

Differential GPS Traffic Light Operation



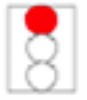
Red Flashing

Not tracking satellites (no position update). This is normal for the first 2 minutes or so when turning the unit on. The very first time you turn the unit on, or if the memory is reset or lost, this condition is also normal. Allow the receiver to run for at least 30 minutes under these circumstances. If it still does not change to Red Solid, refer to the troubleshooting section of the Installation & Service Manual. An icon similar to the one at left will be displayed in the upper left corner of screen.



Red/Yellow Solid

Dead Reckoning . When normal GPS or DGPS operation is not available, this LED sequence is provided to quickly identify the DR navigation mode. A DR indicator is also displayed on all screens.



Red Solid

Tracking one or more satellites (no position update). This is also normal for the first 2 minutes or so when turning the unit on. The very first time you turn the unit on, allow the receiver to run for at least 20 minutes after changing to Red Solid to collect an almanac from the satellites, regardless of whether a position update has been calculated or not. This is also a normal indication if the HDOP is greater than 10, if the receiver is tracking too few satellites, or for other reasons as well. Read the GPS and DGPS function screens for more information.



Yellow/Green Solid

GPS position update; DGPS corrections are not being received. You may see this from time to time during normal operation. It usually occurs when the beacon signal is not available (either it is being blocked by terrain or a local object or you are out of range of the transmitter) and/or you are tracking 3, 4, or 5 satellites, and the satellites have poor geometry relative to your position. The condition will normally go back to green solid, when it picks up another beacon station. The factory default level for dropping DGPS corrections is 60 seconds. During this period, your positioning information is less than optimal, and position accuracy may be off by as much as 3 to 5 meters. Press the GPS function key and refer to the DGPS section in this manual for guidance if this light condition occurs.



Yellow Solid

DGPS position update with poor HDOP value. You may see this from time to time during normal operation. It usually occurs when you are tracking 3, 4, or 5 satellites, and the satellites have poor geometry relative to your position. The condition will normally go back to Green Solid when it picks up another satellite or the geometry of the existing satellites improves. The factory default level for this indication is with an HDOP of 4 to 10. During this period, your positioning information is less than optimal, and position accuracy may be off by as much as 5 to 10 meters. You can press the GPS function key and refer to the GPS section in this manual for guidance if this light condition occurs.



Green Solid

DGPS position update with HDOP value less than 4. This is the normal operating condition. Position accuracy is normally better than 3 meters. Keep in mind that position accuracy is always only as good as the corrections received, their age, your distance from the reference station, and the geometry of the satellites. This is the normal operating condition and no icon will be displayed.