

Pressure calibration Check

ORIGINAL
SBE9plus s/n 462. December 23, 2002.

Unit: SBE9plus s/n 462 with Paroscientific model 410K-105 s/n 63505 pressure transducer.
Pressure calibration at room temperature (20.7 +/- 0.5 °C). CTD oriented vertically, powered from SBE11plus s/n 528.
Calibration performed on Dec 23, 2002 at WHOI CTD Cal Lab by M. Swartz. File: SBE9_462_20021223_Pcal.xls
Pressure standard is Paroscientific 760-10K s/n 63489, with pressure source Ruska model 2480 deadweight tester.

P760-10K offset, dbars 10.145

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	fcd 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	Perror, dbar
						of slope and offset.	

Data from observing CTD in vertical orientation during calibration:

0.00	10.15	33403.621	2804	26.8	11.23	9.93	-0.21
385.89	396.03	33594.898	2805	26.8	397.30	395.98	-0.06
730.47	740.62	33764.601	2805	26.8	741.98	740.62	0.00
1419.57	1429.72	34101.011	2806	26.9	1431.19	1429.78	0.07
2108.81	2118.96	34433.632	2806	26.9	2120.48	2119.02	0.06
2798.12	2808.27	34762.621	2806	26.9	2809.94	2808.42	0.15
3487.46	3497.61	35087.937	2806	26.9	3499.25	3497.67	0.07
4176.78	4186.93	35409.773	2806	26.9	4188.60	4186.97	0.05
4866.25	4876.40	35728.246	2806	26.9	4878.05	4876.36	-0.03
5555.69	5565.84	36043.371	2806	26.9	5567.42	5565.68	-0.16
6245.05	6255.20	36355.359	2806	26.9	6256.98	6255.18	-0.01
5555.68	5565.83	36043.371	2806	26.9	5567.42	5565.68	-0.15
4866.24	4876.39	35728.246	2806	26.9	4878.05	4876.36	-0.02
4176.76	4186.91	35409.773	2806	26.9	4188.60	4186.97	0.07
3487.42	3497.57	35087.937	2806	26.9	3499.25	3497.67	0.11
2798.11	2808.26	34762.621	2806	26.9	2809.94	2808.42	0.16
2108.79	2118.94	34433.636	2807	26.9	2120.49	2119.03	0.09
1419.57	1429.72	34101.011	2807	26.9	1431.19	1429.78	0.07
730.49	740.64	33764.601	2807	26.9	741.97	740.61	-0.02
385.95	396.10	33594.898	2807	26.9	397.30	395.97	-0.13
0.00	10.15	33403.601	2807	26.9	11.18	9.89	-0.26
Determination of pressure offset at atmospheric pressure due to horizontal orientation of CTD:							
Hor:	0.00	10.15	33403.246	2804	26.8	10.48	-0.97
Ver:	0.00	10.15	33403.621	2804	26.8	11.23	-0.21

Digiquartz Factory Coefficients: asof 30 Nov 2000

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=	-9.1115385

Digiquartz correction factors:

Slope	0.99992
Offset, dbar	-1.2963

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