

Instructions to Calibrate the OS5000 Compass

Summer 2018

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1 Compass Calibration

All information taken from OS5000 Compass Manual located at:

http://www.ocean-server.com/download/OS5000_Compass_Manual.pdf

Here are the steps:

- Open a shell on the Pablo (or laptop) with connected OS5000.
- The compass should be located at `/dev/OS5000` otherwise check the plug file.
- Open a connection to the compass using screen with the command:

```
$ screen /dev/OS5000 19200
```

- View pitch and roll to verify level by entering: `<esc>-X` then '6' and enter when prompted. Verify pitch and roll are within one degree of level. Physically level platform.
- Enter hard iron calibration mode by entering: `<esc>-C`. Keep platform level while rotating slowly at least once for at least 20 seconds. When the output reports "XxYy" it is finding new calibration data. Keep rotation until you see only "...'" output.
- After calibration is complete, reset compass output to heading by entering `<esc>-X` then '1' and enter when prompted. Verify heading output.

Calibration should be complete!

Useful info on output data field selection: After entering the output data field selection command `<esc>-X`. Enter Fields to Display, bit mask of 5 bits (entered in decimal). 31=all active. Sum up the values, Azimuth=1, Pitch=2, Roll=4, Temp=8, depth=16.