decimal Minutes (DM), Decimal (D), <u>UTM</u>, <u>MGRS</u>, or <u>OSGB</u> (UK grid).

**Compass:** Use either <u>magnetic</u> or <u>true north</u> as a reference.

**Custom Fields:** Enable the custom fields feature, which enables customizing data fields displayed on various pages including the track recorder, my position, and track summary, and compass pages.





**Map Data:** When toggled off, new map data will not be downloaded (for those concerned about data usage). Note this does not restrict Google or Apple map types. To disable those map tiles from being downloaded turn off cellular data in your iPhone settings.

**Backup Maps in iTunes:** Enable the backup of your cached and downloaded maps in iTunes during your next sync. Due to the very long sync times associated with backing up map tiles in iTunes, we recommend only turning this option on if you plan on restoring your device, to avoid having to re-download your maps.

**Map Caching:** Turn Map Caching ON to automatically cache MotionX Road or Terrain map tiles, or NOAA marine chart tiles, so they can be viewed offline.



See the Map Downloads section of this user manual for details.



- 1. Enable iTunes Drag & Drop from Menu > Setup > iTunes Drag & Drop.
- 2. Connect your iPhone with your Mac or PC using your sync cable and launch iTunes.
- 3. From iTunes, select your iPhone, then select the Apps tab and scroll down to the File Sharing section. Select MotionX-GPS, then add GPX files to the GPS Documents window or save GPX files from your iPhone to your desktop via drag & drop.

Note: iTunes Drag & Drop is not supported on the iPhone 3G or 1st/2nd generation iPod touch.





Use voice coaching options to enable/customize audio updates while recording a track.

- Turn voice coaching audio updates On/Off
- Turn Notifications On/Off (notifications appear when the track recorder is running and the display is turned off)
- Choose whether you want a notification for lost GPS signal

#### **Track Recorder**

- Turn the Track Recorder "3,2,1, Go" countdown On/Off
- Choose Track Recorder metrics for which you want an update (elapsed time, distance, speed/pace, elevation, heart rate)

#### **Navigation**

 Choose navigation update options (announced when actively navigating to a waypoint), including distance, bearing, and time to waypoint

#### **Settings**

- Set the update trigger: choose either time or distance
- Select either current or average speed/pace and heart rate
- Adjust the Update Interval slider to increase or decrease the time between voice coaching updates
- Control the sound level of voice coaching with the Voice Volume slider
- Turn on **Pause iPod for Voice** to pause/resume your music during voice coaching updates. When the switch is Off, music volume will fade during updates.



Track your heart rate from MotionX using a ANT+ or Bluetooth Low Energy (BLE) chest strap heart rate sensor.

#### ANT+

To setup an ANT+ heart rate monitor, wear the chest strap and connect the ANT+ receiver (dongle or case) to your iPhone. Select Manage Sensor>Connect. Once connected, your heart rate will display on the setup page and in the track recorder.



#### **Bluetooth Low Energy (BLE)**

Newer Bluetooth Low Energy heart rate monitors are supported on the iPhone 4S and iPhone 5 only as BLE requires a specific Bluetooth chipset found only in these devices. No receiver dongle or case is required and there is no need to pair the BLE HR monitor with your iPhone first. To set up, be sure Bluetooth is turned on from iPhone Settings>General. Wear the chest strap, then from MotionX-GPS select Menu>Setup>Heart Rate Sensor>Manage Sensor>Connect.

Manufacturers of Compatible Heart Rate Chest Straps

• Wahoo Fitness: ANT+ and BLE

Polar: ANT+ and BLE

Garmin: ANT+Timex: ANT+Adidas: ANT+

Manufacturers of compatible ANT+ iPhone Receiver Dongles and Cases

• Wahoo Fitness: Cases and dongles



- Define a 5-digit channel using the picker wheels. Share your channel with friends who want to see your location.
- Define an interval for broadcasting your location (ranging from 30sec to 10min). Your friends' latest known locations are updated at the interval they have selected.
- Select a radius within which you would like to display your friends' locations.
- Select a time interval to display your friends' last known position updates. Choosing 12 hours, for example, will allow you to see their last position broadcast for 12 hours after they have stopped sending updates.

Auto Live Position Updates will run (GPS chipset will remain active) when MotionX-GPS is backgrounded if Setup>Multitasking is set to either Optimized or Always On.

TapTap® a friend's location sign on the map to view the timestamp of their last location update.





**Auto Share:** Automatically share your saved tracks based on your settings and defined preferences below.

**Facebook**: Log into Facebook and post tracks and waypoints directly to your Timeline or Activity Log, to enable Check-ins, and to view your friends' Check-ins.

**Display Name**: This name will be used to identify you to others when sharing.

**Email**: Share with up to six email addresses at once.

**Twitter**: Turn Twitter sharing on to post tweets with track or waypoint information. Sign into your account from your iPhone Settings>Twitter, and ensure you have enabled sharing with MotionX-GPS at the bottom of that settings page.

**One-Click share**: Turn ON one-click share to skip the Share screen each time you share a track or waypoint.



- Select the appropriate Activity Mode (e.g. Biking, Flying, Hiking, etc.) to optimize speed and distance accuracy.
- Turn the Track Recorder stats Autoswipe on or off, and configure settings. When set to ON, the track statistics and graphs at the bottom of the Track Recorder page will automatically scroll between the four available views (speed/pace & distance or custom fields, speed/pace graph, altitude graph, and ascent/decent & gradient). Configure the idle time (time the screen is idle before Autoswipe begins) and the page view time.
- When turned ON, Track Recorder Auto Pause will automatically pause the elapsed time when you stop moving. When you start moving again, the elapsed time will start again. This will keep your average speed and average pace accurate if you don't manually press Pause when stopped. If the Pause button is pressed, the Auto Pause feature will not override this action.





Auto page cycle automatically cycles through the pages selected. When turned ON, autocycling will initiate when any of these pages are viewed. Choose to include any combination of the Track Recorder, My Position, Map or Compass pages in the rotation. Initiate auto page cycle following an idle time ranging from 10 sec to 5 min. View each page in the rotation from 5 sec up to 1 minute.



Configure how you would like MotionX-GPS to behave when you are running it in the background while multitasking with other applications.

**Optimized:** Keep the GPS receiver on when MotionX-GPS is backgrounded with the Track Recorder or Auto Live Updates running, or when actively navigating to a waypoint.

**Always On:** Keep the GPS receiver on when MotionX-GPS is backgrounded. This option consumes the most power.

**Always Off:** Turn the GPS receiver off when MotionX-GPS is backgrounded. This option consumes the least power.



**Outdoor GPS:** Uses the GPS chipset to determine location. Horizontal accuracy: 30ft - 300ft.

**Wifi/Triangulation:** Uses network triangulation or Wifi hotspot location to determine position. Horizontal accuracy: 100ft to 3 miles.

**Manual:** Define your position manually. While navigating to a waypoint, range/bearing is determined from the manually entered "Home" waypoint.





Optionally purchase Custom Map URLs using in-app purchase to create and host your own maps, or to use a map type not offered in MotionX. You must know and specify the map tile server URL (this is not necessarily the same as the URL you use from your browser).

Added Custom Map types are available from the main map and from Map Downloads. Check the map providers' terms and conditions to ensure you are permitted to download their map tiles for offline use.

Examples after purchasing include USGS base map and OpenCycleMap.



**Restore to factory settings:** Restore MotionX-GPS to its freshly installed state. All data content, and settings will be erased.

Reset map tile sets only: Delete all downloaded map tile sets.