

Surveying and Plotting Procedures using e-Trex GPS Vista and GPS Utility 4.0 Software

1. Synchronize clocks in GPS and Pressure Altimeter (PA).
2. Place one person with PA at mid-point of line to be surveyed (in order to adjust for effects of weather variations on altimeter readings). Alternately, if you have two PAs you can place one PA at the start point (PA_{SP}) and one PA at the end point (PA_{EP}).
3. Have person(s) with PA write down Time and Altitude every five (5) minutes throughout the survey.
4. GPS surveyor goes to start point of the survey.
5. Turn on GPS and wait until satellite reception is OK and accuracy is less than 10 meters.
6. Calibrate altimeter (if desired).
7. Calibrate compass.
8. Go to Main Menu and Tracks
 - Ensure Track Log is ON.
 - If you have already downloaded previous data, Clear track log.
 - If you have already downloaded previous data, go to the Option Menu and Delete All Saved.
 - Go to the Option Menu and select Setup Track Log. Check the Wrap option, specify track Record Method (recommend Auto) and specify Interval (recommend Normal).
9. Go to the Trip Computer page and Option Menu. Click on Reset. Highlight Select All, then Apply and then "OK". This will delete all routes, tracks and waypoints stored in the GPS. If you have not downloaded these data sets or if you want them to remain in the GPS, do not delete. The purpose of deleting previous data is to eliminate confusion between earlier data and the data you are about to collect during the survey.
10. Name (Mark) the start point.
11. Begin walking the pipeline.
12. Name (Mark) key waypoints along the survey route.
13. Turn off GPS at completion of walking entire survey line.
14. Collect the PA data record(s).
15. Turn on and connect the GPS to your computer using the PC interface cable.
16. Double-click on the GPSU 4.04 icon.
17. Select GPS and Download All.