

Marine Construction Receivers



Trimble has introduced two new Global Positioning System (GPS) receivers designed specifically for marine construction applications: the Trimble SPS361 and Trimble SPS461 GPS Heading Receivers. These dedicated marine receivers deliver both precise GPS heading together with Differential GPS (DGPS) or Real Time Kinematic (RTK) positioning.

The receivers are developed for a range of applications when used with Trimble HYDROpro marine software, including: the precise placement of structures such as piles, bridges, caissons, marinas, and coastal defenses; dredge head positioning; vessel positioning and tracking; and offshore rig positioning with anchor handling.

The Trimble SPS361 is an entry-level DGPS Heading receiver with an internal MSK Beacon receiver and OmniSTAR VBS support. The Trimble SPS461 is a GPS Heading and Attitude receiver upgradable to the full range of positioning accuracies needed for marine construction applications, including Location Real Time Kinematic (RTK), Location RTK with precise vertical measurement, and Precise RTK positioning. The SPS461 supports MSK Beacon, external RTCM, OmniSTAR VBS, XP, HP, and precision RTK correction data delivered by an internal/external radio or Internet-enabled cellular modem.

The dual-frequency antennas of the Trimble SPS361 and SPS461 GPS Heading Receivers offer flexible antenna separation, enabling users to maximize precision for each installation, as well as expedite initialization and re-acquisition. The receivers can also be used for single-antenna applications if heading is not required. Trimble offers a range of antennas to suit both standard vessel installations and systems required for use in harsher environments such as dredging and piling.

Both receivers, when operating with Trimble HYDROpro marine software on a PC such as the Trimble Tablet, provide a complete, turnkey marine positioning solution. The dual antennas of the Trimble SPS361 and SPS461 system provide the position, heading, and pitch or roll of a vessel. In addition, HYDROpro software can integrate data from other devices such as motion sensors for heave and pitch, cable pay-out devices and inclinometers for crane operations, pressure transducers for dredge head depth, and echo sounders for depth measurement. Customers without HYDROpro can easily integrate the SPS361 and SPS461 receivers into existing systems.

The Trimble SPS361 and SPS461 Heading Receivers are the latest addition to Trimble's family of Site Positioning System solutions, which have a common interfaces, connectors, accessories, and firmware. Companies with multiple receivers and worldwide sites can benefit from reduced product training and increased operational flexibility.