

Aquafluor™ Handheld Fluorometer/Turbidimeter

Turner Designs...
Over 25 Years of
Fluorescence
Technology

The
Turner Designs
Aquafluor™
Fluorometer



An Overview

The Aquafluor™ is a lightweight, inexpensive, handheld fluorometer/turbidimeter. It is ideal for the user who needs quick measurements away from the laboratory. Its dual-channel capability allows the user to measure either fluorescence or turbidity in one sample.

Available in three models: *in vivo* chlorophyll *a*/turbidity, rhodamine WT/turbidity and ammonium/extracted chlorophyll *a*.

While small in size, performance has not been compromised. The Aquafluor™ brings a new level of simplicity and economy to Turner Designs' line of fluorescence instrumentation.

Features of the Aquafluor™

- **Sensitive:** Can detect sub ppb levels for *in vivo* chlorophyll *a*, extracted chlorophyll *a*, and rhodamine WT, 0.1 mM ammonium, and 0.5 NTU turbidity.
- **Dedicated Dual Channels:** The press of one button easily toggles between the two applications.
- **Compact:** Small and lightweight, it easily slips into a shirt or jacket pocket and is easy to store when not in use.
- **Watertight Design:** No need to worry when measuring samples in the field. It even floats!
- **Convenient:** Uses AAA batteries (included), and with a 5-second warm up, the Aquafluor™ is ready any time.
- **Three decade dynamic range.**

The Aquafluor™
is ideal for quick
measurements
in the field.



Introduction to Turner Designs

We have been producing sensitive and durable fluorescence instrumentation since 1972. Turner Designs currently manufactures more fluorescence instruments than any other company in the world. We are a company whose people take pride in providing quality instruments and responsive technical service.

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Model Specifications

- *In vivo* Chlorophyll and Turbidity (P/N 8000-001)
 - Chlorophyll Channel
 - Excitation: 460 ± 20 nm
 - Emission: >665 nm
 - Blue LED
 - Turbidity Channel
 - Excitation: 515 ± 10 nm
 - Emission: 515 ± 10 nm
 - Green LED
 - Cuvette: 10 mm x 10 mm plastic
- Rhodamine WT and Turbidity (P/N 8000-002)
 - Rhodamine WT Channel
 - Excitation: 540 ± 20 nm
 - Emission: >570 nm
 - Green LED
 - Turbidity Channel
 - Excitation: 515 ± 10 nm
 - Emission: 515 ± 10 nm
 - Green LED
 - Cuvette: 10 mm x 10 mm plastic
- Ammonium and Extracted Chlorophyll *a* (P/N 8000-007)
 - Ammonium Channel
 - Excitation: 365 nm
 - Emission: >430 nm
 - UV LED
 - Extracted Chlorophyll *a* Channel
 - Excitation: 430 nm
 - Emission: >665 nm
 - Blue LED
 - Cuvette: 12 mm x 75 mm round glass

Optional Features and Accessories

- **Solid Secondary Standard:** For quick and easy checks of calibration, stability, and performance (P/N 8000-950). Only available for 8000-001 and 8000-002 versions.
- **Internal data logging package** available with interfacing software to Microsoft® Excel (P/N 8000-920).
- **Soft Travel Case:** Accommodates the *Aquafluor*™ plus accessories such as a pipette and cuvettes.

Specifications

Size: 1.75" x 3.5" x 7.25"
(4.45 cm x 8.9 cm x 18.4 cm).

Weight: 13.9 oz. (0.4 kg).

Minimum Detection Limit:

- Ammonium: 0.10 μ M
- Extracted chlorophyll: 0.50 μ g/L
- *In vivo* chlorophyll: 0.30 μ g/L
- Rhodamine WT: 0.4 ppb
- Turbidity: 0.5 NTU

Dynamic Range: 3 orders of magnitude.

Resolution: 12 bits.

Temperature Range:

41–104°F; 5–40°C.

Warm-up Time: 5 seconds.

Detector: Photodiodes with measurement capability from 300 nm to 1,000 nm.

Internal Data Logging:

Up to 1,000 data points.

Power: 4 AAA batteries.

Measurements per AAA

Battery Set: >1,000.

Keypad Escape Time: Device powers down after 90 seconds of inactive use.

Calibration Type: Single-point and Blank.

Alarms: Low battery, circuit failure, high blank.

Maintenance: Clean sample well and replace batteries as needed.

LCD Display: 2 x 16 characters.

Case: Meets IP 67 Standard; dustproof and waterproof.

Regulatory: CE.



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