Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Fluke IB117KEUR

Fluke 117 Multimeter and Insulated Hand Tools Starter Kit User Manual

Model: IB117KEUR

1. Product Overview

This manual provides essential instructions for the safe and effective use of your Fluke 117 Multimeter and the accompanying Insulated Hand Tools Starter Kit. The Fluke 117 is a compact, True-RMS digital multimeter designed for commercial and light industrial applications, featuring integrated VoltAlert™ non-contact voltage detection and AutoVolt automatic AC/DC voltage selection. The kit also includes a set of insulated hand tools for electrical work.



Figure 1: Fluke 117 Multimeter and Insulated Hand Tools Starter Kit. This image displays the multimeter along with the included insulated screwdrivers and pliers.

2. Safety Information

WARNING: To prevent possible electrical shock, fire, or personal injury, read all safety information before you use the product. Use the product only as specified, or the protection provided by the product can be impaired.

- Always use the multimeter with the correct function and range selected for the measurement.
- Do not use the multimeter if it is damaged or if the test leads are damaged. Inspect the case and test leads before use.
- Verify the multimeter's operation by measuring a known voltage before use.
- Do not apply more than the rated voltage, as marked on the multimeter, between the terminals or between any terminal and earth ground.
- Use caution with voltages above 30 V AC RMS, 42 V peak, or 60 V DC. These voltages pose a shock hazard.
- Keep fingers behind the finger guards on the test probes.
- When using the insulated hand tools, ensure they are clean, dry, and free from damage. Insulated tools are designed to protect against accidental contact with live electrical circuits, but they are not a substitute for proper lockout/tagout procedures and de-energizing circuits.
- Do not use the insulated tools if the insulation is cracked, cut, or otherwise compromised.

- Replace the battery when the low battery indicator appears to avoid incorrect measurements.
- Comply with local and national safety codes.

3. Kit Contents

Your Fluke 117 Multimeter and Insulated Hand Tools Starter Kit (Model IB117KEUR) includes the following items:

- Fluke 117 Digital Multimeter
- Test Leads
- 9V Battery (pre-installed or included separately)
- 5 Insulated Screwdrivers
- 3 Insulated Pliers
- User Manual (this document)



Figure 2: Components of the Fluke 117 Multimeter and Hand Tools Starter Kit. This image shows the multimeter and the various insulated hand tools included in the kit.

4. Setup

4.1. Multimeter Battery Installation

The Fluke 117 Multimeter requires one 9V alkaline battery. The battery may be pre-installed or included separately.

1. Ensure the multimeter is turned off and test leads are disconnected.
2. Locate the battery compartment cover on the back of the multimeter.
3. Use a screwdriver to loosen the screw(s) securing the cover.
4. Remove the cover.
5. Connect the 9V battery to the battery clip, observing correct polarity.
6. Place the battery into the compartment.
7. Replace the battery compartment cover and tighten the screw(s).

Note: *The multimeter includes batteries and requires batteries of type Alkaline.*

4.2. Test Lead Connection

Connect the test leads to the multimeter terminals:

- Insert the black test lead into the COM (common) terminal.
- Insert the red test lead into the VΩmA terminal for most voltage, resistance, and current measurements.

4.3. Insulated Hand Tools Inspection

Before each use, visually inspect all insulated hand tools for any signs of damage to the insulation, such as cracks, cuts, or abrasions. Do not use damaged tools.

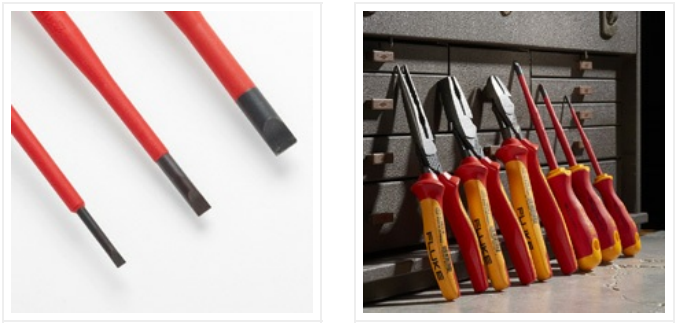


Figure 3: Examples of insulated hand tools. The image shows an insulated screwdriver and insulated pliers, highlighting their protective handles.

5. Operating Instructions

5.1. Fluke 117 Multimeter Operation

The Fluke 117 offers several key features for electrical measurements:

- **Power On/Off:** Turn the rotary switch to any function to power on. Turn to OFF to power off.
- **AutoVolt:** Automatically selects AC or DC voltage measurement. Turn the rotary switch to **V~** for AC voltage or **V-** for DC voltage. The meter will automatically detect the type of voltage.
- **VoltAlert™ Non-Contact Voltage Detection:** This feature allows for quick detection of live voltage without making contact with the conductor.
    a. Turn the rotary switch to the **VoltAlert™** position.
    b. Move the tip of the multimeter near the conductor.
    c. If AC voltage is present, the meter will beep and the display will show dashes.
- **True-RMS Measurements:** The Fluke 117 provides accurate True-RMS measurements for non-linear loads, ensuring precise readings even with distorted waveforms.
- **Backlight:** Press the backlight button (usually a light bulb icon) to illuminate the display for working in dimly lit areas.
- **Resistance and Continuity:** Turn the rotary switch to **Ω** for resistance measurements or continuity checks. The meter will beep for continuity.
- **Capacitance:** Turn the rotary switch to **-||-** for capacitance measurements.
- **Frequency:** Turn the rotary switch to **Hz** for frequency measurements.

Refer to the detailed Fluke 117 user manual (available on the Fluke website) for advanced functions and specific measurement procedures.

5.2. Insulated Hand Tools Usage

The insulated hand tools are designed for use in live electrical environments up to their rated voltage (typically 1000V). Always follow these guidelines:

- **Screwdrivers:** Use the appropriate size and type of insulated screwdriver for the fastener. Ensure a firm grip and apply even pressure.
- **Pliers:** Use insulated pliers for gripping, bending, or cutting wires. Ensure the cutting edges are sharp and clean.
- **Maintain Insulation Integrity:** Do not modify the tools or remove any part of the insulation. Avoid using tools in a way that could damage the insulation.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, such as insulated gloves and safety glasses, in conjunction with insulated tools.

6. Maintenance

6.1. Cleaning

- **Multimeter:** Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents.
- **Test Leads:** Clean the test leads with a damp cloth. Inspect for cuts or damage to the insulation.
- **Hand Tools:** Wipe the insulated handles with a damp cloth. Ensure they are completely dry before storage or use.

6.2. Battery Replacement

Replace the 9V battery when the low battery indicator appears on the display. Follow the steps outlined in Section 4.1 for battery installation.

6.3. Storage

Store the multimeter and tools in a clean, dry environment, away from extreme temperatures and direct sunlight. Keep them in their original packaging or a suitable tool bag to prevent damage.

7. Troubleshooting

Problem	Possible Cause	Solution
Multimeter does not power on.	Dead or incorrectly installed battery.	Check battery installation; replace battery if necessary.
Incorrect or no reading on display.	Incorrect function selected, poor test lead connection, or damaged test leads.	Verify function selection; ensure test leads are securely connected; inspect and replace damaged leads.
VoltAlert™ not detecting voltage.	Voltage too low, or meter not close enough to the source.	Ensure the meter is in the VoltAlert™ mode and positioned correctly. Confirm voltage presence with contact measurement if safe to do so.
Insulation on hand tools appears damaged.	Wear and tear, accidental damage.	**Do not use the tool.** Replace the damaged tool immediately.

8. Specifications

Feature	Detail
Manufacturer	Fluke
Model Number	IB117KEUR

Feature	Detail
Product Weight	2.41 kg
Package Dimensions	28.9 x 24.6 x 19.2 cm
Power Source	Battery Powered
Battery Type	Alkaline (9V)
Measurement Accuracy (Fluke 117 VAC)	1.0% + 3 (DC, 45 Hz to 500 Hz); 2.0% + 3 (500 Hz to 1 kHz)
Included Components	IB117KEUR, 117 EUR MULTIMETER + HAND TOOLS STARTER KIT
Country of Origin	China

9. Warranty and Support

For warranty information, technical support, or service, please contact Fluke customer service or visit the official Fluke website. Keep your purchase receipt as proof of purchase.
Fluke Official Website: www.fluke.com

© 2023 Fluke Corporation. All rights reserved. Information in this manual is subject to change without notice.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B082WGMFHJ

More documents and user manuals: **https://manuals.plus/**