

## Introduction

For some applications a Solid Secondary Standard is available to track calibrations over time and to provide a quick and easy way to validate instrument performance of both the AquaFluor and Trilogy. A secondary standard contains a stable fluorescent material that is intended to give you consistent repeatable readings.

**P/N 8000-952** Adjustable Solid Secondary Standard (Red). For use with Chlorophyll, Rhodamine, Phycocyanin and Phycoerythrin channels/modules **ONLY**.

**P/N 8000-951** Adjustable Solid Secondary Standard (Orange). For use with Fluorescein channel/module **ONLY**.

## Using the Secondary Solid Standard

1. Calibrate your instrument with a known standard as outlined in the User's Manual.
2. Take the adjustable secondary standard from its storage case. Using the 0.05" Allen Wrench provided, loosen the locking screw on the back of the secondary standard by turning it counterclockwise one turn. See photo 1.



Photo 1. Loosening the locking setscrew on the backside of the adjustable secondary standard

3. Place the adjustable secondary standard in the fluorometer sample compartment with the handle towards the rear of the instrument. See photo 2.



Photo 2. Placing the adjustable secondary standard in the instrument

4. Wait approximately 10 seconds while the instrument averages the reading, then read the value.
5. You can use the 3/32" Allen Wrench provided to adjust the attenuation screw through the hole at the top of the secondary standard to increase or decrease the value displayed on the screen. Turning the screw counterclockwise will increase the reading. See Photo 3.



Photo 3. Adjusting the value on the secondary standard by turning the attenuation screw.

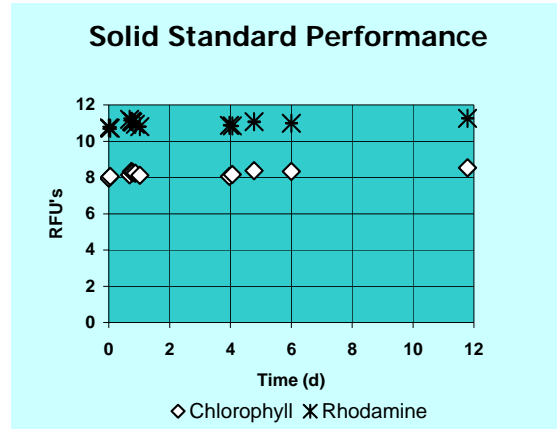
6. Repeat steps 4 and 5 until the secondary standard reads the concentration value of interest. Record the secondary standard reading for future reference.
7. At this point, remove the solid standard and turn the locking setscrew clockwise until it just makes contact with the attenuation screw.

**NOTE: DO NOT OVERTIGHTEN or remove either hex screw on the Solid Secondary Standard, overtightening may damage the standard.**

8. Proceed with analyzing your samples.
9. You may use your adjustable secondary standard at any time to check the stability of the fluorometer. Simply insert your standard to read the value. The value should be similar to what was previously obtained in step 6 above.

### Care and Storage

The Solid Secondary standard should be stored in a dark, dust-free environment. Take care not to introduce foreign objects or liquid into the aperture of the solid standard. Such items can significantly affect the fluorescence response of the standard.



### Solid Standard Calibration Record

Date	Instrument S/N	Cal Std Conc.	Units	Blank %FS	Cal Std %FS	Solid Standard Reading