

Pressure calibration Check

SBE9plus s/n 462. 2008-Aug-08

Unit: SBE9plus s/n 462 with Paroscientific model 410K-105 s/n 63505 pressure transducer.

Pressure calibration at room temperature (20.1 +/- 0.5 °C). CTD oriented vertically, powered from SBE11plus s/n 528.

Calibration performed on 2008-Aug-08 at WHOI CTD Calibration Lab by M. Swartz. File: SBE9_462_20080808_Pcal.xls

Pressure standard is Paroscientific 760-10K s/n 63489, with pressure source Ruska model 2480 deadweight tester.

P760-10K offset, dbars 9.232

Conversion: dbar/PSI= 0.689476

Pstd gage	Pstd abs	fp, ctd	tp counts	tp°C calc	Pcalc	Pcorr	Pstdabs-Pcorr
Pstd gage, dbars	Pstd abs, dbars	fctd pressure, Hz	Psensor temp counts	tp ctd pres sensor, °C	Pfactory calc, dbar	Pcorrected, dbar	Perr
		(SBE11+ chan 2)	(SBE11+ chan A)				
							using factory coefficients
							of slope and offset.

Data from observing CTD in vertical orientation during calibration:

0.00	9.23	33403.120		27.0	10.21	8.91	-0.32
385.94	395.17	33594.534		27.0	396.55	395.22	0.05
730.49	739.72	33764.214		27.0	741.17	739.81	0.10
1419.59	1428.82	34100.652		27.0	1430.44	1429.03	0.21
2108.80	2118.03	34433.273		27.0	2119.73	2118.26	0.23
2798.12	2807.35	34762.259		27.0	2809.16	2807.64	0.29
3487.44	3496.67	35087.583		27.0	3498.48	3496.90	0.23
4176.78	4186.01	35409.421		27.1	4187.82	4186.19	0.17
4866.26	4875.49	35727.874		27.1	4877.21	4875.52	0.03
5555.69	5564.92	36042.978		27.1	5566.52	5564.78	-0.14
6244.98	6254.21	36354.974		27.1	6256.09	6254.29	0.08
5555.73	5564.96	36042.998		27.1	5566.56	5564.82	-0.14
4866.26	4875.49	35727.838		27.1	4877.13	4875.44	-0.05
4176.78	4186.01	35409.414		27.1	4187.80	4186.17	0.16
3487.44	3496.67	35087.583		27.2	3498.45	3496.88	0.21
2798.12	2807.35	34762.259		27.2	2809.14	2807.62	0.27
2108.81	2118.04	34433.280		27.2	2119.72	2118.25	0.21
1419.59	1428.82	34100.641		27.2	1430.40	1428.99	0.17
730.46	739.69	33764.219		27.2	741.16	739.81	0.11
385.94	395.17	33594.533		27.2	396.53	395.21	0.04
0.00	9.23	33403.167		27.2	10.29	8.99	-0.24
Determination of pressure offset		33403.136		27.2			
0.00	9.23	33403.351		27.2	10.66	9.36	0.13

Digiquartz Factory Coefficients: as of 2000-Nov-30

C1=	-4.872453E+04
C2=	2.143123E-02
C3=	1.347220E-02
D1=	3.959500E-02
D2=	0.000000E+00
T1=	2.994567E+01
T2=	-2.488396E-04
T3=	3.985300E-06
T4=	7.998620E-10
T5=	0.000000E+00
AD590M=	0.0128205
AD590B=	-9.1115390

From Digiquartz factory data:

Slope	0.99992
Offset, dbar	-1.2963

Note:

All coefficients from SeaBird Pressure Calibration Check Report for 410K-105 s/n 63505, 2000-Nov-30, including Digiquartz, AD590 and slope/offset data.

Using Pcal data 2008-08-08 - WHOI lab at 25.4C.
WHOI 760-10K s/n 63489, calibrated 2008-Mar-03