

GARMIN OREGON 450 INFORMATION

Oct. 7, 2013

The intent of the document is to allow a new user to set up their GARMIN OREGON 450 by using examples and brief explanations so they can start using the GPS right away.

This document has been created as a quick reference and a quick start “HOW TO” guide for new users of the GARMIN OREGON 450. I found this GPS unit to be a great unit, but at first glance, you may find it a little difficult, or confusing, to understanding and to use.

For me, I think this was due to the fact that most explanations for the GPS seemed to be tailored to experienced users or those familiar with GPS's.

The information in this document collected from many different sources including the geocaching site geocaching.com, by searching the web, from different Garmin manuals, looking at support questions, reading FAQ's and by my own trial and error. As I found information, I wrote it down in my own words to try and make the information easier to digest by first time users. If you have any changes, corrections or suggestions that you would like to see incorporated into the document, please let me know.

USING THE DOCUMENT – DOCUMENT LAYOUT

This document is divided into three main parts. The **first section** describes the **general functions** of the GPS, how to move around the screens, and how to **print the manual**. The **second section** will **show the icons** on the GARMIN OREGON 450 and **then show the options** that will appear when you select that icon. The **third section** is a basic “**How To**” section designed to assist new users in doing their first basic setup step by step and troubleshooting.

After your initial setup from the “HOW TO” section at the end, you will have a basic understanding of what the GARMIN OREGON 450 will do. Eventually you will want to, and should, customize the settings for your own personal preferences.

KEEPING DOCUMENT CURRENT

Information will be added to this document and descriptions modified as they are brought to my attention. I welcome your suggestions and ideas.

I hope you will find the document useful, if you do, please let me know so I can recognize it is being appreciated.

VIEWING AND PRINTING THIS DOCUMENT

You can find the latest version of this document online at:

<http://garminoregon.wikispaces.com/Contact>

The best way to work with this document is to print it. If your printer has the capabilities, it is best to print this document on both sides of the paper. This will save paper by having a fewer number of pages.

Good Luck! and Happy hunting with your GPS!

Wayne Miller

Email: waynemiller @ sympatico.ca (remove the spaces around “@”)

Geocaching.com site user name: 4evrCking (For Ever Seeking)

BASIC OPERATIONS

STANDARD SCREEN FUNCTIONS

“X” exits screen

The arrows will move to previous or next screen

A “bulls eye” target at bottom of screen (if shown) means Search for sites near by.

OPENING SCREEN:

Shows icons for the different GPS Functions – touch and gently push the icon to activate
Bar graph of satellites seen – Touch satellite bar graph to see current coordinates, position accuracy, and satellite acquisition and strength

Shows graph of battery charge – a fully charged battery is shown with all segments being all green

EXTRA MEMORY

You can add an extra memory card to your GARMIN Oregon 450. The extra memory the unit uses is a MicroSD card. You should be able to purchase it locally, with a standard SD memory card adapter, from department stores, Best Buy, Future Shop, camera stores etc.. This adapter enables you to plug the MicroSD card directly into a camera memory card USB adapter and allows your PC to recognize the MicroSD card as removable drive.

The MicroSD memory card connector is located under the GPS batteries and in the metal holder (the metal holder will slide back and forth to lock and unlock the MicroSD card). **DO NOT** force the card into the holder.

If you order maps from Garmin, they will most likely come on a MicroSD card and you will have to insert the MicroSD card into the GPS to have access to the maps.

If you are downloading maps from the web, they will have to be loaded onto a MicroSD card, under a GARMIN directory – see instructions under “HOW TO” at end of this document. You will probably want a minimum of a 2GB MicroSD card if you are purchasing one – I use a 4GB and load all my maps on that one card.

I would suggest you may want to cut a small square of black electrical tape, the same size as the MicroSD metal holder, and put it on the MicroSD metal holder, while the MicroSD memory is in place. This will lightly stick to the SD card through the metal holder and will prevent the card from accidentally falling out when batteries are changed, however, it still allows the card to be removed easily.

BRIGHTNESS ADJUSTMENT AND LOCKING THE SCREEN

Quickly pushing the ON/OFF switch will bring up the brightness adjusting screen and the “LOCK SCREEN” function. The LOCK SCREEN function will lock the current screen from changing from an accidental touch. It can be turned off by pushing the ON/OFF again and selecting UNLOCK SCREEN.

GETTING THE GARMIN OREGON 450 MANUAL

The manuals for the GARMIN Oregon 450 can be found in the GPS memory. You will have to plug your GPS into your PC with the supplied USB cable, and look under the following directory:

GARMIN OREGON (X) > FILES > PDF (X will be the drive letter)

The English manual will be found by selecting the OM_EN.pdf file.

My suggestions is for you to print the document 2 sided, then cut the pages to the proper size and then staple together to form a small reference manual.

THE FOLLOWING IS A QUICK REFERENCE OF EACH ICON AND THE SELECTIONS THAT APPEAR WHEN THE ICON IS SELECTED.

NOTE: There is no particular order of the icon list since the Garmin Oregon 450 GPS allows the repositioning of icons on the screens (see HOW TO at end). Therefore, each user will most likely have their screens laid out differently.



MAP

This will shows the current location and can be zoomed in or out, or scrolled to different locations by “dragging” the map. Data Fields are shown on the screen and the number of data fields you want to be displayed can be selected under SETUP, SYSTEM, and MAP. If you have data fields on your map, you can press and hold the data field and a list of options will be displayed that you can have displayed in that data field, such as GPS strength, distance to destination etc.

The + and – zooms the map in and out (larger and smaller)

X exits the screen you are on (except the HOME screen)



SETUP

Use SETUP to customize and configure your GPS. The selections are:

SYSTEM – Allows setting of: GPS Coordinate type, Language, Battery Type, Tones, Interface type

DISPLAY – Allows Screen timeouts, Screen Background (selecting screen pictures), Screen Capture, Battery Save and Screen Calibration

MAP – Can setup Orientation, Auto Zoom, Data Fields, Map Information (Can enable or disable internal maps to use, topographical, streets, etc.)

TRACKS – Sets up track log, record method, interval to record, color etc.

RESET – Resets Trip Data, Waypoints, Current Track, or Restore defaults

INITS – Allows setting of measurement units

TIME – Sets 12 or 24hr, Selects time zone or automatic time zone

POSITION FORMAT – Sets up format for GPS Coordinates
HEADING – Sets up Directional Letters, North Reference, Goto Line/Pointer, Auto Compass, and Compass Calibration
ALTIMETER – Sets up Calibration, Mode, Pressure Trending, Plot Type, Calibration
GEOCACHES – Sets up Appearance, Found, Filters, Chirp parameters
ROUTING – Sets up Activity, Route Transitions, Lock On Road
MARINE – Sets up Chart Mode, Appearance, Alarm, Depth, Anchor
ANT SENSOR – Sets Up Heart Monitor, Bike Cadence, Temperature Sensor
MAIN MENU – Allows Customizing of Main Menu
PROFILES – Allows setting up GPS for different uses or to create a new profile
ABOUT – Describes information regarding the GPS - software versions etc.



WHERE TO

This has selections to go to a destination, once a destination is selected, there is the options of FIND ANOTHER, STOP NAVIGATION, CHANGE ROUTE ACTIVITY (such as direct routing, automobile route, cycling, hiking etc.). Route selection are available for such things as:

- Recent (Geocaching) Finds (will lists geocaches found)
- Waypoints
- Photos – Shows stored photo and location on map
- Tracks – Turn on TRACK or call up an archived track
- Coordinates – Enter in coordinates to go to
- All POIs (Points Of Interest) - Lists nearby POI's
- Addresses – Enter in address to go to
- Intersections – Enter in intersection to go to
- Cities – Lists cities close by
- Shopping – Lists near by destinations for shopping
- Food and Drink – Lists near by locations for food and drink by category
- Lodging – List near by lodging by category
- Entertainment - . This lists theater, bar/nightclubs, Casinos etc.
- Recreation – Lists such things as Golf Courses, Skiing Bowling etc.
- Transportation – Lists such things as auto repair, rentals, dealers, rest areas etc.
- Etc. Etc.



PHOTO VIEWER

This displays photos you have stored on your GPS, push globe on bottom to see location map



COMPASS

The compass will act as a compass and it can also have an arrow to point in the direction of a designation if you have selected one. Select the GPS DASHBOARD Icon (looks like a phone) bottom left to customize the compass. By selecting the Dashboard Icon, you can select Large or Small data fields (small give more fields). Any data fields shown on the compass can be customized by pushing and holding the data field. Then select the option you want to be displayed in that field from a list. If you select GEOCACHING NEAREST from the DASHBOARD list, only a compass and your selected geocache will be displayed. If you push, and hold, the geocache field you have the option to select: FIND A GEOCACHE, SHOW FOUND, or QUICK FILTER



TRIP COMPUTER

This screen is designed to give you information on distance, speed etc. Select GPS Dashboard Icon bottom left to customize screen for:

- Recreational
- Automotive
- Geocaching – Nearest
- Stopwatch
- Compass
- Small Data Fields
- Large Data Fields
- Geocaching
- Elevation Point

After selecting an above screen, touch a field and options will pop up (depending upon screen chosen) for what you want displayed in that field such as: speed, time of day, coordinates etc.



MARK WAYPOINT

This allows you to **SAVE** and/or **EDIT** waypoints and allows you to:

Change Name	Change Depth
Change Photo	Reposition Here
Change Symbol	Move Waypoint
Change Comment	Delete Waypoint
Change Location	View Map
Change Elevation	Project Waypoint



WAYPOINT MANAGER

This will allow you select a specific waypoint and then allow you to edit that waypoint, the options are:

- | | |
|------------------|------------------|
| Change Name | Change Depth |
| Change Photo | Reposition Here |
| Change Symbol | Move Waypoint |
| Change Comment | Delete Waypoint |
| Change Location | View Map |
| Change Elevation | Project Waypoint |



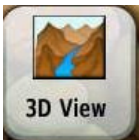
ACTIVE ROUTE

This will display information about an “ACTIVE ROUTE”. In order to use this you must first select a route or destination.



WHERIGO (Where I Go)

A function that allows you to create and play a game to help learn how to use GPS



3D VIEW

Put the screen in a 3D view, this map information must be installed to work



ELEVATION PLOT

This will record the elevation a different time or distance intervals. Example: if you were walking an incline, you could record the elevation of the incline every 15 minutes of your hike. As an alternative, you could record the elevation at set distances of your hike.



AREA CALCULATION

Allows the walking of a perimeter of an area then will calculate the area



SHARE WIRELESSLY

This selection allows the sending/receiving of information from one Garmin Oregon GPS to another. Select SHARE WIRELESSLY then SEND or RECEIVE on the unit as required. Then select category and item to send on the sending unit.



ROUTE PLANNER

This allows you set up a route by selecting points on your GPS. The options to select points are:

Use Map	Entertainment
Photos	Recreation
All POI's (Points of Interests)	Attractions
Addresses	Transportation
Intersections	Auto Services
Cities	Community
Shopping	Hospitals
Food and Drink	Tides
Fuel Services	Geographic Points
Lodging	Others



CALENDAR

Displays a calendar



GEOCACHES

This selection will give you options regarding geocaching.

Find a Geocache – Lists your downloaded geocaches

Show Found – Show all the geocaches you have already found

Quick Filter – Allows the display caches by Cache size, difficulty, Terrain difficulty, and Status (Unattempted, Did not find, Found)

Filter 1 – Custom saved filters can be made up by going to Setup then, Geocaches then Filter Setup

The “bulls eye” at the bottom will allow pre-setup filters to select: A RECENT FIND, A WAYPOINT, MY CURRENT LOCATION, A MAP POINT.



PROFILE CHANGE

Each profile has the screen options set for that specific profile. The screen icons are set up for easy access for that profile. These can be moved to customize the screen layout for your preferences and these will be saved for that profile. The MAP layout for each profile will automatically be selected. Example: The MAP view for AUTOMOTIVE will best be suited for following directions from a car. The original factory profiles have:

Recreational – This is a good general profile

Geocaching – This profile is best suited for geocaching and places the GEOCACHING ICON SELECTION on the home page

Automotive – This profile is best suited for driving directions ACTIVE ROUTE AND ROUTE PLANNER icons are placed on the home page

Marine – This profile is best suited for boating and places MAN OVER BOARD on the home page

Fitness – This profile is designed for exercising and places the stopwatch on the home page



SIGHT 'N GO

Sight 'N Go is used to point the GPS at a distant object or location and lock it into the GPS. To do this:

First select SIGHT 'N GO

Point the GPS compass pointer in the direction to travel, then select LOCK LOCATION

Then select SET COURSE – this will always keep the GPS pointer pointing in the direction that was selected. NOTE: This only keeps the pointer at a fixed direction of travel



TRACK MANAGER

Track manager allows you to change, view or change information regarding tracks. The options are:

Current Track

- Save Track
- Save Portion
- View Map
- Elevation Plot
- Set Color
- Clear Current Track

Archived Tracks – Brings up saved track information



MAN OVERBOARD (MOB)

Immediately marks MOB (Man Over Board) waypoint for navigation back to that point. To delete a MOB, plug the GPS into your computer, then go to the GARMIN F:\Garmin\GPX\Nav directory and delete the MOB file



SUN and MOON

Displays calendar with time of sunrise, sunset, moon rise, moon set



HUNT and FISH

Displays calendar and best time to hunt or fish



CALCULATOR

Displays the calculator



ALARM CLOCK

Sets alarm on/off and time to activate



STOPWATCH

Stopwatch function



WAYPOINT AVERAGING

If you are at a location and the GPS does not give a solid reading, the waypoint averaging allows the GPS to sample the different GPS coordinate readings many times and then give an average of all the results. If you are placing a geocache, you should use this function to get accurate coordinates.

“HOW TO” INSTRUCTIONS

GARMIN OREGON 450 DIRECTORIES

To see the directories and files on the the GPS, the GPS must first be connected to the PC by the supplied cable. On my PC the GPS is identified as a directory called ” GARMIN OREGON (F:) “ the “F” drive designator may be different on your system. The following subdirectories will be shown “Documents”, “Garmin”, “Wherigo”, “VolumeIcon.icns” and “autorun.inf”.

NOTE: When you plug the interface cable between the GPS and PC, the PC will take a minute or so to recognize the GPS, so be patient. You will know the initialization process has been started when the screen on the GPS has the word GARMIN and a picture of the connection. If screens pop up on the PC showing you the GPS is connected, close those screen(s).

As a safety precaution, the original” GARMIN OREGON (F:) “directory should be copied as a backup to your PC, CD ROM, DVD, memory card or to a separate directory before making any changes to the Garmin files. This will allow you to copy the original files back the GPS if necessary.

FINDING YOUR GARMIN OREGON 450 SOFTWARE VERSION

The version of software on your GARMIN Oregon 450 can be found by selecting SETUP on the GPS and then ABOUT from the list (it is the last item in the setup list).

GARMIN OREGON 450 SOFTWARE UPDATE HISTORY

An update history which shows the changes between each version of software is located at the following web site:

http://www8.garmin.com/support/download_details.jsp?id=4524

GARMIN OREGON 450 SOFTWARE UPDATES

To update the software on your Garmin Oregon 450, you must have your Garmin Oregon 450 connected to your PC by the provided USB cable and have previously selected the interface type. For the USB cable, select the following on the GPS: SETUP>SYSTEM>INTERFACE>SERIAL

To update the GARMIN OREGON 450 software, go to this web page to use the dashboard updater (only allows updating):

<https://my.garmin.com/mygarmin/dashboard/dashboardScanDevice.htm>

Go to this page for a different webupdater, this allows updating and reinstalling of current software, if necessary:

http://www8.garmin.com/support/download_details.jsp?id=931

RESETTING GARMIN OREGON 450

There should never be a need to reset your Garmin 450, but if it is acting erratically you may want to try a factory reset to see if it will correct an undiagnosable problem. This may, or may not remove remove all your waypoints and any data you have entered. After doing the reset, you will have to reenter your personal preferences.

To do a factory reset, turn the Garmin 450 off. Then push on the upper left of the screen, hold and turn the Garmin back on, you will then be asked to confirm the reset.

ALWAYS SET UP MEASUREMENT UNITS FIRST WHEN USING GPS FOR THE FIRST TIME

Before doing anything, you should set up the distance, temperature etc. that you are familiar with on your GPS before you use it. To do this, go to SETUP>UNITS and select the preferred unit measurements you want to work with.

CUSTOMIZING THE SCREENS – REPOSITIONING ICONS

If you want to change the location of any icons on the 450 screen, go to SETUP>MAIN MENU then touch the icon to be changed, then touch the icon at the new location where you want it to go.

To deactivate an icon (move it to the end of the list) go to SETUP>MAIN MENU touch the icon to deactivate and push the picture of the trash can. NOTE: to reactivate, just switch the icon with another.

SELECTING ICONS OR TYPING CHARACTERS

If you find trouble pushing screen icons, or keying in the alpha characters when entering in waypoint names etc. then you should consider buying a stylus that can be used with any touch screen tablet - they can be bought at any computer accessory store, I got mine at the dollar store. You may want to consider buying one.

SELECTING BATTERY TYPE

Batteries can become expensive and you may want to consider buying NiMh (Nickel Metal Hydride) rechargeable batteries – these usually can be found at any large department store, camera store or online and usually come with a charger. Typical standard non-rechargeable alkaline batteries have a capacity of 500mah (milliamp/hour).

A good capacity for the NiMh batteries is 2000mah or greater – the higher mah number (capacity) the better. The mah rating will be written on the side of the batteries.

Make sure you buy 4 batteries. The GARMIN GPS uses 2 batteries, but I charge up all 4 and carry 2 as spares, this will easily do me for a day. Non-rechargeable batteries can be expensive and I have yet to have batteries last 16 hrs as stated in the specs.

The battery type you chose to use must be selected under:

SETUP>SYSTEM>BATTERY TYPE

CALIBRATING THE TOUCH SCREEN

If the touch screen of the Garmin 450 does not seem to be accurate to where you touch it, you can recalibrate the screen to your touch. To do this, turn off the GPS, then hold the ON/OFF button for 30-40 seconds while it turns on. Then touch the locations identified on the screen.

TO CAPTURE A GARMIN 450 SCREEN

If you want to save a Garmin 450 screen for printing or editing, select SETUP>DISPLAY>SCREEN CAPTURE >ON. Then go to the screen you want to capture and quickly press the ON/OFF button. The screen will be stored on the Garmin

450 under the GARMIN\SCRN folder – accessed when you connect the Garmin to your PC.

FREE ROUTABLE MAPS

Road maps can be located on the web at several places, the following is an example: http://wiki.openstreetmap.org/wiki/OSM_Map_On_Garmin/Download

After you download the maps see the instructions under LOADING MAPS ON TO YOUR GARMIN 450 below. Downloading instructions can be found in the thread that is linked below:

[http://forums.groundspeak.com/GC/index.php?showtopic=286559&st=0&p=4914725&hl=ibycus topo canada&fromsearch=1&#entry4914725](http://forums.groundspeak.com/GC/index.php?showtopic=286559&st=0&p=4914725&hl=ibycus+topo+canada&fromsearch=1&#entry4914725)

Downloading maps may take a long time (up to a couple of hours) so be patient.

TROUBLE ACQUIRING SATELLITES IN A MOVING VEHICLE

If you are traveling in a vehicle and your GPS does not seem to be working, it may be having problems locking on to satellites. If this is the case, stop the vehicle and wait until the GPS locks on to the satellites. Once it acquires the satellites, it should keep the satellites locked on when you start moving again.

FREE TOPO MAPS

Topographical maps can be located at: <http://hotfile.com/list/1629447/a614b22> and may take a long time to download.

Downloading instructions can be found in the thread that is linked below:

[http://forums.groundspeak.com/GC/index.php?showtopic=286559&st=0&p=4914725&hl=ibycus topo canada&fromsearch=1&#entry4914725](http://forums.groundspeak.com/GC/index.php?showtopic=286559&st=0&p=4914725&hl=ibycus+topo+canada&fromsearch=1&#entry4914725)

There is also a uTube video showing you how to download and install free maps, from the video I understand you can load Topo maps from all over the world.

<http://www.youtube.com/watch?v=JjTCG5lLn2U>

LOADING MAPS ON TO YOUR GARMIN 450

Maps can be downloaded (see above instructions link), or can be purchased for the Garmin GPS. These maps can be downloaded to a MicroSD card and be used on the GARMIN OREGON 450 as follows:

First, create a directory on the MicroSD card called “Garmin” then copy the files into this directory on the SD card.

Second, install the card in the GPS (under the batteries)

Third, turn on the GPS and go to SETUP>MAP>MAP INFORMATION
SELECT MAP – select the desired map and enable or disable as required.

SETTING YOUR COMPASS – AUTO OR OFF ?

Go to SETUP>HEADING>COMPASS. There you will have two possible selections, See page 31 in the Garmin Manual for a description of AUTO and OFF.

AUTO will allow the GPS to switch between ELECTRONIC or GPS compass as needed. Garmin support suggests setting the compass to AUTO to give a 3 axis compass and more accurate readings when standing still. Select by:

SETUP>HEADING >COMPASS AUTO.

NOTE: The compass should be recalibrated each time when:

Starting off on a new cache

When replacing batteries

To start the calibration process, hold the center of the compass screen for 3-5 seconds or go to: SETUP>HEADING COMPASS

NOTE: Calibrating the compass only calibrates the compass for North, it does not affect GPS accuracy. GPS accuracy depends upon the number of satellites obtained and the satellite mode selected (Normal, WAAS, EGNOS use the best one for your area).

SETTING NORTH - MAGNETIC OR TRUE NORTH ?

Using TRUE or the MAGNETIC North will probably always be a controversial subject. The north magnetic field (used by conventional compasses), is not the same as the true north (north pole). To add complexity to this, the magnetic north moves slightly each year. Some geocachers prefer to use True North, and others prefer to use Magnetic North.

Your GPS automatically calculates the correct Longitude and Latitude. Only when using a paper map with your GPS compass will you have to take in to account the difference between True North and Magnetic North (called deviation). This is not necessary when using a GPS only.

Whether a geocache is placed with True North or Magnetic North there will be very little difference in accuracy when finding the location of a cache. The GPS's calculated accuracy (amount of error) of the person placing the cache and the calculated accuracy of your GPS is typically greater than the actual difference between the True North and Magnetic North at the cache position.

To set your GPS to the north reference go to:

SETUP>HEADING>NORTH REFERENCE – I have mine set to TRUE NORTH

Also see the section “IF YOU HAVE TROUBLE WITH GPS STABILITY” near the end of this document.

TO CALIBRATE THE GPS COMPASS

NOTE: Although it is not always necessary, the compass should be recalibrated if you want to ensure accuracy each time you:

Starting off on a new cache

When replacing batteries

After turning the GPS on and off

Before calibrating the compass for the first time, go to SETUP>HEADING>COMPASS and make sure the the compass is set to AUTO.

Then calibrate the compass for each profile by doing the following:

Goto SETUP>HEADING> then press “To Begin Compass Calibration” (or touch and hold center of the compass screen for 3-5 seconds)

Select START and follow directions.

Also see “IF YOU HAVE TROUBLE WITH GPS STABILITY” found near the end of this document.

SAMPLE OF HOW TO SETUP GARMIN 450 TO HAVE THE DIRECTION POINTER FOLLOW ROADS TO A SELECTED DESTINATION ON THE GPS MAP

Note: to do this you should have a **routable map**, that is, a map with the capabilities for directional GPS pointer to follow. This map should be installed on a MicroSD card and installed in the GPS under the battery as described under “FREE ROUTABLE MAPS”, above or you can purchase maps already on a MicroSD card.

To set up the road maps, first go to the **CHANGE PROFILE** icon and select **AUTOMOTIVE** - all changes now made will be saved to the **AUTOMOTIVE** profile and will be used whenever you select the **AUTOMOTIVE PROFILE**. Return to the main screens and do the following:

You will need to set up the position format, to do this go to **SETUP>POSITION FORMAT** hddd mm.mmm (decimal, minutes), **MAP DATUM** should be set at **WGS 84**

Next go to **SETUP>MAP** for the following:

ORIENTATION AUTOMOTIVE MODE, automotive mode shows travelling on road, and is best for automotive use.

AUTO ZOOM ON

DATA FIELDS 4

ADVANCE MAP SETUP

ZOOM LEVELS – set to your preference, I use AUTO for all

TEXT SIZE – set your preference, I use SMALL for everything except STREET LABEL, which I set to MEDIUM Continued....

DETAIL – I use NORMAL

SHADES RELIEF – I use AUTO

MAP INFORMATION SELECT MAP – Select the routable map you installed

After selecting the map, you need to set up the routing options. To do this go to **SETUP>ROUTING**. The options are:

ACTIVITY I selected **AUTOMOBILE DRIVING**, but you can select any of the following: DIRECT ROUTING, AUTOMOBILE DRIVING, MOTORCYCLE DRIVING, CYCLING, TOUR CYCLING, MOUNTAIN BIKING, PEDESTRIAN WALKING, HIKING, MOUNTAINEERING, or ATV/OFF ROAD DRIVING,

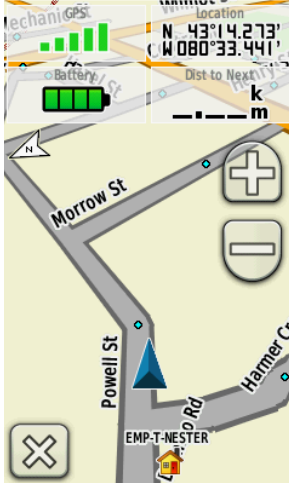
CALCULATION METHOD for your trip where you can select MINIMIZE TIME (shortest time), MINIMIZE DISTANCE (shortest distance). I select MINIMIZE TIME since MINIMUM DISTANCE takes me on short cuts and roads that may have a lot of stops or even poor roads.

LOCK ON ROAD this option will keep the directional pointer on the road you will be travelling on, and in the direction you are travelling. I select YES.

AVOIDANCE SETUP this is where you would select the things you want to avoid while driving such as toll roads etc..

OFF ROUTE RECALCULATION this option allows you to select whether you want the GPS to recalculate a new route if you have mistakenly made a wrong turn.. The options here are PROMPTED, AUTOMATIC, OFF – I selected AUTOMATIC.

The next thing to do would be to set up the map screen to your preferences. My map screen is shown below (it is shown zoomed in) with the pointer following the roads I want to travel.



You will have to define what you want in the four data fields at the top of your map screen. The following is the procedure used to set up the 4 data fields on the above screen:

To select the information for each data field, just push the data field and a pop up list will appear with the data field selections, select what you want in that field. The data I selected for each field is:

First field: Push the first field, then select **GPS SIGNAL STRENGTH**

Second field: Push second field and select **LOCATION (LAT/LON)** – this will be your location.

Third field: Push third field and select **BATTERY LEVEL** (you may want to consider **DISTANCE TO DESTINATION** here)

Fourth field: Push fourth field and select **DISTANCE TO DESTINATION** (You may want to consider **ETA AT DESTINATION** here)

Once you have set up the **AUTOMOTIVE PROFILE**, you will need to select the destination you will be travelling to. To do this use the **WHERE TO ?** icon on the main menu. You then can select the destination from many options such as by Coordinates, Addresses, Cities, Waypoints, POI's (Points of Interest) etc.

Then go back to main menu MAP and follow the pointer to your destination.

SAMPLE OF HOW TO SETUP GARMIN 450 MAP SCREEN FOR GEOCACHING

Before doing this, make sure you have set up the **PROFILE** set to **GEOCACHING**. To do this go to the **PROFILE CHANGE** Icon and select **GEOCACHING** – the following changes you make, will noow only be stored under the GEOCACHIN profile.

You should have a Topo (topographical) map selected for geocaching. To do this, got to **SETUP>MAP INFORMATION SELECT MAP** and select the topo map you purchased or downloaded – see **FREE TOPO MAP SECTION** and **LOADING MAPS ON TO YOUR GARMIN 450** earlier in this document.

You will need to set up the position format, to do this select **SETUP>POSITION FORMAT hddd mm.mmm (decimal, minutes)**

MAP DATUM should be set at WGS 84

Next you will have to set up the MAP screen, the one I chose is shown below:



To do this goto **SETUP>MAP** for each of the following and select:

ORIENTATION>TRACK UP

DATA FIELDS>4

ADVANCE MAP SETUP TEXT SIZE, ZOOM LEVEL>DETAIL NORMAL

MAP INFORMATION SELECT MAP>(select the map to use) Continued....

To set up (change) each of the four data fields at the top of the map, push the field you want to change and a list of options will be displayed. Select the option you want to be displayed in that field.

For the first field I chose GPS SIGNAL STRENGTH. For the second field I chose LOCATION (lat/lon), which is the current location of where the GPS is currently at. For the third field I chose the battery condition. For the fourth I chose DISTANCE TO DESTINATION.

SAMPLE OF HOW TO SETUP GARMIN 450 COMPASS SCREEN FOR GEOCACHING

Before doing this, as stated previously, make sure you have selected the GPS **GEOCACHING PROFILE**. To do this go to the main menu **PROFILE CHANGE** Icon and select **GEOCACHING** – the following changes you make, will now only be stored under the **GEOCACHIN** profile.

You should have a Topo (topographical) map selected for geocaching. To do this, got to **SETUP>MAP INFORMATION SELECT MAP** and select the topo map you purchased or downloaded – see **FREE TOPO MAP SECTION** and **LOADING MAPS ON TO YOUR GARMIN 450** earlier in this document for instructions.

Next you will need to set up the position format, to do this go to **SETUP>POSITION FORMAT hddd mm.mmm (decimal, minutes)**
MAP DATUM should be set at WGS 84

Then you will need to set up the compass screen, to do this, select the main menu **COMPASS** icon. My preferred screen is shown below. The instructions how to get the screen set up are below the screen shot.



I wanted the large triangle in the compass to point to the direction of the cache. To do this select **SETUP>HEADING** then select **GOTO LINE/POINTER** and then select **BEARING LARGE** – this will give a large directional triangle in your compass pointing in the direction of the selected cache (you must have selected a cache in order to show the triangle).

The compass screen I set up has four data fields containing GPS signal strength, distance to geocache, accuracy of GPS, the location of the geocache (note, this is **not** your current location – I have current on the main map), the large triangle in the compass is set up to point towards the selected cache.

To get the screen set up like this, select the **DASHBOARD ICON** (looks like a phone bottom right of the screen). I selected **SMALL DATA FIELDS**. To change a data field to your preference push that data field, select your preference from the pop-up list.

For the first field I selected **GPS SIGNAL STRENGTH**, for the second **DISTANCE TO DESTINATION**, for the third **ACCURACY OF GPS**, and for the fourth I wanted to display the GPS coordinates of where the cache is located (where I want to go) so I selected **LOCATION (SELECTED)**

MARKING YOUR STARTING POINT

It is always a good idea to mark your starting point, or where you parked your vehicle, before you start your hike for geocaches, especially if you are searching in an area that is unfamiliar to you. This not only gives you a way to get back to your vehicle if you get disoriented, but may also show that you may actually be closer to your starting point than you think.

To mark the starting point, go to **MARK WAYPOINT** and mark the starting point.. To locate your starting point on your GPS after you have found your caches, go to **WHERE TO?** and select the waypoint you had previously stored.

SAMPLE OF HOW TO SET UP GPS FOR TRACKING

(also known as breadcrumbing)

This selection will “track” where you are going to your GPS as if you were laying down a “bread crumb” trail while you are travelling, this is great for hiking in an unknown area. This will allow you to “reverse” and follow the trail back where you came from. To do this:

Goto **SETUP>MAP>MAP INFORMATION SELECT MAP**, you would then select the map you wish to use, I chose a **TOPO** (Topographical map)
Then goto **SETUP>TRACKS>>TRACK LOG** and select how you want the track to be recorded. I chose **RECORD, SHOW ON MAP**
Next select **SETUP>TRACKS>RECORD METHOD**, I choose **AUTO** (you may want to change this)
Then go back to main menu **MAP** to see the recorded **TRACK**.

TO SAVE (ARCHIVE) A TRACK

Tracks can be saved (or archived) manually or automatically. To **save** (archive) a track manually **TRACK MANAGER>CURRENT TRACK>SAVE**

To **automatically save a track**, the GPS must be set up properly. To do this, goto; **SETUP>TRACKS>AUTO ARCHIVE** and you will have the option of saving the track(s) **“When Full”**(track log is full), **“Daily”**, or **“Weekly”**.

I set record method to **SETUP>TRACKS>AUTO**.

I set interval record method to **SETUP>TRACKS>NORMAL**

When you are ready to **start** to record a track, goto **SETUP>TRACKS>TRACK LOG>** and select record method.

When you are ready to stop recording a track, goto **SETUP>TRACKS>TRACK LOG>** and select **DO NOT RECORD**.

TO ACCESS A SAVED (ARCHIVED) TRACK

To **retrieve** a saved, or archived, **track** go to **TRACK MANAGER>ARCHIVED TRACKS** and select the track.

TO DELETE A CURRENT OR ARCHIVED TRACK

To **delete** a current track: Go To **SETUP>RESET** and clear the track or go to: **TRACK MANAGER>CURRENT TRACK>CLEAR CURRENT TRACK**
To delete an archived track go to: **TRACK MANAGER>ARCHIVED TRACK**

TO MANUALLY ENTER IN A LOCATION WITH COORDINATES AND SAVE THEM

To the best of my knowledge, the Oregon 450 does not have a function to easily enter in coordinates and then to save them, therefore I'll describe an alternate way to do this.

Basically the procedure will be to make a new waypoint through the **WAYPOINT AVERAGING** selection and then give it a new name and coordinates that you want.

1. First go to **WAYPOINT AVERAGING** on the GPS and push **CREATE WAYPOINT**
2. Push **SAVE** - you do not wait for waypoint averaging to complete.
3. Write down, or remember, the small three digit number on the new screen above **NUMBER OF SAMPLES**. This will be the new way point number you are creating – this will be edited with a new name and the coordinates you want.
4. Next push **“X”**, to take you out of waypoint averaging.
5. Now push **WAYPOINT MANAGER (not WAYPOINT AVERAGING)**
6. Scroll down to the number you recorded in step 4 and select it.

7. Next select **CHANGE NAME** and enter in the name you wish for your coordinates, then push the check for OK and then push “X” to return to previous screen.
8. Now select **CHANGE LOCATION** and enter in the coordinates for your new location, then push the check for OK and then push “X” to return to previous screen.
9. Push the “back arrow” to return to the location selection screen, then push “X” again.
10. To use the way point you created, go to the main menu and select **WHERE TO?**, then **FIND ANOTHER**, then **WAYPOINTS**, and select the name of the waypoint you entered above, and then **GO**.

NOTE: To delete a waypoint, select **WAYPOINT MANAGER** from the home screen, then select the waypoint to delete, then scroll down to **DELETE WAYPOINT** and push it, answer **YES** to confirm the deletion.

HOW TO CALCULATE DISTANCE BETWEEN COORDINATES

Thanks to the moderator at Geocaching.com for this link to the distance calculator, which will calculate distance between two coordinates:

<http://www.chemical-ecology.net/java/lat-long.htm>

To enter the coordinates I took the coordinates from my GPS. The GPS sample coordinates I used were:

First point coordinate: N 43 11.564 and W 080 26.976

Second point coordinate: N 43 11.689 and W 080 27.044

This means I had Degrees, Minutes, but no seconds so I entered in the following format at the above link and it calculated the distance between the points:

First point North: Degrees = 43 Minutes = 11.564 Seconds = left blank Compass = N	First point West: Degrees = 080 Minutes = 26.976 Seconds = left blank Compass = W	Second point North: Degrees = 43 Minutes = 11.689 Seconds = left blank Compass = N	Second point West: Degrees = 080 Minutes = 27.044 Seconds = left blank Compass = W
---	---	--	--

HOW TO DOWNLOAD A GEOCACHE FROM GEOCACHE.COM

Go to the **GEOCACHE.COM** web site. You can sign up as a basic member for free, but for best access to maps, hints etc. you may want to sign up as a **PREMIUM MEMBER**, it is very inexpensive and allows you access to very useful information. You should remember that you can always enter in the GPS coordinates of the cache manually instead of downloading from the **GEOCACHE.COM** web site.

To download cache from the GEOCACHE.COM website to the Garmin Oregon 450 do the following:

Note, make sure the Garmin 450 Oregon is connected to the PC by the supplied cable and make sure you have previously selected the serial interface on the 450. To select the USB cable interface select: **SETUP>SYSTEM>INTERFACE>SERIAL**

Make sure you have the **GEOCACHE PROFILE** selected on the 450 under **PROFILE CHANGE** from the 450 main menu when you want to do anything related to geocaching.

Then go to the cache you want to find at the **GEOCACHE.COM** web site. On the cache site, there will be a selection to **“SEND TO MY GPS”**.

Next plug your GARMIN 450 GPS into your PC with the cable that came with the GPS. **Wait** a few minutes for the PC and GPS to recognize each other. This will be noted by a picture on the GPS of the GPS and PC, and on the PC. If the PC does not recognize the GPS, you may have to select **“SEND TO MY GPS”** and follow instructions (select GPS etc.) or download additional software – follow the directions.

Once the GPS and PC recognize each other, you can download the selected geocache by selecting **“SEND TO MY GPS”** – this will be very quick and the only indication you will get is a slight blink of the PC screen..

To confirm the cache went to the GPS, disconnect the GPS and view the caches on the GPS by selecting **GEOCACHE** icon on the main menu. Then **GEOCACHES> FIND A GEOCACHE>**. To select and make the geocache active on the GPS just select the one you want to use.

Then go back to the main menu menu and select **MAP** or **COMPASS** (I use compass) and there should then be an large triangle pointing in the direction of the cache (you could select **MAP** instead if you want to see the area). If there is not a large triangle, or the cache position on the map, you probably have not selected a cache to find. If this is the case, go to the main menu and select the **GEOCACHE** icon and select **“FIND A CACHE”** – select the cache you want from the list then push **GO**.

TO MARK A GEOCACHE AS FOUND AND MOVE TO "GEOCACHES FOUND" SECTION ON THE GPS

(Assuming you have geocaches already loaded on your handheld GPS.)

This will delete the geocache from the geocache screen and will move it to the “Geocache Found” section of the handheld GPS. (NOTE: To permanently remove all GEOCACHES and GEOCHACHES FOUND go to the next section).

To mark a geocache as found and move to "geocaches found:

First turn on the GPS.

Then select GEOCACHE.

Select the geocache you wish to remove from the screen.

Select **“GO”** at the bottom of the screen.

While the Geocache map is shown on the screen, push **“X”** at the bottom of the screen.

On the menu, push **“Geocache”**.

Then push **“Log Attempt”**.

Then push **“Found”** on the menu.

This will remove the Geocache from the Geocache selection screen and move it to the “Geocache Found” screen. Turn on your handheld GPS and verify the geocache has been removed from your “Geocaches” and moved to “Found”.

TO PERMINENTLY DELETE GEOCACHES FROM YOUR HANDHELD GPS

If you use GEOCACHING.COM to automatically load geocaches onto your GPS, all the geocaches (found and yet to be found) are loaded onto the Garmin Oregon 450 under the Garmin\GPX directory of your GPS. These files can be seen when the GPS is connected to your PC by the USB interface cable . Before connecting the cable you

should make sure the proper interface type is selected. To do this select:
SETUP>SYSTEM>INTERFACE>SERIAL.

If you have loaded your caches to your Garmin Oregon 450 GPS from the GEOCACHING.COM website, they will have an identification number obtained from the site. This will become the name of the cache in the Garmin\GPX directory, but will not be seen on the GPS as the name of the cache. However, you can find this number by selecting “description” of the cache on your GPS, or it can be obtained directly from the GEOCACHING.COM website, the number will look something like “GC99K3G” and will be stored under the Garmin\GPX directory with a GPX extension to become something like “GC99K3G.GPX”

The instructions to connect your GPS to remove the cache files are as follows:

- Turn “OFF” your handheld GPS and leave it turned “OFF” for all of this procedure. The GPS will have automatically be accessed from the PC.

- While the GPS is turned “OFF”, use the cable that came with your GPS and plug the GPS into a USB port on your PC

- Wait until your PC recognizes the GPS unit – remember to leave the GPS “OFF”.

- If screens pop up on the PC showing you the GPS is connected, close the screen(s). The GPS unit will automatically then become a directory on your PC, mine is called “GarminOregon(F:)” the “F:” may be a different letter on yours, and you should use that letter instead of “F”..

- Then go to the “GarminOregon(F:)\Garmin\GPX” directory

- The files on your handheld GPS that end with “GPX” in that directory, will be the files you will want to delete. An example of what the file would look like is GC99K3G.GPX (fictional file) they all start with “GC”.

- Delete each .GPX file you want to remove permanently from your GPS unit.

- Always remember you should **NOT** unplug your GPS from your PC until you select the “Safely Remove Hardware” at the bottom of your screen - this will remove power from the GPS unit and gives you permission to unplug the “Mass Storage Device”.

- Then unplug the GPS from your PC.

- Turn on the handheld GPS and verify the files have been removed.

TO DELETE MOB (Man Over Board) WAYPOINT

NOTE: This has to be done while the GPS is connected to the computer by the supplied interface cable. Before connecting the cable you should make sure you have selected the interface type for the Garmin Oregon 450 by selecting

SETUP>SYSTEM>INTERFACE>SERIAL. Then:

- Plug the GPS into the PC

- Go to the GPS Directory and select the GARMIN folder

- Then select the GPX folder

- Then select NAV folder (this is where the MOB waypoint is stored) and delete the file

TO STOP A ROUTE THAT IS BEING SHOWN ON THE GPS

At sometime or another, a route or waypoint must have been selected for the route to be shown on your GPS. If you have previously selected a waypoint, or route, and you want to remove the route that is shown from the map screen, without selecting another

destination, do the following: Go to the WHERE TO? icon and select it, then select STOP NAVIGATION and the route will be removed.

TO PRINT MAPS FROM GEOCACHE.COM

NOTE: This is assuming you are at least a basic member (free) of **geocaching.com** and maps are showing on your monitor when you select a cache's description.

1. Select a geocache area that you want to search
2. Scroll down through the page until you see the second map shown on the right
3. On the second map, select "View Larger Map". Note: you can select MAP and TERRAIN only if you want to see terrain detail on the map.
4. Push F11 to make map fill the screen (toggle F11 again to make smaller)
5. Click on vertical screen dividing line on left and get rid of line, now map will fill full screen
6. Move the mouse pointer to the top of the screen to display the hidden toolbar. Go to PRINT and PRINT OPTIONS, select "LANDSCAPE" and "BEST" print
7. Then push PRINT on upper left

NOTE: if you want to do any editing on the map, push "Print Screen" when the full map is shown. This will copy the map to the "CLIPBOARD" and you can paste it into WORD or your favourite drawing package for editing.

TO CAPTURE A GARMIN OREGON 450 SCREEN AND PRINT IT

Go to **SETUP>DISPLAY** and set **SCREEN CAPTURE>ON**

Then go to the screen you want to capture and quickly press the ON/OFF button, this will load the screen captured on to the GARMIN GPS. To copy the screen shot from the GPS to your PC, connect the GPS to your PC. The file will be located in the Garmin\scrn folder on the GPS and you can copy or print it.

TO SEE THE COORDINATES OF A SAVED WAYPOINT

Go to **WAYPOINT MANAGER** on the main menu

Select the waypoint that you want to see the coordinates for

Scroll down and select **CHANGE LOCATION**.

This will display the waypoint coordinates of the saved waypoint. **DO NOT** change the coordinates (unless you really want them changed), after you have displayed and documented the coordinates, push "X" to leave the coordinates as is and exit to the main menu.

TO SEE THE COORDINATES OF WHERE YOU ARE

To see the coordinates of where you are standing, push the green GPS bars on the opening GPS screen. This will also show the satellites you are connected to and the GPS accuracy.

TO ACCURATELY PUSH THE PROPER SCREEN SELECTION

Sometimes it is difficult to push the proper letter, or screen icon, when selecting information into the GPS

To accurately, and easily, select the proper letter (such as when typing a waypoint descriptions), it is easily accomplished by using a tablette stylus. These are used with the

iPads and Blackberrys (phones and tablettes). Stylus's can be bought almost anywhere they sell accessories for PC's. the less expensive price I found is the dollar store.

REMOVING THE RED PIN ON THE MAP SCREEN

If you have a red pin suddenly appear on your map screen, it is most likely caused by you accidentally pushing the map screen at that location, or by pushing the screen accidentally while travelling. The red pin is normally used to identify a point on the map.

If you have a red pin on your map, you can drag your map so the pin is over a specific location, the GPS will automatically identify that location if it can. A descriptive pop up screen will describe the location.

Remove the pin by pushing the return arrow on the bottom of the screen.

PROBLEMS WITH LOCK-UPS OR GPS TO PC CONNECTION

If you are Planning to use the USB cable to connect the GPS to your PC, for updates or downloading geocaching information, then make sure you have selected serial interface under the setup system options before plugging the cable in:

SETUP>SYSTEM>INTERFACE>SERIAL

If the above is selected in SETUP, and the PC is still locking up, then suspect that you may have a bad USB cable, or you may be using a charging USB cable only, this does not have data wires in the cable. The USB cables can come in one of two types. The first will only have the charge wires connected in the cable (cheaper cable for charging eReaders etc.), the second will have the charge wires and data wires connected in the cable. Make sure you are using a good data cable or your PC will lock up, usually identified with the mouse not operating.

IF YOU HAVE TROUBLE WITH GPS STABILITY

If you are having a problem with your GPS giving variable readings of distance and direction (called bounce), or locking up when you get close to a cache, you should first suspect your batteries. However, if you have replaced your batteries then it may be caused by local electrical or magnetic interference. If it is not interference, then it may be one of your settings on the GPS. Try changing each of the following settings to what is shown below to see if it helps:

SETUP>BATTERY TYPE> (select the battery type you are using)

SETUP>DISPLAY>BATTERY SAVE OFF (battery save causes longer time between sampling satellites, turn this OFF while troubleshooting)

SETUP>HEADING>NORTH REFERENCE>TRUE NORTH

SETUP>HEADING >COMPASS AUTO

SETUP>SYSTEM>GPS NORMAL (you may use WAAS/EGNOS for better accuracy but expect a slightly higher battery drain). For a link to the reference see:

<https://support.garmin.com/support/searchSupport/case.faces?caseId=%7Bdd8712f0-bf0a-11e0-cf56-000000000000%7D>

Check and see if your batteries are new, and/or freshly charged. That is, make sure all bars shown on the battery icon are green. When you start losing a bar, it is time to consider replacing the batteries, low batteries may cause GPS accuracy or location "bounce" problems.

If you have rechargeable batteries, and the compass continually needs to be calibrated to maintain accuracy, then you may have a problem with your batteries – try new rechargeable batteries or new standard alkaline batteries to confirm whether your current batteries have a problem or not.. If you change your battery type, make sure you have set the correct battery type in SETUP>SYSTEM>BATTERY TYPE.

It is always a good practice is to calibrate the compass before your cache hunt, this only affects the north reference accuracy and the compass screen. NOT the GPS accuracy.

If you find your problem is fixed after doing all of the above, you may want to change back to your original settings, one at a time, to find out which setting caused your original problem.

GEOCACHING FORM

Attached on the next page is a form that may be used to fill out the information about the caches you are going to hunt for. This form is not a requirement, nor a necessary item. To use it, place it on a clipboard. You will find it is useful as a quick reference for information while traveling to cache sites.

The first column of the form is the number that we arbitrarily assign to the cache, and for us it is the order in which we want to find the caches. The next column is the GC (Geocache) number assigned to the cache by the geocaching.com site - having this number makes it easier to identify and delete caches from the folder on the GPS. The next two columns are the name and a brief description of the cache. The last column is checked when we download the cache to the GPS (the Garmin Oregon 450 allows automatic downloading) and is a verification to ourselves that the cache has been downloaded.

Photocopy, or print, as many forms as needed.

GEOCACHING INFO SHEET

NO.	GC NUMBER	NAME	DESCRIPTION/HINT	ON GPS

As stated at the beginning, if you have any suggestions or see anything that needs improving, or correcting, please let me know. My contact information is on the first page and I appreciate any, and all, assistance that I can get to make this document better.

I hope you find this document usefull and it will help anyone who has been having difficulty understanding some of the Garmin Oregon 450 functions.

Happy Cache Hunting! And Cache4Fun!