



**Digital Multimeters >** 

Model Non

# Fluke 1507/1503 Insulation Resistance Testers

The Fluke 1507 and 1503 Insulation Testers are compact, rugged, reliable, and easy to use. With their multiple test voltages, they are ideal for many troubleshooting, commissioning, and preventative maintenance applications.

Additional features, like the remote probe on these tools save both time and money when performing tests.





Model Name	Description	
Fluke 1507	Insulation Tester Includes: Remote probe Test leads Test probes Alligator clips Holster User documentation	
Fluke 1503	Insulation Tester Includes: • Remote probe • Test leads • Test probes • Alligator clips • Holster • User documentation	

Description





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## Fluke 1507/1503 Insulation Resistance Testers



- Insulation test range:
  - 1507: 0.01 M• to 10 G•
  - 1503: 0.1 M• to 2000 M•
- Insulation test voltages:
  - 1507: 50 V, 100 V, 250 V, 500 V, 1000 V
  - 1503: 500 V, 1000 V
- Save both time and money with Automatic calculation of Polarization Index and Dielectric Absorption Ratio (only available on the1507)
- Make repetitive tests simple and easy with the 1507's Compare (Pass/Fail) function (only available on the 1507)
- Repetitive or hard-to-reach testing is easy with the remote test probe
- Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- AC/DC voltage: 0.1 V to 600 V
- 200 mA Continuity
- Resistance: 0.01 to 20.00 k•
- Save battery power with auto power off
- Read measurements easily with large, backlit display
- CAT IV 600 V overvoltage category rating for added user protection
- Remote probe, test leads, probes and alligator clips included with each tester
- Accepts optional Fluke TPAK magnetic hanging system to free your hands for other work
- Four AA alkaline batteries (NEDA 15 A or IEC LR6) for at least 1000 insulation tests
- One year warranty





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### Fluke 1507/1503 Insulation Resistance Testers

AC/DC Voltage Measurement		
Accuracy	Range 600.0 V   Resolution 0.1 V   50 Hz to 400 Hz ± (% of Rdg + Digits) ± (2 % + 3)	
Input impedance	3 MΩ (nominal), < 100 pF	
Common mode rejection ratio (1 kΩ unbalanced):	> 60 dB at dc, 50 or 60 Hz	
Overload Protection	600 V rms or dc	

Earth bond resistance measurement		
Range/Resolution	<b>20.00 Ω</b> 0.01 Ω <b>200.0 Ω</b> 0.1 Ω <b>2000 Ω</b> 1.0 Ω <b>20.00 kΩ</b> 0.01 kΩ	
Accuracy	± (1.5 % + 3)	
Overload Protection	2 V rms or dc	
Open Circuit Test Voltage	> 4.0 V, < 8 V	
Short circuit current	> 200.0 mA	

Insulation specifications		
Measurement Range	<b>1507</b> : 0.01 MΩ to 10 GΩ <b>1503</b> : 0.01 MΩ to 2000 MΩ	
Test voltage	<b>1507:</b> 50 V, 100 V, 250 V, 500 V, 1000 V <b>1503:</b> 500 V, 1000V	
Test Voltage Accuracy	+ 20 %, - 0 %	
Short circuit current	1 mA nominal	
Auto Discharge	Discharge time < 0.5 second for C = 1 $\mu$ F or less	
Live circuit indicator	Inhibit test if terminal voltage > 30 V prior to initialization of test	
Maximum Capacitive Load	Operable with up to 1 $\mu$ F load	
Measure Accuracy:	<b>50 V:</b> $\pm (3 \% + 5)$ <b>100 V:</b> $\pm (3 \% + 5)$ <b>250 V:</b> $\pm (1.5 \% + 5)$ <b>500 V:</b> $\pm (1.5 \% + 5)$ <b>1000 V:</b> $\pm (1.5 \% + 5)$ to 2000 M $\Omega$ , $\pm (10 \% + 3)$ above 2000 M $\Omega$	

General Specifications		
Maximum voltage applied to any terminal:	600 V ac rms or dc	
Storage Temperature	-40 °C to 60 °C (-40 °F to 140 °F)	
Operating Temperature	-20 °C to 55 °C (-4 °F to 131 °F)	
Temperature	0.05 x (specified accuracy) per °C for temperatures < 18 °C or > 28 °C (< 64 °F	

Coefficient	or > 82 °F)			
Relative Humidity	0 % to 95 % @ 10 °C to 30 °C (50 °F to 86 °F) 0 % to 75 % @ 30 °C to 40 °C (86 °F to 104 °F) 0 % to 40 % @ 40 °C to 55 °C (104 °F to 131 °F)			
Vibration	Random, 2 g, 5-500 Hz per MIL-PRF-28800F, Class 2 instrument			
Shock	1 meter drop per IEC 61010-1 2nd Edition (1 meter drop test, six sides, oak floor)			
Electromagnetic compatibility:	In an RF field of 3 V/M, accuracy = specified accuracy (EN 61326-1:1997)			
Safety	Complies with ANSI/ISA 82.02.01 (61010-1) 2004, CAN/CSA-C22.2 NO. 61010-1-04, and IEC/EN 61010-1 2nd Edition for measurement category IV 600 V (CAT IV)			
Certifications:	CSA per standard CSA/CAN C22.2 No. 61010.1-04; TUV per standard IEC/EN 61010-1 2nd Edition			
Batteries	Four AA batteries	Four AA batteries (NEDA 15A or IEC LR6)		
Battery Life	Insulation test use: Resistance measurements:	Tester can perform at least 1000 insulation tests with fresh alkaline batteries at room temperature. These are standard tests of 1000 V into 1 M $\Omega$ with a duty cycle of 5 seconds on and 25 seconds off. Tester can perform at least 2500 earth bond resistance measurements with fresh alkaline batteries at room temperature. These are standard tests of 1 $\Omega$ with a duty cycle of 5 seconds on and 25 seconds off.		
Size	5.0 cm H x 10.0 c	m W x 20.3 cm L (1.97 in H x 3.94 in W x 8.00 in L)		
Weight	550 g (1.2 lb)			
IP Rating	IP40			
Altitude	<b>Operating:</b> 2000 m CAT IV 600 V, 3000 m CAT III 600 V <b>Non-operating (storage):</b> 12,000 m			
Over-range capability:	110 % of range			
Included accessories:	TL224 Test Leads, TP74 Test Probes, clips PN 1958654 (red) and PN 1958646 (black), holster and remote probe			