



MODEL 390 & 390R

CONTAMINATED FUEL DETECTORS

January 14, 2008

MODEL 390 & 390R

Contaminated Fuel Detectors - Test Equipment to Determine the Quantity of Solid Contaminants and Water in Fuel.

The CvI Contaminated Fuel Detectors are designed to quickly analyze the contamination levels of foreign mater such as sediment, small particles and water in aircraft fuels such as Grade JP-5.

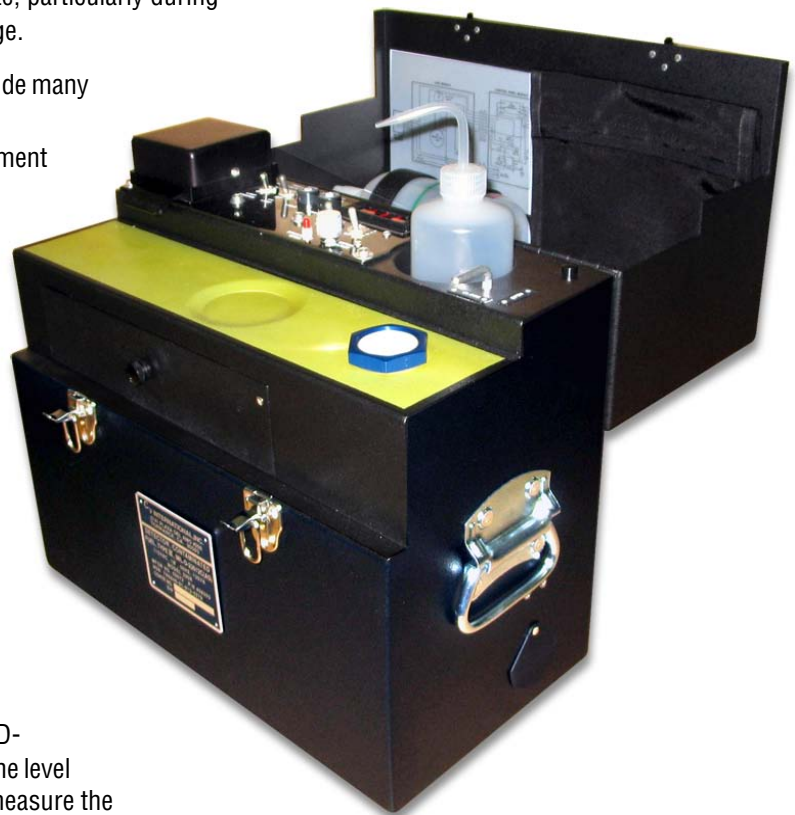
Fuels with too much sediment or small foreign particles can clog fuel lines and cause engine stoppage. Too much water can freeze, particularly during high altitude flight, and also cause engine stoppage.

Model 390 & 390R - have been designed to provide many advantages for the user:

- Modular construction permitting parts replacement in the field or shipboard without need for specialized skills.
- Long photocell / lamp life. Lamp life in excess of 1000 hours
- Use of commercial electrical and mechanical parts
- Preserves standard calibration method employed on all prior models
- Stability and repeatability over broad temperature and power input ranges
- Environmentally protected components and wiring
- Operationally both Models require 100-120 VAC, 60 Hz, Single phase electric power.

Model 390R - is a CCFD conforming to Mil-D-22612C (AS) Type III which functions to measure the level of solid particulate and sediment and separately measure the amount of water in the fuel. The Free Water detector module (conforming with Mil-D-8 1 227B) fits into the main Detector box and is electrically connected to the main power supply through a flexible cable. When used the detector is removed and placed in front of the main box.

Model 390 - is the same as Model 390R except that it does not have the separate Free Water Detector.

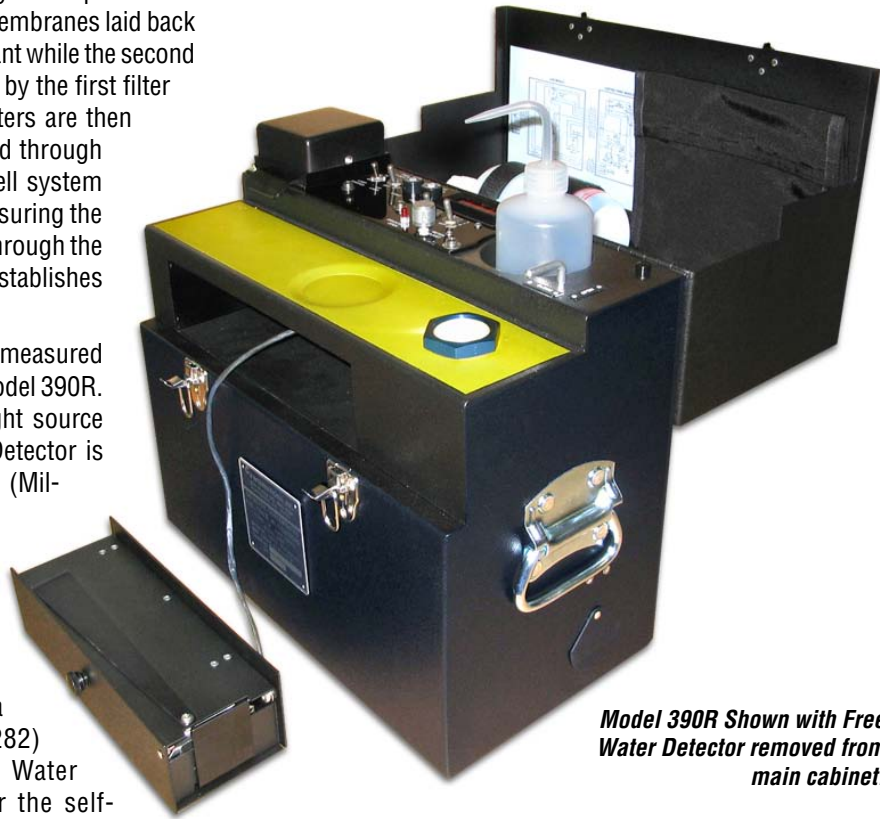




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Solid Particle Detection - Solid particle and sediment contamination is determined by filtering a sample of fuel through two Millipore filters (thin paper membranes laid back to back). The first filter traps the contaminant while the second filter is subjected only to the fuel cleaned by the first filter and retains only the fuel color. These filters are then separated and a beam of light transmitted through each of them individually with a photocell system which is read out on the panel meter. Measuring the difference between the light transmitted through the contaminated filter and the clean filter establishes the level of solid contamination.

Free Water Detection - Free water is measured in the Free Water Detector stored in the Model 390R. This detector contains an ultra-violet light source. Upon removal from the main box, the Detector is opened and a special water detector pad (Mil-D-8 1248) is inserted and exposed to an appropriate amount of fuel being tested. This pad, when exposed to free water will fluoresce under the ultra-violet light. The degree of fluorescence, which is proportional to the amount of water in the test sample is visually compared to a fluorescing color standard (Mil-S-91282) when placed side-by-side in the free Water Detector Assembly and viewed under the self-contained UV light.



Model 390R Shown with Free Water Detector removed from main cabinet.

Specifications -

Model 390R (Dimensions excluding latches, handles, rubber feet and ventilation louvers:)

Width 17.75 inches wide
Depth 9.25 inches deep
Height 18.13 inches high
Volume 1.72 cu ft
Weight 42 lbs

Model 390 (Dimensions excluding latches, handles, rubber feet and ventilation louvers:)

Width 17.75 inches wide
Depth 9.25 inches deep
Height 18.13 inches high
Volume 1.72 cu ft
Weight 49 lbs

Combined Contaminated Fuel Detector:

Model: 390R
Part Number: 408203
NSN: 7H6640-01-013-5279

Contaminated Fuel Detector:

Model: 390
Part Number: 408200
NSN: 2H6630-00-7062302