MotionX-GPS HD User Manual

Revision 20.0

IMPORTANT NOTE:

This is not the user manual for MotionX-GPS Drive HD.

Please visit http://DriveHD.MotionX.com for this manual.

Table of Contents

1. Overview

The most accurate and reliable solution for the iPad, MotionX-GPS HD embeds the functionality of an advanced handheld GPS unit into a simple and intuitive iPad application. Use MotionX-GPS HD with your iPad during outdoor activities such as hiking, sailing, off-roading, flying, geocaching, or exploring new places. MotionX-GPS HD is exclusively designed and optimized for the iPad. While the WiFi iPad does not contain a GPS chipset, many of the features are still useful in WiFi mode.

Info: Access the in-app help file from any page

iPod/Lock: Access iPod controls from any page; the control panel slides up and down in when this button is touched. The screen lock is also found in this control panel.

Search: Perform a search to find the geocoded location, including:
- Country name (e.g. "Italy")
- Landmark (e.g. "Mount Everest")
- Address
- Lat / Lon

GPS: Quickly access the Map screen from any page
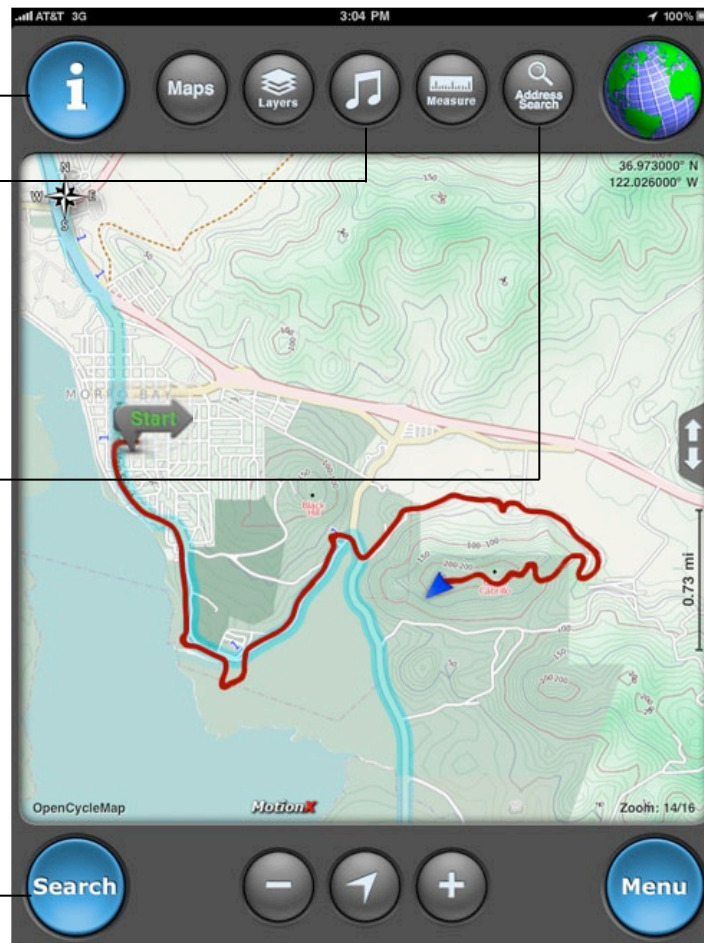
GPS signal indicator. Touch to toggle modes.

GPS: Outdoor GPS mode. Accuracy 30-300 feet.

Wifi: Approximate position using Wifi or network triangulation. Accuracy 100 feet to 3 miles.

Manual: Offline mode; not searching for signal. Manually enter your position, no real-time location information.

Menu: Return to the main menu from any page

GPS requires a direct "line-of-sight" to communicate with satellites. Your GPS-enabled iPad 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, surrounded by buildings, or in the back seat of your car, for example, you may be unable to acquire an accurate GPS signal.

2. Menu

The MotionX Menu provides access to the various capabilities of MotionX-GPS HD. View and mark your current position, navigate to a waypoint, view and store onboard maps, access your saved waypoints, view the navigation instruments, and access the settings 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** when navigating to a waypoint.

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, SOG, VMG, ETA, waypoint distance & bearing to wypt [3]

Record Track: Open the GPS stopwatch to record a track[1]

Auto Live Updates: Setup/controls for sharing your position with others in real-time[2]

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

Tracks: View a list and details of your saved tracks

Setup: Access the various user-based settings and controls

---

[1] While recording a track, the Record Track icon blinks between green and white.

[2] With Auto Live Updates active, this icon blinks between green and white.

[3] When navigating to a waypoint, the Compass icon blinks between green and white.

---

3. Go To

Define a destination waypoint using a variety of methods and navigate to it. After you select a waypoint and start navigating, the Map screen appears showing the direction and bearing to the waypoint. View your saved waypoints in a live map preview pane prior to initiating navigation. There is also an option to follow a previously saved track. The corner buttons provide quick access to commonly used functions.

Address input:
- Country name
- 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"

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

Facebook: View your friends' Facebook check-ins, and/or post your current location for your friends to see

Follow Track: Follow one of your saved tracks (plotted on the map)

Waypoint: Select from your saved waypoints

TapTap® tool: Create a new waypoint by tapping twice on the map. A new waypoint will be created and saved

Recently Found: 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

Coordinates: Define the waypoint coordinates[1]

Resume Nav: Select a recent waypoint for navigation (**Stop Nav** while navigating)

[1] If UTM, MGRS, or OSGB is selected as the coordinate system, the input format will reflect the appropriate system.

Navigate to Waypoint

All Waypoints: Select from your list of saved waypoints

Home: Navigate to the point saved as "Home"[1]

Points of Interest: Select pre-loaded POIs from around the world

Crosshairs: Center the map around the waypoint if you scroll or zoom

Start Nav: Initiate navigation to the selected waypoint

Waypoint name, notes, and lat/lon may be edited in the same way it is edited from the **Waypoints** page

View a preview of your waypoint on the map. The map type matches your selected preference on the Map page

⚠️ **1** While using MotionX-GPS HD in manual mode (GPS and Wifi off), navigation to a waypoint will begin from the location you have identified as your "Home" waypoint. Edit the Home waypoint to change where navigation begins while using manual mode.

Wikipedia POI Search

Search the full catalog of Wikipedia articles that include coordinate information (lat,lon). Access complete articles directly within MotionX-GPS HD.

Next: Read the Wikipedia summary, and optionally view the full article. Initiate navigation to this POI from the following screen.

Specify Location: Define a location for your search. This may be a city or a landmark (e.g. "Golden Gate Bridge").

The map type will default to your selected preference from the Maps menu

Select an entry or touch a flag to select a POI

Show More Results: Expand the search radius

4. Record Track

Record a track of your hikes, drives, flights, sails or other outdoor activities. Once saved, the track is added to the Tracks log.

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. You may mix and match units of your data fields if desired. Enable or reset custom fields from Menu> Setup> Display> Custom Fields.

The tracking ball appears when you tap and hold the graph. Slide your finger across the screen to move the ball along the graph. Instantaneous values are shown in the upper and lower right corners.

Graphs: Speed and altitude graphs are populated after the track is initiated. Graphs are updated once per minute; each interval is an average over the past minute of travel.

For the Wifi-only iPad, distance and speed values may be inaccurate due to the fact that location accuracy is only between 100 feet and 3 miles in Wifi mode. A reliable GPS signal (indicated by a blue spinning globe) is required for accurate results.

5. Share

Share your current position, current track, saved waypoint or a saved track.
Share via email, Facebook, and/or Twitter.

The following screenshot demonstrates sharing your current position; sharing your current track is similar. Choosing to share a saved track or waypoint takes you to your list of saved tracks or waypoints, where you can make a selection for sharing.

Touch any field to edit the text

Post a comment to go along with your waypoint or track (up to 120 characters)

Share to email, Twitter, and/or Facebook[1]

Share with up to six email addresses at once

Crosshairs: Center the map around the track if you scroll or zoom

Display Name:
This name will be posted with your shared waypoint or track information to let your friends know who you are

Preview Pane:
- Displays your selected track or waypoint overlaid on a map
- Change the map type from the Maps page
- Pinch to zoom, swipe to pan the view
- The region shown is captured as a JPEG image file and shared along with the track or waypoint details

[1] To facilitate a faster sharing experience, go to Menu > Setup > Share to enter email addresses to share with and to sign into your accounts.

Attached to the email share will be three files: a KMZ file (for Google Earth), a GPX file (GPS eXchange format), and a JPEG image file showing your track or waypoint on a map. If a photo is associated with the track or waypoint, the photo will be attached instead of the track/waypoint map image.

6. Auto Live Updates

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

On/Off: Enable or disable Automatic Live Position Updates.

Map: Share your real-time position with friends who are also using MotionX-GPS. Go to the Map page to see their latest position update. Your friends will see your latest update on their Map page. [1]

Configure your live updates sharing preferences.[1]

Email friends or family your channel setting and link to follow you on a browser-based map

[1] **Auto 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 geographic location, altitude, and GPS signal strength from the My Position page. Create a waypoint to mark your current position with one click. Use the emergency button to mark your position and start navigating back to it.

Lat/Lon: Current location. Choose between Lat/Lon, UTM, MGRS, and OSGB coordinate systems (Menu>Setup>Display)

GPS Signal: [1]

Green: Strong signal

Yellow: Average signal

Red: Weak signal; position information may be inaccurate/ unreliable. A question mark will appear in the position data fields.

Mark Wypt: Create a new waypoint using your current position

Customize the data displayed by pressing and holding the altitude, last valid fix, or accuracy field as shown here. Select a category (general, navigation, sensor, elevation), then use the picker wheel to define the field. Enable or reset custom fields from Menu> Setup> Display> Custom Fields.

Check in: Check in to Facebook

Emergency: Mark your current position and initiate navigation back to this point. Useful for man-overboard type situations.

Tips/Links: Tips and links to help you learn more about the app

[1] "Wifi/Triangulation" indicates your iPad is using network triangulation to estimate your position. Location values may be inaccurate by several hundred feet up to a few miles.

8. Map

The MotionX Map view shows your position and a track of your movement. Choose from ten different map types, including road, aerial, hybrid, terrain, and marine. Optionally display your waypoints and a coordinate grid overlay, use the distance tool to measure distance and bearing, and search for an address with the search tool.

Waypoint markers:

Start	Track recorder started
End	Track recorder stopped
POI	Saved point of interest/waypoint
Start Nav	Navigation to a waypoint started
Waypoint	Waypoint to which you are navigating
Init	Initial position at app launch

	Single waypoint marker.
3	Grouped waypoints: used when there are many waypoints in close proximity[1]
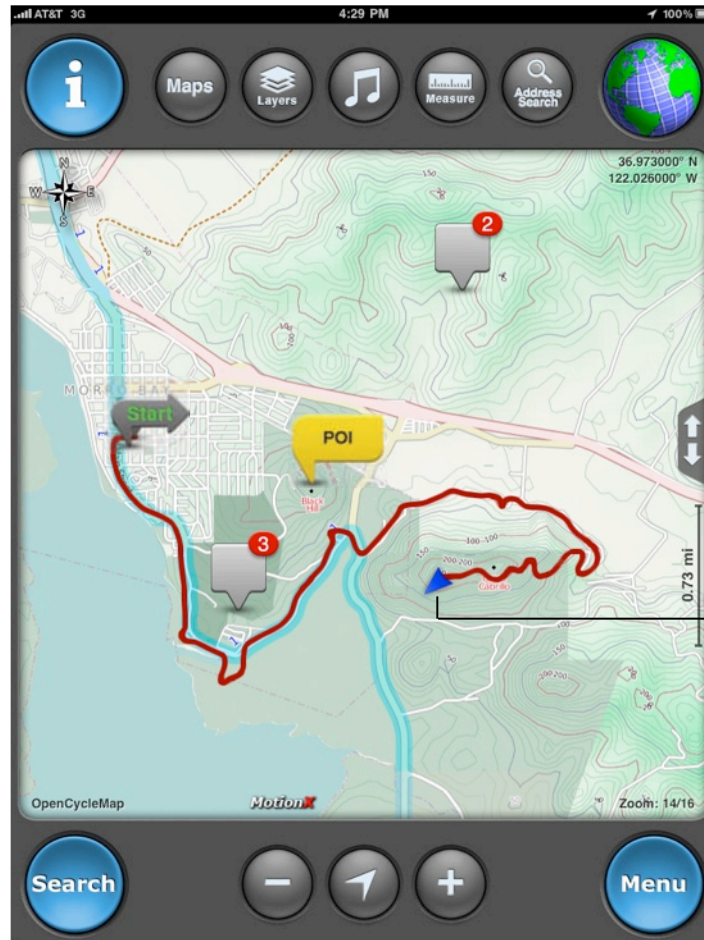
3	TapTap® or zoom in to see the individual waypoints in a group

Arrows:

	Current position; good GPS signal
	"Headlight" indicates direction up mode
W	Position estimated with Wifi or network triangulation
	Weak GPS signal (borderless blue circle)
?	Position unknown; no location signal

[1] If there are multiple waypoints in the same area, a group sign indicating the number of waypoints will be shown. 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 at the lower right of the map.

Map Controls

Maps: Select your preferred map type. Includes several options for road, terrain, satellite, hybrid, and marine charts.

Layers: Select what elements are displayed on the map: choose to display gridlines, tracks, and/or waypoints
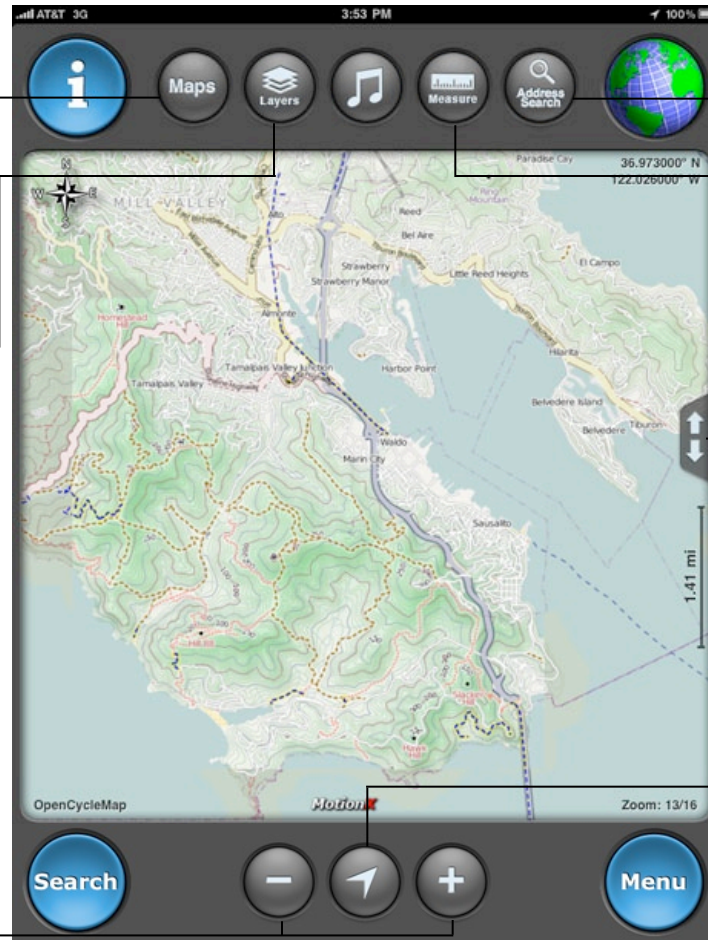
Search: Perform a search to find the geocoded location¹

Measure: Measure the distance and bearing between any two points on the map

Full screen: View the map in full screen mode

Touch to center the map around your current position

Position centered; course up

Position centered; direction-up

+ / - : Zoom in & out

¹ Enter an address, location, or Lat/Lon and save the search result as a waypoint. Then initiate navigation to this point with one click. Location entry may include the name of a landmark ("Mount Everest"), a park ("Yosemite"), or a point of interest ("Golden Gate Bridge"), for example.

Map Catalog

Expand the map type to see the various map sources

Map Options:
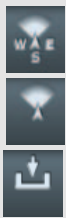
Direction-up

Course-up

Downloadable
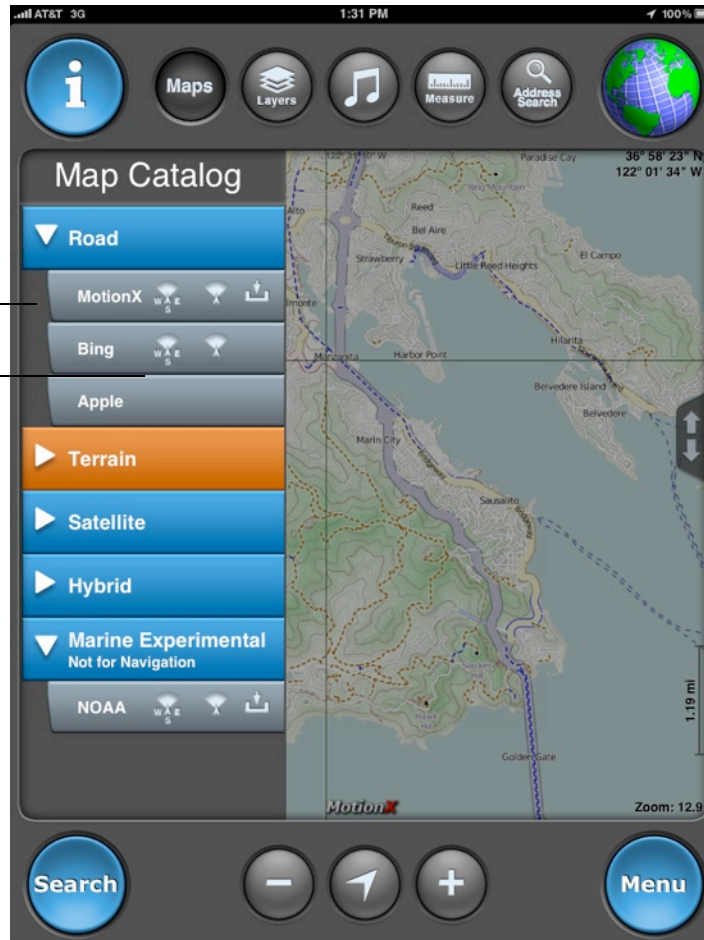
Map sources:
- **MotionX**: road, terrain (OpenStreetMap data)
- **Bing**: road, aerial, hybrid
- **Apple**: road, aerial, hybrid
- **Marine**: NOAA charts

⚠️

Due to Apple and Bing 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. See the Map Downloads section for details.

Map types:

- **Auto Up:** rotates the underlying map to maintain an upward heading. Uses Direction Up (magnetic compass) below 5 mph and Course Up (GPS orderly changes in position) above 5 mph. This feature is not available for Apple Maps.

- **Direction Up:** rotates the underlying map to maintain an upward heading, using the magnetic compass. This feature is not available for Apple Maps.

- **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.

- **North Up:** displays the map with North at the top.

Map Layers

The **Layers** button controls what elements are displayed on the map

Signs: Show and hide Waypoint and Track signs

Recorded Tracks: Show and hide recent, imported, and favorite tracks

Realtime Track: Hide, save[1], or clear the blue realtime track
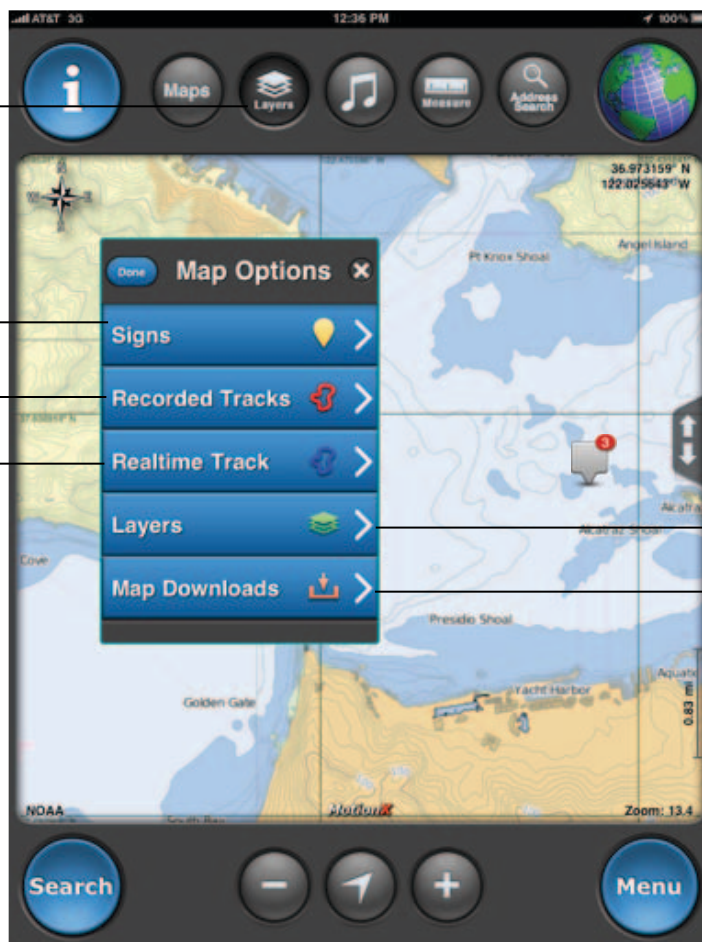
Layers: Turn on/off speed & direction and grid overlays

Map Downloads: Download Road, Terrain, and Satellite maps for offline use

[1] Save the realtime track in the event that you forget to start the Track Recorder but you still want to save your track to the Logbook.

Distance Measurement Tool

Use the Measure Tool to measure distance and bearing between any two points on the map
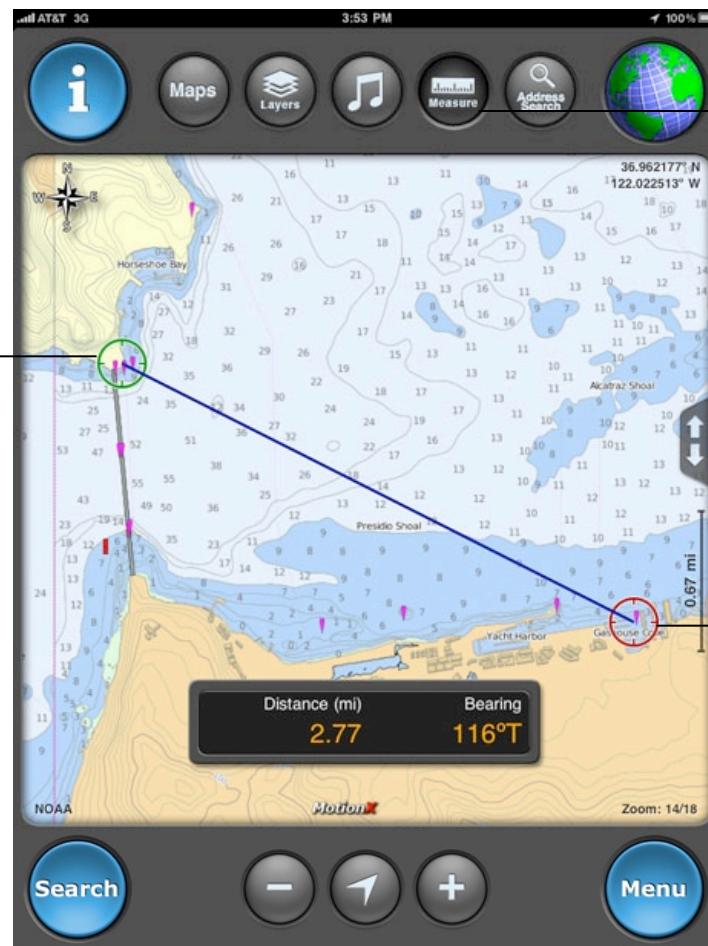
The green crosshairs represents the starting point (from which the bearing is computed)

The red crosshairs represents the end point

Search

Search queries may include the following input formats:

- Country name, for example "France"
- Location or landmark, for example "Golden Gate Park" or "Mount Everest"
- Address, options:
  - full address
  - city name
  - state/province
  - zip/postal code
- Lat / Lon, for example "41.89 N, 87.61 W"
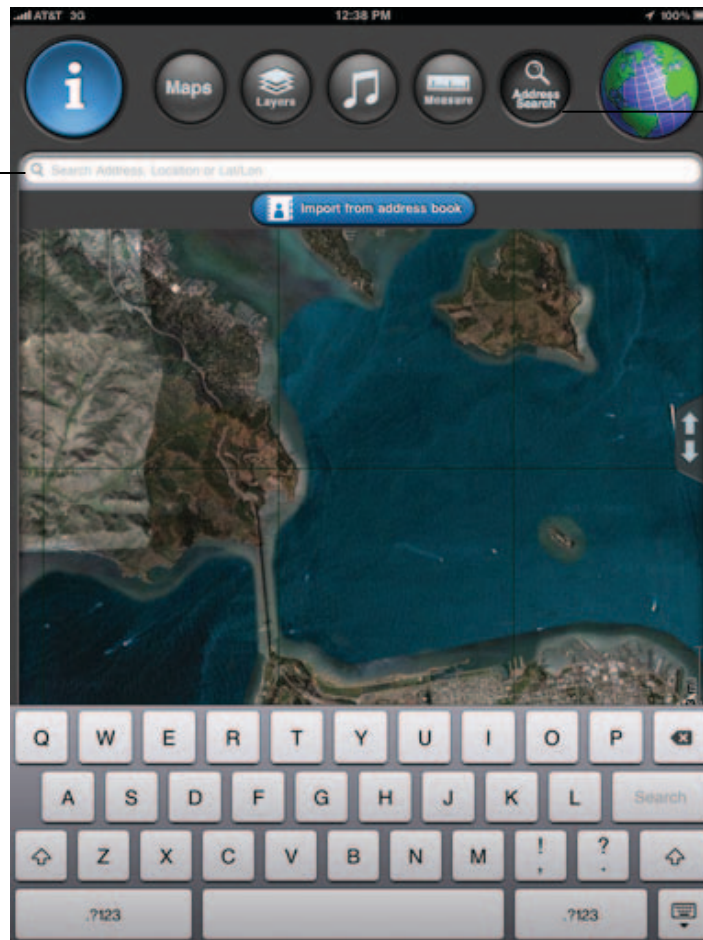
Search: Perform a search to find the geocoded location.

A waypoint will be created to identify the location; the Notes field will be auto-populated with your search query input.

Initiate search

Hide the keyboard

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 MotionX-Track Recorder 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.

A solid blue line traces your path when a GPS signal is active, but when not using the Track Recorder. In the event that you forgot to start the Track Recorder, you can still save these blue tracks to the Logbook. Press the "Save Tracks" option in the menu that appears when you touch the caliper button to combine all plotted tracks into a single track that will be saved to the Logbook.

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 create new waypoints and access your saved waypoints, sorted by name, date, or proximity, and view the Auto waypoints and included POIs. Quickly view your saved waypoints in a live map preview pane. Store up to 505 waypoints.

Waypoints are divided into three categories: All Waypoints, Auto Waypoints and Home Waypoint. Waypoint folders allow you to group waypoints from a specific activity or trip together. Included are folders for Recently Added, Import and Points of Interest, or you can create your own custom folders.

New Waypoint: Create a new waypoint using one of the following:
• Select point on map
• Enter coordinates
• Enter range/bearing
• Enter address
• Current location

Auto Waypoints[1]
created automatically by MotionX-GPS HD:
• Init (app launch)[3]
• Start Nav
• Destination
• Last Valid Fix

Home: Used as your "current location" when offline. When navigating in Manual mode.[2]

POIs: Pre-loaded points of interest to help you start exploring.

Edit: Select a waypoint or a group of waypoints to move into a folder, export via email, or to delete

Sort waypoints by name, date, or proximity to your current location

Select a waypoint to see details, notes, etc., and to access additional options

The arrows show the direction of the waypoint from your current position

Imported waypoint

A photo is associated with this waypoint

---

[1] Auto waypoints can be edited and saved as one of "My Waypoints", but auto waypoints cannot be manually deleted.

[2] When navigating in Manual Mode (without GPS), the range and bearing start from the Home location you've defined. To change your Home position, create a new waypoint using the TapTap® tool and select "Set as Home".

[3] Use the 'Init' automatic waypoint to find your way back to your starting point (where you launched the application) in case you get lost.

Waypoint Management

Export waypoints, move waypoints to a different folder, and delete waypoints individually or in groups (access this screen by selecting the Edit button shown above).

Select one or more waypoints to include in the action

Import: This folder contains the waypoints you've imported into MotionX-GPS HD. When no tracks are present, import instructions (listed below) are displayed.

Export: Send a GPX file for each of the selected waypoints via email, using the iPad email client

Move: Move the selected waypoints to a different folder

1. To import waypoints, use iTunes Drag & Drop (see details in the Setup section of this manual), OR send an email to gpsimport@motionx.com from your Mac or PC with one or more GPX files attached. Import emails are limited to 12 waypoint GPX files or one track GPX file per email.
2. You will receive an email, which should be viewed from your iPad Mail app.
3. Select the link in the email. MotionX-GPS HD 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.

Waypoint Details

Back: Return to the list of waypoints

Notes: Default text is creation time & date of the waypoint. This field is editable.

Share: Share this waypoint via email, Facebook, and/or Twitter

Set as Home: Label this waypoint as "Home". For use in Manual Mode

Delete: Remove this waypoint from your device

Crosshairs: Center the map around the track if you scroll or zoom

Take a photo or attach a photo from your camera roll

Bearing and **Distance** to waypoint from your current position

Lat/Lon: Waypoint location. UTM and MGRS coordinate systems are also available.

Start Nav: Initiate navigation to this waypoint

View a preview of your waypoint on the map. The map type matches your selected preference on the Map page.

10. Tracks

A track is a compilation of samples or "breadcrumbs" taken over a period of time. To record and save your tracks, use the Track Recorder. The list can be sorted by name, date, or proximity. Save up to 101 tracks.

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. Included are folders for Recently Added, Import, and Favorites, or you can create your own custom folders.

New Track: Create a new track using the Track Recorder

Edit: Create a new tracks folder or change the folder order

All Tracks: Contains all tracks you've recorded

Import: This folder contains the tracks you've imported into MotionX-GPS HD. When no tracks are present, import instructions (listed below) are displayed.
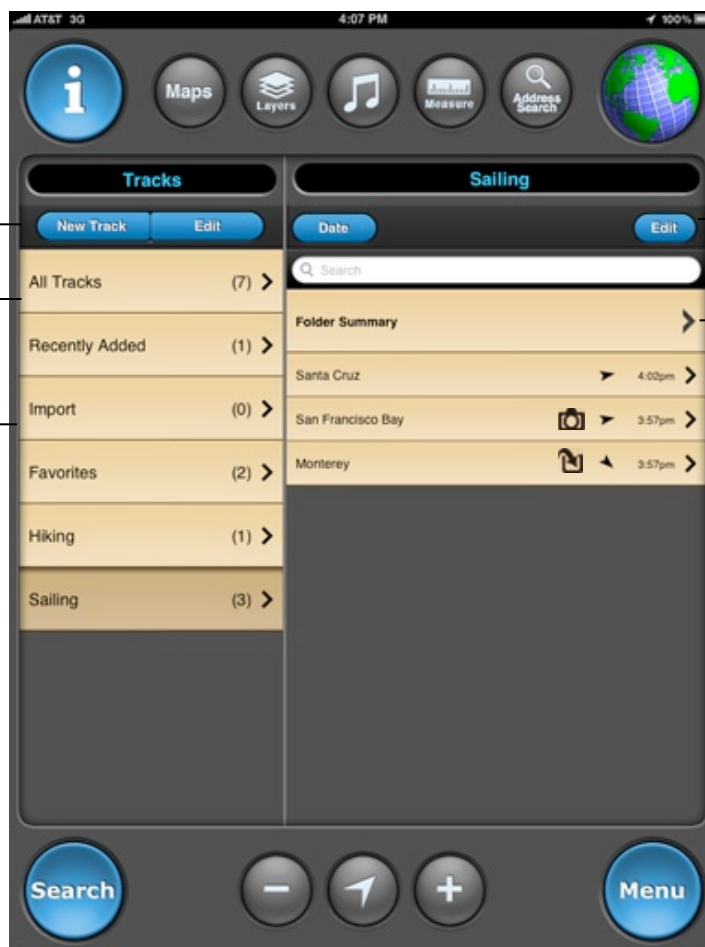
Edit: Select a track or a group of tracks to move into a folder, export via email, or to delete

Folder Summary: View summary statistics for all tracks in a folder

Track was imported from a GPX file

Directional arrow points to the start of the track

Camera icon indicates a photo is attached

Select a track to see details, statistics, notes, etc., and other options

1. To import tracks, use iTunes Drag & Drop (see details in the Setup section of this manual), OR send an email to gpsimport@motionx.com from your Mac or PC with one or more GPX files attached. Import emails are limited to 12 waypoint GPX files or one track GPX file per email.
2. You will receive an email, which should be viewed from your iPad Mail app.
3. Select the link in the email. MotionX-GPS HD 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.

Track Management

Export tracks, move tracks to a different folder, and delete tracks individually or in groups (access this screen by selecting the Edit button shown above).

Edit: Create a new folder or change the order of existing folders

Select one or more tracks to include in the action

Export: Send a GPX file for each of the selected tracks via email, using the iPad email client

Move: Move the selected tracks to a different folder

Track Details

Touch the name to edit

Attach a photo from your camera or camera roll

Start Follow: View this track overlaid on the Maps page for easy following

Share: Share the selected track via email, Facebook, and/or Twitter. See the Share section of this manual for details.

Map: The map type in the preview pane matches the map type you have selected on the Maps page

Select a folder and track to see a summary and overview

Graph/Stats: View the speed and altitude graphs for the selected track

Select Activity: Choose an activity type: hike, sail, fly, etc.

Line Color: Choose the track's line color on the map

Track Graphs/Stats

Customize the data displayed by pressing and holding any of the 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 or reset custom fields from Menu> Setup> Display> Custom Fields.

Name: Displays the name you have chosen for the track

Graphs: Altitude and speed as a function of time. Each one minute interval is an average over the past minute of travel.

Tap and hold the graph to bring up the tracking ball, to see precise values along the graph

25

11. Compass

Leveraging the iPad's built-in magnetometer, 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. Mark waypoints and start/stop navigation with a single touch.

Customize the data displayed on the compass page by pressing and holding any of the 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 or reset custom fields from Menu> Setup> Display> Custom Fields.

Mark Wypt: Create a waypoint at your current position.

VMG: Velocity Made Good. Effective speed at which you are approaching your waypoint

Direction: Current direction of travel; True North (T) or Magnetic (M)

Blue arrow: Indicates the bearing to your destination

Nav button: Start or stop navigating to a waypoint

ETA: Estimated time you will arrive at your destination

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 iPad 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 iPad in a figure 8 pattern.

Compass Button

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

Inaccurate heading: Heading accuracy is <85%; sustain a speed of more than a few mph (or km/h) for an accurate heading

Magnetic Mode: Uses the built-in digital compass; the icon is a compass rose (8-point star)

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

GPS Mode: Heading is determined using orderly changes in position (GPS signal required)

12. Map Downloads

Define an area of the map along with a range of zoom levels to pre-load onto your iPad for offline access. Once downloaded, these tiles will be saved in MotionX-GPS HD 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.[1] 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 HD unless you manually delete them.[2]

Maps are typically downloaded faster via Wifi.

Select a map type for download. Map types available for download include MotionX Terrain (from OpenCycleMap), MotionX Road (from OpenStreetMap), and NOAA marine charts.

⚠️

Due to Apple and Bing restrictions on maps, these maps types cannot be cached or stored onboard. By contrast, MotionX road and terrain maps and NOAA marine maps may be cached and stored onboard.

---

[1] Map caching and map downloading are two 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 scroll and zoom. The cache limit is 1024 MB; beyond this limit the oldest cached tiles are overwritten as new tiles are cached.

[2] Cached and downloaded maps are not included in iTunes backups unless you choose to do so; cached maps may be cleared via Setup>Maps. Installing iOS updates will delete your cached and downloaded maps unless you enable backups in Setup>Maps and create a backup prior to installing the iOS update.

Area & Zoom Level Definition

Select by Area: define a circular area of map tiles to be downloaded. This is useful for large areas such as national parks or entire cities.

Select by Route: Use this option to define a longer, narrower area. Useful for pre-loading map tiles along a hiking trail, for example.

Touch and drag the red square to adjust the circumference.

Drag the map from anywhere to adjust the center of the download area. Pinch-zoom to adjust the zoom level.

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.

Total Size: Estimated size of the tile set you've selected.

Memory display:
- Amount of used disk space on your iPad.
- Estimated tile set size.
- Total disk size of your iPad.

Download Summary

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

Progress bar: Monitor the number and percent of tiles downloaded.

Resume: Pause or resume the download at any time.

Downloads may be suspended and restarted later if needed.

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.

Map Tile Sets

Select a downloaded map set to see details and a preview of the downloaded region

Icon indicates tile set type:

Road maps

Terrain maps

NOAA marine charts

Downloaded map tiles will 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. Update your preference in Setup>Maps and turn ON Backup Maps in iTunes.

Installing iOS updates will delete your cached and downloaded maps unless you enable backups, and create a backup prior to installing the iOS update.

13. Setup

Adjust MotionX-GPS HD application preferences from the Setup page. Also view the user manual and tutorials in a convenient webview without leaving the app.

⚙ General   ›

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 Warnings: Turn off the warning for inaccurate compass reading due to magnetic interference.

Geocaching: Turn on geocaching mode to deliver more frequent position updates.

Navigation: Choose between Rhumb Line or Great Circle navigation.

Display   ›

Speed Format: Choose between speed (mph, km/hr, kts) or pace (min/mi, min/km, or min/nm).

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

Coordinate Format: Select a coordinate display format: Degrees/Minutes/Seconds (DMS), Degrees with decimal Minutes (DM), Decimal Degrees (DD), UTM, or MGRS, or OSGB (UK grid).

Compass: Use either Magnetic or True North as a reference.

▼ Maps   ›

Map Data: When toggled off, new map data will not be downloaded (for those concerned about data usage). Note this does not restrict Apple maps. To disable those map tiles from being downloaded turn off cellular data in your iPad 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 or updating to a new iOS version, to avoid having to re-download your maps.

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

Map Performance Cache: View the used map cache (1024 MB available) and clear cache to reset to zero.

Map Downloads

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

Voice Coaching

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

• 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.
• 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.

📁 iTunes Drag & Drop ›

1. Enable iTunes Drag & Drop from Menu > Setup > iTunes Drag & Drop.

2. Connect your iPad with your Mac or PC using your sync cable and launch iTunes.

3. From iTunes, select your iPad, then select the Apps tab and scroll down to the File Sharing section. Select MotionX-GPS HD, then add GPX files to the GPS Documents window or save GPX files from your iPad to your desktop via drag & drop.

📤 Share ›

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, to enable Check-ins, and to view and navigate to your friends' Check-ins.

Twitter: Sign into your Twitter account to post tweets with track or waypoint information.

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

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

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

⏱ Track Recorder ›

• 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, 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 ›

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.

▢ Multitasking ›

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

Optimized: Keep the GPS receiver on when MotionX-GPS HD is backgrounded only when the Track Recorder is running, or when Automatic Position Updates and/or Broadcast Position is enabled.

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

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

⊕ Location Modes ›

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. Range/bearing is determined from the manually entered "Home" waypoint.

↺ Reset ›

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

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