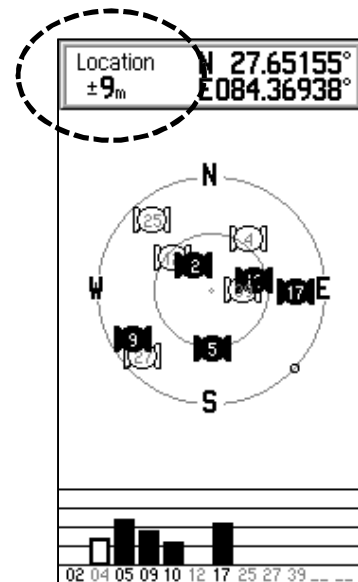# Collecting GPS Data Using Garmin eTrex Legend H

The Garmin eTrex Legend H

The Garmin eTrex Legend H is an easy to use, low cost GPS unit that is good for collecting point data. Lines and polygons can also be collected though more advanced GPS units are better at collecting line and polygon data.
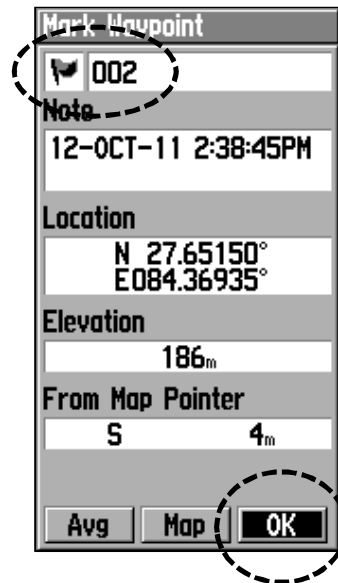

Turning on the GPS

1. Turn on the GPS by **holding down the POWER button**.

2. If you have trouble seeing the screen, **press the POWER button twice** to turn on the light, **then press the "QUIT/PAGE" button once** to return to the main screen.

3. **Press MENU/FIND twice** to get to the main menu.

4. From the main menu, **press the ROCKER button in** to get to the "Satellite" screen.

5. For the GPS unit to work, it must be outside in order to see any satellites. Go outside away from any big trees or roofs, and look at the number in the far upper left of the screen, under "Location". This number is the accuracy of the GPS unit. If the accuracy is greater than 10m, it means that the GPS is not working well (it could be under something, or it might be cloudy).

6. Wait until the accuracy (under "Location" on the satellite screen) is ±10m or smaller before you start collecting data.

Collecting a Point

1. Turn on the GPS and check the accuracy (see the section above).

2. To collect a point, **hold down the ROCKER button** until the "Mark Waypoint" screen appears.

3. In your notebook, write down the name of the waypoint, and the waypoint ID (the three digit number next to the flag icon at the top left of the screen.

    a. For example, write "002: DDC Office"

4. To save the point, use the rocker button to navigate to the "OK" button, and then **push in the rocker button**.

Collecting a Line

1. Turn on the GPS and check the accuracy.

2. **Press MENU/FIND twice** to get to the main menu.

3. From the main menu, **use the ROCKER button to navigate** to the "Tracks" screen.
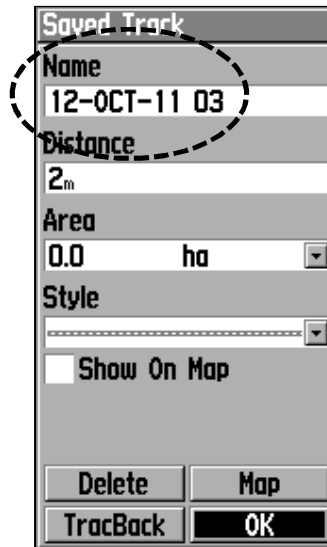
4. If this is the first time you are using the track log, you need to setup the GPS:

    a. On the "Track Log" **use the ROCKER button to navigate to the "Setup" page**.

    b. On the "Setup" page, **change the "Record Method" to "Time" using the ROCKER button**.

    c. **On the setup page, change the "Interval" to 00hrs00min01sec using the ROCKER button**.

    d. **Press the "QUIT/PAGE" button once** to return to the "Track Log" screen.

5. To collect a line:

    a. Make sure that the track log is turned off. Your screen should look like the screen below. The "Off" box at the top right of the screen should be filled in. If the track log is turned on, u**se the ROCKER button to turn off the track log**.

    b. **Use the ROCKER button to navigate to and press the "Clear" button**.

    c. Walk to the point where you want the line to start (the beginning of the road or irrigation canal for example). Stand right on top of where the line should start (for example stand at the beginning of the road, in middle of the road).

    d. **Turn on the track log using the ROCKER button**.

    e. Walk along the length of the feature you want to record. The GPS will record one point every second while you walk. Remember: the GPS is recording. While the GPS is recording you have to stay on the feature you are recording. For example: you cannot walk away from the road or canal until you are done.

    f. When you want to stop recording, **turn off the track log using the ROCKER button**.

    g. **Use the ROCKER button to navigate to and press the "Save" button**.

    h. When asked "Do you really want to clear the track log?" **click "Yes"** using the ROCKER button.

i. **Use the ROCKER button to navigate to and press the "Save" button**.

j. When asked "Do you want to save the entire track?" **click "Yes"** using the ROCKER button.

6. <u>In your notebook, write down a description of the track, and the name of the track on the GPS unit. Example: "East-west Highway – 12-OCT-11 03".</u>

7. To save the track, use the rocker button to navigate to the "OK" button, and then **push in the rocker button**.

Collecting a Polygon

1. With the Garmin eTrex Legend H, you can collect a polygon using the same process as collecting a line. Later on, you will need to convert the line into a polygon usin Quantum GIS.

2. When you are collecting a polygon you MUST return to the exact same point where you started collecting data.

3. When you are done walking the boundary of the polygon, return to the point where you turned on the track log before you turn the track log off and save the track (using the same process described above for a line). Stand on that point for at least 10 seconds before you turn off the track log and save the track.