



Overview for Garmin GPSMAP 78 Units

Abstract

This guide gives an overview of the Garmin GPSMAP 78 units for NRCS users in Indiana. 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. Please refer to the Owner's Manual included on the unit for additional information.

Details

Accessing the Owner's Manual (if needed)

The manual can be found as a PDF file on the unit while the unit is connected to your computer.

1. Connect the unit to your computer. The unit behaves as a hard drive while connected.
2. Open **My Computer**. The icon for the unit will be a blue triangle called **Garmin GPSMAP 78**.
3. The file is found on the unit at [\Documents\files\pdf\OM_EN.pdf](#).

Layout



Image Source: Garmin GPSMAP 78 Series Owner's Manual

Layout Description

Buttons: Various menu and function buttons, plus the rocker button. See button descriptions for more details on each.

MCX connector: This can be used to connect to the USDA backpacks with differential correction receiver antennas. Incorporating the backpack can consistently improve accuracy to within 3 to 5 feet in areas with differential radio beacon coverage.



- Serial port: Used to connect the unit to a computer via a serial connection cable
- Mini-USB Port: Used to connect the unit to a computer via a standard Micro-USB to USB cable.
- Battery Compartment: Slide the button on the compartment to unlock the cover and then lift the cover off. Replace the cover and press down on it until the slide lock clicks back into place to seal the unit.
- Micro-SD Slot: This is found inside the battery compartment, beneath the batteries. To place a card in the slot, slide the silver cover towards down to unlock and flip it up. Rest the card to the contact points beneath, lower the silver cover and slide it towards the top of the unit to lock the card in place.



Button Descriptions

- Power: The Power button turns the unit on and off. **Press and hold** the button to turn the unit on or off. If you tap the Power button while the unit is on, you can adjust screen brightness and see the unit's current battery level.
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- Page: Brings up the ribbon menu and moves forward through the ribbon menu.
- Quit: Quit will cancel out of the current action or return to a previous screen. Quit is also used to move backward through the ribbon menu if it is currently open.
- Enter/Mark: Activates the currently highlighted menu or action on any given screen. Holding Enter will instead activate the Mark function to save the current location as a waypoint.
- Menu: Pressing menu twice opens the main menu from any screen. Pressing menu once opens a menu relating to the currently opened screen or page.
- Find: Opens a search menu. One way to start navigating to stored waypoints.
- Rocker: Moves cursors on screens that have cursors, lists, keyboards to navigate.
- + and - : Zooms in or out, respectively, when on the map screen.

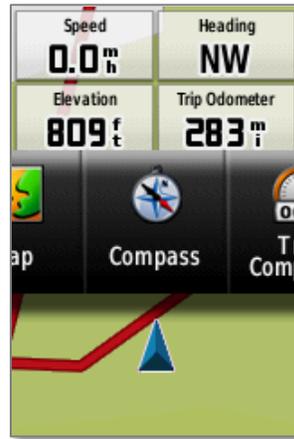


Screens

These are the main screen options found on the “ribbon menu” of the unit. This menu appears when you press Page and overlays whatever is on the screen, scrolling to the right with each subsequent tap of Page and to the left with any subsequent tap of Quit. As you can see in the example, this ribbon menu is accessible from almost any other screen on the unit and overlays your currently active screen. The currently centered screen option on the ribbon menu will open a few moments after the last time Page or Quit was pressed to scroll or right along the ribbon, so pressing Enter to open the current item is not necessary. Please note that Trip Computer is not included in these examples.



Go To Main Menu Page



Go To Compass Page



Go To Map Page

Navigating Screens

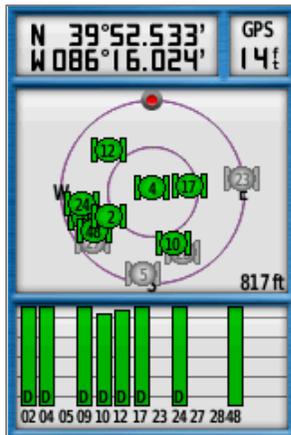
Other than using Page to navigate the ribbon menu, most other screens are navigated using the multidirectional rocker button, the Enter button, and the Quit button. Also, pressing Menu twice opens the Main Menu.



Satellite Page



Access the *Satellite* page by going to the Main Menu (press Menu twice, or use Page and the ribbon menu to navigate to the Main Menu). When the Main Menu opens, it will default to the top of the list and the Setup menu will be highlighted. DO NOT enter the Setup Menu. Instead, press UP once on the Rocker button and the Main Menu will “wrap” to the end of the list and Satellite will be highlighted. Press Enter.



If the unit has a strong enough fix on several satellites, then a coordinate pair will be displayed in the upper left, an estimated GPS position accuracy will show in the upper right, and many of the satellites and their corresponding signal strength bars will be steady and green. Once at least four to five satellite bars are green and labeled with a “D” (or when the unit consistently reaches about 15 ft accuracy) the user can exit the *Satellite* page and begin working with the unit.

Accuracy

Many factors affect GPS accuracy ranging from number and position of currently used satellites to the current atmospheric conditions down to proximity to solid objects or the way a unit is held in some cases. To achieve the best accuracy, stay away from tall vegetation, structures, vehicles, and low lying areas surrounded by steep terrain. All handheld GPS units in this area of the world perform best when the user faces south. This unit may perform slightly better when held upright.

The units have an expected absolute accuracy, horizontally, of 3 to 5 meters at the 95% confidence level using the WAAS setting. Absolute accuracy is a measure of how close a given point is to an actual ground position by comparing the recorded point against a known location.

The units have an expected relative accuracy, horizontally, of 1 to 2 meters. Relative accuracy means that if you drew a circle around a collected point with a 2 meter radius and then you collected many more points while standing in the same spot, nearly all or all of those points would fall within that circle, but not necessarily exactly on top of each other or the original point.

As essentially a recreation grade unit, the vertical accuracy of this unit should be regarded as an approximation. Survey grade units are the preferred hardware for observing elevations.