



Technocycling

Bicycling with Technology.

By Karin Rex

Spring marks the beginning of bicycling season. You know the drill: haul the bike out of the basement or garage, dust it off, grease the chain, tighten up any loose bolts, fill the tires, adjust the seat, check the brakes, strap on your helmet, fasten your state-of-the-art GPS-enabled personal trainers and cycling computer onto your handlebars and then ride like the wind!

What? You don't have a state-of-the-art GPS-enabled personal trainer and cycling computer for your bicycle? Now is the perfect time to invest in this high tech bicycling tool—prices are more affordable than ever before and the technology is cutting edge. Plus, you'll always be home in time for supper.

Never Get Lost Again

If you're the type of person who actually enjoys riding round and round in a big oval at the local park, or taking the same exact route to work every day, then you probably don't need a GPS for your bicycling jaunts. On the other hand, if you are the adventurous type who likes to see where that other road goes, then a GPS can take you places you've never been before, safely and with confidence.

How It Works

The small GPS receiver you connect to your bicycle handlebars searches for signals from more than twenty satellites orbiting the globe.

It only needs to receive signals from four of the satellites to be able to figure out exactly where on Earth you (and it) are. (For the hopelessly geeky, the receiver uses a mathematical principle called trilateration to measure the distance from four or more of these satellites. It then uses this information to discern your exact latitude, longitude and altitude.)

Most receivers take the raw mathematical data and plug it into easy-to-use map files stored in the receiver's memory. You can also download additional maps from the Internet. The receiver will not only show you where you are on the map, but it will also trace your path across the map as you move (a "breadcrumb" trail). Some units can even tell you the name of an approaching crossroad.

This information, along with the receiver's built-in clock, can help track a wealth of information, including your distance, cycling time, current and average speed, and your estimated time of arrival at your destination.

Track Your Workout

For those of you who enjoy tracking the minutia of your workouts (and you know who you are!), a big plus with a GPS unit is that, in addition to its navigating skills, it can be used for collecting your workout data. For example, after you've completed a trip, you can save the details of it in your GPS and then upload the data to your personal computer. Once the data is in your computer, you can trace your route over topographic maps or view it using satellite images. In some cases, you can even create a 3D profile of your ride.

High-End Models

GPS systems are not inexpensive, but it's a comparatively small price to pay for riding out into unknown territory without the fear of getting lost. The more details you want to track, the more you will spend.

Garmin offers two high-end GPS-enabled personal trainers and cycling computers: the Edge 205 (\$269) and the Edge 305 (\$379). Both easy-to-use, lightweight units measure speed, distance, time, calories burned, and altitude (among other things), but the 305, designed for advanced cyclists, comes with a heart rate monitor and/or wireless speed/pedaling cadence sensor. The 305 also incorporates a barometric altimeter to track elevation and vertical profile data. Visit www.garmin.com for details.

Magellan's xPlorist 600 (\$349) is packed with bells and whistles, including a three-axis electronic compass, a barometric pressure altimeter, barometer, and thermometer. You can expand your GPS mapping using a high-speed USB data port and unlimited secure digital (SD) card storage. And, best of all, everything is in color. Visit www.magellangps.com for details and additional models.

Pedal On!

May 14 through 18 is national Bike to Work Week, so get out there and bicycle to work with your new GPS, confident that you won't get lost! (And don't worry about helmet hair!) **IS**



MAGELLAN'S XPLORIST 600



GARMIN EDGE 305



GARMIN EDGE 205

Karin Rex is a Lansdale-based freelance writer who believes that the geek shall inherit the earth.