



SEA-BIRD ELECTRONICS, INC.

13431 NE 20th St. Bellevue, Washington 98005 USA

Phone: (425) 643-9866 Fax: (425) 643-9954 www.seabird.com

Service
Report

RMA Number

62242

Customer Information:

Company	EMS/Spain	Date	12/31/2010
Contact	Mauro Puig Loverdos		
PO Number	TBD		

Serial Number	3853106-0473
Model Number	SBE 38

Services Requested:

1. Evaluate/Repair Instrumentation.
2. Perform Routine Calibration Service.

Problems Found:

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Services Performed:

1. Performed initial diagnostic evaluation.
2. Performed "Post Cruise" calibration of the temperature sensor.
3. Performed complete system check and full diagnostic evaluation.

Special Notes:

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SENSOR SERIAL NUMBER: 0473
CALIBRATION DATE: 22-Dec-10

SBE 38 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

a0 = 7.044639e-005
a1 = 2.670923e-004
a2 = -1.946813e-006
a3 = 1.378980e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.50000	782918.6	-1.49997	0.00003
1.00000	697348.3	0.99993	-0.00007
4.49990	594781.2	4.49993	0.00003
7.99990	509006.3	7.99993	0.00003
11.50000	437022.8	11.49998	-0.00002
15.00000	376409.5	14.99999	-0.00001
18.50000	325201.1	18.50003	0.00003
22.00000	281800.9	21.99997	-0.00003
25.50000	244901.8	25.49998	-0.00002
28.99990	213436.0	28.99994	0.00004
32.50000	186523.2	32.49998	-0.00002

Temperature ITS-90 = $1/\{a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]\} - 273.15$ (°C)

Residual = instrument temperature - bath temperature

