

TECHNICAL DATA

# Fluke 117 Electrician's Multimeter plus insulated hand tools starter kit



## Key features

- 117: Compact, true-rms electricians digital multimeter
- 117: Integrated non-contact voltage detection keeps you safe
- Insulated tools: certified to 1000 V AC, 1500 V DC
- Insulated tools: ergonomic 5-piece set

## Product overview: Fluke 117 Electrician's Multimeter plus insulated hand tools starter kit

This kit combines a general-purpose electrician's digital multimeter with the most frequently used insulated screwdrivers, pliers and cutters.

Insulated hand tools includes:

- Fluke 117 Electrician's Multimeter
- Slotted screwdrivers – three different handle lengths, each with a different blade width
- Phillips screwdrivers – #1 and #2 tip sizes, with differing handle lengths
- Long nose pliers with side cutter and gripping zones
- Heavy-duty, high leverage diagonal cutter
- Heavy-duty combination pliers
- A roll-up pouch with hook-and-loop fasteners

Electrician's multimeter

The Fluke 117 is a true-rms digital multimeter with integrated non-contact voltage detection. AutoVolts selects whether AC or DC voltage is being measured, while the LoZ function helps prevent false readings caused by ghost voltage.

The insulated hand tools are all made from hardened chromium-molybdenum-vanadium (CMV) steel. Each insulated hand tool is individually tested to 10,000 V and:

- Certified to 1000 V AC
- Certified to 1500 V DC






All backed with a [limited lifetime warranty](#).

## Specifications: Fluke 117 Electrician's Multimeter plus insulated hand tools starter kit

Fluke 117 Electrician's Multimeter Specifications:

Maximum voltage between any terminal and earth ground	600 V	
Surge protection	6 kV peak per IEC 61010-1 600 VCAT III, Pollution Degree 2	
Fuse for A input	11 A, 1000 V FAST Fuse (Fluke PN 803293)	
Display	Digital: 6,000 counts, updates 4 per second	
Bar graph	33 segments, updates 32 per second	
Operating temperature	-10°C to +50°C	
Storage temperature	-40°C to +60°C	
Battery type	9 volt Alkaline, NEDA 1604A / IEC 6LR61	
Battery life	400 hours typical, without backlight	
<b>Accuracy Specifications</b>		
DC millivolts	Range/resolution	600.0 mV / 0.1 mV
	Accuracy	±([% of reading] + [counts]): 0.5% + 2
DC volts	Range/resolution	6.000 V / 0.001 V 60.00 V / 0.01 V 600.00 V / 0.1 V
	Accuracy	±([% of reading] + [counts]): 0.5% + 2
Auto volts	Range/resolution	600.0 V / 0.1 V
	Accuracy	2.0% + 3 (DC, 45 Hz to 500 Hz) 4.0% + 3 (500 Hz to 1 kHz)
AC millivolts <sup>1</sup> True RMS	Range/resolution	600.0 mV / 0.1 mV
	Accuracy	1.0% + 3 (DC, 45 Hz to 500 Hz) 2.0% + 3 (500 Hz to 1 kHz)
AC volts <sup>1</sup> True RMS	Range/resolution	6.000 V / 0.001 V 60.00 V / 0.01 V 600.0 V / 0.1 V
	Accuracy	1.0% + 3 (DC, 45 Hz to 500 Hz) 2.0% + 3 (500 Hz to 1 kHz)

Continuity	Range/resolution	600 $\Omega$ / 1 $\Omega$
	Accuracy	Beeper on < 20 $\Omega$ , off > 250 $\Omega$ detects opens or shorts of 500 $\mu$ s or longer.
Ohms	Range/resolution	600.0 $\Omega$ / 0.1 $\Omega$ 6.000 k $\Omega$ / 0.001 k $\Omega$ 60.00 k $\Omega$ / 0.01 k $\Omega$ 600.0 k $\Omega$ / 0.1 k $\Omega$ 6.000 M $\Omega$ / 0.001 M $\Omega$
	Accuracy	0.9% + 1
	Range/resolution	40.00 M $\Omega$ / 0.01 M $\Omega$
	Accuracy	5% + 2
Diode test	Range/resolution	2.00 V / 0.001 V
	Accuracy	0.9% + 2
Capacitance	Range/resolution	1000 nF / 1 nF 10.00 $\mu$ F / 0.01 $\mu$ F 100.0 $\mu$ F / 0.1 $\mu$ F 9999 $\mu$ F / 1 $\mu$ F 100 $\mu$ F to 1000 $\mu$ F
	Accuracy	1.9% + 2
	Range/resolution	> 1000 $\mu$ F
	Accuracy	5% + 20%
Lo-Z capacitance	Range	1 nF to 500 $\mu$ F
	Accuracy	10% + 2 typical
AC amps True RMS (45 Hz to 500 Hz)	Range/resolution	6.000 A / 0.001 A 10.00 A / 0.01 A
	Accuracy	1.5% + 3 20 A continuous overload for 30 seconds max
DC amps	Range/resolution	6.000 A / 0.001 A 10.00 A / 0.01 A
	Accuracy	1.0% + 3 20 A continuous overload for 30 seconds max
Hz (V or A input) <sup>2</sup>	Range/resolution	99.99 Hz / 0.01 Hz 999.99 Hz / 0.1 Hz 9.999 Hz / 0.001 Hz 50.00 Hz / 0.01 Hz
	Accuracy	0.1% + 2
<p>1. All AC voltage ranges except Auto-V/LoZ are specified from 1% to 100% of range. Auto-V/LoZ is specified from 0.0 V.                  2. Temperature uncertainty (accuracy) does not include the error of the thermocouple probe.                  3. Frequency is AC coupled, 5 Hz to 50 kHz for AC voltage. Frequency is DC coupled, 45 Hz to 5 kHz for AC current.                  4. Temperature Range/Resolution: -40°F to 752°F / 0.2°F.</p>		
<b>Mechanical and General Specifications</b>		
Size	167 x 84 x 46 mm (6.57 x 3.31 x 1.82 in)	
Weight	550 g	
Warranty	3 years	

Screwdriver Type	Blade length (inches mm)	Handle length (inches mm)	Handle width (inches mm)	Bladeform diameter (inches mm)
 Slot	3 75	3-3/8 86	1 25	3/32 2.55
 Slot	4 100	3-11/16 94	1 5/16 30	5/32 4.0
 Slot	5 125	4-3/16 106	1 7/16 36	1/4 6.0
 Phillips #1	3 80	3-11/16 94	1 3/16 30	7/32 5
 Phillips #2	4 100	4-3/16 106	1 7/16 36	1/4 6
Pliers Type	Nominal Length (inches)		Nominal Length (mm)	
Long Nose	8		200	
Diagonal Cutters	8		200	
Lineman Combination Pliers	8		200	

## Warranty

### Fluke Insulated Hand Tool Lifetime Limited Warranty

Each Fluke Insulated Hand Tool will be free from defects in material and workmanship for its lifetime. As used herein, "lifetime" is defined as seven years after Fluke discontinues manufacturing the product, but the warranty period shall be at least fifteen years from the date of purchase. This warranty does not cover damage from neglect, misuse, contamination, alteration, accident or abnormal conditions of operation or handling, damage or normal wear and tear of mechanical components. This warranty covers the original purchaser only and is not transferable.

### Recommendations for use and in-service care of Fluke Insulated Hand Tools

The following is guidance concerning the maintenance, inspection, retest and use of Fluke Insulated Hand Tools.

#### Warning – to avoid electrical shock or personal injury:

- Keep fingers behind the finger guards of the tool. Never touch conductive parts.
- Always wear approved eye protection.
- Do not use in wet or damp locations. Do not use unless the tool is clean and dry.
- Do not apply excessive force or stress to the tool insulation that may cause damage. Examples include using the insulated surfaces as a fulcrum to pry or wedge or gripping insulated tool handles with other tools such as pliers or wrenches to increase torque or leverage.

If the tool is used in a manner not specified, the protection may be impaired.

#### Storage

Insulated hand tools should be properly stored to minimize the risk of damage to the insulation due to storage or transportation. These insulated hand tools should be stored separated from other tools to avoid mechanical damage or confusion with uninsulated tools. Furthermore, these insulated hand tools should be prevented from contact with excessively hot surfaces (for example steam pipes) or exposure to excessive UV- radiation.

#### Inspection before use

Before use, each Insulated Hand Tool should be visually inspected by the user. If there is any doubt concerning the safety of

the insulated hand tool, it should be subjected to examination by a competent person and if necessary retested to determine suitability or disposed of to prevent further use.

### **Temperature**

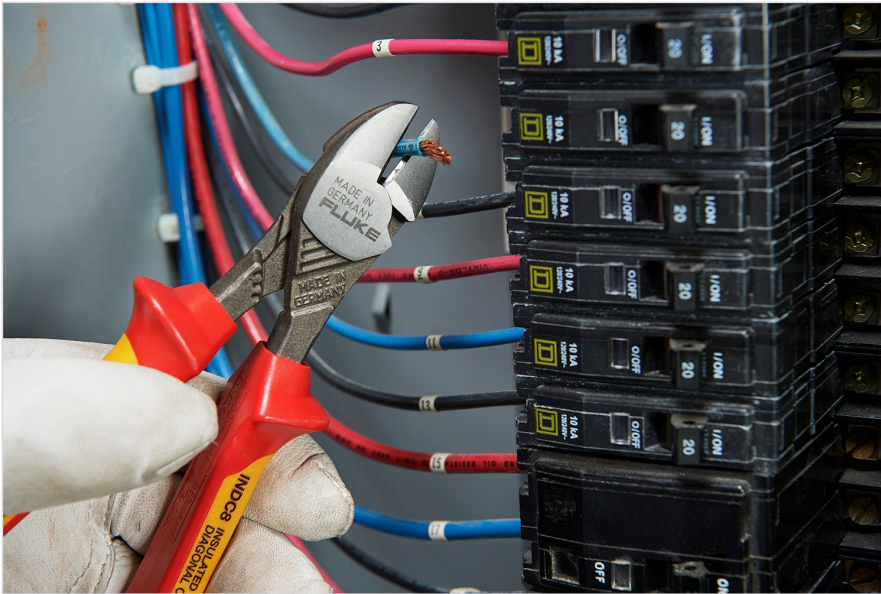
Insulated Hand Tools should be used only in environments having temperatures between  $-20\text{ }^{\circ}\text{C}$  and  $+70\text{ }^{\circ}\text{C}$  and, for tools marked "C", between  $-40\text{ }^{\circ}\text{C}$  and  $+70\text{ }^{\circ}\text{C}$ .

### **Periodic examination and electrical retesting**

An annual visual examination by a suitably trained person is recommended to determine the suitability of the Insulated Hand Tool for further service. If an electrical retest is required by national regulation or in the case of doubt after visual examination, the applicable dielectric test of IEC 60900 for insulated hand tools should be performed.

For details contact a [Fluke Service Center](#).

## Ordering information



### IB117K

117 Electrician's Multimeter + Insulated Hand Tools Starter Kit (5 insulated screwdrivers and 3 insulated pliers)

Includes:

- Fluke 117 Electrician's Multimeter
- ISLS3 Insulated Slotted Screwdriver 3/32, 3"
- ISLS5 Insulated Slotted Screwdriver 5/32, 4"
- ISLS8 Insulated Slotted Screwdriver 1/4, 5"
- IPHS1 Insulated Phillips Screwdriver #1, 3"
- IPHS2 Insulated Phillips Screwdriver #2, 4"
- INLP8 Insulated Long Nose /w Side Cutter and Gripping Zones
- INDC8 Insulated Heavy Duty High Leverage Diagonal Cutter
- INCP8 Insulated Heavy Duty Linesman Combination Plier
- RUP8 Roll up pouch



**Preventive maintenance simplified. Rework eliminated.**

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect® system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.

Find out more at [flukeconnect.com](http://flukeconnect.com)



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**Smart phone wireless service and data plan not included with purchase. Fluke Connect is not available in all countries.**

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