

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0815  
 CALIBRATION DATE: 13-Mar-07

SBE 37 TEMPERATURE CALIBRATION DATA  
 ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = -3.558675e-004  
 a1 = 3.460401e-004  
 a2 = -7.232001e-006  
 a3 = 2.828917e-007

| BATH TEMP<br>(ITS-90) | INSTRUMENT<br>OUTPUT | INST TEMP<br>(ITS-90) | RESIDUAL<br>(ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| 1.0000                | 627195.4             | 1.0000                | -0.0000              |
| 4.5000                | 539041.0             | 4.5000                | 0.0000               |
| 15.0000               | 348695.6             | 15.0000               | -0.0000              |
| 18.5000               | 303380.7             | 18.5001               | 0.0001               |
| 24.0000               | 245181.7             | 23.9999               | -0.0001              |
| 29.0000               | 203213.3             | 29.0001               | 0.0001               |
| 32.5000               | 178764.1             | 32.5000               | -0.0000              |

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

