

Fluke TLK225

Fluke TLK-225 SureGrip Master Accessory Set

Instruction Manual
Model: TLK225 | Brand: Fluke

INTRODUCTION

The Fluke TLK-225 SureGrip Master Accessory Set is a comprehensive collection of test leads and interchangeable clips designed to enhance the versatility and safety of your digital multimeter (DMM). This set provides a wide range of connection options for various electrical testing applications, ensuring secure and accurate measurements. All components feature Fluke's SureGrip design for comfortable and reliable handling.

This manual provides essential information on the components, setup, operation, maintenance, and specifications of your TLK-225 set to ensure optimal performance and longevity.

COMPONENTS OVERVIEW

The Fluke TLK-225 SureGrip Master Accessory Set includes the following components, each designed for specific testing needs:

- **SureGrip Silicone Test Lead Set (TL224):** 1.5 meter silicone insulated test leads with standard diameter banana plugs.
- **SureGrip Alligator Clip Set (AC220):** Small, insulated, nickel-plated alligator clips.
- **SureGrip Hook Clip Set (AC280):** Nickel-plated hook clips with 6.4 mm hook openings.
- **SureGrip Pincer Clip Set (AC283):** Nickel-plated pincer clips with 11.4 cm flexible insulated shafts.
- **SureGrip Large Jaw Alligator Clip Set (AC285):** Nickel-plated steel alligator clips with a multipurpose tooth pattern.
- **TwistGuard Test Probe Set (TP175):** Test probes with adjustable tip length for increased safety and precision.
- **6-Pocket Storage Pouch:** For organized storage and transport of the accessory set.

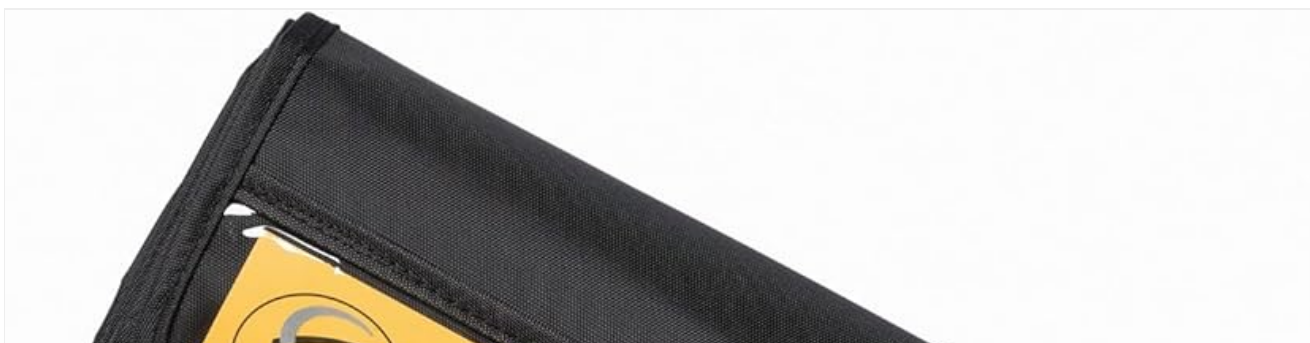




Figure 1: Complete Fluke TLK-225 SureGrip Master Accessory Set with storage pouch.



Figure 2: The 6-pocket storage pouch opened, displaying the organized accessories.

SETUP

Before using any component of the Fluke TLK-225 set, ensure your digital multimeter (DMM) is turned off and disconnected from any power source. Always select the appropriate accessory for the measurement task and voltage/current rating.

Connecting Test Leads (TL224)

1. Identify the red and black TL224 silicone test leads.
2. Insert the right-angle banana plug end of the black lead into the COM (common) input jack of your DMM.
3. Insert the right-angle banana plug end of the red lead into the V Ω mA (voltage, resistance, current) or appropriate input jack of your DMM, depending on the measurement you intend to make.
4. Ensure the connections are secure and fully seated.



Figure 3: Fluke TL224 SureGrip Silicone Test Leads.

Attaching Interchangeable Clips and Probes

The various clips and probes in the set are designed to attach securely to the straight end of the TL224 test leads.

1. Select the desired accessory (e.g., AC220 alligator clips, TP175 test probes).
2. Align the banana jack of the accessory with the banana plug on the straight end of the TL224 test lead.
3. Push firmly until the accessory is fully seated and a secure electrical connection is made.
4. For the TP175 TwistGuard probes, adjust the tip length by twisting the probe body to expose more or less of the metal tip, as required for safety and access.



Figure 4: Fluke TP175 TwistGuard Test Probes with adjustable tip.



Figure 5: Fluke AC220 SureGrip Alligator Clips.

OPERATING INSTRUCTIONS

Always refer to your digital multimeter's instruction manual for specific operating procedures. The Fluke TLK-225 accessories are designed to facilitate safe and accurate connections for various electrical measurements.

General Usage Guidelines

- **Safety First:** Always ensure the DMM and accessories are rated for the voltage and current levels you are measuring. Adhere to all safety precautions outlined in your DMM manual and local electrical codes.

- **Secure Connections:** Ensure all connections between the DMM, test leads, and accessories are firm and free of loose contacts to prevent inaccurate readings or potential hazards.
- **Proper Grip:** Utilize the SureGrip overmolded rubber surfaces for a secure and comfortable grip, especially in challenging environments.
- **Cleanliness:** Keep the tips of probes and clips clean to ensure good electrical contact.

Specific Accessory Applications

- **TL224 Silicone Test Leads:** Ideal for general-purpose measurements. Their silicone insulation remains flexible even in cold temperatures, reducing tangling and improving handling.
- **AC220 Alligator Clips:** Use for temporary, secure connections to terminals, battery posts, or other conductors where a clip is more suitable than a probe. Rated for 10A.
- **AC280 Hook Clips:** Perfect for connecting to small wires, component leads, or test points in confined spaces. Rated for 3A.



Figure 6: Fluke AC280 SureGrip Hook Clips.

- **AC283 Pincer Clips:** Designed for fine-gauge wires and small components, offering precise contact with their flexible insulated shafts. Rated for 1A.



Figure 7: Fluke AC283 SureGrip Pincer Clips.

- **AC285 Large Jaw Alligator Clips:** Suitable for larger conductors or components, providing a strong grip with their multipurpose tooth pattern. Rated for 10A.



Figure 8: Fluke AC285 SureGrip Large Jaw Alligator Clips.

- **TP175 TwistGuard Test Probes:** Use for precise contact with test points. The adjustable tip length allows for increased safety by minimizing exposed metal, especially in higher voltage applications.

MAINTENANCE

Proper maintenance ensures the longevity and reliability of your Fluke TLK-225 accessory set.

- **Cleaning:** After each use, wipe down all leads and clips with a clean, damp cloth. For stubborn grime, a mild soap solution can be used. Ensure all components are completely dry before storage. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly inspect all leads and clips for signs of wear, cuts, cracks, or damage to the insulation. Check for bent or corroded probe tips and clip jaws. Damaged accessories should be replaced immediately to ensure safety and accuracy.
- **Storage:** Store the accessory set in the provided 6-pocket storage pouch. This protects the components from physical damage, dust, and environmental factors. Avoid storing in extreme temperatures or direct sunlight.
- **Cable Management:** Avoid sharp bends or kinks in the test leads, as this can damage the internal wiring and insulation over time. Coil them loosely when not in use.

TROUBLESHOOTING

Most issues with test lead sets are related to poor connections or damaged components. Here are some common troubleshooting steps:

- **No Reading or Intermittent Reading:**
 - Check that the test leads are fully inserted into the DMM jacks.
 - Ensure the accessory (clip/probe) is securely attached to the test lead.
 - Inspect the test leads and accessories for visible damage (cuts, breaks, corrosion).
 - Test the continuity of the leads and accessories using your DMM's continuity function.
- **Inaccurate Readings:**
 - Ensure probe tips and clip jaws are clean and free of debris or oxidation.
 - Verify that the correct accessory is being used for the measurement type and range.
 - Confirm that the DMM is set to the correct function and range.
- **Stiff or Damaged Leads:**
 - Silicone leads are designed to remain flexible. If they become stiff or show signs of cracking, they may be damaged and should be replaced.

SPECIFICATIONS

Feature	Specification
Model	TLK225
Brand	Fluke
Style	SUREGRIP MASTER ACCESSORY SET
Test Lead Length	1.5 meters (approx. 4.9 feet)
Insulation Material	Silicone
Safety Rating	CAT III 1000V, CAT IV 600V
Current Rating (TL224, AC220, AC285)	10 Amp



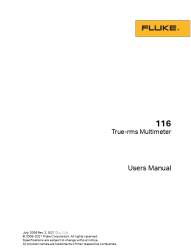
Feature	Specification
Current Rating (AC280)	3 Amp
Current Rating (AC283)	1 Amp
Compliance	EC Directives 2004/108/EC (EMC), 2006/95/EC (LVD), UL listed
Item Weight	1.2 Pounds (approx. 0.54 kg)
Product Dimensions	12.01 x 11.4 x 2.52 inches (approx. 30.5 x 29 x 6.4 cm)
Country of Origin	China



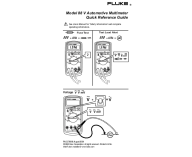
WARRANTY AND SUPPORT

The Fluke TLK-225 SureGrip Master Accessory Set comes with a **1-year warranty** from the date of purchase, covering defects in material and workmanship. For warranty claims or technical support, please contact Fluke customer service or visit the official Fluke website.

For additional resources, product information, and frequently asked questions, please visit the [Fluke Store on Amazon](#) or the official Fluke Corporation website.

Related Documents - TLK225

	<p>Fluke 107 Handheld CAT III Digital Multimeter - Technical Specifications</p> <p>Detailed technical specifications, features, and general information for the Fluke 107 handheld CAT III digital multimeter. Includes electrical measurements, safety ratings, and ordering details.</p>
	<p>Fluke FEV100 Adapter Kit for Electric Vehicle Charging Stations: Technical Data and Specifications</p> <p>Explore the technical specifications, features, and testing procedures for the Fluke FEV100 Adapter Kit, designed to safely and efficiently test electric vehicle charging stations (EVSEs). Includes safety information, compatibility, and ordering details.</p>
	<p>Fluke 116 True-rms Multimeter Users Manual</p> <p>User manual for the Fluke 116 True-rms Multimeter, covering its features, operation, measurements, maintenance, and specifications. Learn how to use this versatile digital multimeter for various electrical testing tasks.</p>

	<p>Fluke 15B+/17B+/18B+ Digital Multimeters User Manual</p> <p>Comprehensive user manual for Fluke 15B+, 17B+, and 18B+ digital multimeters, covering features, operation, safety, maintenance, and specifications. This document provides detailed instructions for using the multimeters for various electrical measurements.</p>
	<p>Fluke 106/107 Palmsized Digital Multimeters: Technical Specifications and Features</p> <p>Detailed technical specifications, product highlights, and general information for the Fluke 106 and 107 palmsized digital multimeters. Learn about their electrical specifications, accuracy, features, and included equipment.</p>
	<p>Fluke 88 V Automotive Multimeter Quick Reference Guide</p> <p>A quick reference guide for the Fluke 88 V Automotive Multimeter, detailing its functions and usage for automotive electrical testing, including voltage, current, resistance, temperature, and specialized automotive tests.</p>