D-2 Inc. Hydro-Light Step-by-Step Operation Procedure

1. Connect Hydro-Light power supply to power input on the rear panel of the unit and plug into 90 – 340 VAC 50/60 Hertz outlet.

2. Turn the Hydro-Light unit on with switch at the top of the box. The display will illuminate. After 10 seconds, the top line of the display will show the text "Hydro-Light". The Hydro-Light unit is now ready to use. The lower display will indicate the next factory calibration date.

3. If there is no pad present, the display should read "0 PPM".

4. Remove the pad holder shuttle from the front drawer of the unit. (Figure 1).

5. Press down on the tab to open the shuttle cover (Figure 2).

6. Using tweezers, insert the pad, which was produced in accordance to ASTM Method D3240 (see reverse side of this guide) into the shuttle (Figure 3). Insure that the pad is in the recess of the shuttle. The yellow side of the pad that is to be measured should be facing upwards in the shuttle and the box.

7. Let the pad holder close to hold the pad in place.

8. Re-insert the pad holder shuttle into the Hydro-Light drawer with the pad facing upward.

9. Allow 10 seconds for the Hydro-Light unit to fully update the pad reading after insertion. The display number will momentarily flash each time an update occurs.

10. Your Hydro-Light will now display the PPM free water content of your 500ml sample.

11. The Hydro-Light reads 0-50 ppm directly if the sample volume is 500ml. Correct the reading for other sample sizes by multiplying the displayed reading by (500/Sample size in milliliters).

12. Remove the shuttle then remove and discard the test pad.

13. Test Method D3240 suggests a Factory recalibration each year. To verify calibration in the field, please reference the application note 11-008 "JF-WA1 Hydro-Light Verification using the H&L Shuttle" in the full operation manual.

Instructions from the ASTM Test Method D3240 on Back

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"3. Summary of Test Method

3.1 A measured sample of fuel is passed through as uranine dye-treated filter pad. Undissolved (free) water in the fuel will react with the uranine dye. When the pad is subsequently illuminated by ultraviolet (UV) or blue light, the dye previously contacted by free water will fluoresce a bright yellow with the brightness increasing for increasing amounts of free water in the fuel. By varying the fuel sample size, the range of the test method can be increased." (D 3240–91(2001), 3.1)

"6. Sampling

6.1 The following procedure is applicable for dynamic line samples only; that is, taking the fuel sample directly from the test system and through the test pad without exposing the sample to the atmosphere or to a sample container. The use of sample containers such as bottles or cans for the temporary storage of the sample will result in large errors and is not recommended.

NOTE 1—The amount of free water in a sample is very sensitive to the temperature of the sample. The use of sample containers such as bottles or cans can result in large errors due to changes in sample temperature, adsorption of water on container walls, etc.

6.2 Attach the test pad holder assembly to the sampling port on the system.
6.3 Flush the test pad holder assembly immediately prior to sampling, displacing the sampling line with at least two volumes of test fuel.
6.4 Remove the sampling assembly, open the pad holder, and insert the new test pad using tweezers making sure that the treated side of the test pad is facing upstream. Installation of a three-way valve immediately upstream of the test pad holder will permit flushing with the test pad in place.

NOTE 2—Do not remove the test pad from the hermetically sealed package until ready for use. Do not allow any discrete water droplets to come into contact with the pad (from rain, sneezing, coughing, etc.). Exposure of the test pad to the atmosphere, especially on humid days, will also ruin the pad in a matter of minutes.

6.5 Pass 500 mL of fuel through the pad, accurately measuring the test sample quantity. Normal sample volume is 500 mL of test fuel, but if the reading is more than 12 ppm, then retest with a new pad using 100 mL in volume of fuel. A small graduated cylinder should be used to measure the sample volume." (D 3240–91(2001, 6)

For More Information Visit our Website (www.D-2inc.com) or call us at (508) 329-2046.

Figure 1

Figure 2

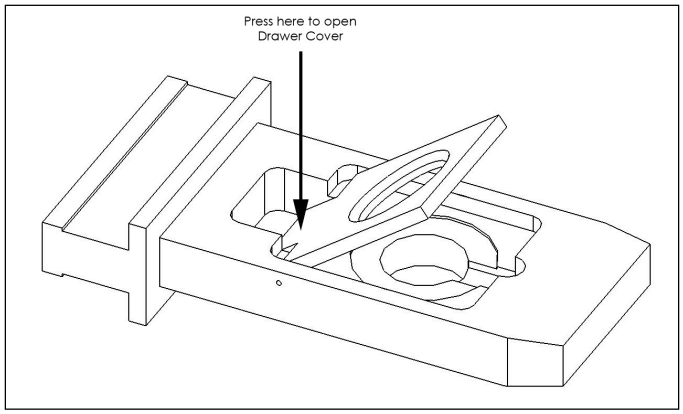
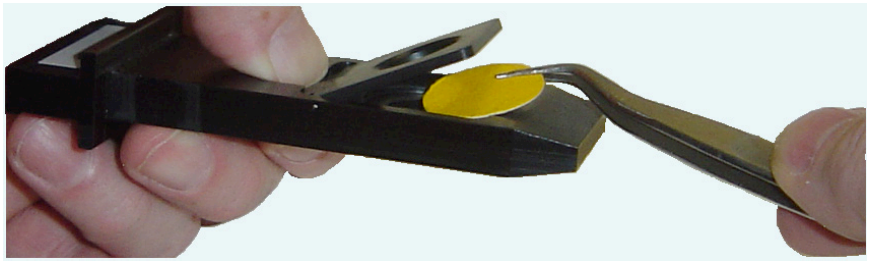


Figure 3



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