

KEVO'S BOATING TIPS & MORE

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GPS/Chartplotters Part I

What is a GPS/Chartplotter?

A chartplotter using GPS/WAAS (Wide Area Augmentation System) technology can accurately fix your position on the earth within 3 meters or less 95 percent of the time. A chartplotter uses mapping software, so you can look at the map, determine where you want to go, tell the GPS/chartplotter where you want to go and the chartplotter will automatically set a course that will get you there.

The chartplotter will tell you how far away your destination is, and based on your current heading and speed, it will tell you how long it will take to get there. It will constantly keep you updated with estimated time of arrival to your destination and distance remaining. It can alert you if you are off course and will alert you when you've reached your destination.

It can also be used as an "anchor alarm" to tell you your vessel has moved from where it was anchored. These are just a few of the capabilities of GPS/chartplotters.

Choosing the Right Chartplotter for You:

Screen size: Most GPS/chartplotters range in screen size from 5 inches to 12 inches measured diagonally.

It is very important to take into consideration where the GPS will be installed and from where you will be viewing the screen. Virtually every resource I used to write this article said the same thing regarding the size of the screen. I tell my clients at Pacific Powerboating to sit at the helm in the most comfortable position with a tape measure and measure the distance from your eyes to the spot the unit will be mounted. Sometimes this distance is up to 4 feet or more.

Trust me, you will be (very) disappointed with a smaller screen if you

needed to safely use the GPS while keeping a sharp lookout and using dead reckoning simultaneously. This is especially true for narrow waterways and high traffic areas.

Probably the most important aspect of the screen size is if you want an integrated system that displays radar, GPS, depth sounder and video applications (such as an engine room monitor) on the screen at the same time, everything will have to fit on what you thought was a big enough screen. NOT! Buy the biggest screen you can afford. (Trust me on this one!)

Color or monochrome: Color, definitely.

Many of the navigational aids available for your GPS/chartplotter use universally recognized colors. If your chartplotter is not color, you are going to have to do a lot more work mentally to determine what your navigational aids mean on the screen.

Besides, this is almost a moot point in that most GPS units sold today are color.

Internal or external antenna: If your boat has an open cockpit and a clear view of the sky, then a built-in or internal antenna will do just fine.

However, if your cockpit or bridge is enclosed or covered or if you are mounting the chartplotter inside a console, then you will need an external antenna.

Where Do You Plan to Mount Your GPS?

This is very important for more than your ability to read the screen. Most GPS/chartplotters come with mounting brackets to accommodate almost any installation. However, you need to check to see whether the unit you intend to purchase has an appropriate adaptor kit for your particular installation needs.

Marine Network Solution?

If you are interested in saving money and space, then you may want to consider choosing a GPS/chartplotter/fish depth finder/video combination or a Marine Network. One of the biggest expenses with marine electronics is the display screen. By going with a combo or network you display all pertinent information on one screen and reduce your costs. Also, a network solution takes up less space. So if space is a concern, a network system is worth looking into.

The one downside to a network solution is that if the system crashes, you are going to be completely blind. No GPS, no radar, no depth sounder. Although



A Raymarine® E 120 3D GPS/chartplotter.



A Garmin™ 76 CSx handheld GPS.



A Garmin™ 5212 touch-screen 3D GPS/chartplotter.

I feel the network solution is the best, having a portable GPS as a backup is a good idea.

In order to drill deeper into the subject of GPS/chartplotters, I consulted with Mr. Ian Wall, president and founder of Star Marine Electronics in Oakland. Ian and his sales and installation team sell and install thousands of marine electronics units and are definitely experts on GPS/chartplotters. To talk with Ian or any of his expert advisors, call 510/533-0121 or visit www.starmarineelectronics.com

First of all, he says many consumers are confused about GPS/chartplotters. They are in fact two different devices. However, most manufacturers now “bundle” them together. Networking is definitely the way to go. One of the benefits of starting with a network solution is you can add elements to the system a la carte. Bigger screens also give better resolution.

As far as network failure, Ian says this is highly unlikely. More likely is you may lose one part of the system like the depth sounder. The rest will still be intact. He agrees with me that a portable backup GPS with its own power source is the best way to go. These units have come down in price dramatically in recent years.

Many manufacturers are implying that these systems are easy to install. However, this is not usually the case. In fact, many manufacturers are moving to not warranty the unit unless it was professionally installed. Star Marine Electronics will install units purchased from other sources,

but they are reluctant to do so. Although you may get a better deal on the Internet, having a “real person” to consult with about the purchase and installation of a marine network system may more than make up for the initial savings and potential headaches down the road.

For example, if you purchase a Raymarine® GPS/chartplotter online and installed it yourself, the equipment would not be covered for onboard tech support. When an authorized dealer installs the equipment, the units are covered for onboard warranty with travel time included. (I didn't know that!)

Touch screen technology is very exciting but still in the developmental stage, according to Ian. The problems with the touch-screen technology is that the screens scratch easily, oil from fingertips obscures the view and sea spray may cause a film to develop on the surface of the screen.

3D cartography is one of the hottest items on the market today. However, this is also in the developmental stage. If you want 3D cartography, the GPS/chartplotter must be 3D compatible. This

will raise the cost by \$800 to \$1,000. Speaking of cartography, we are fortunate in Northern California in that all major brands of cartography have excellent products for our area.

Kevo's Tips:

GPS/chartplotters are excellent tools for safe navigation of Northern California waterways. Do your research before selecting the perfect unit for your needs. Get the biggest screen you can afford. Installing these electronics is not as easy as it may seem. Marine network solutions are the way to go. Before making a decision to purchase on the Internet or other sources, talk to a professional about the solution to your needs including the selection, purchase, installation and maintenance of your new marine electronics system. You may be pleasantly surprised at the value!

As always, feedback is appreciated. I can be reached at 925/890-8428 or kevo@yachtsmanmagazine.com.

Be safe & happy boating! ⚓