D-2 Incorporated

Hydro-Light Product Brochure
JF-WA1 & JF-WA1-N
NSN:6640-01-642-9285

Part Number: JF-WA1 & JF-WA1-N
Revision 1: 6/29/16
Drawing Number: 480-001R1
D-2 Incorporated has revolutionized the measurement of ASTM Test Method D3240, the measurement of free water in Aviation Turbine Fuel aka Jet Fuel. The Hydro-Light offers new higher precision measurement and ergonomically improved design featuring full automation.

What are the advantages of the Hydro-Light?


2. Fully automated device produces more accurate and reliable results.

3. Comes with a calibration standard, which allows for field verification in roughly ten seconds. See website for video demonstration.

4. No maintenance required. Uses new LED Bulb technology and will last > 45 years even if left on the entire duration.

5. Highest precision of any instrument available for test method ASTM D3240. Precision is roughly four times as accurate in terms of repeatability and reliability. See Graph from independent third party study on page 2.

6. USB Connectivity enables many benefits: you can power the device through the USB port via a computer or portable battery. Also allows the transfer of data to a PC in real time. Furthermore, allows for Field Calibration, see below, page 3.

7. Uses the standard 25 mm test pads, as all other instruments in ASTM D3240.

8. Measures full range of 0-50 ppm with one sample size.

9. Accessories available to enable full field usability.

10. Field Calibration verification available via our provided Standards shuttle. Units can be calibration verified using the JF-WA1-H&L-Shuttle, which comes free with the unit. New standards provided during calibration procedure.

11. Eliminate your current calibration & maintenance issues forever with the Hydro-Light.

12. See www.d-2inc.com for Hydro-Light Demonstration Video!
Highest Repeatability, Highest Reproducibility in ASTM D3240 thanks to automated precision measurement and new LED technology.

Our new JF-WA1 Hydro-Light was adopted into ASTM D3240 in 2009. The Hydro-Light was accepted into the method after displaying remarkable results during the full ASTM ILS independent precision study. Precision results are shown in the graph below. The Hydro-Light posted greatly improved precision over the traditional method instrument.

Also, by fully automating the measurement process, we have reduced operator time and training, and eliminated human error from affecting the results. Furthermore, by offering field calibration with verification this enables worldwide use of the device, without the need for annual factory re-certifications. Saving you significant time and money in operations, and, eliminating laboratory down times.

Graph is supported by ASTM RR 1156, ASTM D3240.
Field Calibration Verification

The Hydro-Light comes with ability to verify the calibration of the device in the field. The ASTM D3240 Method requires yearly calibration. This service will allow you to verify the device easily and it can be performed in your own laboratory, eliminating the need to ship the device to our facility unless the unit is out of calibration.

For free with the unit, you get our JF-WA1-H&L-Shuttle. You can use this shuttle with standard pads to run the calibration verification right in your own lab to ensure the unit is operating correctly. We provide new standards for your shuttle when you send the unit in for calibration.

It couldn’t be simpler. You just slide the verification shuttle in the device. The shuttle has the standard values printed on each side. If the unit does not meet the standard deviations from the standards simply send the unit in for calibration.

The JF-WA1 and JF-WA1-N only requires annual calibration.

For a full demonstration of the calibration verification process please see our website at www.d-2inc.com.

Field Usability

Another important aspect of the Hydro-Light is the ability to use this device in the field. The Hydro-Light with the correct accessories, can be used anywhere in the world without the need for electrical power.

The Hydro-Light can be powered with our optional portable USB Battery. This battery allows for 24 hours of continuous operation for the Hydro-Light. The Hydro-Light takes about 30 seconds to take a completely accurate test, so you can use this in the field for quite awhile without recharging the battery.

Available Carrying Case is waterproof and certified to Military Specifications, (MIL-SPEC)

An Ergonomically improved design allows the user to simply push the slide into the device to obtain a digital reading on the display.

Easy to use shuttle design reduces human interaction with the pad and helps improves the precision of the test.
Hydro-Light Accessories

None of the below items are required for operation of the device but they all increase Field Usability, and Portability.

The Hydro-Light Carrying Case
Waterproof, available in Black or Yellow. MIL-SPEC. Very durable design for long-term use in harsh environments. Fits all components required for the field operation of the Hydro-Light. Part Number: JF-WA1-CC

Hydro-Light Portable Battery Pack
The JF-WA1-BAT is a portable battery pack for powering the JF-WA1 Hydro-Light. The battery connects via a JF-WA1-USB cable, which allows for field testing. (Cable sold separately) The battery pack can supply 1.2 Ah. The instrument will operate for 24 hours on a single charge. With each JF-WA1 test taking only seconds; the battery allows many samples to be taken before a recharge is needed.

JF-WA1-VS Calibration Verification Shuttle
The Hydro-Light comes standard with one of these shuttles, however you may purchase additional shuttles if necessary.

Standard shuttle has two set points, one low value and one high value on either side with set tolerances. Thus allowing verification and calibration over the entire measurement range.

Standard Mini USB Cable
The JF-WA1-USB is a Standard A to 5 Pin Mini B, 6’ USB Cable. It is used to either power or serially communicate with the JF-WA1 Hydro-Light.

D-2 Incorporated Direct Customer Support
Fully Supports all of our equipment with direct technical support. We are an ISO 9001:2008 Quality Certified Manufacturer. All of our equipment and services are covered by our one year limited warranty.