

## Total Glycerin Test Instructions (included in: FP-0160, FP-0170, FP-0180)

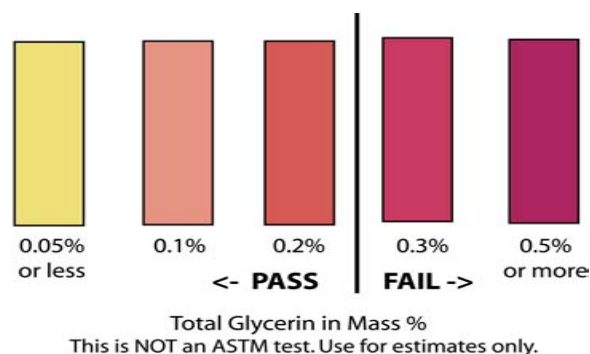
Step 1. Using a dropper, add four (4) drops of fuel to the fluid in the clear-top tube, replace the cap, and shake vigorously for 15 seconds to mix.

Step 2. Using a new dropper, transfer one (1) drop from the clear-top tube into the blue-top tube. Replace the cap and shake the blue-top tube to mix.

Step 3. Rub the blue-top tube back and forth between your palms to warm the sample. Keep tube in a cup of warm water or at room temperature for fifteen (15) minutes.

### Interpreting the results

Compare color of blue-cap tube to color chart below.



Questions? Call (858) 752-1156 or email [Info@FleetFuelTesting.com](mailto:Info@FleetFuelTesting.com)

### Background Information

These tests are intended to provide a rapid, easy, and effective method to test diesel and Biodiesel fuel blends (e.g. B5, B20) for key indicators of fuel quality. These tests are used to identify fuel that is likely to be out-of-specification according to industry standards. The results (good vs. questionable fuel) are good indicators of the likely outcome of ASTM quality testing, but sensitivity and field conditions are not always sufficient to assure either a pass or fail of a related ASTM analytical test. These tests are not a substitute for laboratory testing!

### Disclaimer and Warranty

All Fleet Fuel Testing Field Test and Lab Tests are offered only as general indicators of fuel quality. All commercial tests, including analytical tests performed in accordance with ASTM protocols, are subject to error due to sampling techniques, unique fuel attributes, and statistical anomalies. Test repetition and/or lab testing should verify failed tests. Fleet Biodiesel warrants that the test kits provided are based on industry best practices for fuel testing and current ASTM standards. No other warranties, either expressed or implied, are made regarding the accuracy of the tests or the quality of fuel that is tested



## FUEL TESTING

### Diesel and Biodiesel Field Test Kit Instructions

### Don't repair your vehicle without checking the fuel!

Fleet Fuel Testing diagnostic kits are rapid and simple field tests for diagnosing the quality of diesel, biodiesel, and blended fuels. They should be used whenever a vehicle is experiencing problems that may be related to fuel quality, such as rough idle, poor starting, excessive smoke, clogged filters, or more severe problems such as blown injectors. For straight diesel fuels, water is a common problem, leading to severe engine damage if not corrected. If your fuel is pure biodiesel or a blend, water, glycerin, acid number, and higher than expected blend levels can cause problems. Regardless of how well the fuel was made, biodiesel can and does degrade throughout the supply chain and over time, so fuel diagnosis should be a regular part of service calls and vehicle maintenance when biodiesel is being used.

In addition to vehicle service and maintenance, field tests work well for distributors and fleet managers to periodically check the condition of stored fuel. Don't wait until your fuel causes problems – catch it easily and inexpensively by checking your fuel every week. Biodiesel producers can also use these tests as quick checks before sending samples to the lab for ASTM Testing.

### Choose the test kit according to your type of fuel.

#### Fuel

Diesel Fuel  
B5 (5%) Biodiesel Blend  
B20 (20%) Biodiesel Blend  
B99 or B100 Biodiesel  
Stored fuels of all types

#### Test Kit

FP-0150 Water / Bio-Detect  
FP-0160 Water / Glycerin/ Acid number / % Bio  
FP-0170 Water / Glycerin/ Acid number / % Bio  
FP-0180 Water / Glycerin / Acid number  
FT-0110 Microbial Growth Field Test (6 tests)

### WARNING!

Use safe handling procedures when handling fuel and performing tests. These tests are intended for use with diesel and biodiesel fuel only!

For best results, it is critical that fuel-sampling containers be clean and completely dry. Information on sampling procedures and equipment is available at <http://www.FleetFuelTesting.com>, or by phone: (858) 752-1156.

## Test for Water and Visual Clarity (included in: FT-0100, FP-0160, FP-0170, FP-0180)

### Part 1 Visual Inspection

- Step 1. Find the Water Test Kit bottle and remove the small tube of indicator solution.
- Step 2. Fill test bottle to the top of the label with fuel. Replace the cap securely.
- Step 3. Shake for 15 seconds and wait one minute.
- Step 4. Examine the sample in good light, looking at the ovals through the bottle.

### Interpreting the results

**PASS:** Clear and bright fuel, with numbers and ovals clearly visible through the fuel.

**FAIL:** Cloudy fuel with numbers and ovals not clearly visible may indicate the presence of water or contaminants.

*Note: DO NOT DISPOSE OF THE TEST; it will be used in the next step.*



Part 1 – Visual Inspection



Part 2 – Water Detection

### Part 2 Water Detection

- Step 1. Vigorously shake the tube of indicator solution until completely mixed.
- Step 2. Open the cap of the Test Kit bottle containing the fuel from part 1, and pour in the entire contents of the small tube.
- Step 3. Replace and tighten the cap of the Test Kit bottle and vigorously shake the fuel and indicator solution mixture for 15 seconds.
- Step 4. Let the sample stand for 5 minutes.
- Step 5. Holding the bottle upright at eye level, examine the bottom of bottle.

### Interpreting the results

You will see particulates from the indicator fluid settling on the bottom.

**PASS:** Particles are white.

**FAIL:** Particles turn red (dark purple in dyed fuel).

Failure indicates that the fuel water level exceeds 200-500ppm.

## Acid Number Test Instructions (included in: FP-0160, FP-0170, FP-0180)

### Find the Acid Number test bottle in your kit

- Step 1. Fill the Test Kit bottle to the shoulder with fuel.
- Step 2. Replace the Test Kit bottle cap and tighten it securely.
- Step 3. Shake the Test Kit bottle vigorously for 30 seconds.

### Interpreting results

**PASS:** Sample remains pink/purple.

**FAIL:** Sample turns yellow.

Failure may indicate high acid and fuel degradation.



Acid Number  
Test Results

## Percent Biodiesel Field Test Instructions (included in: FP-0160, FP-0170)

### Find the Percent Biodiesel test bottle in your kit

- Step 1. Fill the Test Kit bottle to the shoulder with fuel.
- Step 2. Replace the Test Kit bottle cap and tighten it securely.
- Step 3. Shake the Test Kit bottle vigorously for 15 seconds.
- Step 4. Wait approximately 2 minutes. Read results.

### Interpreting the results

**PASS:** The fluid in the Test Kit separates into **two distinct layers**.

**FAIL:** The fluid in the Test Kit does **NOT separate** into two layers.

### Failure Result Interpretation

B5 Biodiesel content exceeds 10%

B20 Biodiesel content exceeds 30%



Percent Biodiesel  
Test Results