

DT-15 OPERATING INSTRUCTIONS

BATTERY INSTALLATION

(Use any good quality standard 9V battery)

- A. Remove the screws from the rear cover.
- C. Snap the battery clip onto the battery and insert the battery into the retaining clip.
- D. Replace the rear cover and screws.

BATTERY CONDITION:

With a fresh, good quality battery, your instrument should operate approximately 50 hours. When it is time to replace the battery, the words "LO BAT" will appear in the upper left corner of the display.

OPERATION

The DT-15 fuel tester is designed to detect the addition of oxidizers to a gas/oil fuel mix. This is done by comparing the resistivity and the dielectric constant of a competitors fuel to a known base. Fuel with oxidizers added (such as methanol, nitro, etc.) will cause the instrument to register more positive than the base. This indicates some type of additive in the competitors fuel.

NOTE: Cyclohexane (C₆H₁₂) is the base called for by both I.K.F. and W.K.A. You will need to have some available before you begin testing. Cyclohexane is available from Precision Automotive Research (630) 766-4402 or VP Racing Fuels (210) 635-7744.

If you are unable to obtain cyclohexane an alternate method of testing is to mix a known legal gas with a commonly used oil, set the meter at zero in that mixture and allow no more than a 5 point deviation either way. (This method will not be as accurate as using the cyclohexane base.)

TESTING PROCEDURE

1. Turn the instrument on and allow it to warm up at least 15 minutes before doing any testing. This will allow the internal components to stabilize at their normal operating temperature.
2. Attach the sensor to the instrument, insert the sensor in the cyclohexane base and adjust the instrument to read -075. The -075 reading is used to allow for minor variations in gasoline from one manufacturer to another.

Note: *When adjusting the reading in the cyclohexane, or in the fuel samples to be tested, gently swirl the sensor to release any trapped air bubbles. Air trapped in the sensor can cause inaccurate readings.*

3. When checking fuel at the track it is important that the temperature of the fuel being tested and the temperature of the cyclohexane be within five degrees of each other. If the fuel being tested is more than five degrees hotter than the cyclohexane was at the time the instrument was set at -075, the fuel will test more positive than it should.
4. Draw a sample of the fuel to be tested and put it in a sample bottle. Be sure to use enough fuel to completely cover the

sensor. Insert the sensor into the fuel and observe the reading on the instrument. If the reading is *zero or a negative number, the fuel is legal*. A reading *above zero (a positive number)* indicates an illegal additive.

If a fuel sample tests illegal, the following procedure should be used.

- A Clean The fuel tester sensor with some "spray on" brake cleaner and allow it to air dry at least 30 seconds.
- B Check the reading of the instrument in the cyclohexane (should read -075) and adjust if necessary.
- C Allow the fuel sample to stabilize to the same temperature as the Cyclohexane and then repeat the test.

During the course of the day you should check the instrument reading in the cyclohexane (should read -075) about every 30 minutes and re adjust as necessary to compensate for changes in temperature. For highest accuracy try to keep the cyclohexane as close as possible to the fuel in the karts coming off the track.

REPAIRS

Your instrument is warranted to be free from factory defects and electronic failure for a period of one (1) year from date of purchase. Physical damage during normal usage is not covered under the warranty. Be sure to fill out and return your warranty card for our records. If you do not have a card on file for your instrument, repairs will be charged for unless you can provide us with proof of purchase date.

When returning an instrument to us for repair, be sure to enclose a note indicating your return address, your phone number and a good description of the problem. If you are not sure whether the problem is in your instrument or the sensor return both so we can check the complete system.

There will be a \$20.00 minimum charge on any instrument that is out of warranty. We will automatically contact you with an estimate before proceeding with repairs if charges exceed \$50.00 Repairs can be paid for by VISA, MASTERCARD, or C.O.D.

If you need your instrument back in time for a specific race be sure to include the date you need it, and we will do our best to get it back to you in time. Repairs will normally be completed within ten working days.

Send your instrument for repair directly to:

DIGATRON

8102 N. Freya Street

Spokane, WA 99217

Phone: (509) 467-3128 Fax: (509) 467-2952