



Setup of the Garmin GPSMAP 78 Units

Abstract

This guide outlines the recommended settings for the Garmin GPSMAP 78 units for NRCS users in Indiana. The recommended settings are made to insure that data collected in the field is consistent with most of the GIS data and imagery currently available in USDA Service Centers in the Toolkit environment (which applies to the majority of USDA users). Note that the layout of icons on the menu screens in this guide may differ from the layout of icons on a given unit, but all icons should be available.

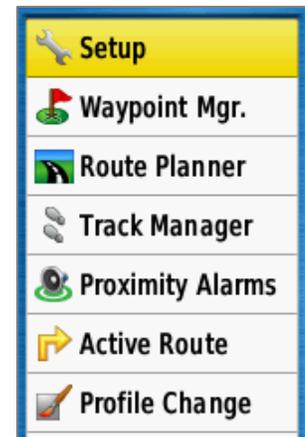
Steps: Press Menu Twice – Select Setup - Set System > GPS to WAAS/EGNOS – Set Position Format > Position Format to hddd°mm.mmm’ – Set Map Datum to WGS84 (or NAD83) – Set other optional settings as outlined below

Details

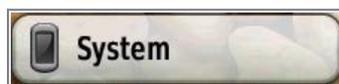
Settings

The following section headings correspond to the menu options found under the **Setup** button. All settings are managed from menus and options found under the **Setup** button. Press Menu twice to see the Main Menu and the Setup choice.

Listed below are the recommended settings for NRCS users. The underlined headings with a corresponding graphic indicate which sub-menu under **Setup** contains the setting. Critical settings are listed in **bold italics** and should be reviewed before each use to ensure data is collected correctly. Settings not listed in this guide typically should not affect most uses and can remain default. Note that settings shown in screenshots are not always the recommended setting due to adjustments made to work with the unit during the creation of these task guides. Please review the text of any given setting recommendation to fully understand that setting and make the choice appropriate to your desired work task.



System Settings



GPS (or GPS Mode): Set to ***WAAS/EGNOS***. The ***WAAS/EGNOS*** setting improves the accuracy of unit's independent position readings under all circumstances. The only time to use *Demo Mode* would be when performing a class instruction or demonstration indoors. When the unit is On while indoors, it will prompt you whether or not to continue searching for satellites. If you answer No, the unit will default to *Demo Mode*. Before using the unit outdoors again, make sure the mode is switched back to ***WAAS/EGNOS***.

Battery Type: Set as appropriate to the batteries in use.

Interface: Set to *Garmin Serial*. Any change to this setting will be called out in the applicable task guide.



Position Format Settings

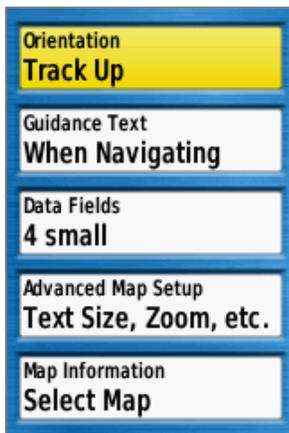
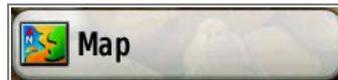


Position Format: This setting controls the coordinate display in various screens on the GPS unit. It does not control the format of output coordinates from the unit. All coordinates in the unit are stored and transferred out as lat/long values, regardless of this setting. The two recommended values are **UTM UPS** or **hddd°mm'ss.s"**.

Map Datum: This setting does affect the positions collected by the unit. The recommended setting is **WGS84** to match the standard datum for transfer with DNR Garmin. However, the **NAD83** setting is also acceptable.

Map Spheroid is automatically updated based on the selected Map Datum.

Map Settings



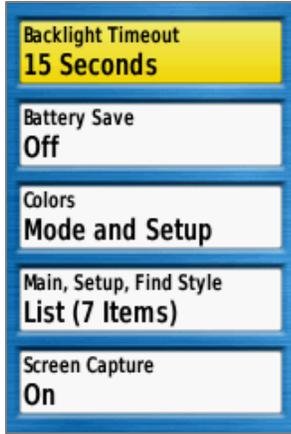
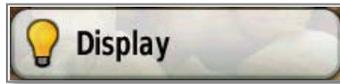
Orientation: This controls how the map is shown on the *Map* screen. *Track Up* will always place your direction of travel at the top of the *Map* screen. *North Up* places north at the top of the *Map* screen. This setting is variable to task and user preference.

Data Fields: This will show information while on the *Map* screen that is similar to the information shown on the *Compass* screen. Zero will show none; two will show *Speed* and *Heading* info; four will show the previous two types plus *Elevation* and *Trip Odometer*. This setting is variable according to user preference.

Map Information Select Map: This menu allows you to enable or disable base map data loaded on the unit. If you have a micro SD card with **Topo 100k** loaded in the unit, then it should be listed here and can be **enabled**. If an SD card with the data is not available, then the default setting should be used.



Display Settings



Backlight Timeout: This setting controls how long after the last interaction that the screen remains fully illuminated. After that time elapses, the screen will dim. This setting can be adjusted by user preference, but the longer the choice the faster the battery will drain while using the unit.

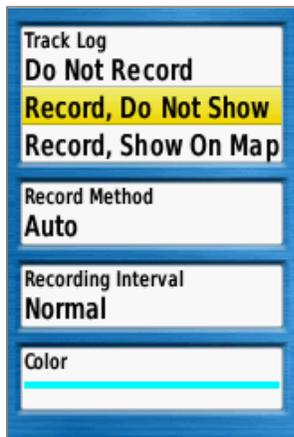
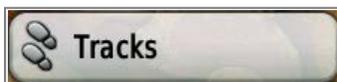
Screen Capture: This setting will allow a user to take a screenshot of whatever is displayed on the unit by tapping the Power button. It is recommended to leave this setting as *Off*. (It is *On* here for the creation of the screenshots in the task guides).

Battery Save: This setting will shut off the screen completely at the same time as the *Backlight Timeout* takes effect. Recommend setting to *Off* if *Backlight Timeout* is 30 seconds or less, otherwise set to *On*.

Adjusting Brightness

There are no Brightness settings in the *Display* menu. While the unit is powered on, tap the Power button on the side of the unit. A screen will appear with a bar graphic. Use the rocker button to increase or decrease brightness, as needed. At either end of the bar, another tap of the rocker button will wrap the bar to the opposite end. In this way, you can alternate between max to min brightness. We recommend setting the unit to the brightness you need to view the unit as conditions change and keeping extra batteries on hand while in the field.

Tracks Settings



Track Log: Sets whether or not the unit is recording a track as you move. If you are just taking waypoints and are not working with tracks, the recommended setting is **Do Not Record**. If you need to work with tracks, the recommended setting is **Record, Do Not Show** or **Record, Show On Map**. Note that the unit will always be recording a track when either of the *Record* settings are active. You can interactively control saving, clearing, and starting new tracks from the *Track Manager* screen.

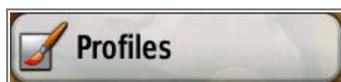
Record Method: Auto

Interval: Normal

Color: User preference. This line color will be the color used to draw the track on the *Map* screen.



Profiles Menu



The Profiles menu can be used to create and save the current settings for a particular activity as a profile. Once several profiles are created, multiple settings can be changed at once simply by going to the Profiles menu and selecting the desired settings profile to be loaded. To create profiles, refer to the *Owner's Manual* PDF which is stored on the unit itself.

Recommended Profiles to Create:

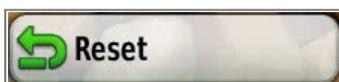
Waypoints

GPS: WAAS/EGNOS
Position Format: UTM UPS
Map Datum: WGS84 (or NAD83)
Map Orientation: North Up
Backlight Timeout: 1 minute
Battery Save: On
Track Log: Do Not Record
Guidance Method: Off Road
Lock On Road: No

Tracks:

GPS: WAAS/EGNOS
Position Format: UTM UPS
Map Datum: WGS84 (or NAD83)
Map Orientation: Track Up
Backlight Timeout: 30 seconds
Battery Save: Off
Track Log: Record, Do Not Show or Record, Show on Map
Guidance Method: Off Road
Lock On Road: No

Reset Menu



The *Reset* menu has options to clear all trip data, all waypoints, and the current track. It also has the option to restore the unit to its default settings under all menus. Users should not use this screen unless they are certain they want to perform any of these four tasks.