



Standard Guide for In-Service Inspection, Maintenance, and Electrical Testing of Hand-Held Live-Line Insulating Tools (Fiberglass-Reinforced Plastic (FRP))¹

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1. Scope

1.1 This guide provides recommendations for in-service inspection, maintenance, and electrical testing of hand-held insulating live-line tools.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F711 Specification for Fiberglass-Reinforced Plastic (FRP)
Rod and Tube Used in Live Line Tools

3. Significance and Use

3.1 Compliance with this guide should confirm known and acceptable quality of hand-held insulating live-line tools manufactured using fiberglass meeting Specification **F711**. The guidance herein is to be considered as a minimum requirement.

3.2 The user of this type of protective equipment should be knowledgeable of and instructed in the correct and safe inspection and use of this equipment.

¹ This guide is under the jurisdiction of ASTM Committee **F18** on Electrical Protective Equipment for Workers and is the direct responsibility of Subcommittee **F18.35** on Tools & Equipment.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

4. Job Site Procedures

4.1 *Field Care, Handling, and Storage*—When not in use, hand-held insulating live-line tools should be stored where they will remain dry, clean, and where they are not subject to abuse. Hand-held insulating live-line tools used for energized-line maintenance should not be laid directly on the ground to avoid contamination or wetting. Hand-held insulating live-line tools should be placed on clean, dry tarpaulins, on moisture-proof blankets, on tool racks, or stick bags, or leaned against dry supports. When transporting hand-held insulating live-line tools, ventilated containers should be provided to prevent damage to the surfaces of them, or they should be mounted on racks in trucks or trailers. These racks should be well padded and so constructed that the hand-held insulating live-line tools are held firmly in place to prevent abrasive or bumping action against any surface that would damage the glossy surface.

4.2 *Daily Inspection and Checking*—Hand-held insulating live-line tools should be visually inspected and wiped clean before use each day. Hand-held insulating live-line tools showing evidence of being mechanically or electrically compromised, such as a tingling or fuzzy sensation experienced by the user when the hand-held insulating tool is near or in contact with energized apparatus should be removed from service and evaluated for repair.

4.2.1 If any of the following observations are present, the hand-held insulating live-line tools should be removed from service and returned to the laboratory or shop for repair and electrical testing.

4.2.1.1 *Visual Inspection—Mechanical Stress:*

- (1) Cuts, scratches, nicks, gouges, dents (through the finish), or delamination in the stick surface.
- (2) Damaged, bent, worn, loose, or cracked components.
- (3) Elongated or deformed rivet ends, roll pins or fasteners.
- (4) A loss or deterioration of the glossy surface.
- (5) Improper storage or improper exposure to weather.

4.2.1.2 *Visual Inspection—Electrical Stress:*

- (1) Evidence of electrical tracking, burn marks, or blisters caused from heat.