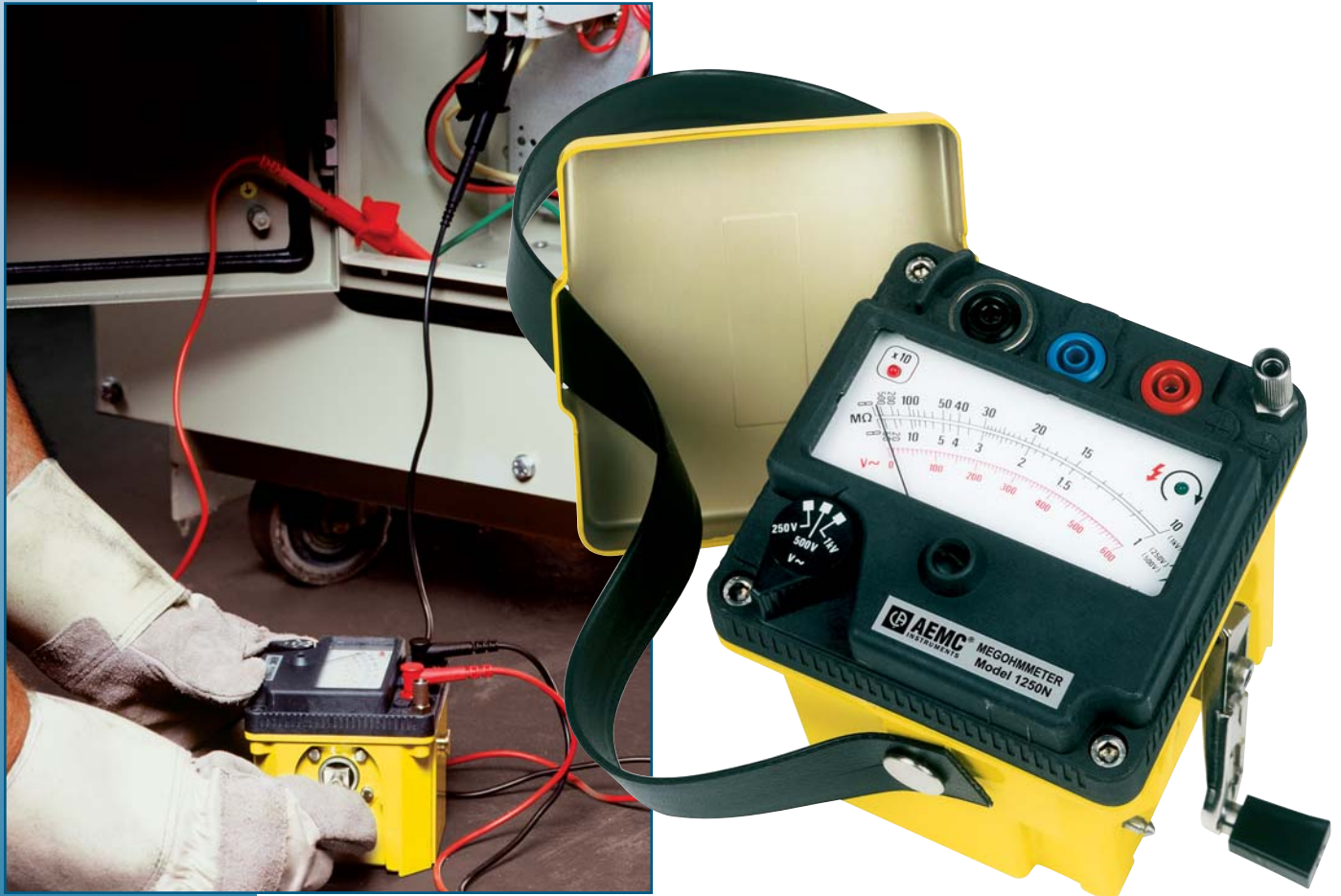


500V/1000V HAND-CRANKED MEGOHMMETER

Models 1210N & 1250N



- ▶ Test voltages of 250V, 500V and 1000V
- ▶ Insulation measurements to 200MΩ and 5000MΩ
- ▶ 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
- ▶ Large direct-reading scale

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 **AEMC**
INSTRUMENTS
CHAUVIN ARNOUX GROUP



Model 1250N performing a hand-cranked 1000V test on a generator.

The AEMC® Models 1210N and 1250N 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 1210N also permits resistance testing to 500k Ω and continuity testing to 100 Ω . The 600V test voltage range is to perform safety checks to confirm that the sample is fully discharged and not connected to an energized circuit. The Model 1250N 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 alternator and constant DC voltage circuit, these megohmmeters provide a very stable resistance reading. The megohmmeters are ruggedly built, with a safety-yellow cast aluminum case, aluminum lid and polycarbonate front panel. They are designed for harsh, heavy-duty use. An O-ring seal between the front panel and case protects the units from water and dust. The crank folds against the units for storage.

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 (1210N) or green (1250N) LED on the front panel illuminates when the proper crank speed is attained, indicating the presence of the selected output.

The Models 1210N and 1250N include a carrying strap with lead pouch, a full complement of test leads, clips and 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	1210N	1250N	
ELECTRICAL			
Insulation Tests			
Test Voltage (Auto-Ranging)	250V 500V 1000V	– 0.5 to 5.5MΩ; 5.5 to 200MΩ –	1 to 11MΩ; 11 to 500MΩ 1 to 11MΩ; 11 to 500MΩ 10 to 110MΩ; 110 to 5000MΩ
Short Circuit Current	5mA (approx)	5mA (approx)	
Accuracy	2.5% of Full Scale Length	2% of Full 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 current	–	
Accuracy	2.5% of Full Scale	–	
Charging Time	0.5s/μF	–	
Discharging Time (Auto)	5s/μF	–	
Continuity Tests			
Test Voltage	5mA constant, 10V max	–	
Measurement Range (Auto-Ranging)	0 to 9Ω; 9 to 100Ω	– –	
Accuracy	2% of Full Scale	–	
Fuse Protection	0.2A, 250V, fast-blow, 5 x 20mm	–	
Voltage Tests/Safety Check			
Voltage Range	0 to 600Vac	0 to 600Vac	
Frequency	45 to 450Hz	45 to 450Hz	
Accuracy	3% of Full Scale length	3% of Full Scale length	
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 4.7 x 5.1" (120 x 120 x 130mm)		
Weight	3.3 lbs (1.5kg)		
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; 1000V Cat. I		
Double Insulation <input type="checkbox"/>	Yes		
CE Mark	Yes		

CONSTRUCTION



(Model 1250N)




Test leads, clips and test probe are included



Detachable soft carrying case. The case attaches to the carrying strap.

ORDERING INFORMATION	CATALOG NO.
Megohmmeter Model 1210N (Hand-cranked, 500V, 500kΩ, Continuity)	Cat. #1326.01
Includes carrying strap with lead pouch, three color-coded leads, ground lead, two alligator clips, test probe and user manual	
Megohmmeter Model 1250N (Hand-cranked, 250V, 500V, 1000V)	Cat. #1326.02
Includes carrying strap with lead pouch, three color-coded leads, ground lead, two alligator clips, test probe and user manual	

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