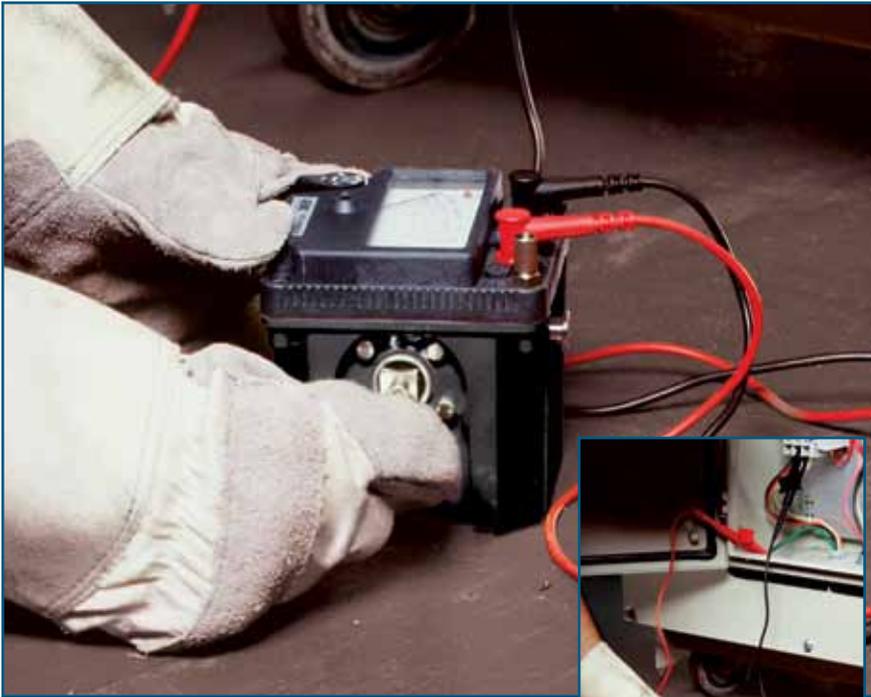


500V/1000V HAND-CRANKED MEGOHMMETER

Models 6501 & 6503



- ▶ Test voltages of 250V, 500V and 1000V
- ▶ Insulation measurements to 200M Ω and 5000M Ω
- ▶ LED indicates constant voltage output and proper cranked speed
- ▶ Automatic discharge when measurement is finished
- ▶ Auto-Ranging – dual scale operation for better sensitivity and easier readings
- ▶ Extra rugged cast aluminum case; O-ring sealed against rain, water and dust; aluminum lid
- ▶ Designed for harsh environments: marine, mining, heavy-duty field, industrial and military use
- ▶ Compact self-contained package; folded crank
- ▶ Voltage displayed prior to, during and at the end of test
- ▶ Large direct-reading scale



Model 6503 performing a hand-cranked 1000V test on a generator.

The Model 6501 and 6503 Megohmmeters are compact, self-contained, hand-cranked True Megohmmeters®. These practical and dependable instruments are designed for a broad range of plant and field service applications, such as acceptance testing and preventive maintenance of wiring, cables, switchgear and motors. The easy hand-cranked operation provides a steady, DC voltage output across the entire range for consistently reliable readings. In addition to insulation resistance testing at 500V, the Model 6501 also permits resistance testing to 500k Ω and continuity testing to 100 Ω .

A 600V test voltage range is provided to perform safety checks to confirm that the sample is fully discharged and not connected to an energized circuit.

The Model 6503 has three test voltages for insulation resistance testing: 250V, 500V and 1000V. Test voltages are generated in full across the entire measurement range.

Incorporating a built-in sealed generator and constant DC voltage circuit, these megohmmeters provide a very stable resistance reading.

These analog instruments have a unique auto-ranging feature which expands the scale ten times. When the pointer reaches near the end of scale, the auto-ranging feature activates, returning the pointer to the beginning of the scale with the x10 red LED indicator on.

Insulation resistance is indicated with a rugged taut-band meter movement on a logarithmic scale. The indicator scale is large and easy-to-read, and has direct reading on all ranges. An amber (6501) or green (6503) LED on the front panel illuminates when the proper crank speed is attained, indicating the presence of the selected output.

The Models 6501 and 6503 include a complete set of test leads, clips and a test probe to perform any test..

FEATURES

- ▶ True Megohmmeter®
- ▶ Test voltages of 250V, 500V and 1000V
- ▶ Insulation measurements to 200M Ω and 5000M Ω
- ▶ LED indicates constant voltage output and proper cranked speed
- ▶ Automatic discharge when measurement is finished
- ▶ Auto-Ranging – dual scale operation for better sensitivity and easier readings
- ▶ Designed for harsh environments: marine, mining, heavy-duty field, industrial and military use
- ▶ Extra rugged cast aluminum case; O-ring sealed against rain, water and dust; aluminum lid
- ▶ Compact self-contained package; folded crank
- ▶ Large direct-reading scale

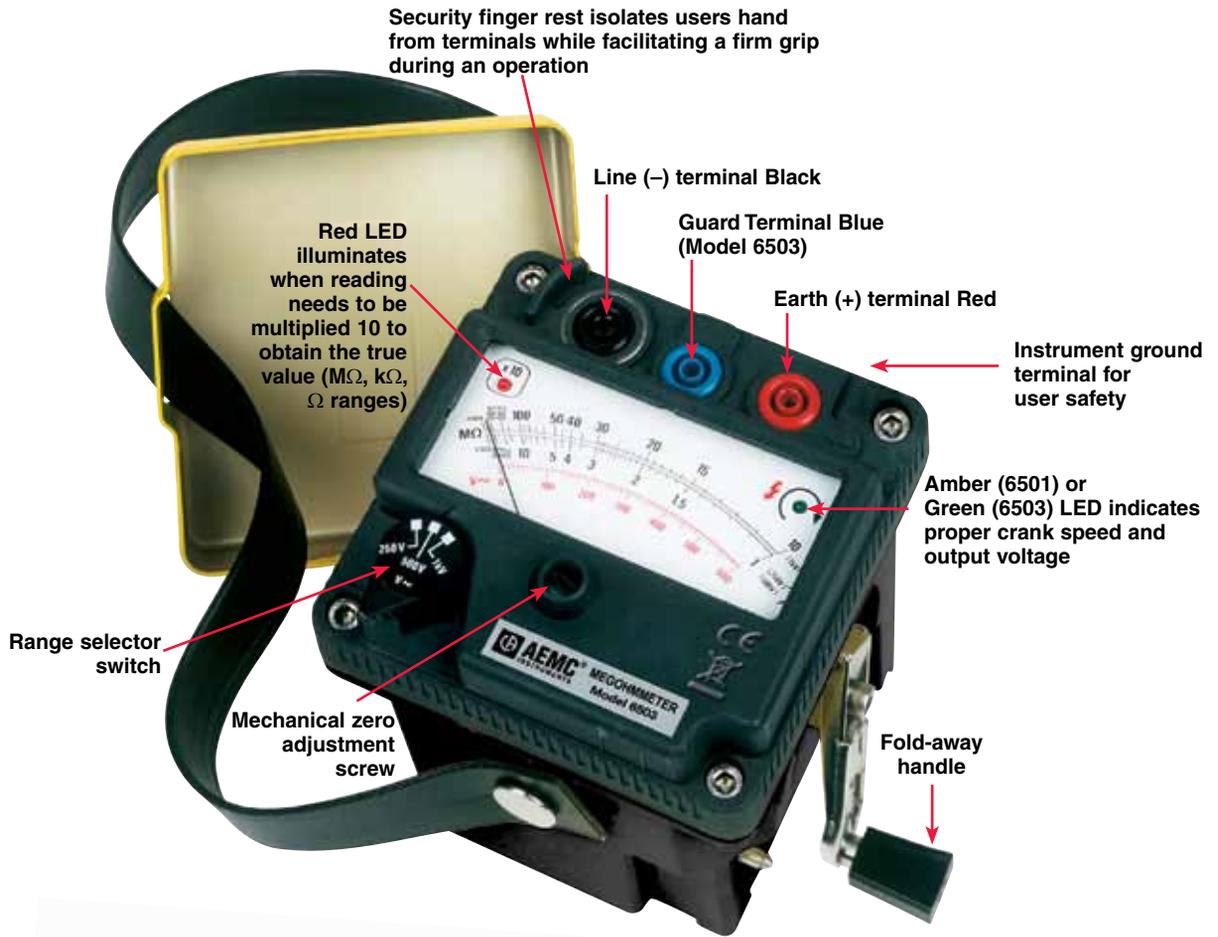
APPLICATIONS

- ▶ Acceptance testing and preventive maintenance
- ▶ Test motors, cables, switchgears and electrical wiring installations
- ▶ Continuity checks
- ▶ Check domestic and industrial wiring

SPECIFICATIONS

MODELS	6501	6503	
ELECTRICAL			
Insulation Tests			
Test Voltage (Auto-Ranging)	250V 500V 1000V	– 0.5 up to 200MΩ –	1 to 11MΩ; 11 to 500MΩ 1 to 11MΩ; 11 to 500MΩ 10 to 110MΩ; 110 to 5000MΩ
Short Circuit Current	5mA (max)	5mA (max)	
Accuracy	2.5% of Scale Length	2% of Scale Length	
Automatic Discharge	5s/μF	8s/μF	
Charging Time	250V 500V 1000V	– 0.5s/μF –	0.2s/μF 0.5s/μF 0.5s/μF
Resistance Tests			
Measurement Range (Auto-Ranging)	0 to 45kΩ 45 to 500kΩ	–	
DC Test Current	1mA constant, 500V max	–	
Accuracy	2.5% of Scale Length	–	
Charging Time	0.5s/μF	–	
Discharging Time (Auto)	5s/μF	8s/μF	
Continuity Tests			
Test Voltage	5mA constant, 10V max	–	
Measurement Range (Auto-Ranging)	0 to 9Ω; 9 to 100Ω	– –	
Accuracy	2.5% of Scale Length	–	
Fuse Protection	0.2A, 250V, fast-blow, 5 x 20mm	–	
Voltage Tests/Safety Check			
Voltage Range	0 to 600V _{AC}	0 to 600V _{AC}	
Frequency	45 to 450Hz	45 to 450Hz	
Accuracy	3% of Scale	3% of Scale	
Scale	Direct reading on all ranges; 3" (76mm), black on white	Direct reading on MΩ and voltage scales; 3" (76mm), black on white	
Test Voltage Indicator	Amber LED indicates proper test voltage and crank speed	Green LED indicates proper test voltage and crank speed	
Auto-Range Indicator	Red LED indicates Auto-Range; multiply MΩ, kΩ and Ω readings x 10	Red LED indicates Auto-Range; multiply MΩ readings x 10	
Power Source	Hand-cranked, heavy duty brushless alternator and solid state rectification and amplification for stable voltage; test voltage reached at 140rpm (approx)		
Dielectric Test	2000V, 50/60Hz, between (–), (+), and ground terminals		
Meter Movement	Rugged taut band suspension		
MECHANICAL			
Dimensions	4.7 x 4.4 x 5.3" (120 x 111 x 135mm) with lid		
Weight	2.5 lbs (1.1kg)		
Case	Cast aluminum alloy case and lid painted safety-yellow, with heavy duty gray polycarbonate front panel; O-ring sealed against water and dust; folding crank		
Terminals	Guard "+" Line (red); "–" earth (black); and ground; accept standard 4mm banana plugs		
SAFETY			
Rating	EN 61010-1, 600V CAT II; 300V CAT III, Pollution Degree 2		
Double Insulation <input type="checkbox"/>	Yes		
CE Mark	Yes		

CONSTRUCTION



Model 6503



Includes test leads, clips, test probe, soft carrying case and user manual.



ORDERING INFORMATION	CATALOG NO.
Megohmmeter Model 6501 (Hand-cranked, 500V, 500kΩ, Continuity)	Cat. #2126.51
Includes test leads, clips, test probe, soft carrying case and user manual	
Megohmmeter Model 6503 (Hand-cranked, 250V, 500V, 1000V)	Cat. #2126.52
Includes test leads, clips, test probe, soft carrying case and user manual	

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