Contents

Scope

This instruction covers the use of stopwatches used by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Fire Research Laboratory (FRL) Examiners.

Instrument Description

GENERAL

A stopwatch is a manually operated device that measures and displays the duration of a specific event or test. Though many stopwatches contain additional functions, the functions primarily utilized by FRL Examiners are the start, stop, and reset functions on the stopwatch. Refer to the stopwatch manufacturer's documentation for detailed information concerning additional stopwatch functions.

Accuracy Requirements

FRL stopwatches are required to maintain time with a loss of no more than 1 second over a 1 hour period. This results in an accuracy of 0.028%. The stopwatches shall be functionally verified in accordance with FRL Stopwatch Functional Verification Procedures.

Operating Instructions

REQUIREMENTS

1. The assigned operator shall be qualified in accordance with laboratory proficiency requirements.
2. The assigned operator shall verify the functionality of the stopwatch prior to testing

PROCEDURE

The following is a general procedure for operation of a stopwatch.

1. Set up
    1.1 Ensure that stopwatch has been functionally verified

2. Pre-Test
    2.1 Ensure that operator is familiar with test procedures to ensure appropriate stopwatch operation.

3. Test
    3.1 Operate the stopwatch in accordance with the test examiner's specifications.
    3.2 The operability of the stopwatch shall be monitored during the test. If the stopwatch operation is in question, verify the functionality of the stopwatch before continuing use in a test.

4. Post Test
    4.1 If testing is complete, reset the time displayed on the stopwatch.

Stopwatch Documentation Requirements

None

References

None