



Research Concepts, Inc.

High-Performance GPS Receiver with USB Interface



Previous USB GPS models used inferior receivers and non-standard protocols. Model **FP-GPS-8** is designed to overcome these problems using a microchip USB converter.

Features of the FP-GPS-8

- Uses the GPS 18 high performance GPS receiver from Garmin International, Inc.
- Industry Standard NMEA 0183 Protocol
- Unit is powered from the USB port.
- 12- Channel GPS receiver
- 3 meter Cable
- Sensor Head Temperature Performance:
-30C to +80C Operating
-40C to +90C Storage
- Sensor Head Sealing: IEC60529 IPX7 1meter water immersion for 30 min.
- Integral ESD Protection

RESEARCH CONCEPTS, INC.

5420 Martindale

Shawnee, KS 66218

Phone (913) 422-0210 Fax (913) 422-0210

Support@ResearchConcepts.com WWW.ResearchConcepts.com

Operating with the FP-GPS-8

In most cases there will be target software that requires the use of this OEM – serial GPS. The effort in installing this device will be to make sure that the driver software is in place as outlined below. After the drivers are installed, a new COM port will appear on your PC. You will direct your target software to look to this COM port for the GPS data.

Configuring the PC for operation with FP-GPS-8

- a) Connect the FP-GPS-8 to the PC USB port. The PC should autodetect new hardware on the USB port and request drivers. You need to be an administrator to add the new hardware. Follow the prompts for the “Found New Hardware Wizard”, Select “search for a suitable driver, and Floppy Disk Drive. A floppy diskette containing the drivers is included with the sensor.
 - i. Some systems that already have a similar driver installed may interpret the GPS as a serial pointing device and begin moving the cursor all over the screen. This has been observed on an IBM ThinkPad that had been once configured for use with USB to Serial Port converter. A case like this may be resolved using techniques described in APPENDIX C: GPS18 PC/LVC and WINDOWS SERIAL MOUSE ISSUE”, located in the GPS 18 Technical Specifications, downloadable from the Garmin website. www.Garmin.com.
- b) Insert the diskette with the drivers into the A: drive and direct the driver install program to look for them there.
- c) It will search the diskette and it will find and load the drivers and finish with a screen “Completing Prolific USB-to-Serial Comm Port”.

Testing FP-GPS-8 with a PC

- a) Run the Hyper terminal program by choosing START – Programs – Accessories – Communications – HyperTerminal
- b) When prompting for a new connection name, type in a such as FPGPS8TEST. Select one of the upper COM ports that are visible in the pull-down menu, “Connect Using”. It is difficult to tell which port will be active, it may take a couple of tries to get the right COM port selected.
- c) For the Port Settings, select 4800 baud, 8 data bits, no Parity bit, 1 stop bit, and No Flow Control. When you got it right, you’ll see data flowing. It may take a second or so to get sync’d up and readable.
- d) You may control the GPS using instructions found in the GPS 18 Technical Specifications, downloadable from the Garmin website. www.Garmin.com