PO Box 518
620 Applegate St.
Philomath, OR 97370

(541) 929-5650
Fax (541) 929-5277
www.wetlabs.com

Scattering Meter Calibration Sheet

2/12/2019
Wavelength: 700 S/N BBFL2WB-1440

Use the following equation to obtain "scaled" output values:

$$\beta(\theta_c)\ m^{-1}\ sr^{-1} = \text{Scale Factor} \times (\text{Output} - \text{Dark Counts})$$

• Scale Factor for 700 nm	=	3.189E-06	$(m^{-1}sr^{-1})$/counts	
• **Output**	=	meter reading	counts	
• **Dark Counts**	=	53	counts	
Instrument Resolution	=	1.0	counts	3.23E-06 $(m^{-1}sr^{-1})$

Definitions:

- **Scale Factor**: Calibration scale factor, $\beta(\theta_c)$/counts. Refer to User's Guide for derivation.
- **Output**: Measured signal output of the scattering meter.
- **Dark Counts**: Signal obtained by covering detector with black tape and submersing sensor in water.

Instrument Resolution: Standard deviation of 1 minute of collected data.

PO Box 518
620 Applegate St.
Philomath OR 97370

SEA-BIRD SCIENTIFIC

(541) 929-5650
Fax (541) 929-5277
www.seabird.com

ECO Calibration and Repairs

Diagnosis: Evaluated instrument BBFL2WB-1440 and found no value set for saturation.
No other problems.

Repairs and Modifications: Saturation value corrected.
Standard service performed.

Comments: New Device file and characterization sheets included.

ECO Standard Service:

The instrument bulkhead connector, pressure housing and window\optics are inspected for damage. Instrument is checked to determine proper functionality. Incoming settings and memory are collected if incoming condition allows.

A pre-service characterization is performed. Data is analyzed and Instrument is rescaled, if applicable.

The head is inspected for cracks in detector and motor bores. Case seals, shaft, shaft seal, faceplate, wiper, desiccant pack and batteries (if equipped) are replaced. Noise, stability, and live pressure test is performed.

Final calibration and characterization is completed. Including calibration of thermistor and pressure sensor, if equipped. A device file, repair sheet, and new characterization sheets are provided to customer via hard copy and CD.