

Operating Handbook

IG-500E quick use with NMEA GPS receivers



Document: IG500EONMEA
Revision: 2 - Jun 29, 2012

This document explains how to set up the IG-500E for proper NMEA interface. Both electrical and configuration aspects are explained here

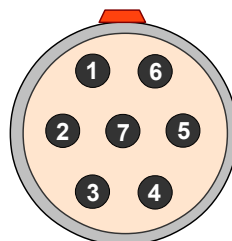
For more information, about the GPS configuration, please check the IG-500E NMEA Integration Manual.

Electrical connections

For standard RS-232 GPS, the IG-500E should be connected to the GPS as described in the table below.

The pin order is also reminded.

Pin	RS-232 configuration	Color on CA-3M-7-UART cable
1	-	Red
2	GND	Black
3	-	Yellow
4	GPS Rx	Green
5	GPS Tx	Blue
6	-	Brown
7	GPS PPS	White



7 way Lemo connector pin-out
(Solder Face)

IG-500E External connector wiring (solder face)

GPS Configuration

GPS baudrate has to be configured as fast as possible. 115200Bps is good in most situations.

The GPS should be configured to output these sentences at corresponding rates:

- GPGGA @ 5Hz
- GPRMC @ 5Hz
- GPZDA @ 1Hz

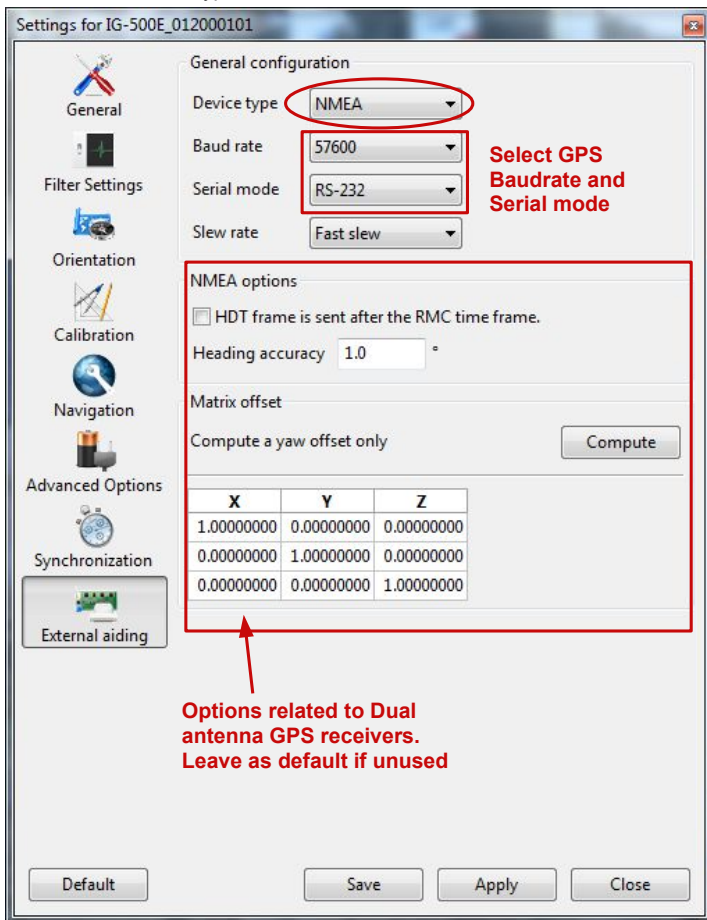
Optionally:

- GPGSV @ 1Hz
- GPHDT @ 5Hz (for True heading)

No other output is accepted.

NMEA configuration window

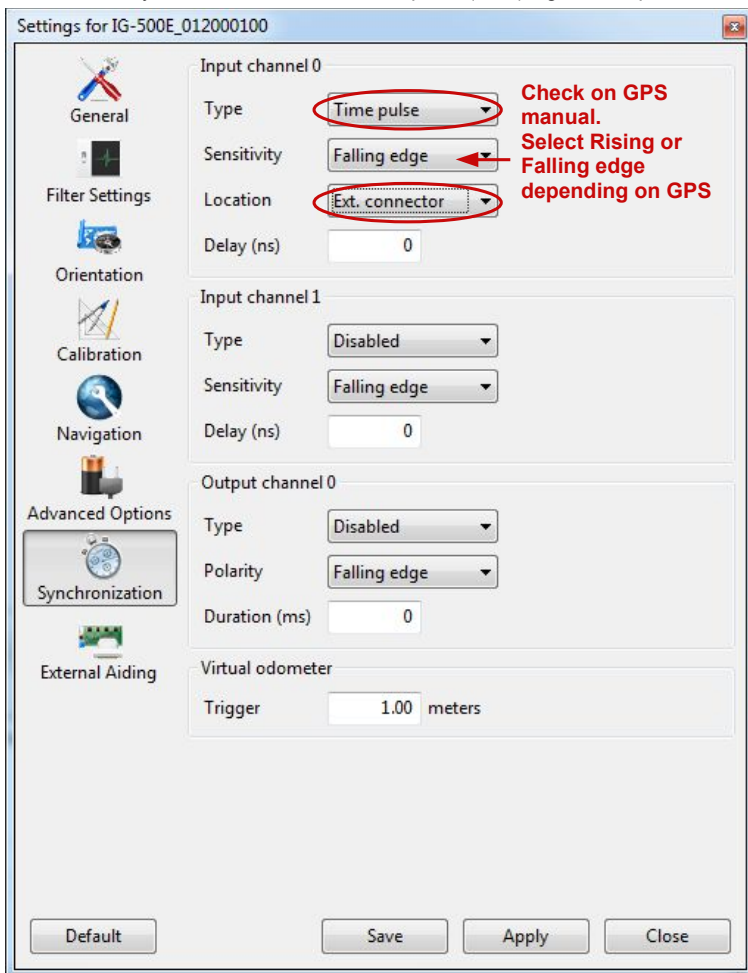
Step 1: Enable NMEA device type and select baudrate.



Step 2: Press “Apply” button, and Save button to save settings to flash memory.

GPS Synchronization configuration

Step 1: Enable GPS synchronization with the time pulse (PPS) signal on input channel 0.

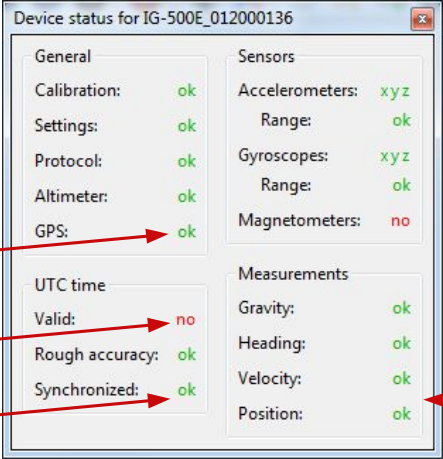


Step 2: Press "Apply" button, and Save button to save settings to flash memory.

Quick configuration check

Once the NMEA GPS receiver and IG-500E are configured, we can check if the GPS is well recognized by the IG-500E.

Open the device status window  , and check that GPS is “OK”.



Device status for IG-500E_012000136	
General	
Calibration:	ok
Settings:	ok
Protocol:	ok
Altimeter:	ok
GPS:	ok
UTC time	
Valid:	no
Rough accuracy:	ok
Synchronized:	ok
Sensors	
Accelerometers:	xyz
Range:	ok
Gyroscopes:	xyz
Range:	ok
Magnetometers:	no
Measurements	
Gravity:	ok
Heading:	ok
Velocity:	ok
Position:	ok

Must be OK → GPS: ok

Not used with NMEA → Valid: no

Must be OK if PPS signal is used → Synchronized: ok

Must be OK when GPS has a fix → Position: ok

Support

If you have any trouble or question with the use of the IG device, feel free to contact our support team by email, at support@sbg-systems.com.