



INCORPORATED
WWW.D-2.COM



D-2 Incorporated

Hydro-Light/Digital Free Water Detector,
Product Brochure

JF-WA1: For Commercial Use

JF-WA1-N: Navy Version

NSN:6640-01-642-9285

JF-WA1-AF: Air Force Version

NSN: 6640-01-680-6773

Revision 5: 27 SEP 19
Drawing Number: 480-001R5



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?

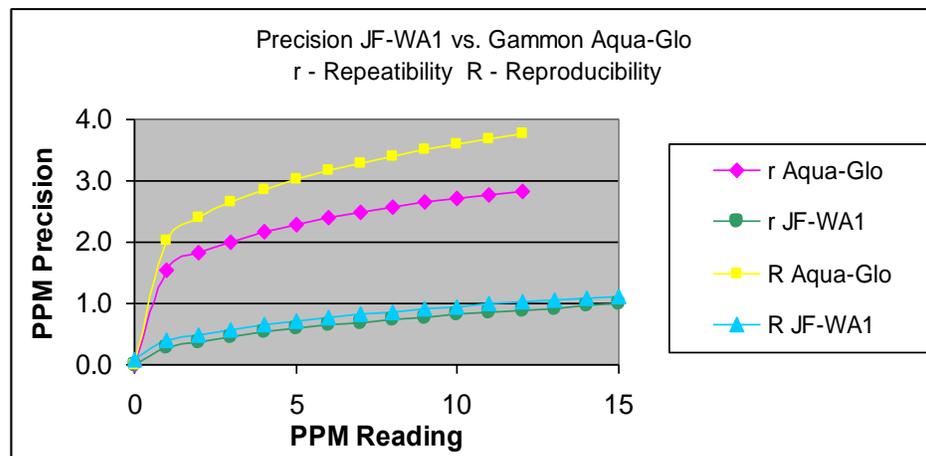
1. Listed in ASTM D3240 “Standard Test Method for Undissolved Water In Aviation Turbine Fuels”
2. Fully automated device produces greater accurate and reliable results.
3. Comes with an optical verification standard shuttle. Provides field confirmation that the instrument has maintained its’ factory calibration. See website for video demonstration.
4. No maintenance required. Uses LED 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 approximately 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.
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. Dramatically reduce your current repair & maintenance issues with the Hydro-Light.
10. See www.d-2inc.com for Hydro-Light Demonstration Video!
11. JF-WA1-N: NSN 6640-01-642-9285
12. JF-WA1-AF: NSN 6640-01-680-6773



Highest Repeatability, Highest Reproducibility in ASTM D3240 thanks to automated precision measurement and 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, 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 the capability to verify the calibration of the device in the field.

It is important to note that this verification shuttle is calibrated as a set with its' assigned instrument.

Note: ASTM D3240 method recommends an annual factory calibration.

Included, you get the optical standard JF-WA1-H&L-Shuttle (480-050). Use this shuttle with standard optical (green/yellow) targets to run the calibration verification right in your own lab. This procedure will insure the instrument has maintained its' factory calibration.

Note: As part of the factory calibration we provide new optical standards for your shuttle.

It couldn't be simpler. You just slide the verification shuttle into the Hydro-Light and read the digital output. The shuttle has the standard values printed on each side for the high/low values. If the instrument readings fall outside the specified range/tolerance, simply return to D-2 for a certified factory 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.

Included is the JF-WA1-CC, Carrying Case. This 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.

The JF-WA1 Field Verification procedure provides immediate digital results confirming the factory calibration.



Items shown are not required for operation of the device but they all increase "Field Usability/ 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. (Note: the carry case is included with each instrument).



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.



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.

D-2 Incorporated

6 Otis Park Drive
Bourne, MA 02532
sales@d-2inc.com
www.d-2inc.com